CTP Transit Development Plan *and* Coordination Study

Prepared for

CHEYENNE MPO

TRANSPORTATION CONSULTANTS, INC.

CTP Transit Development Plan and Coordination Study

Final Report

Prepared for:

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and
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Introduction

The Cheyenne Metropolitan Planning Organization (MPO) and the City of Cheyenne contracted with LSC Transportation Consultants, Inc. to prepare a Comprehensive Five-Year Transit Development Plan (TDP) and Coordination Study for the Cheyenne Transit Program (CTP), specifically focusing on the City of Cheyenne urban area. This Draft Report presents the results of the planning process over the past several months. This document covers the elements of Snapshot, Structure, Shape, and Build based on the Cheyenne Comprehensive Plan. This was done in order to allow the transit plan to integrate with the Cheyenne Comprehensive Plan.

PURPOSE OF THE PLAN

The purpose of this report is to analyze and recommend strategies for responding to changes in the community which will affect the delivery of public transportation services over the next few years. The plan describes the existing conditions in the City of Cheyenne related to public transit services, discusses service and other alternatives for meeting transportation needs into the future, identifies the locally preferred set of alternatives, identifies coordination strategies with human service transportation providers, and presents the implementation plan.

As in many regions, CTP is taking a close look at public transit services and is seeking to find the most effective means of providing those services. Public transportation is currently provided by CTP, which is a department of the City of Cheyenne government. The City of Cheyenne continues to grow, with increasing demands on the roadway system and the public transit system. One important step toward providing an integrated community-wide transportation system is involving key players such as the CTP staff, City and County Planning and

Engineering Departments, Housing Authority, college, school districts, human service providers, senior centers, and residents.

REPORT CONTENTS

This report contains four sections corresponding to the four elements of Snapshot, Structure, Shape, and Build. Each section is then broken down into chapters. The first section is Snapshot, which presents the existing community conditions and a review of transit services in the study area. The second section is Structure, which discusses the public input from the surveys and the goals and objectives developed for the planning process. The third section is Shape, which presents the identified transit needs and alternatives. The last section is Build, which contains the preferred transit service plan and the recommended strategic implementation plans for the transit service now and into the future.

STUDY APPROACH

A key element of the plan is to clearly evaluate the unmet transportation needs of the local residents and businesses. The plan focuses on developing efficient and effective public transit services to meet the community's present and future transportation needs.

Stakeholders Committee

An important step toward providing an integrated community-wide transportation system is involving key players such as the CTP, Cheyenne City Council, Cheyenne Metropolitan Planning Organization (MPO), Wyoming Department of Transportation (WYDOT), planning staff from the area communities, human service agencies, and residents. Individuals from each key stakeholder group served as members of the Stakeholders Committee for this planning process. The Stakeholders Committee's input has been used in the development of the transit service alternatives. The Stakeholders Committee meetings have been conducted at key points throughout the planning process.

An initial kick-off meeting was held in the City of Cheyenne on July 12, 2007. The meeting was attended by the CTP, Cheyenne MPO, and other local agencies within the study area which have transportation concerns for the community. At this meeting, LSC and the Stakeholders Committee discussed the project goals, priorities, and timeline for completion of the final study. The Stakeholders Committee also discussed the other local stakeholders who would be critical in completing the transit study and who should be included in the meetings.

The second meeting was held in August 2007. The meeting was attended by the CTP, Cheyenne MPO, three human service providers, and one cab company. At this meeting, LSC and the Stakeholders Committee discussed the existing transit services/issues and conducted a work session regarding the possible transit service alternatives. The third meeting was held in October 2007, at which time the LSC team introduced the recommended transit service alternatives.

A steering committee (made up of LSC, CTP, Cheyenne MPO, and public works staff) met in December 2007 and January 2008 to review and refine the transit service recommendations. The recommendations were then introduced to the CTP Board in January 2008. The input from the CTP Board was then used to refine the preferred transit service plan. In February 2008, LSC, CTP, and Cheyenne MPO staff conducted combined stakeholders committee and public meetings to present the results of the preferred transit service plan and obtain input. The input from the February 2008 meeting has been included in this report.

Opportunities for Public Involvement

Public involvement throughout the planning process is key to the plan's success. At critical points during the planning process, public meetings were announced and held where citizen participation was openly welcomed and appreciated. Three public open houses were scheduled for August 2007 through February 2008.

LSC conducted the first public meeting on August 30, 2007. At this open house, 31 individuals from the public participated. LSC reviewed the planning process and discussed Technical Memorandum #1. The public was allowed to voice their concerns, issues, and needs regarding transit service in the City of Cheyenne. The input from the public meeting is presented in Appendix A.

The second public meeting was held on October 10, 2007. At this open house, 17 individuals from the public participated. LSC reviewed the planning process and discussed Technical Memorandum #2. The public was allowed to voice their concerns, issues, and needs regarding the transit service alternatives and recommendations.

The third public meetings was held on February 5, 2008, At this open house, 23 individuals from the public participated. LSC reviewed the planning process and discussed the preferred transit service alternatives. The public was allowed to voice their concerns, issues, and needs regarding the proposed transit service.

As an element of the public involvement process, LSC also conducted two meetings with the CTP drivers to obtain their input regarding the existing transit services/ issues and the transit service alternatives.

Snapshot

Chapter II

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER II

Community Conditions

COMMUNITY DESCRIPTION

Study Area Location

Cheyenne, Wyoming—shown in Figure II-1—is located in southeast Wyoming at the intersection of Interstates 25 and 80. The City of Cheyenne is the state capital of Wyoming and the seat of Laramie County. The city is approximately 90 miles north of Denver.

Transportation System Overview

Highways

Cheyenne is served by Interstate 80 and Interstate 25. Other major north/south highway access to the area is provided by US Highway 85 and US Highway 87. Other major east/west highway access to the area is provided by US Highway 30.

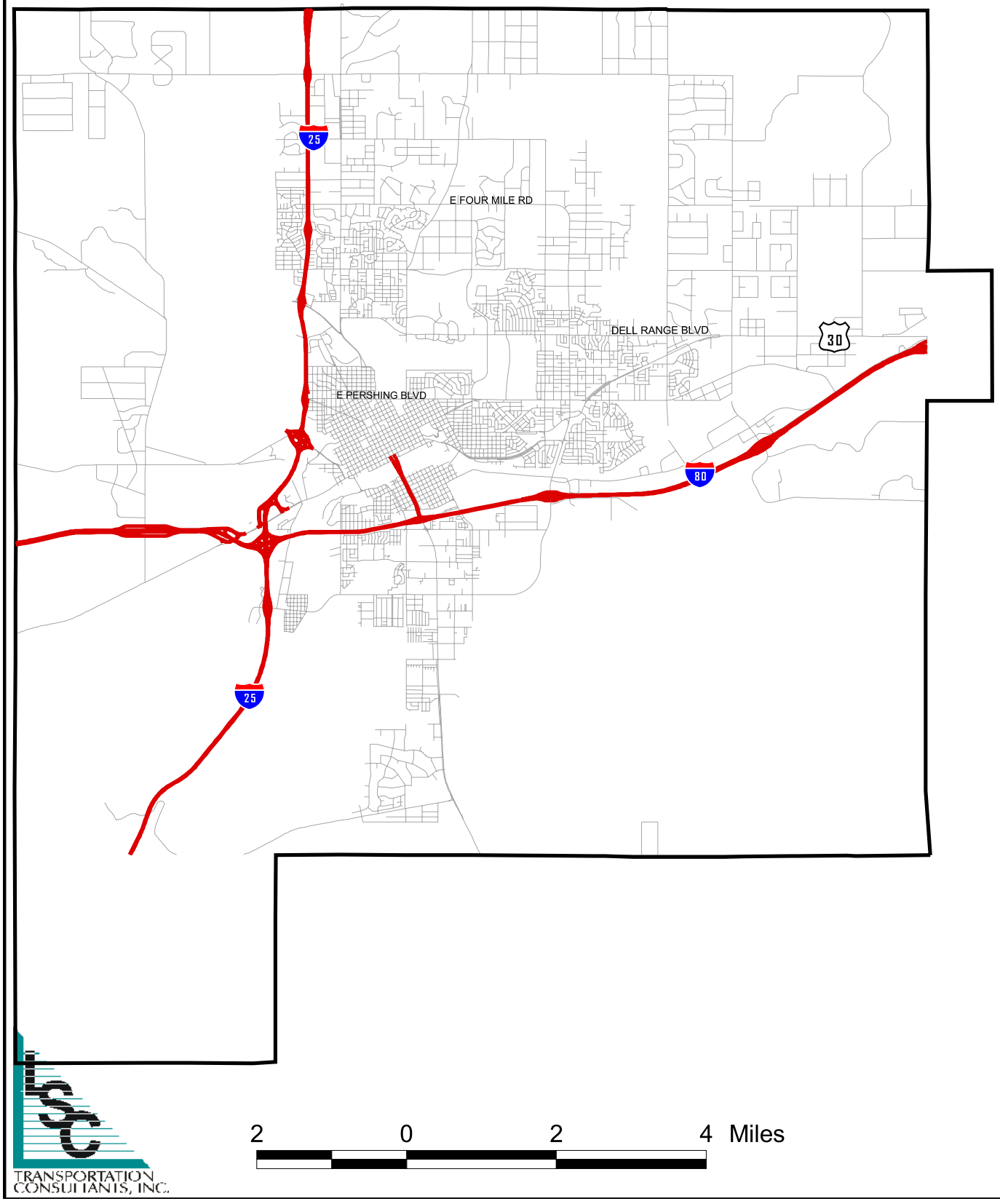
Railroads

The Union Pacific and Burlington Northern Santa Fe rail lines run through the southern portion of Cheyenne. Union Pacific's transcontinental main line across southern Wyoming hosts as many as 80 trains a day. Union Pacific is also one of the major employers in the city.

Airports

The Cheyenne Airport, located in the middle of the city, is served by United Express which is operated by Great Lakes Aviation. The airport provides commercial air service and serves the Wyoming Army and Air National Guard as well as Warren Air Force Base to the west.

Figure II-1
Study Area



City Roadways

The street network of Cheyenne varies depending on the location. The central business district was clearly developed around the rail line with the streets running in a grid pattern from the railroad. Interstate 25 and the airport have lead development in the newer neighborhoods to the north in a straight north/south direction. The airport creates a pronounced barrier between the north and south parts of town, and to a lesser degree, between the east and west parts of town. The commercial development of the Frontier Mall and "big box" stores have heightened the sense of separation between the north and south parts of town.

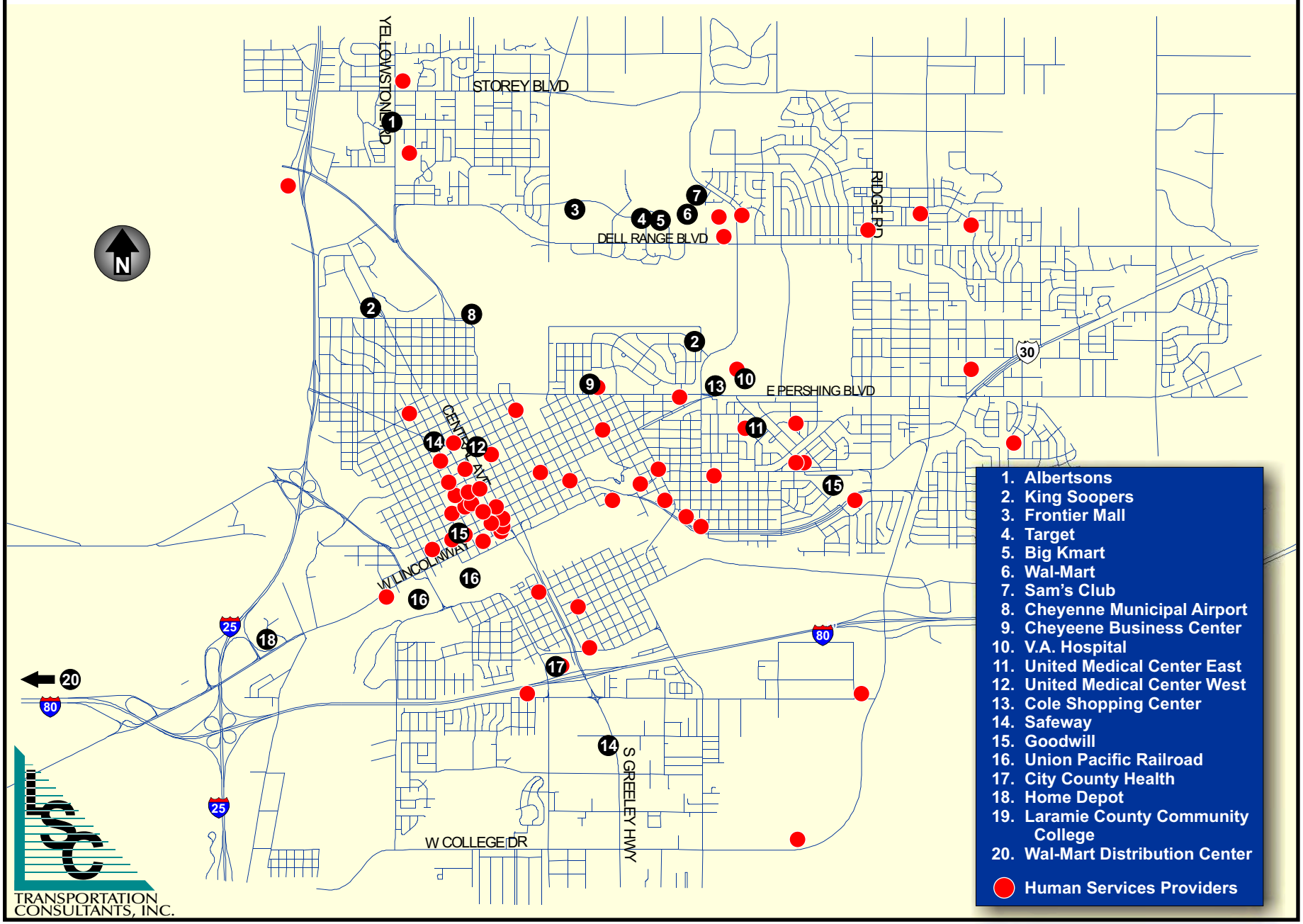
The downtown area and older neighborhoods in the southern part of town have a predominant grid street pattern. Some of the newer neighborhoods in the north and east have grid patterns, but many have longer blocks, winding streets, and cul-de-sacs.

The geographic area of Cheyenne Metropolitan Planning Organization (MPO) is approximately 197 square miles. The populated portions of the area are small in comparison to the size of the MPO boundary. With the relatively small area and the street network, people are able to travel between most points in 15 to 20 minutes or less. This presents a challenge to Cheyenne Transit when attracting choice riders to the bus system.

Major Activity Centers

Major activity centers are important in terms of land use, trip generation rates, and their ability to be served by public transit. The region's major activity centers are concentrated in the City of Cheyenne as shown in Figure II-2. Major activity centers include medical facilities such as the United Medical Center and Veterans' Affairs Medical Center; colleges such as Laramie County Community College; and shopping and retail such as Frontier Mall, Cole's Shopping Center, Sam's Club, Target, Wal-Mart Super Store, and grocery shopping locations such as King Soopers and Safeway.

Figure II-2
Activity Centers and Human Services Providers



Major Employers

Table II-1 presents Cheyenne's largest employers. F.E. Warren Air Force Base is the largest employer in the area with approximately 4,156 employees, followed by the State of Wyoming government with approximately 3,756 employees. Figure II-2 also shows the location of the largest employers in Cheyenne, Wyoming.

Table II-1
Major Employers in Cheyenne, Wyoming

Name of the Employer	Type of Business	Number of Employees
F.E. Warren AFB	Military	4,156
State of Wyoming	Government Services	3,756
Laramie County School District #1	Education K-12	2,075
Federal Government	Government Services	1,736
Cheyenne Regional Medical Center	Health Care	1,480
Lowe's Companies Inc.	Distribution Center	997
Union Pacific Railroad	Transportation, Rail	832
Wyoming National Guard	Military	693
Sierra Trading Post	Outlet Catalog/Retail	661
City of Cheyenne	Government Services	590
Veterans' Affairs Medical Center	Health Care	486
Laramie County Community College	Education	450
Wal-Mart Super Store	Retail Sales	396
Laramie County Government	Government Services	350
United States Postal Service	Government Services	278
Frontier Oil	Oil Refinery	275
EchoStar Communications	Satellite Uplink Center	258
Magic City Enterprises	Rehabilitation Facility	210
Great Lakes Aviation	Airlines	209
Laramie County School District #2	Education K-12	207
JELD WEN	Window Manufacturing	206
Blue Cross/Blue Shield	Health Plans	204
Little America	Hotel & Resort	159
APW Wyott Corporation	Mfg. Food Service Equipment	150
Mountain Regional Services, Inc.	Disability Services	130
Mountain Towers	Long-term Care	120
Taco Johns, Inc.	Fast Food Services	115
Wyoming Tribune Eagle	News and Printing Services	115
Hitching Post Inn	Motel/Convention	113
Dyno Nobel	Fertilizer & Nitrate Mfg.	110
VAE Nortrak	Mfg. Rail Switching Equip.	105
Warren Federal Credit Union	Credit Union	102
Corral West	Western Clothing Retail	100

Source: Cheyenne-Laramie County Corporation for Economic Development, 2007

Land Use/Development Patterns

Land use and development patterns in Cheyenne are well defined. The City Planning Department has identified distinct sub-area neighborhoods. Downtown Cheyenne is the oldest part of the city with major commercial and governmental activities. The importance of downtown, although still significant, has declined as other areas of the city have developed. Major employers in the downtown area include the State of Wyoming government, city and county governments, financial institutions, retailers, medical services, public school administration, and schools. In recent years, several areas have become centers of retailing and commercial activities. These include:

- Lincolnway - between Ridge Road and Morrie
- Pershing Boulevard - between Ridge Road and Concord
- Dell Range Boulevard - between Powderhouse Road and Converse

The most significant of these areas is, by far, Dell Range Boulevard, which hosts Frontier Mall, Kmart, Wal-Mart, Target, Sam's Club, and other numerous smaller businesses.

Social service providers are located throughout the community, along with many medical complexes. These services are used by all residents. However, elderly, developmentally-disabled, and low-income persons often rely on public transit to get to these facilities. The major social service agencies include Senior Services of Laramie County, Magic City Enterprises, Salvation Army, Veteran's Administration, Lifecare Center of Cheyenne, and Cheyenne Health Care Center.

Most residential development in Cheyenne is either low- or medium-density housing of between four and six units per acre. Some higher density residential developments (six units per acre or more) are found in or near downtown. These developments include:

- Pinewood Village
- Highway 30 at Pershing
- Downtown on Thomes and 19th and Central
- King Arthur Court
- Western Hill Boulevard at Sunset

Included in these higher density residential developments are a number of apartment complexes and group homes for either the elderly or disabled. The lower density development is most common in the newer neighborhoods with single-family houses in the northwest area of town.

STUDY AREA DEMOGRAPHICS

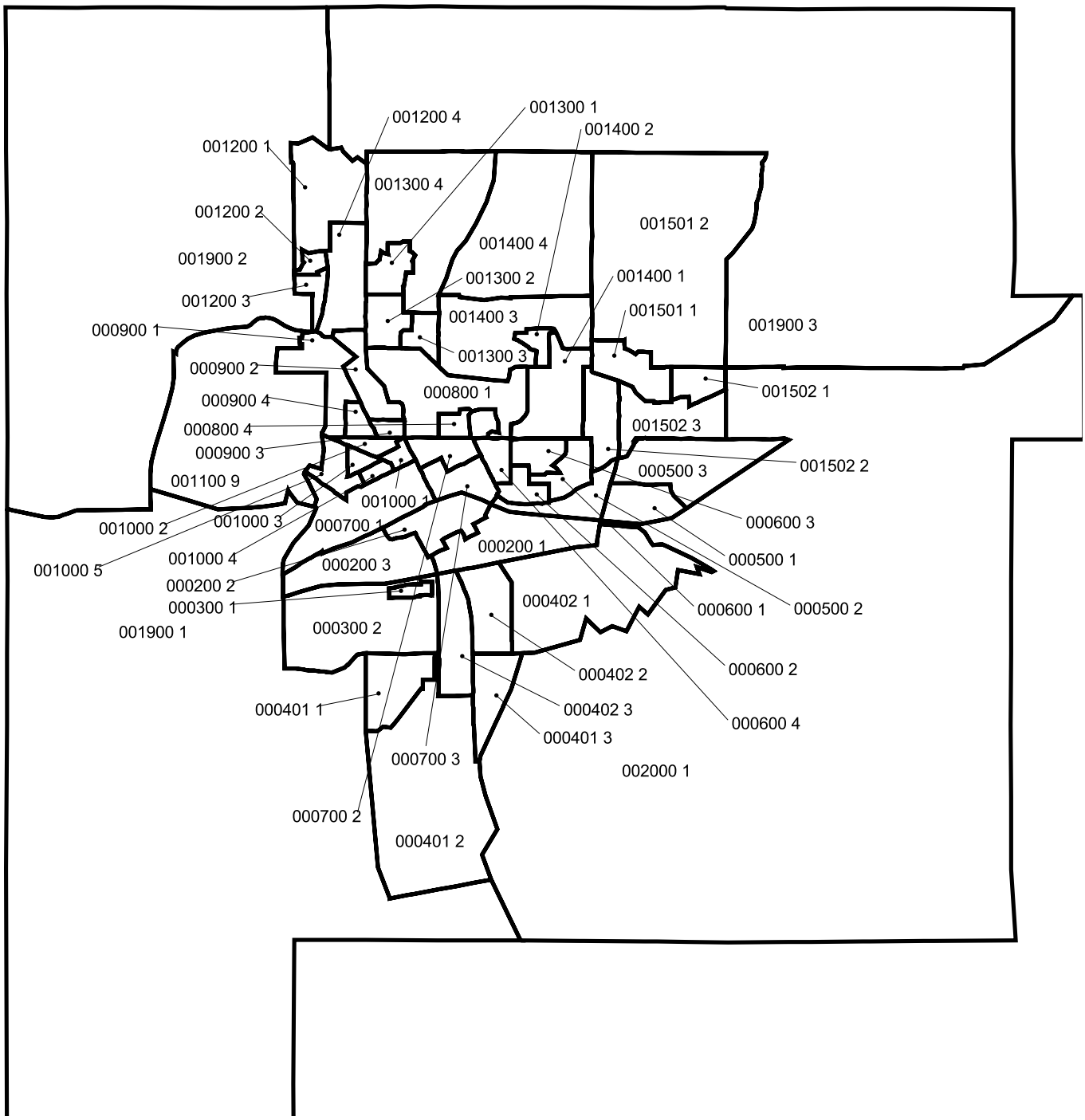
2000 Population

The permanent population of the Cheyenne Metropolitan Statistical Area was reported by the 2000 US Census to be 78,456 persons. The 1990 population for the Cheyenne metropolitan statistical area was 73,142 persons. The 2006 population estimates presented in the next few pages indicate the Cheyenne population is approximately 81,864—a four percent population increase from 2000. Figure II-3 illustrates the Cheyenne census block groups. Figure II-4 presents the population density for Cheyenne.

Population in Detail

Table II-2 and Figure II-4 show the distribution of total population using US Census Block Groups. The population is slightly weighted toward males. The gender ratio for the region is approximately 99 females per 100 males.

Figure II-3
Census Block Groups



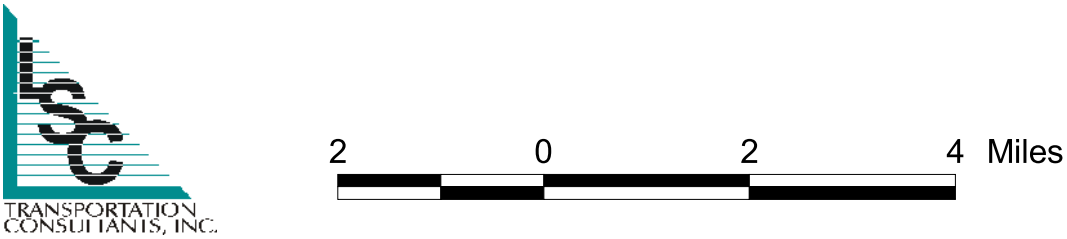


Figure II-4
Population Density

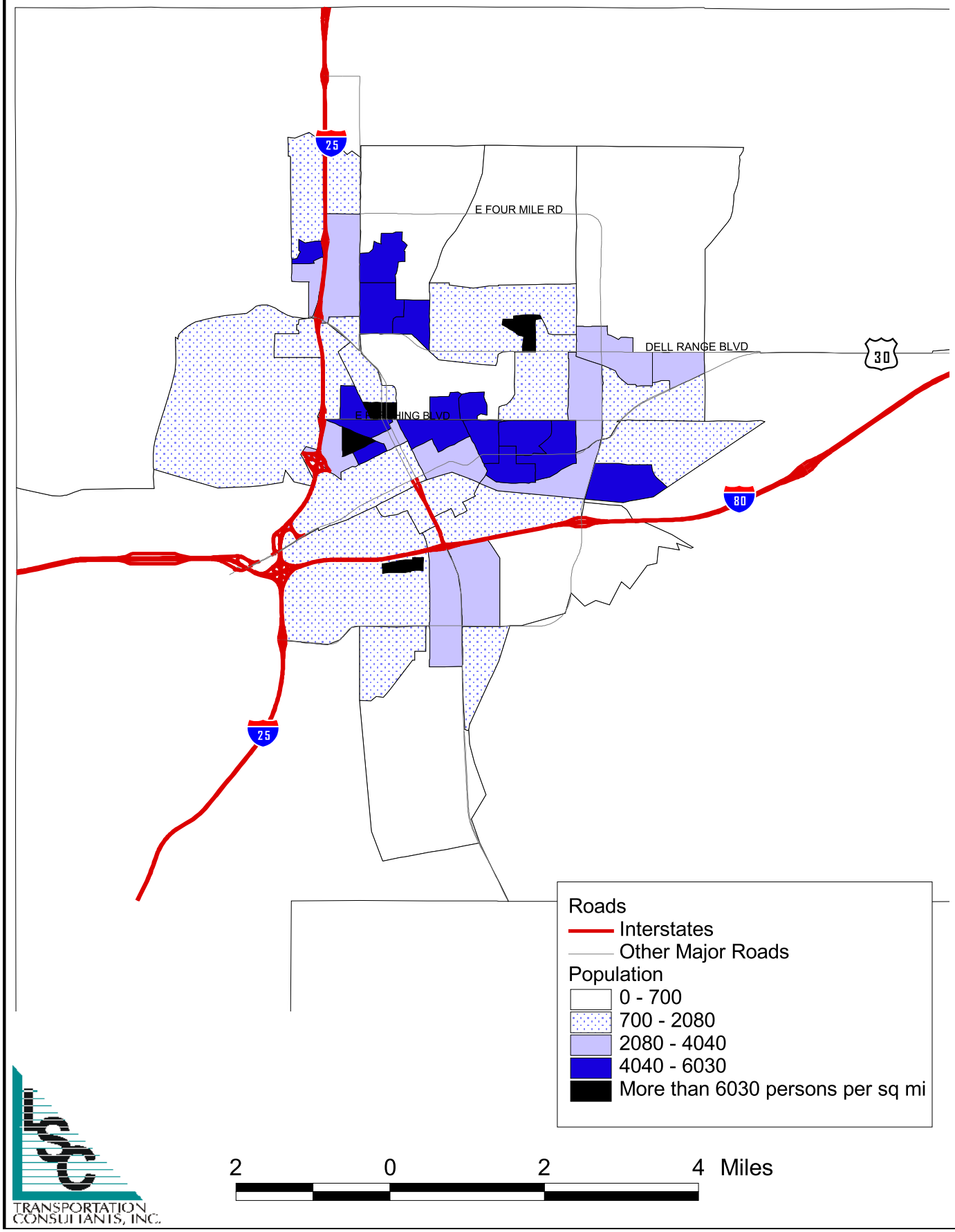


Table II-2
2006 Estimated General Population
for Cheyenne, Wyoming

Census Tract	Census Block Group	Land Area sq. ml.	Total Population 2006	2000 Population By Gender	
				Male	Female
2	1	1.22	1,079	555	524
2	2	0.66	1,254	670	584
2	3	1.12	1,642	749	893
3	1	0.10	927	418	508
3	2	2.20	1,881	838	1,043
4.01	1	0.77	790	397	393
4.01	2	4.01	2,825	1,475	1,349
4.01	3	0.60	729	343	386
4.02	1	2.87	1,167	594	573
4.02	2	0.73	1,730	846	884
4.02	3	0.75	1,981	933	1,049
5	1	0.52	2,770	1,476	1,294
5	2	0.49	1,133	597	536
5	3	1.32	2,738	1,301	1,437
6	1	0.40	1,737	782	956
6	2	0.25	1,264	620	644
6	3	0.32	1,665	746	919
6	4	0.24	1,438	803	634
7	1	1.35	1,409	843	566
7	2	0.34	1,547	738	810
7	3	0.45	1,601	865	736
8	1	1.60	510	251	259
8	3	0.14	676	320	356
8	4	0.16	759	389	369
9	1	0.74	699	349	351
9	2	0.49	620	281	339
9	3	0.11	796	407	389
9	4	0.16	883	440	442
10	1	0.11	384	166	218
10	2	0.15	923	429	495
10	3	0.11	844	402	442
10	4	0.09	526	244	282
10	5	0.32	772	404	368
11	9	5.03	4,633	3,103	1,530
12	1	1.29	1,376	692	684
12	2	0.11	640	305	335
12	3	0.20	687	304	383
12	4	0.85	2,299	1,125	1,174
13	1	0.37	1,941	920	1,020
13	2	0.41	1,878	835	1,043
13	3	0.26	1,180	523	657
13	4	2.71	1,683	856	827
14	1	1.02	1,249	624	625
14	2	0.16	1,415	748	667
14	3	1.88	3,298	1,542	1,756
14	4	3.38	753	410	343
15.01	1	0.59	2,384	1,161	1,223
15.01	2	5.92	1,968	974	994
15.02	1	0.32	1,239	613	626
15.02	2	0.58	2,033	906	1,127
15.02	3	0.92	1,057	562	495
19	1	42.26	1,036	563	473
19	2	24.53	2,314	1,219	1,096
19	3	30.94	2,981	1,460	1,521
20	1	48.49	2,120	1,027	1,094
Cheyenne Totals (General Population):		***197***	***81,864***	***41,142***	***40,722***

Source: 2000 US Census; WyDOT Trip Generation Population Projection 2034; LSC, 2007.

Population Projections

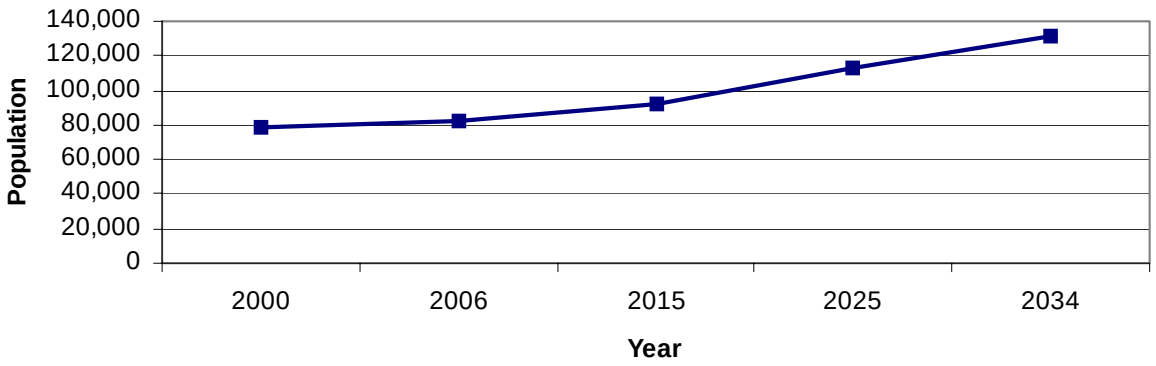
The 2006 population estimates for Cheyenne have been provided by the Wyoming Department of Administration and Information, Division of Economic Analysis, whereas population projections for 2034 were derived from the Wyoming Department of Transportation trip generation rates. Table II-3 and Figure II-5, shown below, present population projections through 2034.

Table II-3
Population Projections

Year	Cheyenne, WY Populations	Cheyenne Percent Growth
2000	78,456	-
2006	81,864	4.34%
2015	92,406	17.78%
2025	113,565	38.72%
2034	131,586	15.87%

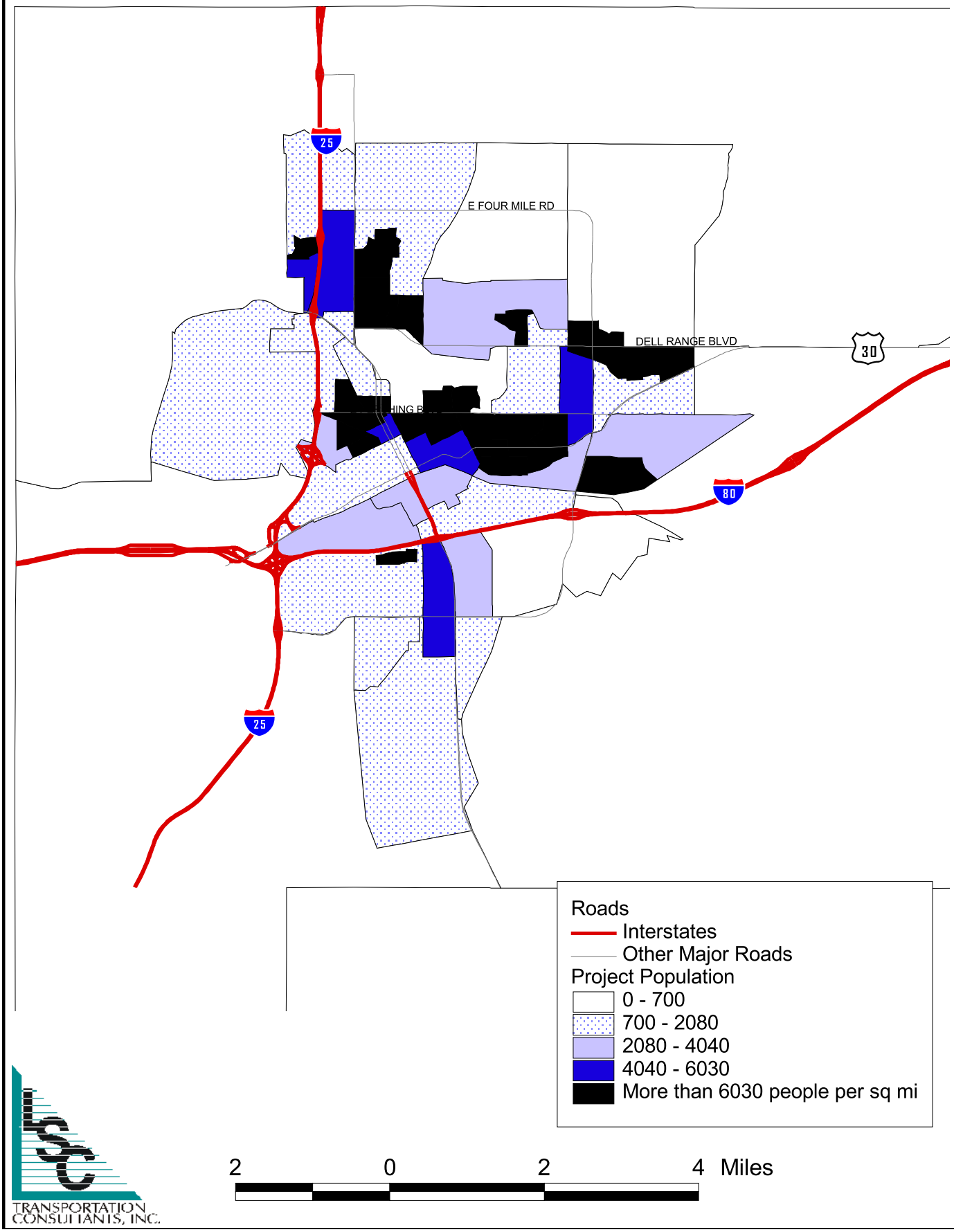
Source: 2000 US Census; Wyoming Department of Administration and Information, Division of Economic Analysis Population Estimate 2006; WYDOT trip generation rates Population Projection 2034; LSC, 2007.

Figure II-5
2000 - 2034 Population Trend



Using the two percent annual growth and forecasting the population by block groups, Figure II-6 illustrates that the highest population densities in 2034 continue to be in the central portion of Cheyenne.

Figure II-6
2034 Projected Population Density



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 persons 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 persons unable to purchase or rent their own vehicle. Legal limitations refer to such limitations as persons who are too young (generally under age 16). Self-imposed limitations refer to those people 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 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 Cheyenne area census statistics for 2006. These include zero-vehicle households, youth population, elderly population, mobility-limited population, and below-poverty population. These types of data are important to the various methods of demand estimation.

Table II-4
2006 Estimated General Population Characteristics
Cheyenne, Wyoming

Census Tract	Census Block Group	Land Area (sq. ml.)	Population Estimated 2006	Total Number of Households Estimated 2006	Zero-Vehicle Households Estimated 2006		Youth Aged 10-17 Estimated 2006		Elderly 60 & Over Estimated 2006		Mobility-Limited Population Estimated 2006		Below-Poverty Population Estimated 2006	
				#	#	%	#	%	#	%	#	%	#	%
2	1	1.22	1,079	490	64	13.0%	83	7.7%	218	20.2%	104	9.7%	167	15.5%
2	2	0.66	1,254	515	54	10.5%	183	14.6%	215	17.1%	62	4.9%	194	15.5%
2	3	1.12	1,642	678	61	8.9%	299	18.2%	219	13.3%	52	3.2%	246	15.0%
3	1	0.10	927	311	17	5.4%	149	16.1%	117	12.6%	29	3.2%	176	19.0%
3	2	2.20	1,881	648	25	3.9%	227	12.1%	217	11.5%	93	4.9%	164	8.7%
4.01	1	0.77	790	307	18	5.8%	86	10.8%	184	23.2%	38	4.8%	22	2.8%
4.01	2	4.01	2,825	1,007	8	0.8%	260	9.2%	247	8.8%	151	5.4%	401	14.2%
4.01	3	0.60	729	296	50	16.9%	146	20.0%	53	7.3%	19	2.6%	339	46.5%
4.02	1	2.87	1,167	431	37	8.5%	59	5.1%	161	13.8%	50	4.3%	166	14.2%
4.02	2	0.73	1,730	722	29	4.0%	229	13.2%	278	16.0%	139	8.0%	230	13.3%
4.02	3	0.75	1,981	723	31	4.3%	308	15.5%	115	5.8%	17	0.8%	312	15.7%
5	1	0.52	2,770	923	45	4.9%	376	13.6%	282	10.2%	177	6.4%	120	4.3%
5	2	0.49	1,133	452	16	3.5%	172	15.2%	278	24.5%	71	6.3%	5	0.5%
5	3	1.32	2,738	1,162	35	3.1%	135	4.9%	391	14.3%	99	3.6%	318	11.6%
6	1	0.40	1,737	665	22	3.3%	121	7.0%	548	31.5%	73	4.2%	95	5.5%
6	2	0.25	1,264	576	8	1.4%	143	11.3%	256	20.2%	166	13.1%	98	7.8%
6	3	0.32	1,665	838	34	4.1%	165	9.9%	388	23.3%	64	3.8%	114	6.8%
6	4	0.24	1,438	658	75	11.4%	144	10.0%	320	22.3%	123	8.6%	99	6.9%
7	1	1.35	1,409	695	189	27.2%	116	8.2%	279	19.8%	122	8.7%	292	20.7%
7	2	0.34	1,547	825	55	6.7%	88	5.7%	304	19.6%	92	5.9%	89	5.7%
7	3	0.45	1,601	832	75	9.0%	195	12.2%	119	7.4%	90	5.6%	219	13.7%
8	1	1.60	510	223	0	0.0%	58	11.5%	118	23.1%	24	4.7%	58	11.5%
8	3	0.14	676	280	11	4.1%	53	7.9%	275	40.7%	34	5.1%	54	8.0%
8	4	0.16	759	337	18	5.3%	107	14.2%	215	28.3%	53	7.0%	53	7.0%
9	1	0.74	699	355	20	5.6%	42	6.0%	198	28.4%	52	7.5%	14	1.9%
9	2	0.49	620	309	17	5.4%	59	9.6%	148	23.9%	59	9.6%	106	17.2%
9	3	0.11	796	328	22	6.7%	90	11.3%	208	26.1%	53	6.7%	31	3.9%
9	4	0.16	883	448	21	4.7%	93	10.5%	189	21.4%	13	1.4%	79	9.0%
10	1	0.11	384	221	38	17.0%	10	2.7%	142	37.0%	37	9.5%	68	17.7%
10	2	0.15	923	421	6	1.5%	163	17.6%	77	8.4%	16	1.7%	41	4.4%
10	3	0.11	844	326	19	5.8%	69	8.2%	88	10.4%	56	6.7%	206	24.4%
10	4	0.09	526	269	30	11.2%	58	11.1%	64	12.1%	23	4.4%	140	26.6%
10	5	0.32	772	385	26	6.8%	21	2.7%	151	19.6%	34	4.5%	112	14.5%
11	9	5.03	4,633	667	13	1.9%	229	4.9%	0	0.0%	48	1.0%	58	1.3%
12	1	1.29	1,376	490	0	0.0%	271	19.7%	147	10.7%	28	2.0%	0	0.0%
12	2	0.11	640	235	0	0.0%	115	17.9%	126	19.7%	24	3.8%	22	3.4%
12	3	0.20	687	268	0	0.0%	70	10.2%	284	41.3%	46	6.7%	0	0.0%
12	4	0.85	2,299	1,089	42	3.8%	258	11.2%	378	16.4%	101	4.4%	161	7.0%
13	1	0.37	1,941	728	19	2.6%	283	14.6%	284	14.6%	15	0.8%	66	3.4%
13	2	0.41	1,878	945	66	7.0%	181	9.6%	506	26.9%	154	8.2%	310	16.5%
13	3	0.26	1,180	461	17	3.6%	177	15.0%	297	25.2%	11	1.0%	14	1.1%
13	4	2.71	1,683	610	10	1.7%	215	12.8%	293	17.4%	50	3.0%	78	4.6%
14	1	1.02	1,249	438	8	1.9%	218	17.5%	241	19.3%	38	3.0%	41	3.3%
14	2	0.16	1,415	550	40	7.2%	151	10.7%	148	10.5%	61	4.3%	148	10.5%
14	3	1.88	3,298	1,219	152	12.5%	462	14.0%	621	18.8%	130	4.0%	258	7.8%
14	4	3.38	753	275	0	0.0%	140	18.6%	69	9.1%	24	3.2%	6	0.8%
15.01	1	0.59	2,384	894	62	6.9%	284	11.9%	218	9.1%	109	4.6%	45	1.9%
15.01	2	5.92	1,968	706	26	3.7%	256	13.0%	272	13.8%	27	1.4%	135	6.8%
15.02	1	0.32	1,239	421	20	4.7%	262	21.1%	37	2.9%	55	4.5%	119	9.6%
15.02	2	0.58	2,033	887	66	7.4%	217	10.7%	532	26.2%	198	9.8%	175	8.6%
15.02	3	0.92	1,057	502	63	12.5%	95	9.0%	92	8.7%	107	10.2%	66	6.2%
19	1	42.26	1,036	374	0	0.0%	80	7.8%	109	10.5%	21	2.0%	110	10.6%
19	2	24.53	2,314	835	7	0.9%	402	17.4%	245	10.6%	33	1.4%	89	3.8%
19	3	30.94	2,981	1,060	30	2.9%	428	14.4%	320	10.7%	120	4.0%	202	6.8%
20	1	48.49	2,120	728	6	0.9%	325	15.3%	246	11.6%	62	2.9%	131	6.2%
Cheyenne TOTAL (General Population):		***197***	***81,864***	***32,040***	***1,822***	***5.7%***	***9,625***	***11.8%***	***12,525***	***15.3%***	***3,748***	***4.6%***	***7,061***	***8.6%***

Source: 2000 US Census; WYDOT Trip Generation Population Projection 2034; LSC, 2007.

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Elderly Population

Elderly persons represent a significant number of the transit-dependent nationally. Figure II-7 illustrates the distribution of elderly persons (age 60 or more) across the Cheyenne area. Persons 60 years of age and older comprise about 15 percent of Cheyenne's population (12,525 persons). As illustrated in Table II-4 and Figure II-7, the highest density of elderly population is located in downtown Cheyenne around West Pershing Boulevard, areas around Frontier Mall, north of US Highway 30, and along South Greeley Highway.

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 areas with similar-sized population as Cheyenne. This holds true in Cheyenne, where five percent of the population have some type of mobility limitation. Figure II-8 illustrates the distribution of the mobility-limited population. The largest mobility-limited population pockets are located in downtown Cheyenne around West Pershing Boulevard, east of North College Drive, east of Yellowstone Drive, and along South Greeley Highway.

Figure II-7
Density of Elderly Persons

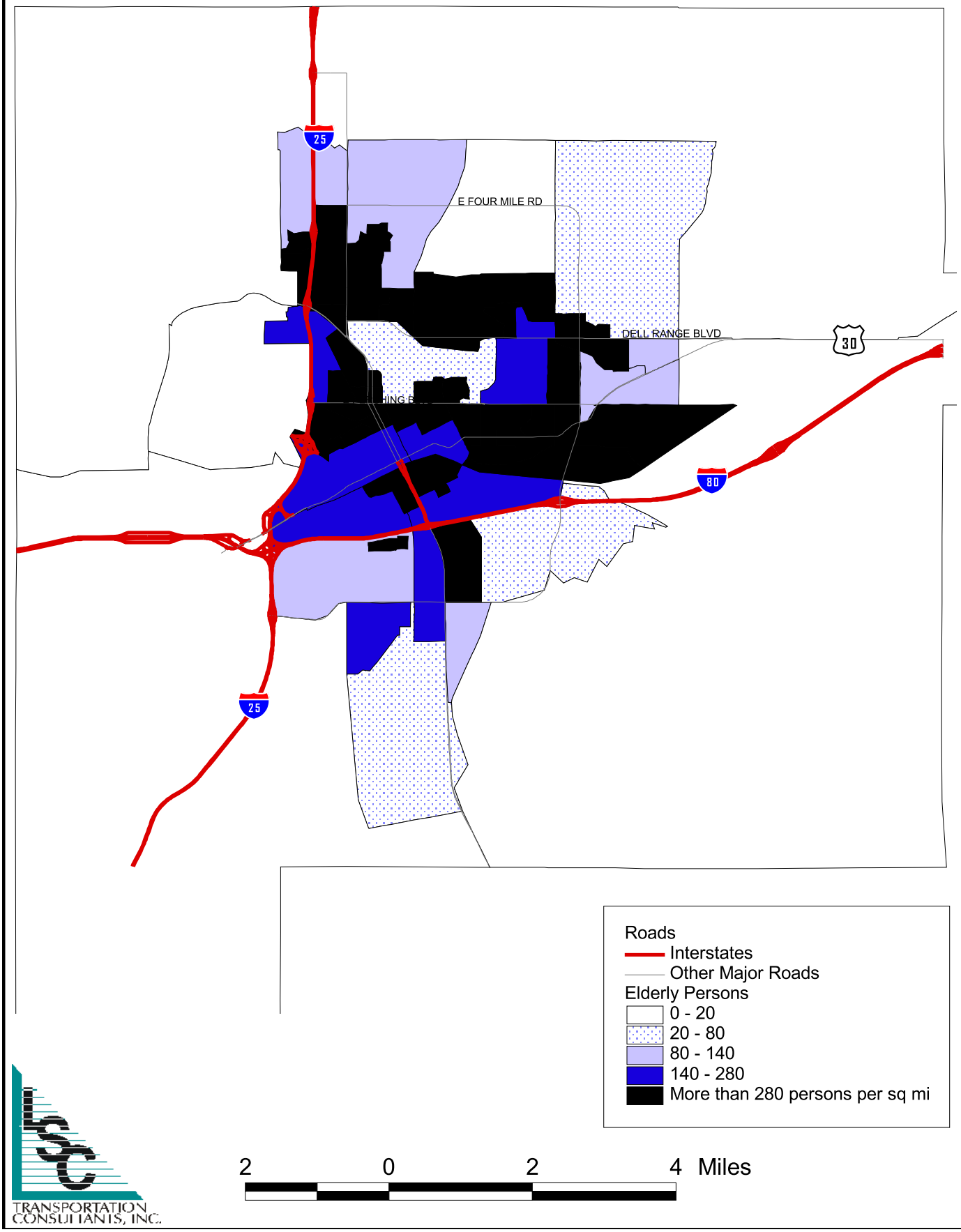
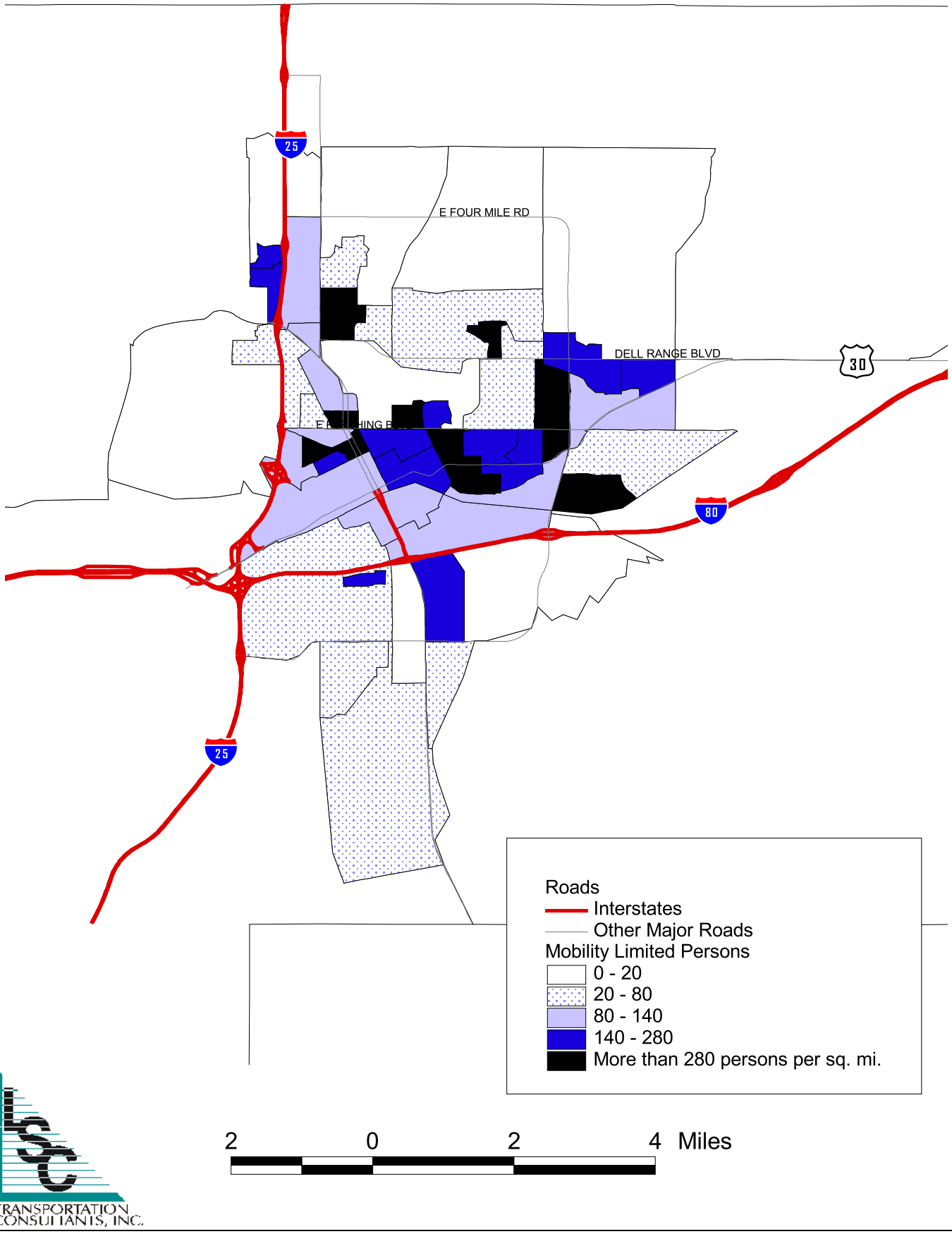


Figure II-8
Density of Mobility Limited Persons



Low-Income Population

Low-income persons tend to depend on transit to a greater extent than more wealthy persons or persons with a high level of disposable income. Based on the 2000 US Census, the median income for Cheyenne was $38,856. This figure is slightly higher than the state average of $37,892. This is likely due to the presence of several employers which pay relatively high wages, such as the state, local medical providers, city and county governments, school districts, community college, and other private employers.

The portion of the population living below poverty level within the Cheyenne area was approximately nine percent. The distribution of the below-poverty population is shown in Figure II-9. The largest below-poverty population pockets in Cheyenne are located in the central portion of Cheyenne around the Cheyenne Children's Clinic, United Medical Center East, east of US Post Office, south of Henderson Elementary School, portions of Pioneer Park, along South Greeley Highway, and Union Pacific Avenue along the railroad.

Zero-Vehicle Households

Persons who do not own or have access to a private vehicle are also considered transit-dependent. An estimated 5.7 percent (1,822) of the households within the Cheyenne area had no vehicle available for use in 2006. Figure II-10 illustrates the distribution of the zero-vehicle households. The highest density areas of zero-vehicle household in Cheyenne are scattered in and around East Pershing Boulevard.

Youth

The population between 10 and 17 years of age is illustrated in Figure II-11. Cheyenne has a population of 12 percent between 10 to 17 years. The largest youth population pockets in Cheyenne are located in and around East Pershing Boulevard, near the intersection of Interstate 25 and US Highways 85 and 8, and along South Greeley Highway.

Figure II-9
Density of Low Income Persons

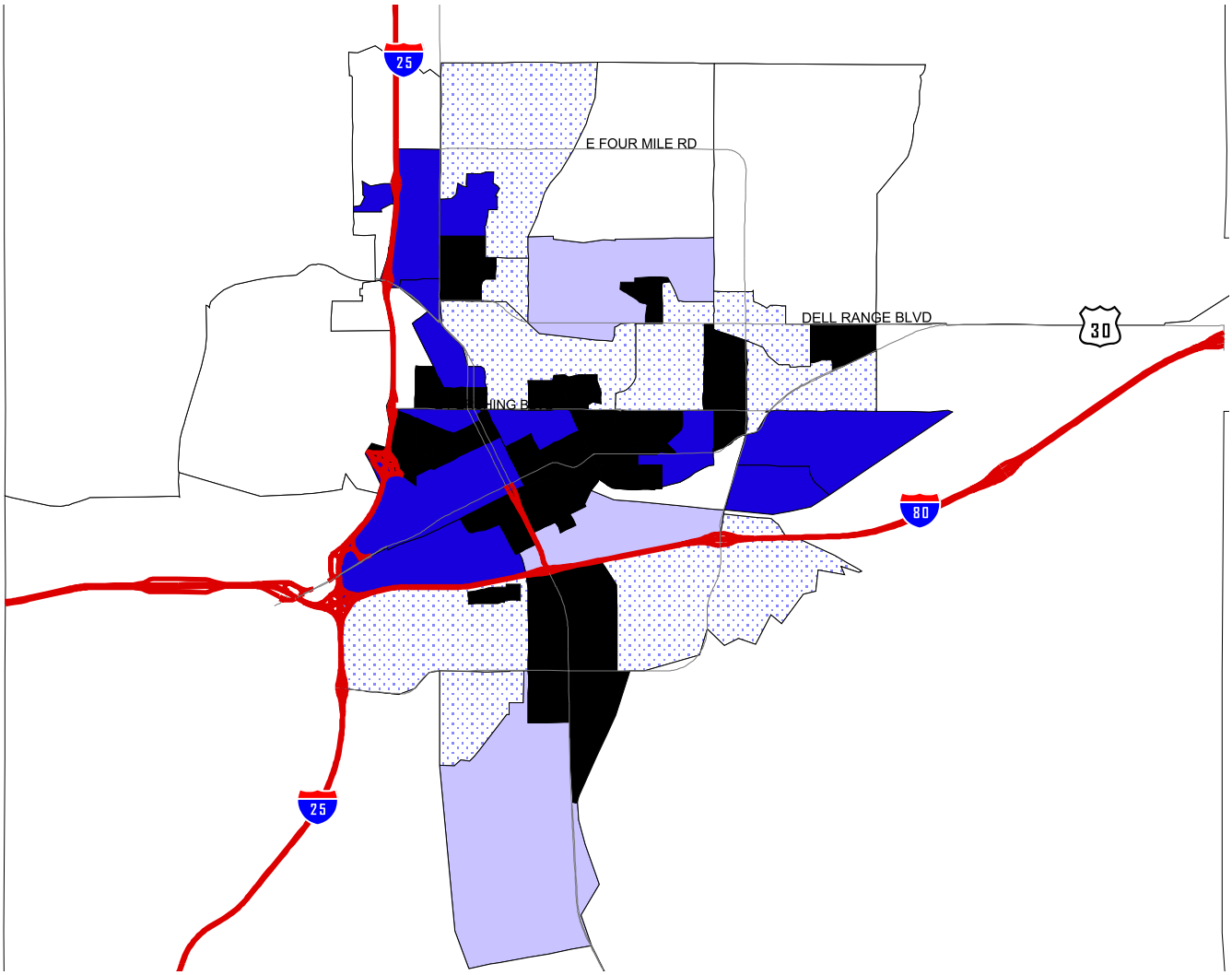


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Figure II-10
Density of Zero Vehicle Households

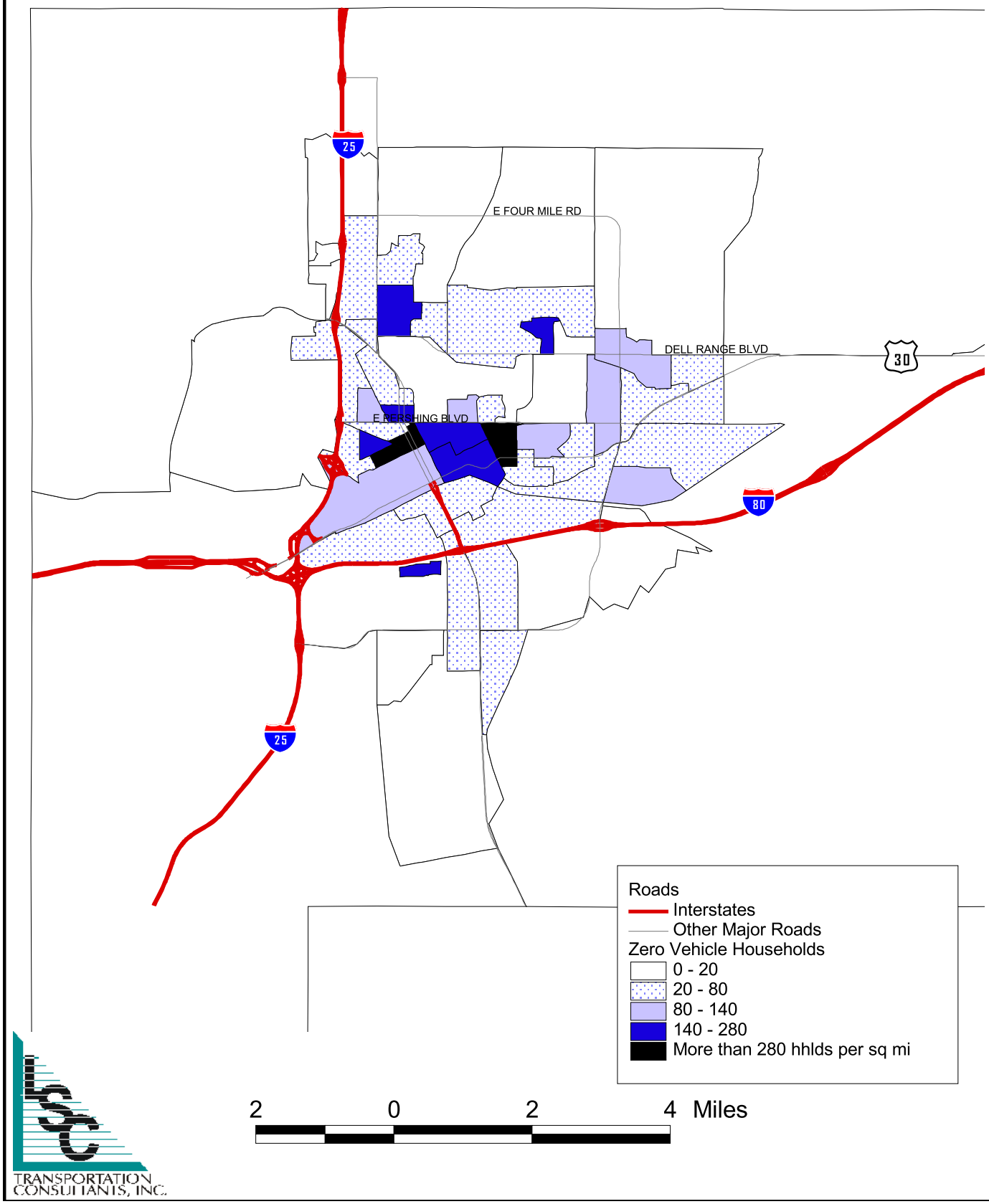
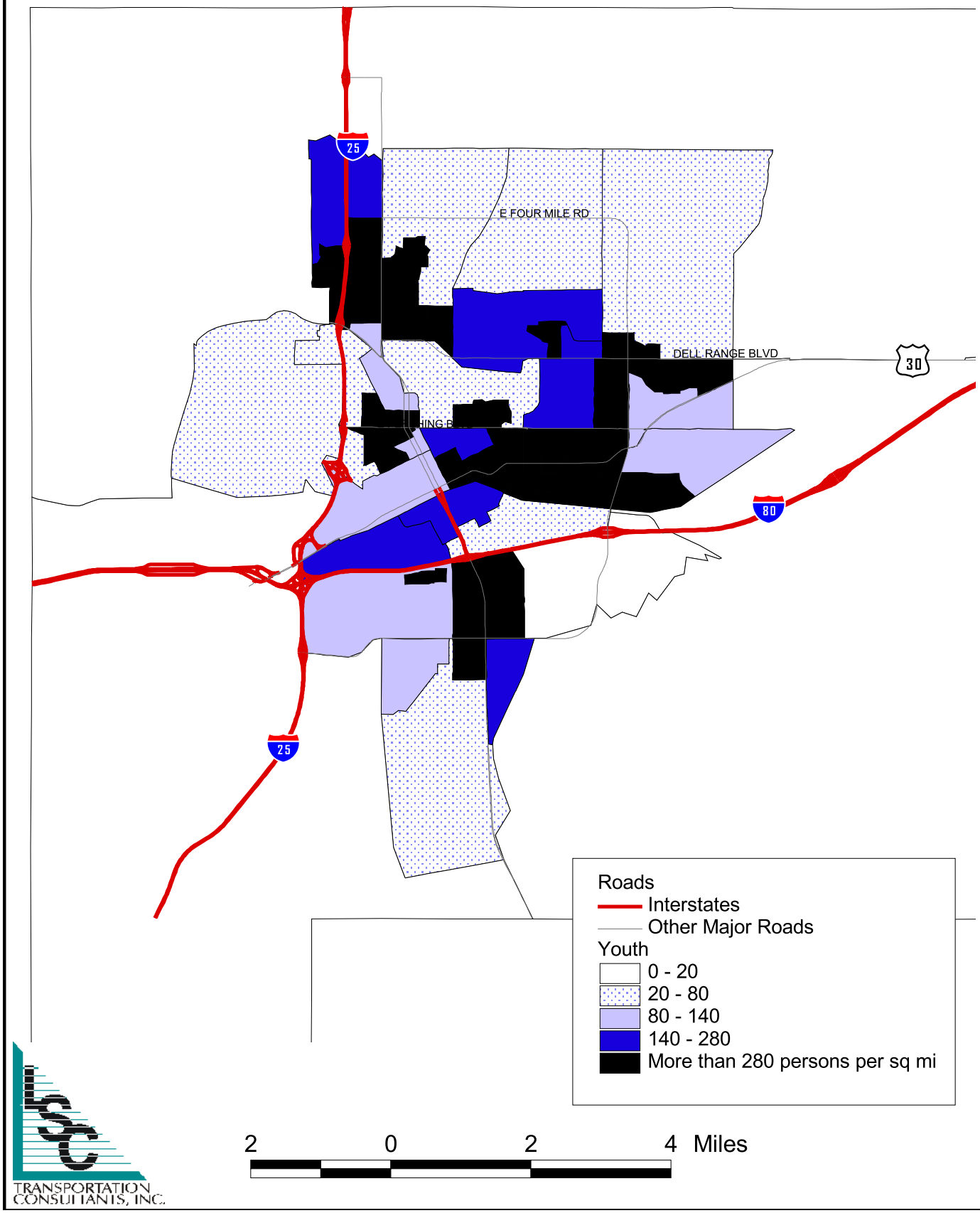


Figure II-11
Density of Youth



Human Service Providers

Figure II-12 presents the existing human service providers in the city of Cheyenne. Most agencies are located in the downtown area

ECONOMY

Cheyenne's economy is largely based on education, health, and social services followed by government and retail. These sectors account for 48 percent of the total wage and salary jobs in the city. Laramie County School District, Cheyenne colleges, Cheyenne Regional Medical Center, the Veterans' Affairs Medical Center, and Blue Cross/Blue Shield are some of the major employers in the area and the reason for Cheyenne's economy to be based on education and health services. Also, as the state capital, Cheyenne has many state, federal, and local government offices making it a government-based economy. Table II-5 shows the distribution of employment by sector. Currently, the region has a civilian labor force of 25,890 with approximately 1,349 unemployed.

Table II-5
Employment by Sector - Cheyenne

Sector	Cheyenne	Cheyenne %
Educational, health and social services	4,874	19.9%
Public administration	3,462	14.1%
Retail trade	3,335	13.6%
Arts, entertainment, recreation, accommodation and food services	1,990	8.1%
Finance, insurance, real estate, and rental and leasing	1,927	7.9%
Construction	1,848	7.5%
Transportation and warehousing, and utilities	1,697	6.9%
Professional, scientific, management, administrative, and waste management services	1,691	6.9%
Manufacturing	1,110	4.5%
Other services (except public administration)	1,091	4.4%
Information	795	3.2%
Wholesale trade	445	1.8%
Agriculture, forestry, fishing and hunting, and mining	276	1.1%

Source: 2000 Census.

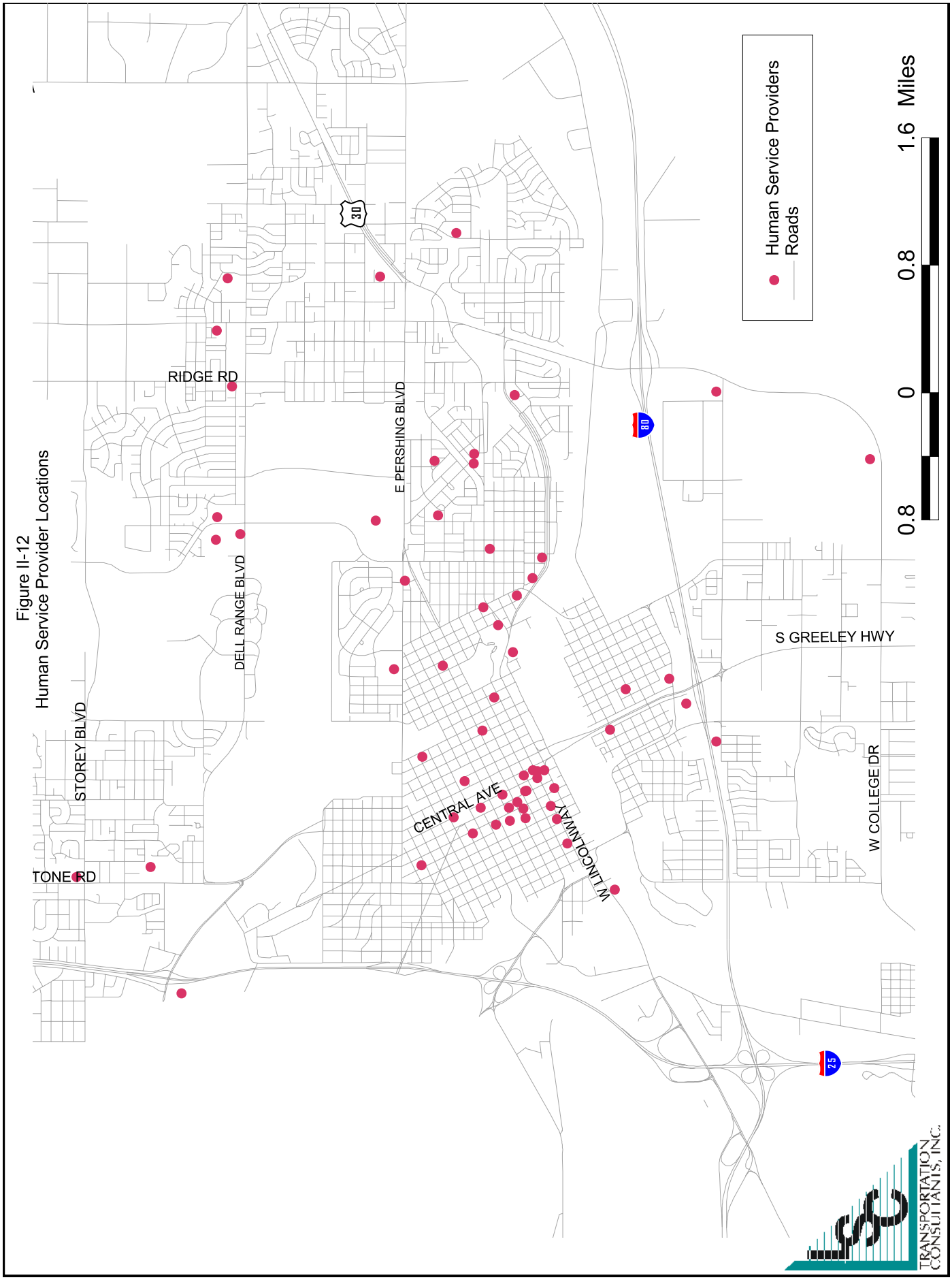


Figure II-12
Human Service Provider Locations
Human Service Providers
Roads
0.8
0
0.8
1.6 Miles
RIDGE RD
E PERSHING BLVD
DELL RANGE BLVD
STOREY BLVD
TONE RD
CENTRAL AVE
W LINCOLNWAY
S GREELEY HWY
W COLLEGE DR
30
80
25
TRANSPORTATION CONSULTANTS, INC.

WORK TRANSPORTATION MODE

The 2000 US Census also yields information useful to this study effort regarding residents' means of transportation to and from work. As indicated in Table II-6, the great majority of Cheyenne residents drive alone to work (21,330 persons, 82 percent). Carpooling is the next mode of choice with 11 percent (2,930 persons) of the workforce choosing that means of transportation. Another 1.9 percent walk to work, and 3.1 percent work at home. Approximately one percent of the population reported that they use public transit to get to work in Cheyenne.

The mean travel time to work for workers age 16 years and older in Cheyenne is approximately 14.6 minutes, which is slightly lower than the State of Wyoming with an average of 17.8 minutes.

Table II-6
Mode of Transportation

	Cheyenne	Cheyenne %	Wyoming %
Drove Alone	21,330	82.2%	75.4%
Carpool	2,930	11.3%	13.2%
Public Transportation (incl. Taxicab)	129	0.5%	1.4%
Walk	502	1.9%	4.4%
Other	250	1.0%	1.3%
Work at Home	800	3.1%	4.3%
Average Travel Time (mins)	**14.6 minutes**		**17.8 minutes**

Source: 2000 Census.

Table II-7 shows the commute patterns between Laramie County and its adjoining counties. Ninety-four (94 percent) of employees live and work within Laramie County. One percent of Laramie County residents work in Larimer County with another one percent working in Weld County. Approximately one percent of employees are from Colorado, with approximately two percent from other states.

Table II-7
County-to-County Worker Flow Patterns in Laramie

County of Work	Laramie Residents	
	#	%
Laramie County, WY	37,124	94%
Larimer County, CO	527	1%
Weld County, CO	240	1%
Albany County, WY	194	<1%
Denver County, CO	99	<1%
Sweetwater County, WY	37	<1%
Platte County, WY	36	<1%
Converse County, WY	32	<1%
Carbon County, WY	26	<1%
Sheridan County, WY	18	<1%
Big Horn County, WY	8	<1%
Natrona County, WY	8	<1%
Johnson County, WY	7	<1%
Campbell County, WY	6	<1%
Goshen County, WY	4	<1%
State of Colorado	301	1%
Out of State (excl. Colorado)	691	2%

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

SUMMARY OF COMMUNITY CONDITIONS

This section of the chapter presented the local socioeconomic and community background information with which transit alternatives were identified and explored. The most current and up-to-date data were used and presented.

Chapter III

CHAPTER III

Existing Transportation Resources

INTRODUCTION

Chapter III provides an overview of the Cheyenne Transit Program (CTP), which is the primary transportation service within the urban area. CTP provides fixed-route and curb-to-curb service to meet the transit needs of the community. CTP is controlled by the City of Cheyenne under the Public Works Department. The CTP office and dispatch are located in downtown Cheyenne. The indoor bus storage is located in the city maintenance yard.

HISTORY

In the past decade, CTP has changed hands administratively several times. In 1993, the City of Cheyenne assumed direct responsibility for the operation of the transit system from the Cheyenne Housing Authority and Magic City Enterprise. Prior to this takeover, transportation services were provided by agencies for client-based services instead of "general public" service.

In 1994, CTP changed from demand-response service to a deviated fixed-route system in order to accommodate the increasing demand in service. The system was gradually expanded from four routes to seven routes and ultimately to 11 routes over the 1994 to 1995 time period.

The existing 11 routes were changed back to seven routes due to the loss of federal operating funds in 1996. The routes also changed from operating in two directions to one direction. The deviated fixed-route service was limited to weekdays, curb-to-curb service was limited to Saturdays, and Sunday service was eliminated. The other major change during this time period was to charge for deviation off the routes, which had been free up to this point.

The seven-route deviation service continued operation until a few years ago. The previous Transit Development Plan (TDP), completed in 1997, recommended the route-deviation service change to fixed-route service with five routes. These changes were implemented in February 1998 with modifications to improve the system. The proposed fixed routes were shorter than the previous routes, and focused on one primary transfer center and two other transfer points on the north side of town. A free downtown shuttle service was also available until April 2001, but was discontinued because of very low ridership. The above description of service is the current transit network in Cheyenne. As of 2007, there are six one-way loop routes that operate on a one-hour pulse from the downtown transfer station.

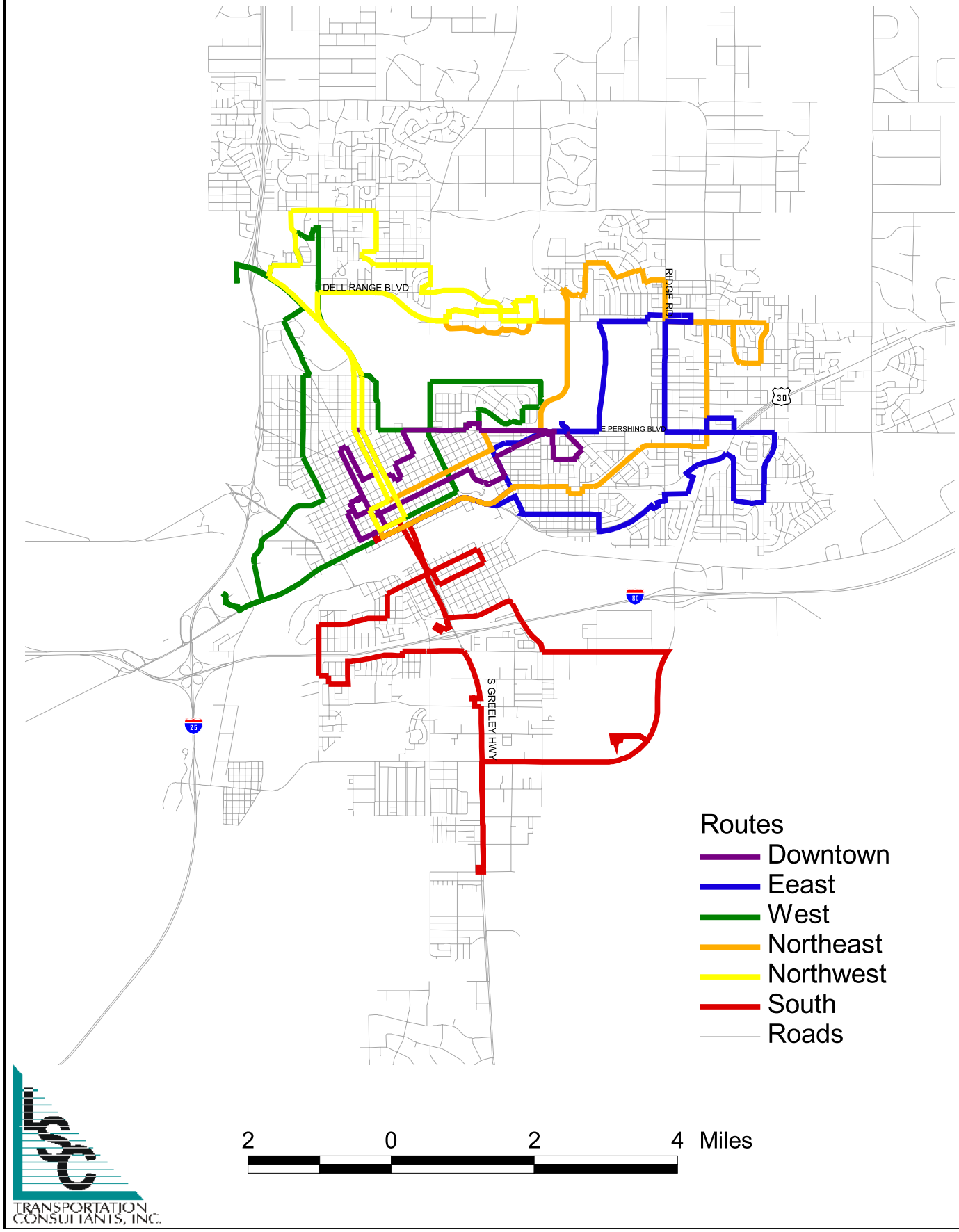
EXISTING TRANSPORTATION SERVICES

Description of Services

CTP is available to all persons within the service area, which includes the urban area of Cheyenne, Warren Air Force Base, and Laramie County Community College. The existing fixed routes are available to local residents and are listed below. Figure III-1 presents each of the routes.

- Downtown (Purple)
- West (Green)
- Northwest (Yellow)
- South (Red)
- East (Blue)
- Northeast (Orange)

Figure III-1
System Map



The existing fixed-route and curb-to-curb services operate on Monday through Friday from approximately 6:00 a.m. to 7:00 p.m and on Saturday from 10:00 a.m. to 5:00 p.m.

Table III-1
Current CTP Fares

Base Fare	$1.00
Senior Base Fare	$1.00 Donation
Curb-to-Curb Service	$3.00
ADA Curb-to-Curb Service	$2.00
Student (under 18)	$0.75
Children (under 5)	Free
Transfer	Free
Between 4:00 and 6:00 p.m.	$0.50
Monthly Pass	$31.80
Punch Card	$21.20
Student Pass	$23.85
Student Punch Card	$15.90

The fare schedule for passengers is shown on Table III-1. Free transfers are issued at the time the fare is paid. Transfers are valid only on the day issued and for continuous passage in the same general direction. Some of the buses have bicycle racks available for passengers, although bicycle rack usage is not currently tracked by CTP.

The CTP fixed routes cover an area of roughly 196 route-miles throughout the Cheyenne urban area. Several existing transfer points are available with the existing routes, where one or more bus routes meet and passengers are able to switch between buses.

The total number of passenger-trips for fiscal year 2006-2007 was approximately 237,754 trips. This is an increase of seven percent from the previous year (fiscal year 2005-2006), which had approximately 222,634 annual passenger-trips.

Ridership Patterns

Trends

Figure III-2 shows the ridership trends for CTP since 1996. Ridership increased approximately 68 percent between 2000 and 2007.

Figure III-2
CTP Ridership Trend 1996-2007

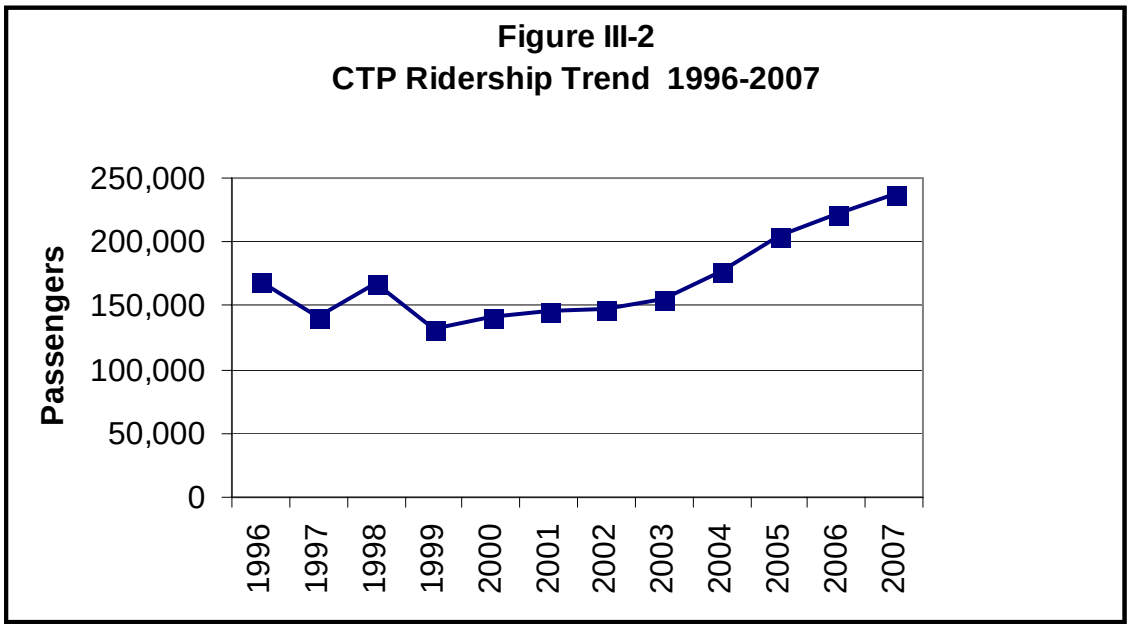


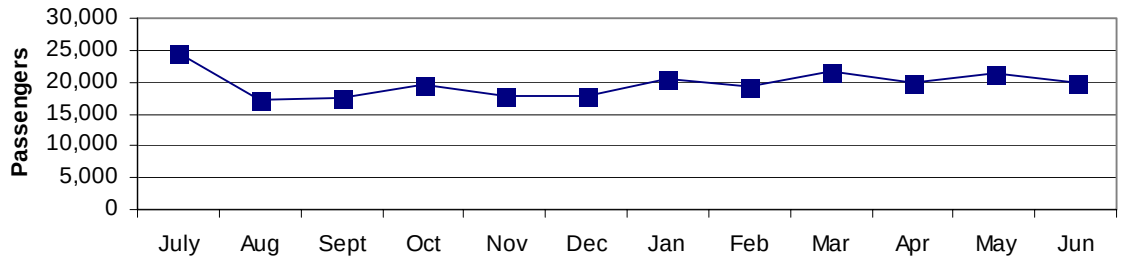
Table III-2 shows the month-to-month variations in ridership during fiscal year 2006-2007. These variations are illustrated in Figure III-3. Ridership peaked during July 2006 with a total of 24,800 trips. Ridership was lowest during August 2006.

Table III-2
CTP Ridership Variation (2006-2007)

	Routes Service	Paratransit Service	Total Ridership
July	23,041	1,738	24,779
Aug	15,301	1,847	17,148
Sept	15,574	1,921	17,495
Oct	17,546	1,983	19,529
Nov	15,923	1,972	17,895
Dec	16,357	1,577	17,934
Jan	18,521	2,103	20,624
Feb	17,219	2,016	19,235
Mar	19,402	2,221	21,623
Apr	17,935	2,085	20,020
May	19,293	2,207	21,500
Jun	17,920	2,052	19,972
TOTAL	***214,032***	***23,722***	***237,754***

Source: CTP, 2007.

Figure III-3
CTP
Recent Ridership Trend 2006-2007

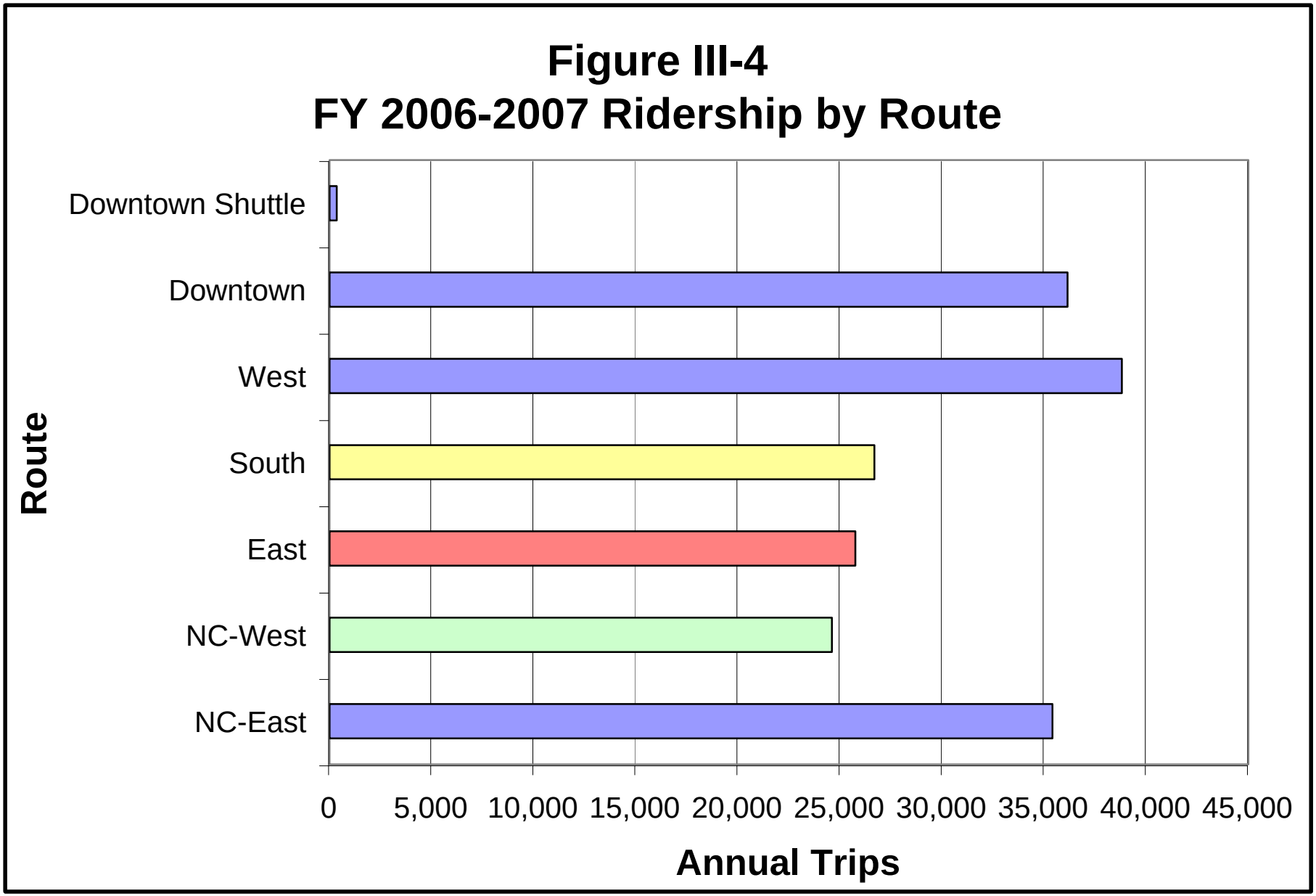


Ridership by Route

Ridership for each CTP route is presented in Figure III-4. The West Route has the most riders at approximately 21 percent. The NC East Route and the Downtown Route have the next highest ridership with approximately 19 percent each. The second lowest ridership is the NC West Route at 13 percent. The lowest ridership is the Downtown Shuttle at 0.19 percent

The route service accounts for 90 percent of the total ridership that CTP carries, while the paratransit service carries only nine percent of the trips.

Figure III-4
FY 2006-2007 Ridership by Route



Origin and Destination Analysis

Based on the information provided by CTP for August 1, 2007, the LSC team developed an origin and destination analysis. Figures III-5 and III-6 present the identified origins and destinations for the City of Cheyenne for the paratransit service. The major destinations are the shopping centers on the north side of the city, the downtown area, the senior center, Wyoming State Government offices, and the Neighborhood Facility. This information was used to analyze the paratransit service in terms of future service alternatives.

Staff

The following list details the employees and types of positions currently at CTP. The employees fit under two main categories—administration and operating.

Administration:

- Director (1)
- Assistant Director (1)
- Lead Dispatcher (1)
- Dispatcher/Driver (1)

Operating:

- Drivers (13) full-time
- Drivers (20) part-time

The bus drivers are required to possess a commercial driver's license with passenger endorsement. Drivers receive safety and security programs, first aid instructions, and passenger assistance training on the job.

Figure III-5
Paratransit Origins

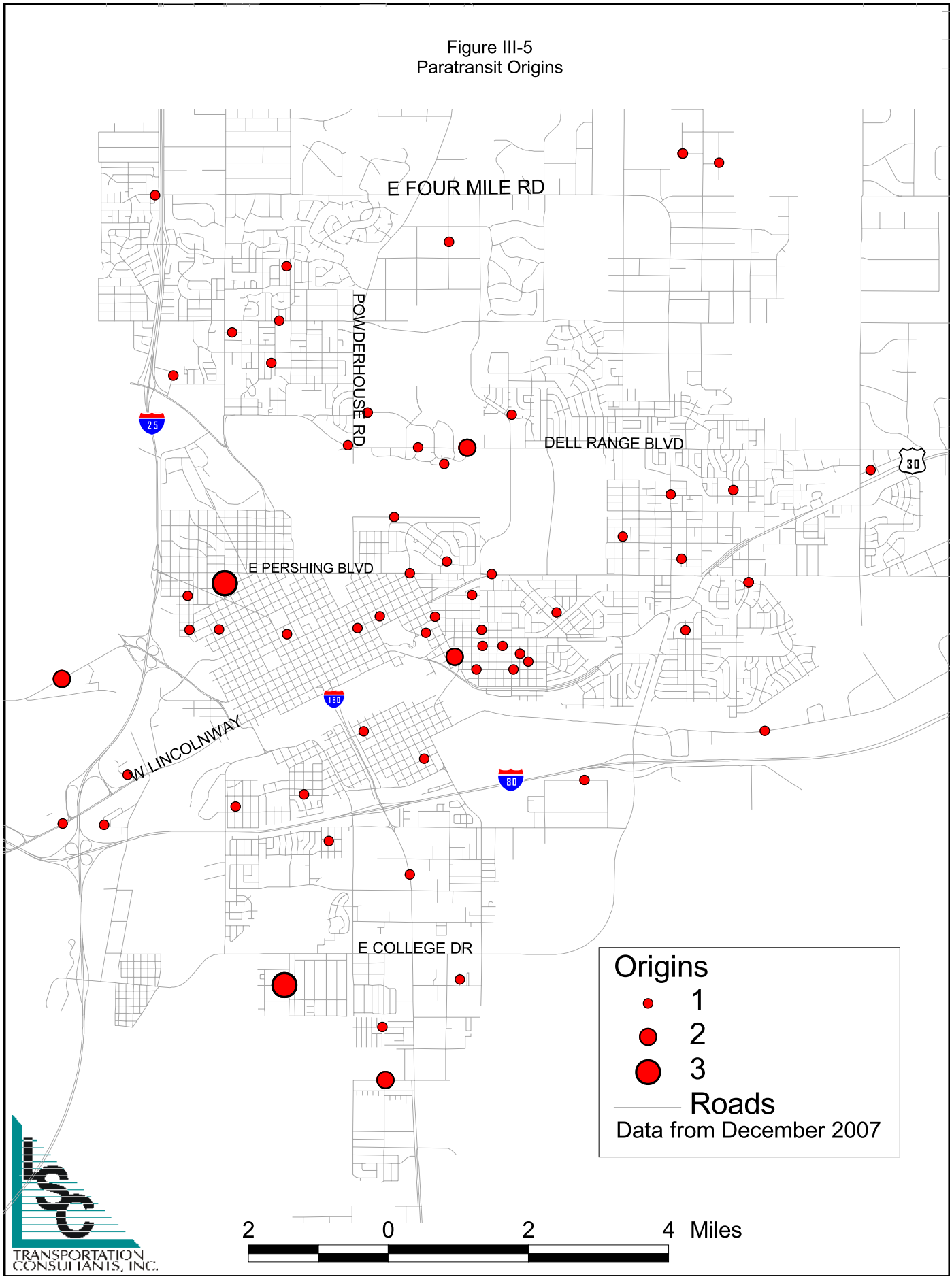
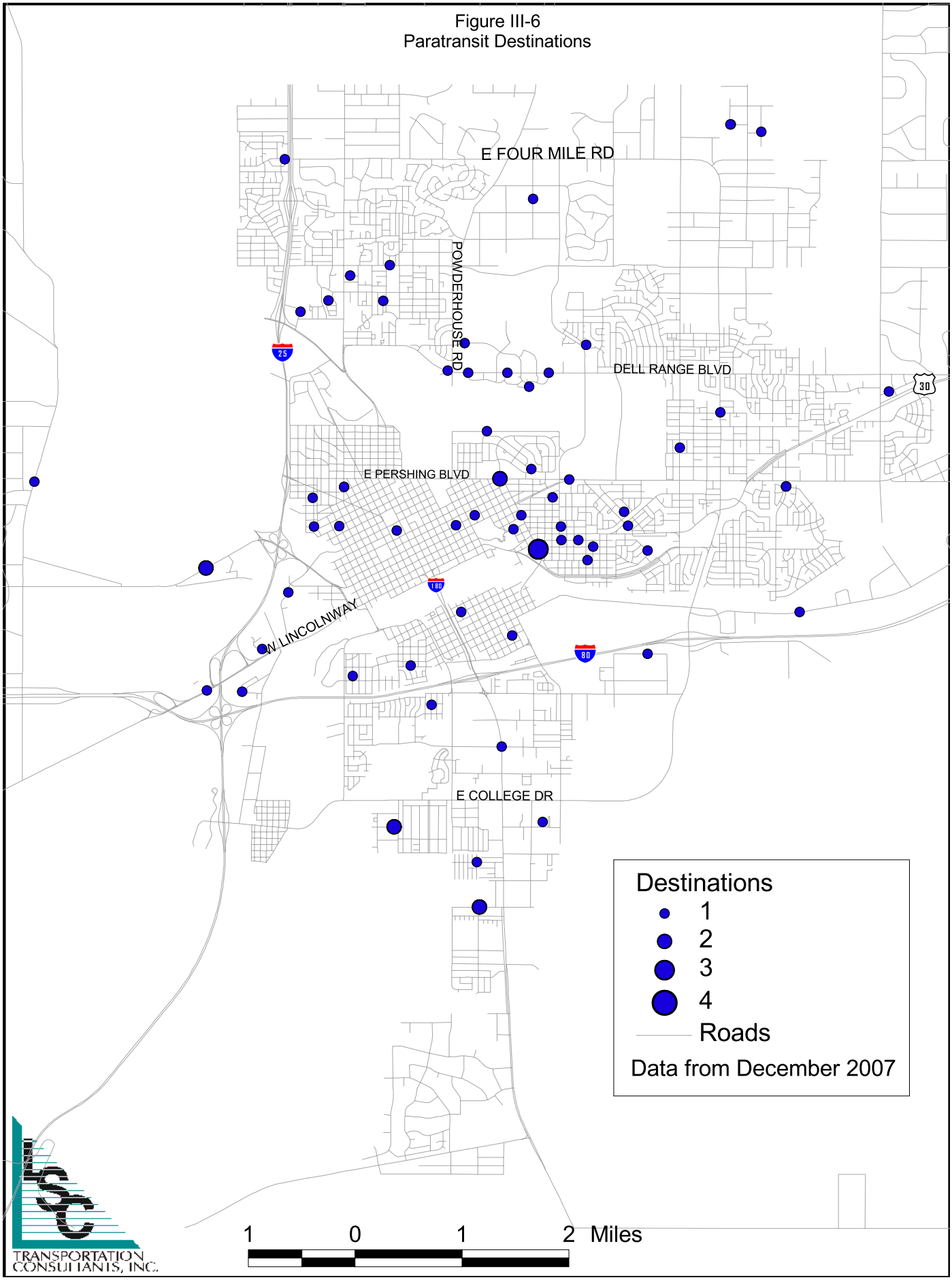


Figure III-6
Paratransit Destinations



Vehicle Fleet

As shown in Table III-3, CTP currently has 20 vehicles for passenger transportation, trolley, and support vehicles. There are 14 body-on-chassis vehicles (cut-a-ways), two buses, three trolleys equipped with wheelchair lifts which are ADA accessible, and one van. There is a definite capital replacement need over the next six years. Based on the Federal Transit Administration (FTA) guidelines, the vehicle lives are seven years for the light-duty buses and five years for the smaller buses.

The vehicles are fueled at the bus storage site or the central maintenance yard on Happy Jack Road. Fueling is done by the bus drivers after each shift.

Maintenance on all CTP vehicles is provided by the City of Cheyenne Maintenance Department, which is also responsible for the emergency, police, and sanitation vehicles. Two mechanics, who work under the supervision of the Maintenance Manager, are dedicated primarily to working on transit vehicles Monday through Friday from 6:30 a.m. to 4:30 p.m. While most of the repairs are performed at the City of Cheyenne garage, some work (such as major body work, air conditioning, and major engine overhauls) is performed by outside garages.

The two basic types of maintenance performed are preventive maintenance and repairs. Vehicles are brought in at set intervals for various preventive maintenance work every three months. At each progressive interval, additional work is done that was not done previously along with the normal maintenance. Non-scheduled maintenance, such as repairs which arise in the course of normal operation, is initiated by CTP. After notifying the City of Cheyenne Maintenance Department by telephone, a Work Request is submitted by CTP authorizing the needed repair work.

A monthly report is generated listing the repair costs including parts, labor, and fuel consumption by vehicle and for the entire fleet. These reports are reviewed by the Transit Manager and Maintenance Manager to monitor the overall fleet and individual vehicles.

Table III-3
CTP Vehicle Fleet Inventory

Type	Make	Model	Model Year	Capacity	Total Miles	Wheel-chair	Estimated Replacement Year
Bus	Thomas	Thomas	2001	21	62,165	2	2008
Cut-a-way	Ford	Aerotech	2002	14	115,066	2	2007
Cut-a-way	Ford	Aerotech	2002	14	138,263	2	2007
Cut-a-way	Ford	Aerotech	2002	14	142,088	2	2007
Cut-a-way	GMC	Girardin	2002	13	105,583	2	2008
Cut-a-way	GMC	Girardin	2002	13	93,973	2	2009
Cut-a-way	GMC	Girardin	2002	13	105,861	2	2009
Cut-a-way	GMC	Girardin	2002	13	100,968	2	2009
Cut-a-way	Ford	Aerotech	2003	14	48,460	2	2009
Cut-a-way	Ford	Aerotech	2003	14	127,720	2	2008
Cut-a-way	Chevy	El Dorado	2006	18	3,158	2	2013
Cut-a-way	Chevy	El Dorado	2006	18	3,725	2	2013
Cut-a-way	Chevy	El Dorado	2006	18	2,414	2	2013
Cut-a-way	Chevy	Goshen	2001	12	6,534	2	2011
Cut-a-way	International	International	2007	N/A	N/A	N/A	2014
Bus	BB	Bluebird	1999	17	171,873	2	2007
Van	GMC	Safari	1995	7	N/A	0	2004
Trolley	Ford	Trolley	1995	26	61,010	2	2004
Trolley	Ford	Trolley	2003	26	9,210	0	2010
Trolley	Ford	Trolley	2003	26	3,396	0	2010

Source: CTP, 2007.

Financial Status

Revenue

The total operating revenue for CTP is $1.3 million. The revenue required for CTP operations comes from a variety of funding sources. The funding sources for fiscal year 2006 to 2007—as well as the percentage of total revenue—are shown in Table III-4. The largest revenue source was the FTA operating grants at $679,000. The second largest revenue source was from the City of Cheyenne general fund, with $278,500. The farebox and donation revenue collected was $246,700, which equates to farebox recovery ratios of 18 percent overall. The average fare collected per passenger-trip was $1.03.

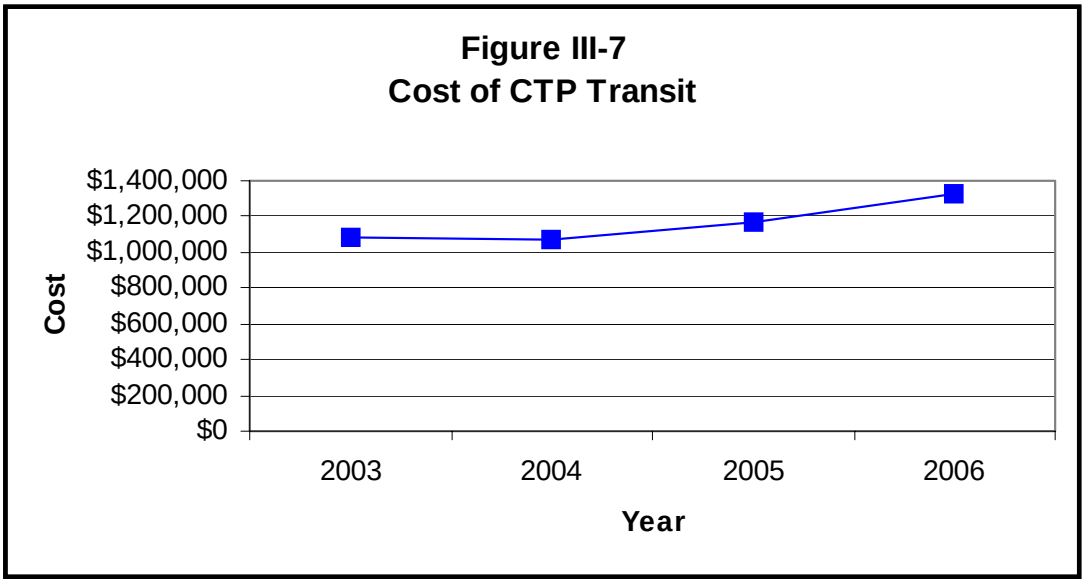
Table III-4
CTP FY2006-2007 Revenues

	Budgeted Revenues	Percentage of Budget
City - Government	$278,525	21%
Federal Grant	$675,000	50%
Intergovernment	$56,148	4%
Donations / Charter Service	$122,700	9%
Farebox Revenue (Ticket Sales)	$123,996	9%
State Grant	$76,380	6%
Miscellaneous Income	$18,000	1%
Total	**$1,350,749**	**100%**

Source: CTP Transit, 2007

Expenses

The total operational expenditures for fiscal year 2006-2007 were $1.35 million. The primary expenses for CTP (and all other transit agencies across the United States) are salaries and benefits. Figure III-7 presents the trend of expenses from fiscal years 2002-2003 through 2006-2007. The increase in expenses for fiscal year 2006-2007 was approximately 35 percent. The operating costs have increased by approximately 22 percent since fiscal year 2002-2003.



Cost Allocation Model

The financial, ridership, and service information can be used to develop internal evaluation tools for CTP. A cost allocation model provides base information against which the current operations can be judged, and is useful for estimating the cost ramifications of any proposed service alternative. The CTP cost allocation model is shown in Table III-5. This information is from the fixed-route and the paratransit service.

Table III-5
CTP Transit FY 2006-2007 Cost Allocation Model

PROPOSED ACCOUNT	Budget FY 06	Vehicle-Hours	Vehicle-Miles	Fixed Cost
Admin. Salaries/Wages/Benefits	$148,524			$148,524
Op. Salaries/Wages/Benefits	$839,770	$839,770		
Vehicle Supplies	$236,901		$ 236,901	
Office Expenses	$125,554			$125,554
TOTAL OPERATING COSTS	**$1,350,749**	**$839,770**	**$236,901**	**$274,078**
Service Variable Quantities		veh-hrs	veh-mls	Fixed-Cost
Used for Planning Purposes		35,617	485,118	Factor
		$23.58	**$0.49**	**1.25**

CTP Transit, 2007.

Cost information from fiscal year 2006-2007 was used to develop a three-factor cost allocation model for the current CTP operations. In order to develop the cost allocation model, each cost line item was allocated to one of three service variables (hours, miles, or fixed costs). Fixed costs are those costs identified/defined as being constant, and do not increase or decrease based on the level of service. Fixed costs can be validly assumed 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 cost allocated to each variable was then divided by the total quantity (i.e., total revenue-miles or hours) to determine a cost rate for each variable.

The cost allocation for fiscal year 2006-2007 yields the following cost equation for the existing CTP operations:

Total Cost = $274,078 + ($0.49 x Revenue-Miles) + ($23.58 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 = ($0.49 x Revenue-Miles) + ($23.58 x Revenue-Hours)

Performance Measures

Operating effectiveness and financial efficiency are two important factors to the success of a transit 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-6 presents the systemwide characteristics for fiscal year 2006-2007.

Table III-6
Performance Measures

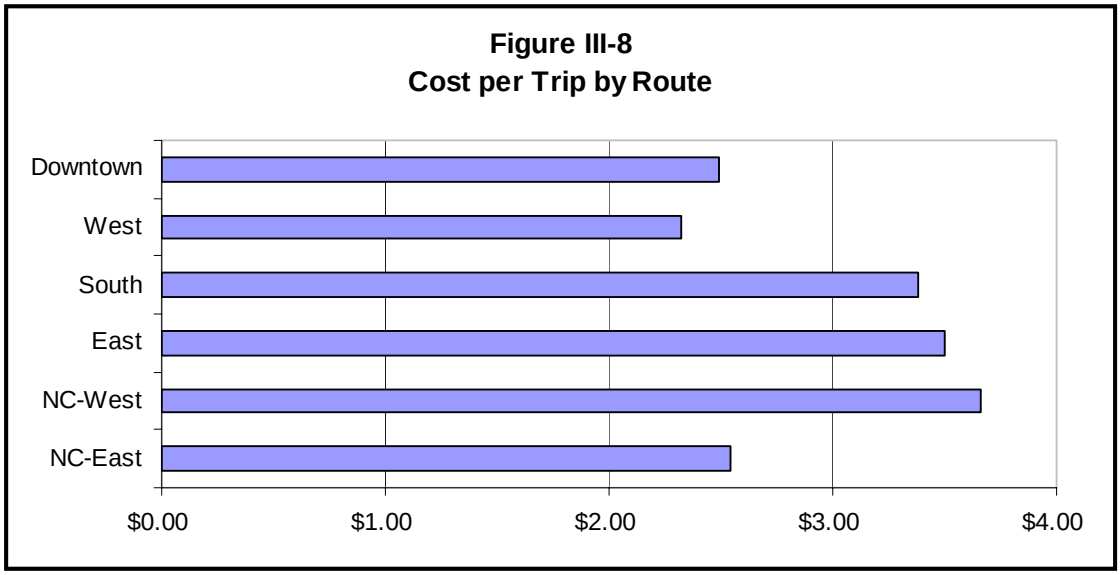
CTP Transit	Total System	Route Service	Paratransit System
Operating Budget	$1,350,749	$730,333	$620,416
Fare Revenue / Donations	$246,696	$ -	$ -
Ridership	222,634	189,778	22,675
Vehicle-Miles	485,118	351,016	134,102
Vehicle-Hours	35,617	24,874	10,743
Operating Effectiveness			
Pass.-Trips per Mile	0.46	0.54	0.17
Pass.-Trips per Hour	6.25	7.63	2.11
Financial Efficiency			
Cost per Pass.-Trip	$6.07	$3.85	$27.36
Cost per Veh.-Hour	$37.92	$29.36	$57.75

Source: CTP, 2007.

Based on the information provided by CTP, the following analysis only includes the CTP six main routes. The analysis does not include Stride, the Downtown Shuttle, or the Charter services.

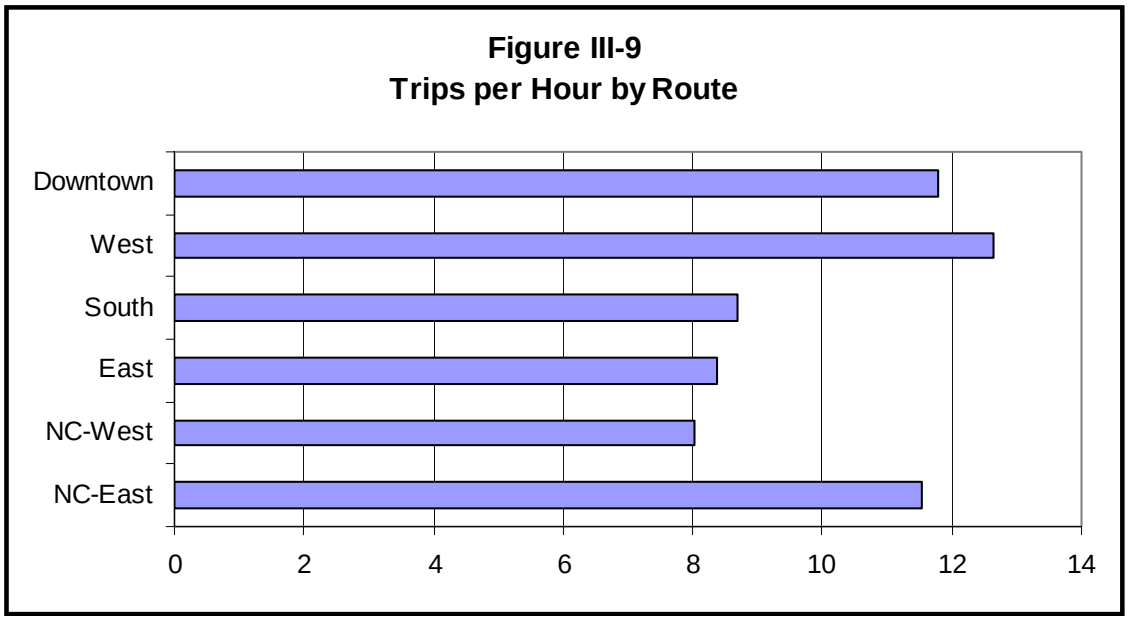
Cost Per Passenger

Figure III-8 presents the cost per passenger for each CTP route. The cost per passenger for the South, East, and NC-West Routes ranges from $3 to $4 per passenger. The cost per passenger for the Downtown, West, and NC-East Routes ranges from $2 to $3. The West Route has the lowest cost per passenger at $2.32.



Passengers Per Hour

Figure III-9 shows the passengers per hour for each CTP route. The highest productivity is the West Route with an average of over 12 passengers per hour. The remaining routes serve approximately eight to 11 passengers per hour.



OTHER TRANSPORTATION PROVIDERS

As an element of the analysis of the existing public transportation service in the City of Cheyenne, the LSC team (through the CTP and Metropolitan Planning Organization staff) sent out transportation provider surveys to the local human service agencies. Limited information has been returned to the LSC team, since CTP is the main public transportation provider in the area. Most of the human service agencies currently have agreements with CTP to provide some level of transportation service. The LSC team has also identified several private transportation providers in the study area. The following section reviews the human service agencies and private transportation providers in the study area.

Laramie County Department of Family Services

The Laramie County Department of Family Services does not currently provide transportation service directly to their clients. The Laramie County Department of Family Services has an agreement with CTP to purchase tokens through an annual grant. These tokens are given to their senior, disabled, and low-income clients. The majority of the tokens are given to low-income individuals who are applying for public assistance programs.

Laramie County Health Department

The Laramie County Health Department provides transportation to their clients for medical trips. The cost of these trips is billed to Medicaid. The individuals eligible for this service are Medicaid clients and those with LTC HCBS medical waivers. The Laramie County Health Department does not currently coordinate with CTP for transportation services.

Southeast Wyoming Foster Grandparent Program

The Southeast Wyoming Foster Grandparent Program pays CTP to transport their volunteers to and from agency locations. The program is for senior, disabled, and low-income individuals.

Wyoming Coalition for the Homeless

The Wyoming Coalition for the Homeless currently provides gasoline vouchers to low-income and homeless individuals Monday through Thursday from 10:00 a.m. to 2:00 p.m. The individual must have a current driver's license, vehicle registration, and automobile insurance. An individual can only receive one gasoline voucher in a six-month time period. About 2,400 gasoline vouches were provided in the City of Cheyenne area during 2006.

Cab Companies

There are several private transportation companies in the study area including A&A Taxi, TLC Taxi, Yellow Cab, Need-A-Ride Cab Company, and Impression Shuttle & Limousine. Service is available on demand seven days per week. An advance notice is required for all out-of-town trips.

Chapter IV

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER IV

Peer Group Comparison

INTRODUCTION

An important step in the evaluation of a transit service provider is a comparison against "peer" systems in other areas. Peer comparisons are an external evaluative method contrasting to the cost allocation model which is used for internal evaluations. Data for the comparisons were taken from a survey of the agencies, the National Transit Database summaries, and from recent LSC-completed projects. The peers selected for comparison are as follows:

- *The Bus – Greeley, Colorado*
- *Pocatello Regional Transit – Pocatello, Idaho*
- *Casper Area Transportation Coalition (CATC) – Casper, Wyoming*
- *Great Falls, Montana*

Although every effort was made to find the closest matching peers, no two systems are ever exactly alike. Factors such as the type of service (fixed-route, demand-responsive, commuter, etc.), the presence or absence of unions, local fare policies, and the quality of capital equipment can substantially impact the performance of the individual systems. This comparison, therefore, should be viewed only as a rough gauge of the City of Cheyenne Transit Program operations as compared with a representative sample of similar systems, rather than an exact "report card."

PEER GROUP COMPARISON

Table IV-1 presents the compilation of data on the peer communities. The table shows the transit agencies with similar population and ridership which were selected. The peers were not restricted to a fixed-route system which CTP currently operates. This was done to get a sense of how CTP could better serve the population based on the type of service for similar-sized communities.

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Table IV-1
Peer Community Analysis
Performance Measures

Transit System - Location	Service Area Population	Service Characteristics	No. of Vehicles	Annual Miles	Annual Hours	Annual Ridership	Operating Budget	Pass per Hour	Pass per Mile	Cost per Pass	Cost per Hour	Cost per Mile	Trips per Capita
CAT Transit - Casper, Wyoming	57,561	Deviated Fixed-Route and Paratransit	15	411,302	34,955	132,930	$1,265,845	3.8	0.32	$9.52	$36.21	$3.08	2.31
PRT - Pocatello, Idaho	61,166	Fixed-Route with Complementary Paratransit	23	443,674	36,546	454,961	$1,284,440	12.4	1.03	$2.82	$35.15	$2.90	7.44
GFTD - Great Falls, Montana	59,380	Fixed-Route with Complementary Paratransit	29	548,509	45,659	469,081	$2,302,691	10.3	0.86	$4.91	$50.43	$4.20	7.90
The Bus- Greely, Colorado	76,818	Fixed-Route with Complementary Paratransit	24	457,378	37,397	266,015	$1,604,278	7.1	0.58	$6.03	$42.90	$3.51	3.46
AVERAGE	**63,731**		**23**	**465,216**	**38,639**	**330,747**	**$1,614,314**	**8.6**	**0.71**	**$4.88**	**$41.78**	**$3.47**	**5.28**
CTP	**53,000**		**23**	**485,118**	**35,617**	**237,754**	**$1,350,749**	**6.7**	**0.49**	**$5.68**	**$37.92**	**$2.78**	**6.02**

Sources: 2006 National Transit Database

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Peer Statistics

CTP is shown at the bottom of the table just below the averages for each of the categories of the peer communities. Cheyenne has a lower service area population (53,000) than the overall average of 63,730 persons and is the lowest population of the peer group. Greeley, Colorado has the highest service area population with approximately 76,800 persons. The ridership per capita averaged 5.28 trips per person among the peers. CTP was the lower tier of the group, averaging 6.02 trips per capita. The fixed-route system complemented with paratransit service resulted in higher trips per capita than deviated fixed-route service. Figure IV-1 presents the passenger-trips per capita.

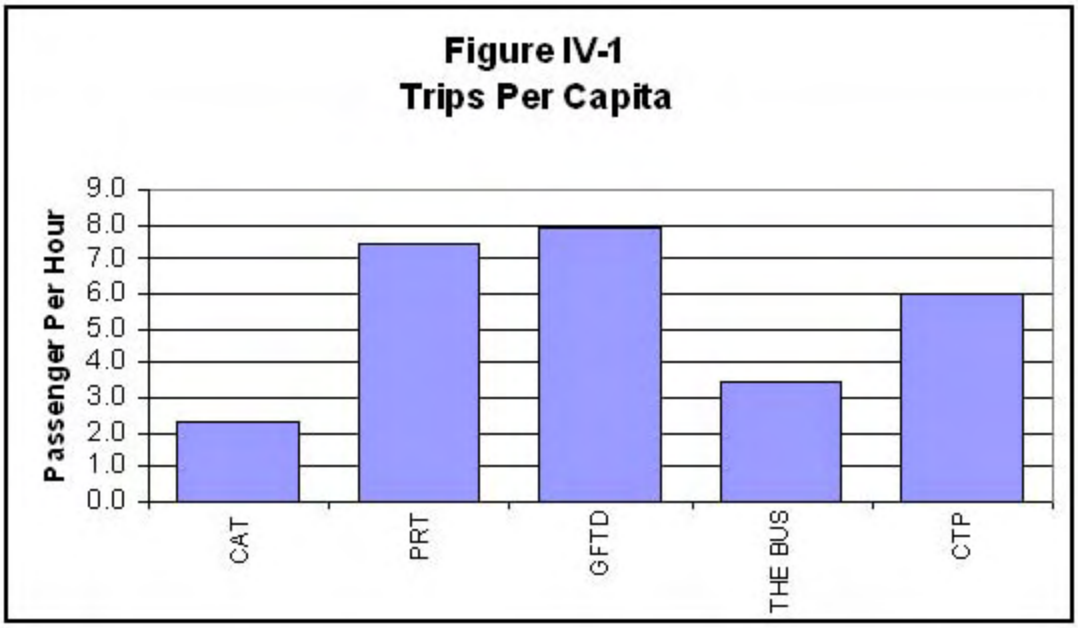


Figure IV-2 presents the comparison of annual passenger-trips. The average of the four agencies was 330,747 annual unlinked trips. CTP reported 237,754 annual trips, ranking in the lower half of the group.

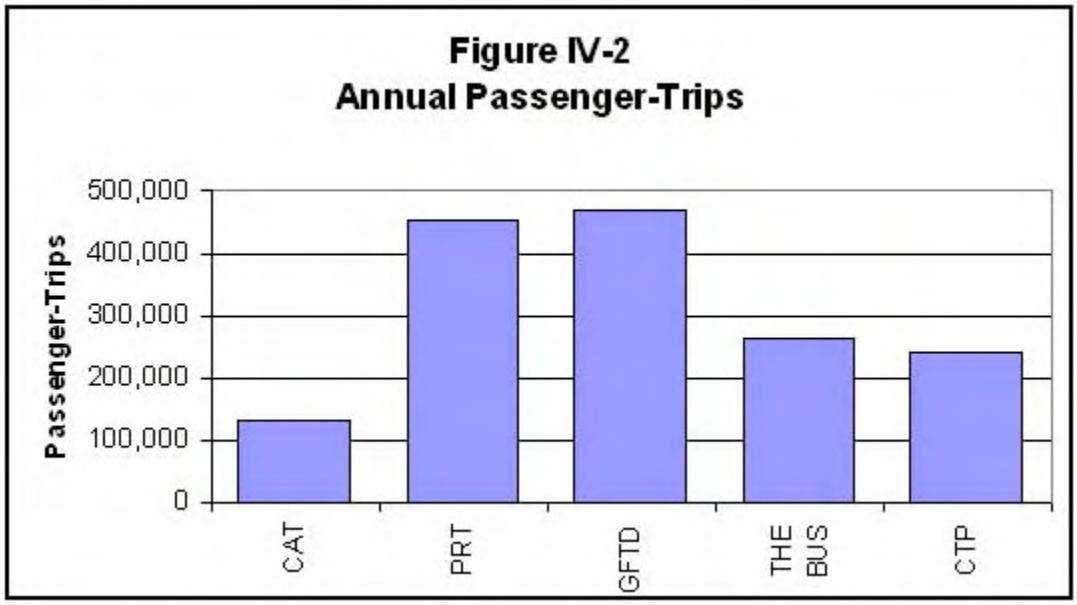
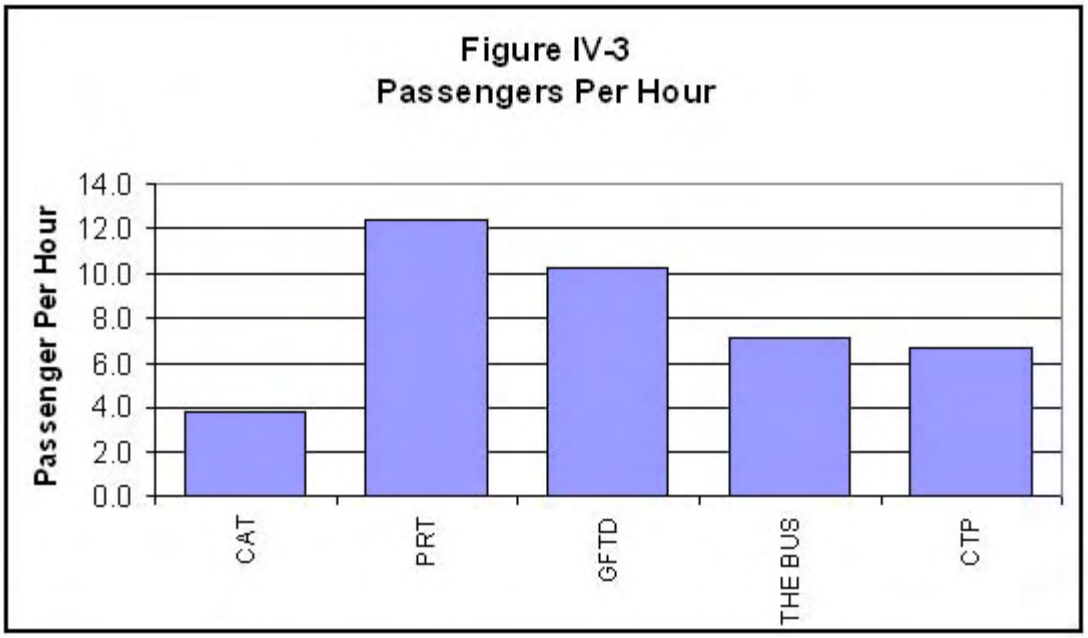
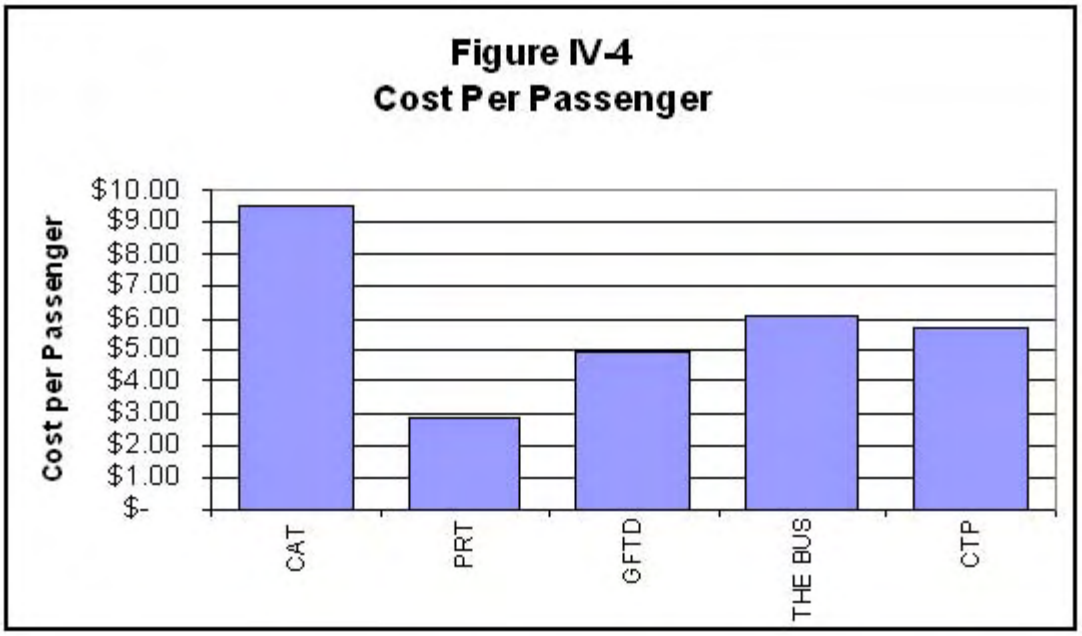


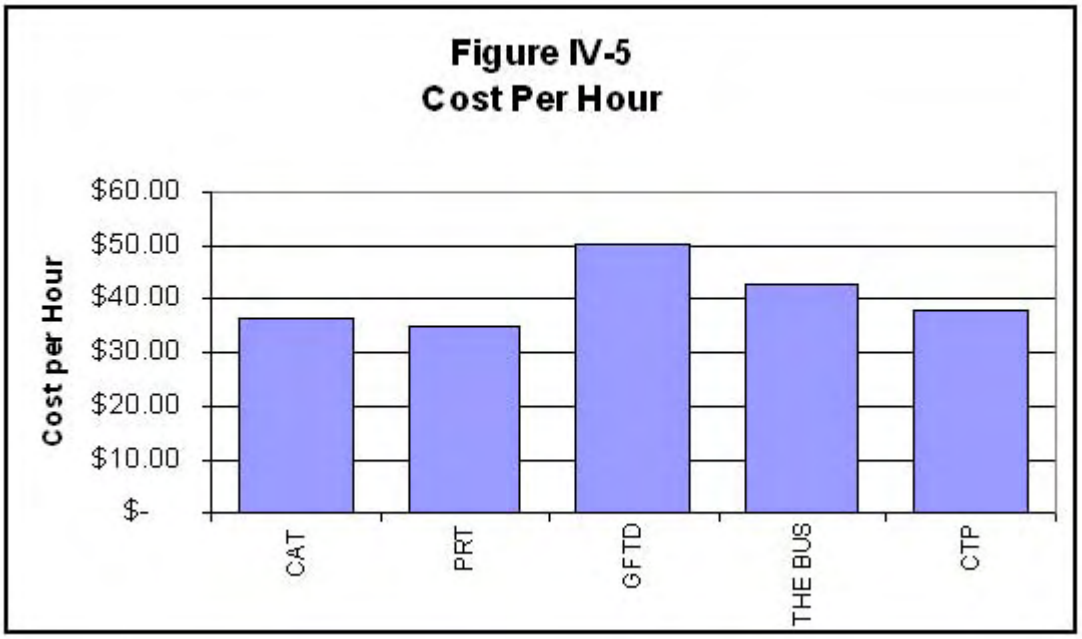
Figure IV-3 presents the passengers per hour. Passenger-trips per hour were calculated for each of the four peer agencies with the average coming to 8.6 passengers per hour. This average is higher than CTP's productivity, which is 6.7 passengers per hour. CTP ranked in the lower tier of the group with passengers per hour.



As shown in Figure IV-4, the average cost per passenger among peers was $4.88 which was lower than the CTP cost per passenger of $5.68.



The average cost per hour among the peers was $41.78 which was higher than the CTP cost per hour of $37.92, as shown in Figure IV-5. Two agencies had lower cost per hour than CTP.



The operating budget was also reported by each agency and averaged $1.6 million among the four peer agencies. The CTP operating budget was reported at $1.3 million for fiscal year 2006-2007.

On the whole, CTP seems to be below average when compared to peer community effectiveness data such as passengers per hour, annual ridership, and trips per capita. However, some of CTP's efficiency data such as cost per hour and cost per mile are excellent and provide strong indicators that CTP operates in a very efficient manner, although the cost per passenger needs to improve.

A key goal in any transit operation should be to operate the service in an effective and efficient manner. The City of Cheyenne Transit Program is halfway there with strong efficiency indicators.

Structure

Chapter V

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER V

Onboard Survey Results

INTRODUCTION

This chapter provides the analysis of data collected through onboard surveys. Information is provided about passenger demographics, trip characteristics, and perceptions of the quality of service. This survey was conducted on August 30, 2007 between the hours of 6:00 a.m. and 6:00 p.m. The data show a comparison of onboard surveys conducted in February 2001 before Cheyenne Transit Program (CTP) changed the structure of its routes. Comparisons between the two onboard surveys were made wherever possible to identify trends or changes in demographics, perceptions, and travel patterns. During the survey the LSC team conducted a boarding/alighting count and a running time analysis. The results are presented in the second portion of this chapter.

METHODOLOGY

The survey instrument was developed to collect information essential for the evaluation of current services. The CTP survey was designed to include transit trip characteristics, trip purposes, socioeconomic data, and attitudes toward Cheyenne Transit Program. A draft survey instrument was prepared and submitted to CTP for review and comment. The survey was printed in English on 8½" x 11" card stock. The survey instrument is included in Appendix B.

SURVEY PREPARATION AND TRAINING

Much preparation was required before the survey effort began. The LSC Team developed an instruction sheet for the survey workers. There were two survey workers on each bus. One worker distributed and collected the surveys while the second worker counted the passengers getting on and off at each bus stop and flag stop, and also recorded the arrival and departure time at each bus stop. Labeled envelopes were prepared for each individual run, stating the route and beginning time. Survey worker schedules were developed based on the system schedule. The

LSC Team employed temporary workers from Kelly Services, a temporary staffing service. Training of the employees for the onboard surveys was conducted at the CTP office prior to the data collection. Survey workers were trained to conduct the onboard survey by the LSC Team. Workers were instructed on the proper procedures for administering the survey and recording of information and were led in role-playing exercises to familiarize themselves with the process. The LSC Team assisted both workers to the correct route and bus and introduced each worker to the bus driver.

SURVEY FINDINGS

Responses from the usable questionnaires were entered into a database and an analysis was performed in a spreadsheet program. In addition to the individual responses, route and time were included for each response. The responses are summarized in the following sections. Actual survey responses are included in Appendix C.

A total of 735 passengers were counted boarding the bus on August 30, 2007 from 6:00 a.m. to 6:00 p.m., compared to the total passengers of 838 boarding all routes and trips. There were approximately 402 usable responses of the 735 boardings with a survey response rate of approximately 55 percent. The rate is calculated based upon the number of patrons boarding the bus compared with those who filled out a survey.

Figure V-1 presents the total number of responses for each individual route of CTP. The South Route (Red) had the highest number of responses with 25 percent, followed by the Northwest Route (Yellow) with 24 percent of the total responses. The lowest response rate was on the Downtown Route (Purple) with eight percent of the total responses. Table V-1 shows the response rate by route.

Figure V-1
Onboard Responses by Route

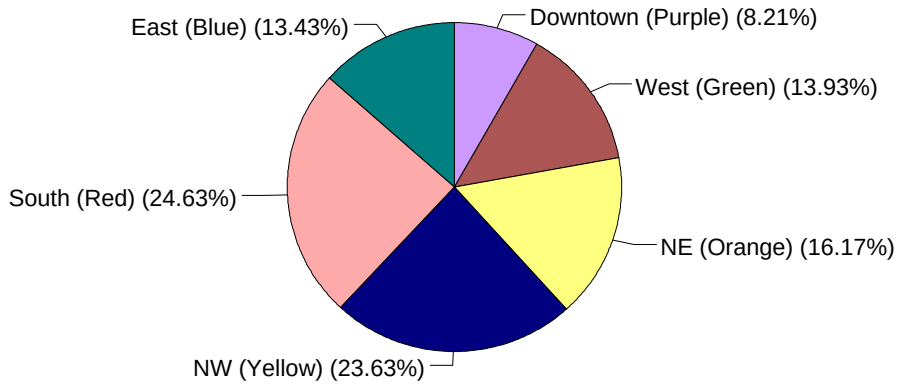


Table V-1
Response Rate by Route

Route	Total # of Boardings	# of Surveys Received	Response Rate by Route
NW (Yellow)	153	95	62%
NE (Orange)	110	65	59%
South (Red)	172	99	58%
East (Blue)	96	54	56%
West (Green)	102	56	55%
Downtown (Purple)	102	33	32%

Source: CTP Onboard Survey, 2007.

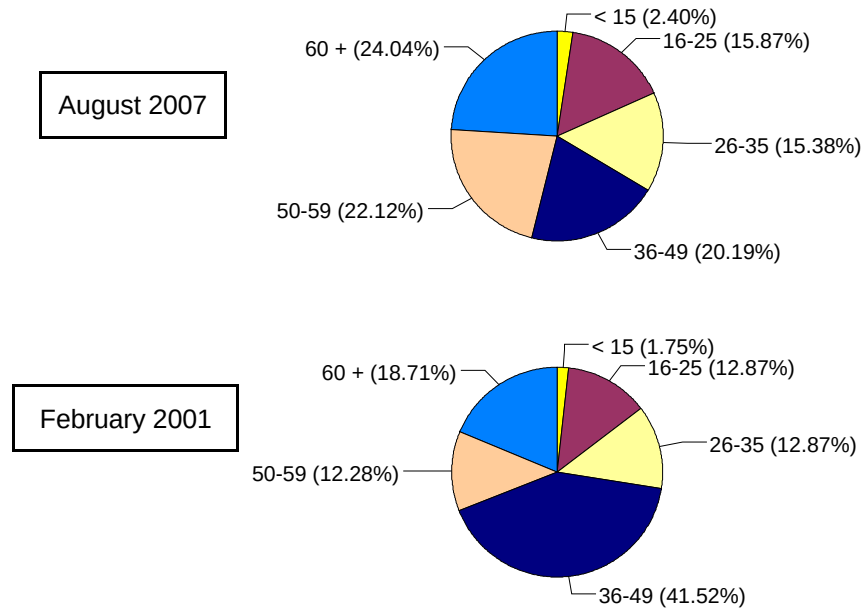
Demographic Characteristics

There were a number of questions asked to determine demographic characteristics of transit riders on Cheyenne Transit. Respondents were asked to complete information on every trip which they took regarding the characteristics of the trip. The demographic information is summarized from *unduplicated* individuals responding to the questions. For the August 2007 survey, there were 259 unduplicated individual responses. This sample provides an error range of +/- 5.06 percent at the 95 percent confidence level. For the February 2001 survey, there were 160 unduplicated individual responses. This sample provides an error range of +/-7.5 percent for demographic data.

Age and Gender

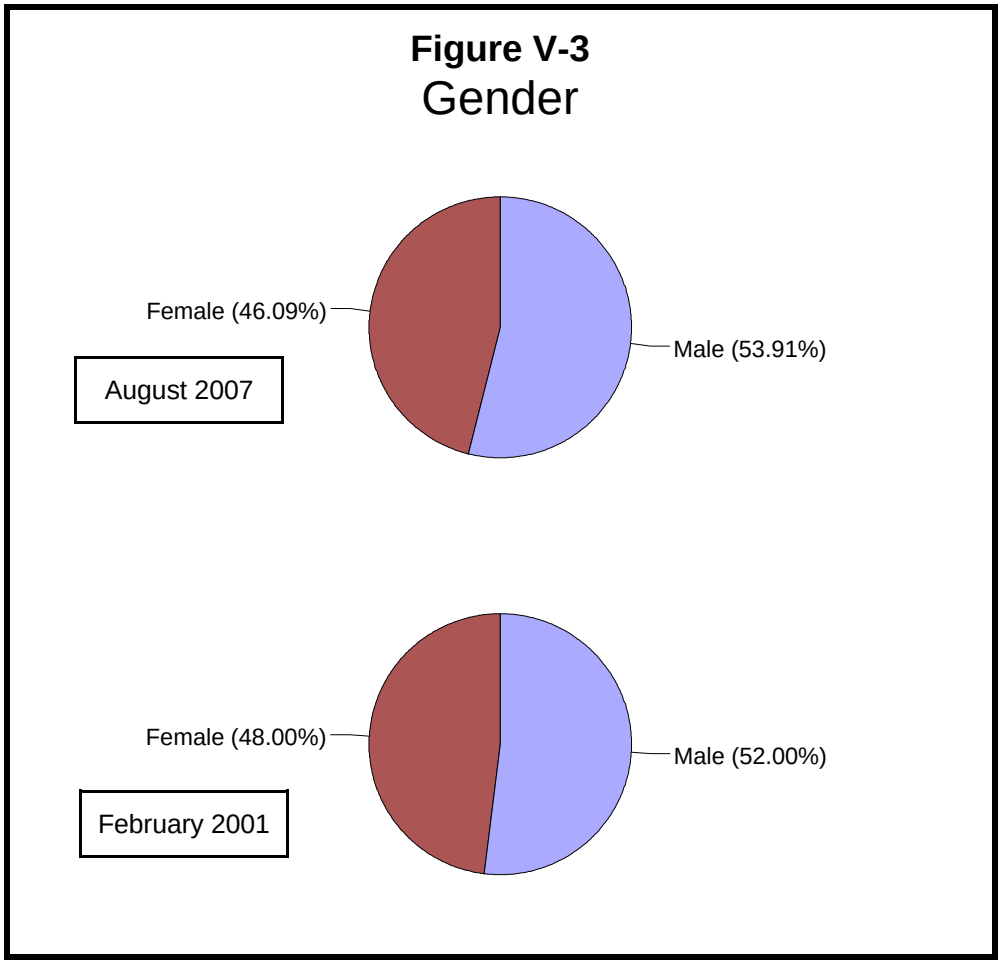
The average age of the respondents in August 2007 was 46 years, ranging from 12 to 92 years. Age 50 was the most frequent age of the respondents. The passenger age group cohorts are shown in Figure V-2. As can be seen in this figure, approximately 24 percent of the passengers are seniors (60+) and another two percent are youth (15 years and younger). The largest age group is the 60 years and older (24 percent) followed by the 50-59 age range (22 percent). In the February 2001 survey, 19 percent of the passengers were seniors (60+) and another two percent were youth (15 years and younger). The largest age group represented in February 2001 was the 36 to 49 range (42 percent). In the recent 2007 survey, the largest represented age group shifted to the 50 years and older age range.

Figure V-2
Age Distribution



In the August 2007 survey, 54 percent of the respondents were male and 46 per cent were female. The gender split of respondents is shown in Figure V-3. These percentages follow the same trend observed in the February 2001 survey with the majority of patrons being male (52 percent).

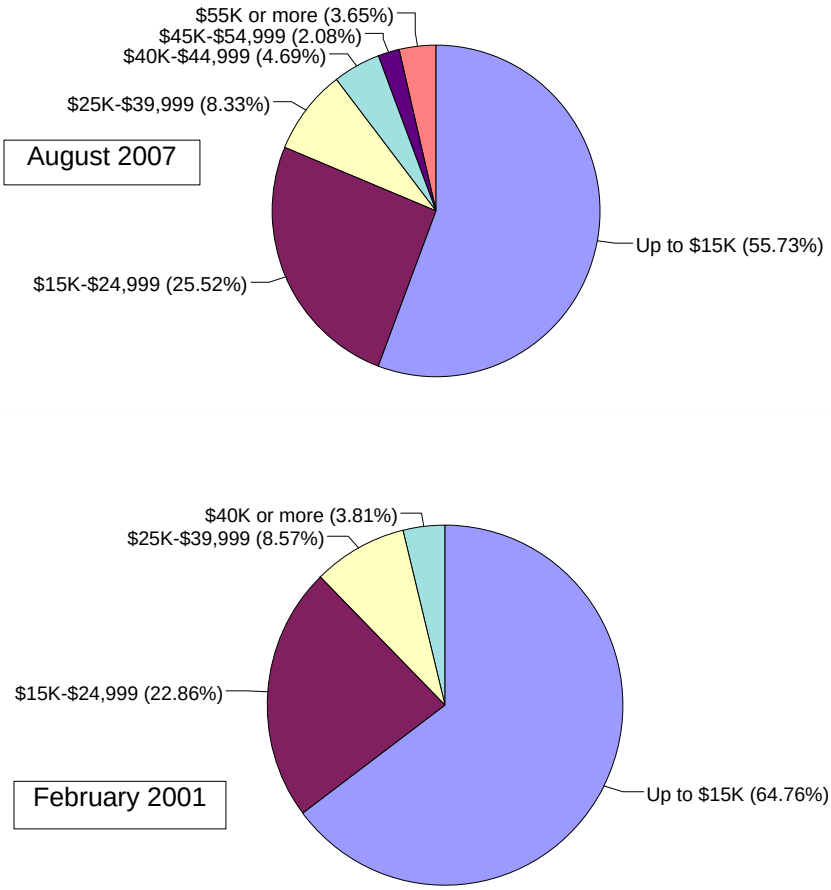
Figure V-3
Gender



Income

Income plays an important role in determining transit ridership and transit needs in Cheyenne. The household income of respondents from both the August 2007 and February 2001 surveys are shown in Figure V-4. There is a slight variation in the way the annual household income group ranges over $40,000 were designed in the two survey years, but a comparison can be made concerning income in the two years.

Figure V-4
Annual Household Income



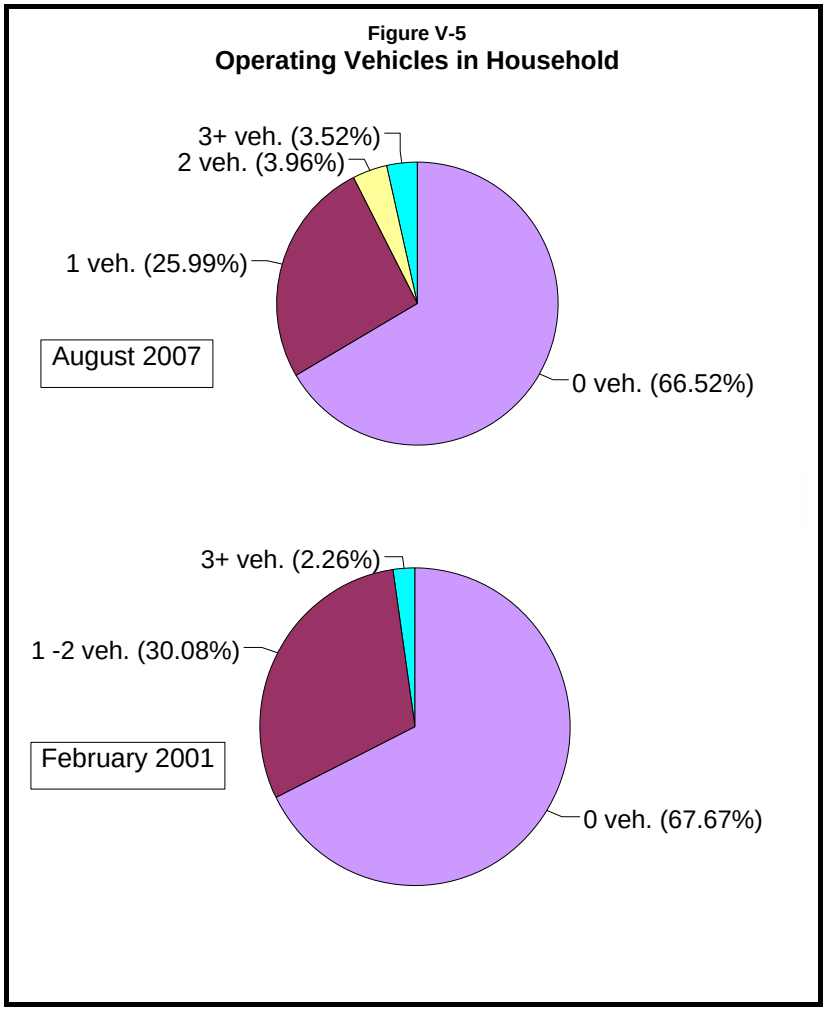
In 2007, 56 percent of the patrons reported having incomes of less than $15,000 annually, with another 26 percent having incomes of $15,000 to $25,000. In the February 2001 survey, 65 percent had incomes of less than $15,000 annually, with another 23 percent having incomes of $15,000 to $25,000. Of those who reported incomes of less than $25,000 annually, there is an decrease (of approximately six percent) in the percentage of responses from 2001 to 2007. In 2007, 10 percent reported having incomes of greater than $40,000 annually, while in 2001 this percentage of respondents was four percent of the total.

Vehicle Ownership and Licensed Driver

Vehicle ownership for households and the ability to drive play key roles in the demand for public transportation. Lack of a private vehicle or the inability to drive influence people to use public transportation. This comparison provides an indication of the number of *choice riders* compared to those who are transit-dependent.

Figure V-5 shows the proportion of passengers with operating vehicles available in their household. There is a slight variation in the two survey years in the way the number of operating vehicles were grouped in each household. In the 2007 survey, single-vehicle household and two-vehicle household were provided as separate options whereas in the 2001 survey, these two options were grouped as one. As illustrated, the greatest portion of passengers in 2007 (67 percent) live in households with no vehicles as shown in Figure V-5. Another 30 percent reported having one or two vehicles per household. This percentage was consistent with the February 2001 survey respondents with 68 percent who lived in households with no vehicles, and 30 percent reporting owning one to two vehicles in the household.

Figure V-5
Operating Vehicles in Household

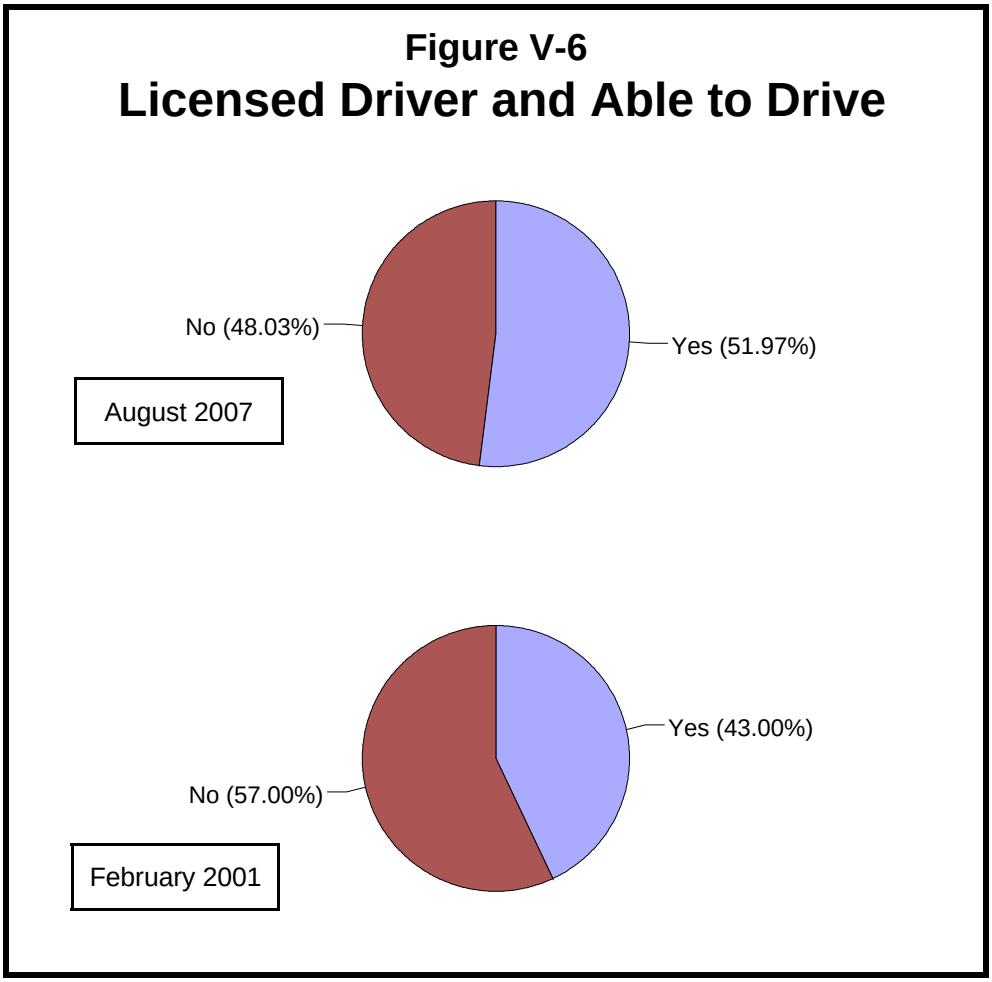


In 2007, 52 percent of the passengers have a driver's license or are able to drive, as shown in Figure V-6. This is a nine percent increase compared to 2001, as 43 percent of the passengers then reported they had a driver's license or were able to drive.

Passenger were also asked if they had a vehicle available to use on that particular trip they were making instead of taking the bus. Eighty-seven percent of respondents indicated that they did not have a vehicle available for that trip, indicating the percentage of transit-dependent riders. This percentage of transit-dependent riders was higher (approximately six percent) in 2001 with 93 percent of respondents indicating that they did not have a vehicle available to make that particular trip, although this is not statistically significant.

Figure V-6

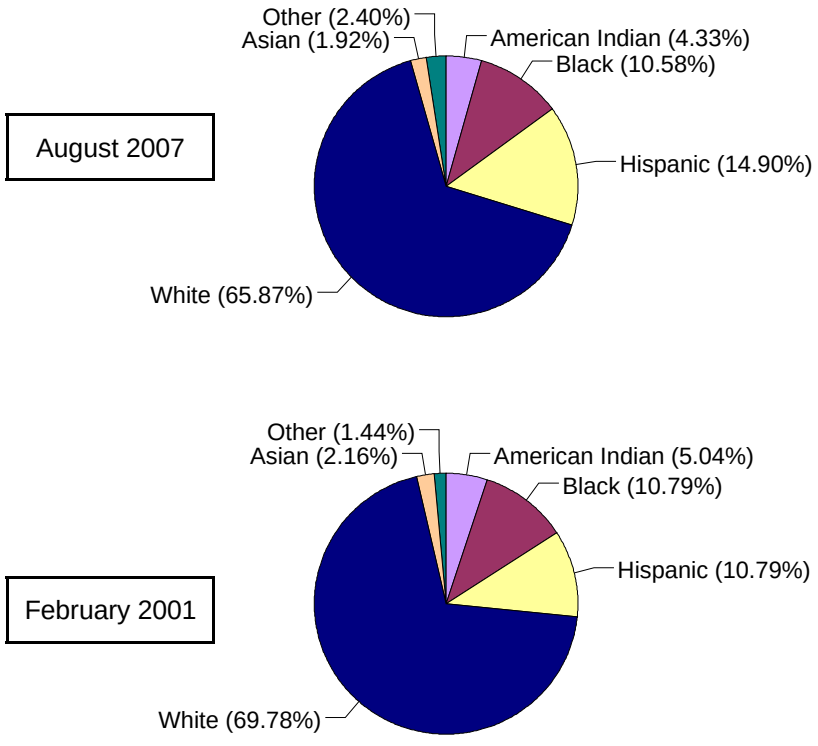
Licensed Driver and Able to Drive



Ethnicity

Ethnicity is shown in Figure V-7. Whites made up about 66 percent of the passengers, and Hispanics were about 15 percent. Approximately 11 percent of the respondents indicated being Black. The remaining nine percent reported being American Indian, Asian, or other ethnic groups. These results are consistent with the February 2001 survey with 70 percent Whites, followed by 11 percent each of Blacks and Hispanic passengers. Similarly, nine percent reported belonging to American Indian, Asian, or other ethnic groups.

Figure V-7
Ethnic Background

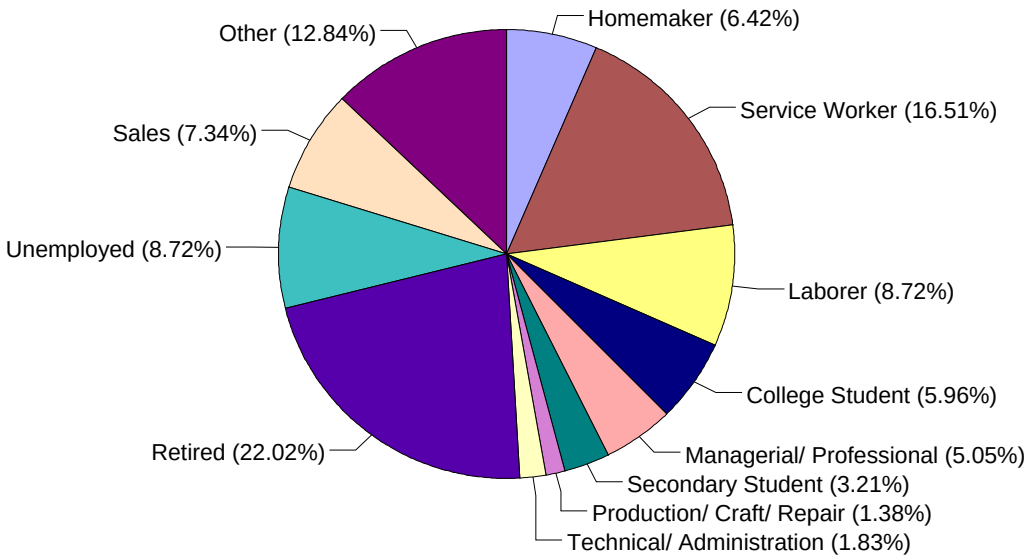


Occupation

Passengers were asked to indicate their occupation using several industry categories. Results are shown in Figure V-8. Passengers represent a broad spectrum of occupations. The highest responses were from those who reported occupations

such as "Retired" (22 percent) followed by "Service Worker" (17 percent). The next highest responses were those who indicated "Other" (13 percent) as their occupation as they did not fall into one of the predefined categories. Nine percent reported being unemployed. Students made up approximately nine percent of the respondents (six percent college students and three percent secondary students).

Figure V-8
Occupation



Source of Information

Passengers were asked to indicate how they get information about Cheyenne Transit Program. The responses are shown in Table V-2. Please note that because of multiple responses from a respondent, the percentage does not sum to 100.The primary sources of information are bus guides, told by someone, schedules, information from the downtown terminal, and information from the driver. Internet and shopping center/store were identified by far fewer respondents as the way they receive information about Cheyenne Transit Program.

Table V-2
2007 Source of Information

Source of Information	Responses	Percent of Responses
Bus Guide	86	21%
Someone told me	61	15%
Schedules	49	12%
Transfer station	41	10%
From the Driver	37	9%
Bus stop sign/bench/shelter/carousel	26	6%
Newspaper/magazine	17	4%
Other	14	3%
Internet	11	3%
Shopping center/store	8	2%

Source: CTP Onboard Survey, 2007.

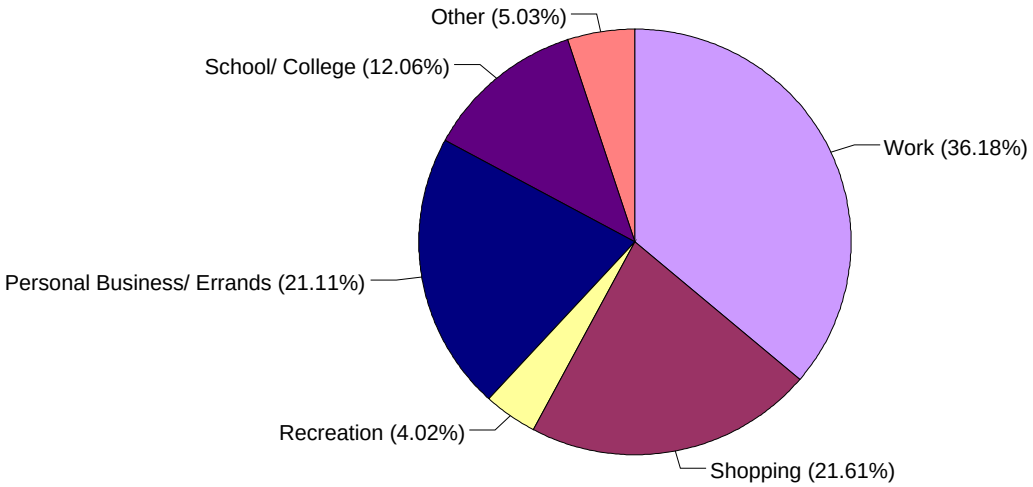
Trip Characteristics

The survey asked passengers to provide information about the individual trip they were making on Cheyenne Transit. Passengers were asked to provide this information each time they boarded a bus.

Trip Purpose

Passengers were asked the one purpose they most often rode the bus. Trip purposes are shown in Figure V-9. The most common trip purpose (42 percent) was to go to and from work. The second most common (20 percent) purpose was for shopping, followed closely by personal business or errands (19 percent). Recreational and other trips were ranked very low by respondents. In general, it shows that approximately 62 percent (work and shopping trips) of the trips taken by passengers were for an economic activity.

Figure V-9
Common Trip Purpose

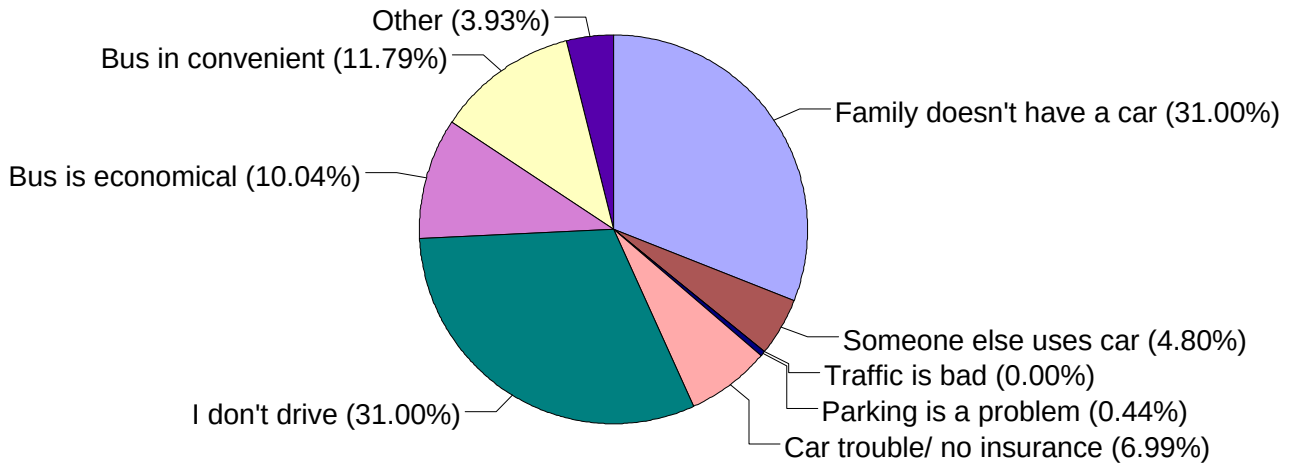


Reason for Riding

Passengers were asked the most important reason they ride the bus. As shown in Figure V-10, the top reasons for riding the bus are passengers who do not drive and passengers whose family does not have a car (31 percent each). Twenty-two percent of respondents reported that the bus was an economical or convenient way to travel.

Figure V-10

Most Important Reason You Ride the Bus



Transfer Analysis

Passengers were asked to indicate the bus route that they were transferring to or transferring from so that transfer patterns might be assessed. Table V-3 shows the transfer pattern matrix of Cheyenne Transit patrons transferring to or from each bus route. As shown in the table, the primary transfer was between South Route and Northwest Route, Northwest Route and West Route, and South and West Routes. The transfer matrix will help Cheyenne Transit modify existing bus routes or identify direct bus routes, if needed. This will also be useful in estimating the approximate number of passengers impacted in case of changes.

Table V-3
Transfer Pattern Matrix

Route Traveling On	Transferring From/To Bus Route					
	D	NE	NW	W	E	S
Downtown (D)		3		1	1	1
Northeast (NE)	1			3	3	1
Northwest (NW)	1	1		6	2	8
West (W)	2	3	1		1	4
East (E)		1	2	2		3
South (S)	4	2	8	6	5	

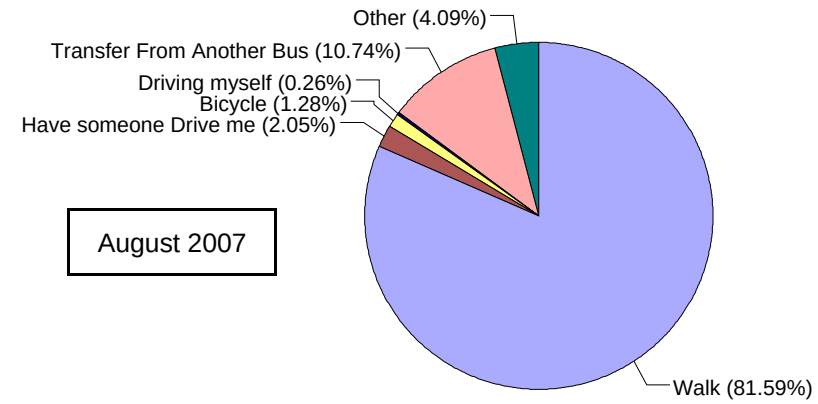
Source: CTP Onboard Survey, 2007.

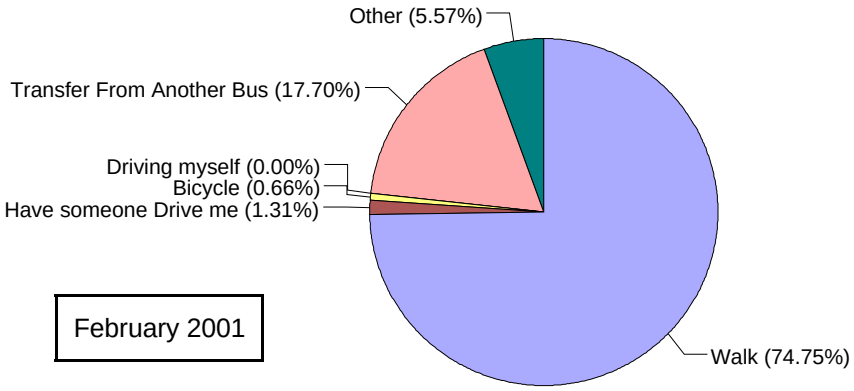
Coming From and Going To

Several questions were asked of each respondent about where they were coming from and going to, as well as how they will both get to the bus and reach their final destination (i.e.; transfer, walk, bike). As shown in Figure V-11, the majority of the patrons reached the bus by walking (82 percent). Eleven percent transferred from another bus, and two percent had someone drive them to the bus. In the February 2001 survey, the majority of the patrons also reached the bus by walking (75 percent). Eighteen percent transferred from another bus (which was a seven percent decrease from 2001) and one percent drove themselves. This shows that in the 2007 survey, although the percentage of patrons who walked to get to the bus increased (by approximately seven percent) and the percentage of patrons who

transferred from another bus decreased (by approximately seven percent), it was not statistically significant.

Figure V-11
Mode To The Bus

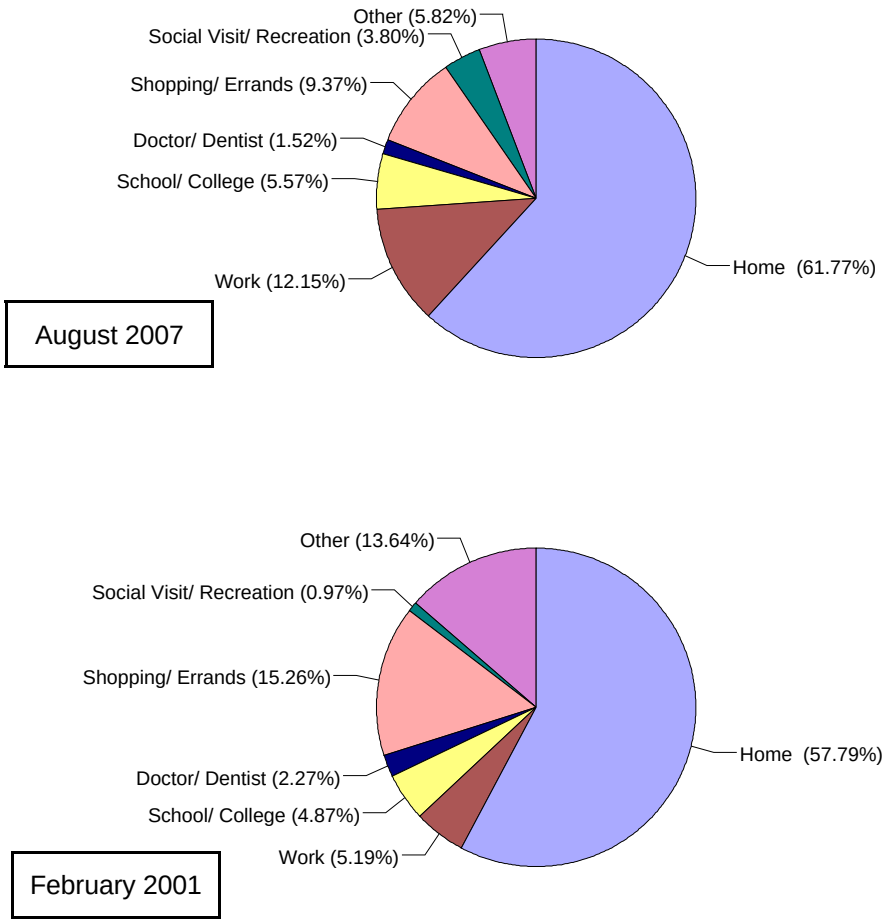




As shown in Figure V-12, sixty-two percent responded that they came from home prior to reaching the bus. Twelve percent reported they came from work, while nine percent reported that they came from shopping/errands prior to boarding the bus. In February 2001, 58 percent responded that they came from home before

boarding the bus, followed by 15 percent that came from shopping/errands prior to boarding the bus. Five percent of respondents from the 2001 survey reported that they came from work prior to reaching the bus. This shows that in the 2007 survey, the percentage of patrons who came from home increased (by approximately four percent), and the percentage of respondents who came from work increased (by approximately seven percent), which are not statistically significant.

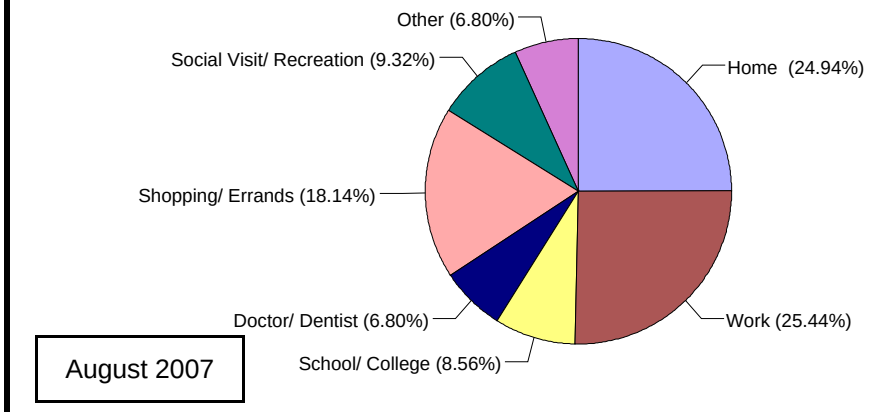
Figure V-12
Where Did You Come From?

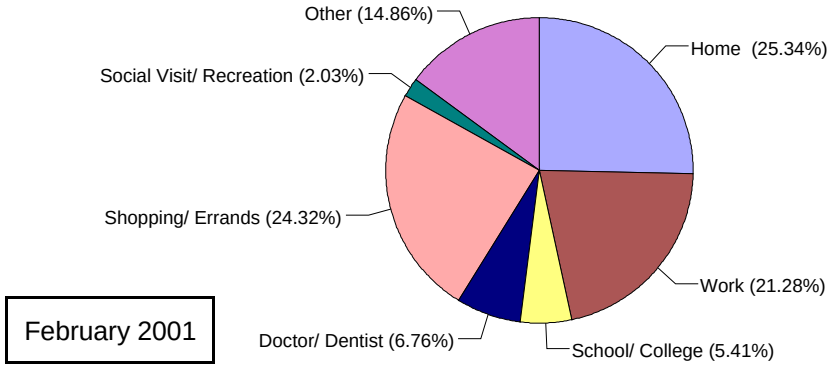


Determining a patron's final destination is helpful in developing service operating characteristics. Figure V-13 provides the responses for this question in the 2007 survey. The responses were evenly split between going to work and home (25 percent each). Approximately 18 percent of the responses were from passengers who were going for shopping or errands. These percentages are consistent with the February 2001 survey where 25 percent of the responses reported going home and 21 percent of respondents reported going to work. Approximately 24 percent of the responses were from passengers who were going for shopping or errands.

Figure V-13

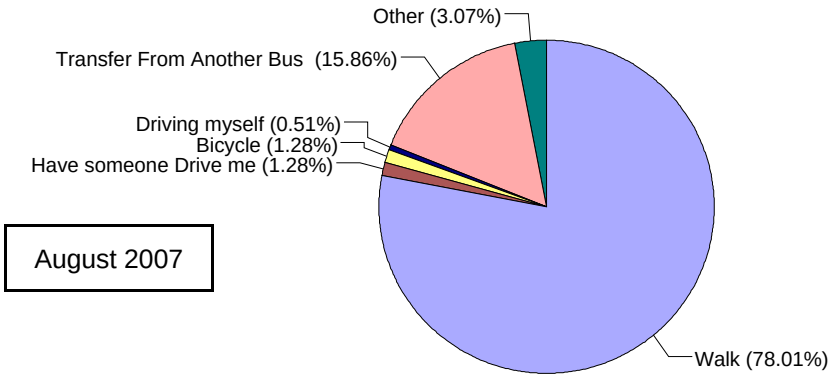
Where Are You Going To Now?

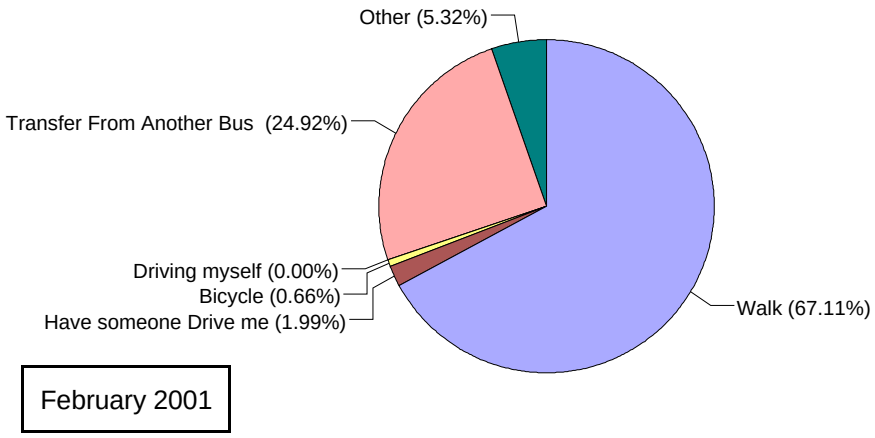




Finally, passengers were asked how they would travel to their final destination—walking, riding a bike, transferring to another bus, or other means. In the recent survey, 78 percent reported that they would walk to their final destination, as shown in Figure V-14. Sixteen percent responded that they would be transferring to another bus to reach their final destination. In February 2001, approximately 67 percent reported that they would walk to their final destination followed by 25 percent who responded that they would be transferring to another bus to reach their final destination. This indicates that more patrons (11 percent) are walking from the bus in 2007 compared to the 2001 survey to get to final destination, but on the other hand, fewer patrons (nine percent) are transferring to another bus to reach their final destination.

Figure V-14
Mode From The Bus





Blocks Willing to Walk to a Bus Stop

Passengers were asked how many blocks they were willing to walk to get to a bus stop. Table V-4 shows how far respondents were willing to walk to a bus stop. The majority of respondents indicated that they were willing to walk two to five blocks to get to a bus stop (approximately 64 percent). The average number of blocks walked by respondents to reach the bus was five blocks.

Table V-4
Number of Blocks Willing to Walk to a Bus Stop

Blocks	Responses	Percent
2	38	18%
4	37	18%
5	36	17%
3	23	11%
10	16	8%
1	15	7%
6	14	7%
0	13	6%
11 blocks +	9	4%
8	5	2%
7	3	1%
20		0%
9	1	0%

Source: CTP Onboard Surveys, 2007.

Temporal Analysis

Several questions were asked of patrons regarding time spent waiting at a bus stop for a bus, as well as the average time spent on a bus for each particular trip they made.

Table V-5 shows the range of bus wait times systemwide. The largest percentage of respondents (84 percent) reported waiting less than five minutes for their bus. Fifteen percent reported waiting between 6 and 15 minutes for the bus. This only indicates how long a patron perceived waiting for their bus at each stop.

Table V-5
Range of Wait Times for Bus

Wait Time	2001	2007		
	% of Responses	# of Responses	% of Responses	
Less than 5 minutes	51%	183	84%	0.137
6 to 15 minutes	35%	33	15%	0.478
More than 15-minute wait	13%	2	1%	0.26

** Note: Not all respondents replied to this question*

Source: CTP Onboard Surveys, 2007.

The table also shows the range of wait time in 2001. The less than five-minute wait time range has significantly increased by approximately 33 percent in 2007 compared to 2001. Simultaneously, the more than 15-minute wait time range has

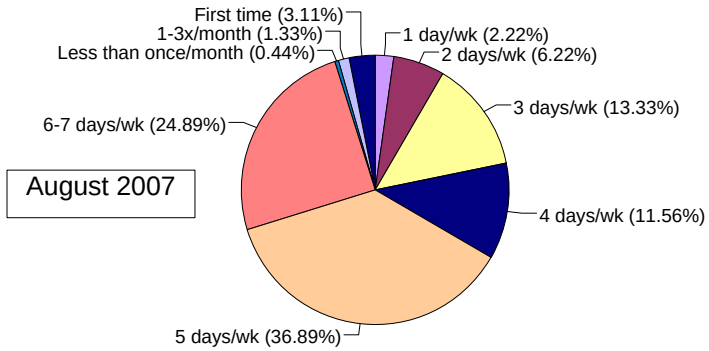
decreased by approximately 12 percent, a statistically significant difference from the 2001 survey.

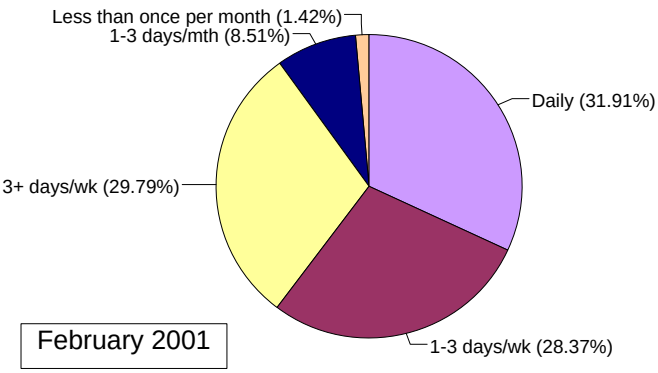
Patrons were also asked the average amount of time spent on a bus for each particular trip they made. The average time spent on a bus by passengers was 31 minutes per trip.

Ridership Frequency

Passengers were asked how often they ride the bus during the typical week. There was a slight variation in the way the options to this question were asked in the two survey years, but a comparison between the two years can be made. Figure V-15 shows that approximately 73 percent of the passengers reported using Cheyenne Transit's service daily or more than three times per week. This percentage is slightly lower in the 2001 survey where 60 percent of the respondents reported using the service more than three days per week. This indicates that there is a 13 percent increase in regular riders (who ride the bus three or more days per week) in 2007 compared to the 2001 survey.

Figure V-15
Frequency of Riding

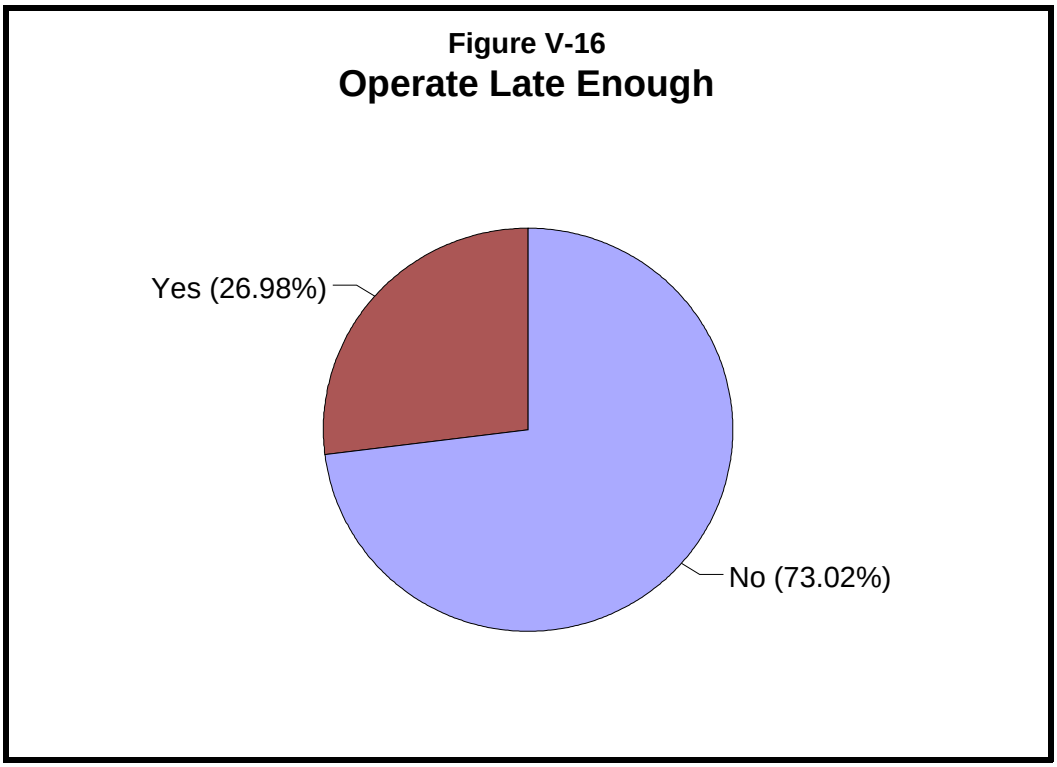




Operate Late Enough

Passengers were asked whether the existing services operated late enough. This question was added to the questionnaire this year. Figure V-16 shows the results. Approximately 73 percent of these respondents said that they thought the CTP service did not operate late enough whereas the other 27 percent thought the service did operate late enough.

Figure V-16
Operate Late Enough



Perceptions about Cheyenne Transit

Passengers were asked to rate the quality of service provided by Cheyenne Transit. The responses were excellent, good, fair, and poor. The 2007 responses along with their weighted average ratings from the 2001 and 2007 surveys are shown in Table V-6. Overall, the users of CTP rate the system as good to excellent. Attributes scoring the highest ratings include driver courtesy (3.53), fares (3.47), transfer station (3.44), safety (3.40), overall service quality (3.37), and cleanliness (3.35). At the opposite end, the lowest scores were identified as comfort (3.06), service frequency (3.16), condition of buses (3.18), and area served (3.19). Condition of

buses, transfer station and website could not be compared with the 2007 survey as they were not asked in the 2001 survey.

Using the scale for rating attributes, anything with a rating of 2.50 or higher would be considered a positive rating. There are no attributes which fall below this rating. The lowest rated attribute was comfort (3.06). All ratings are within a narrow range and indicate an overall positive opinion of the Cheyenne Transit Program. In general, when the ratings of the two survey years are compared, the ratings for convenience, cleanliness, and fares have improved in 2007 compared to the 2001 survey.

Table V-6
Rating of Cheyenne Transit Program

	2007 Survey				Average 2007 Score	Average 2001 Score
	Excellent	Good	Fair	Poor		
Cleanliness	46%	44%	9%	1%	3.35	3.24
Comfort	33%	46%	16%	6%	3.06	3.24
Service Frequency	40%	39%	17%	4%	3.16	3.23
Condition of Buses	37%	46%	15%	2%	3.18	n/a
Transfer Connections	46%	42%	8%	4%	3.31	3.45
Schedule Readability	44%	46%	9%	2%	3.31	3.34
Driver Courtesy	60%	33%	6%	1%	3.53	3.64
Area Served	40%	43%	13%	4%	3.19	3.3
Safety	49%	44%	6%	1%	3.40	3.61
Convenience	47%	37%	14%	1%	3.31	3.24
Fares	56%	37%	7%	0%	3.47	3.39
On-Time Performance	47%	42%	11%	0%	3.34	3.43
Transfer Station	51%	42%	5%	1%	3.44	n/a
Website	44%	39%	15%	3%	3.23	n/a
Overall Service Quality	48%	43%	7%	2%	3.37	3.46

Note: n/a = not available as it was not asked in that survey year
Note: Weighted Averages by response. Poor= 1, Fair=2, Good=3, Excellent= 4
Source: Cheyenne Transit Onboard Survey, 2001 and 2007.

Additional Comments

Passengers were given the opportunity to include additional comments regarding Cheyenne Transit service. The actual comments are included in Appendix D. Many of the comments were very positive about the service. The major comments relate to extending weekend service and evening service until 8:00 p.m. or 10:00 p.m. One comment indicated having set bus stops instead of the frequent flag stops.

Other comments relating to expansion of services were to have buses for the late evening classes at Laramie County Community College (LCCC) and service to Orchard Valley which would serve the new houses and apartments.

CURB-TO-CURB SERVICE

This section provides the analysis of data collected through onboard surveys on the Cheyenne curb-to-curb service. Information is provided about passenger demographics, trip characteristics, and perceptions of the quality of service. This was done in conjunction with the fixed-route onboard survey on August 30, 2007. A survey worker handed out questionnaires to curb-to-curb passengers and assisted them in completing the questionnaire, if necessary. Nineteen responses were received from these passengers.

Survey Findings

Responses from the questionnaires were again entered into a survey program for analysis. The responses are summarized in the following sections. The survey questionnaire and responses are included in Appendix E. These surveys were analyzed from a more qualitative perspective because of the low number of surveys received.

Demographic Characteristics

There were a number of questions asked to determine demographic characteristics of curb-to-curb riders on Cheyenne Transit. Respondents were asked to complete information on every trip which they took regarding the characteristics of the trip. Demographic information was summarized from unduplicated responses.

Age and Gender

The average age of respondents in the curb-to-curb survey was 62 years. This is quite a bit higher than the average age of 46 years found in the fixed-route survey done at the same time. In the curb-to-curb survey, 68 percent of respondents were female (13 responses) and the remaining 32 percent were male (six responses). Figures V-17 and V-18 illustrate the age and gender breakdown.

Figure V-17
Age

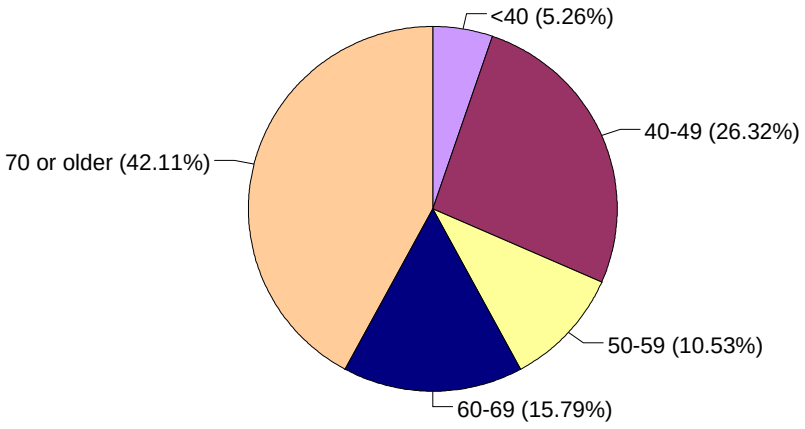
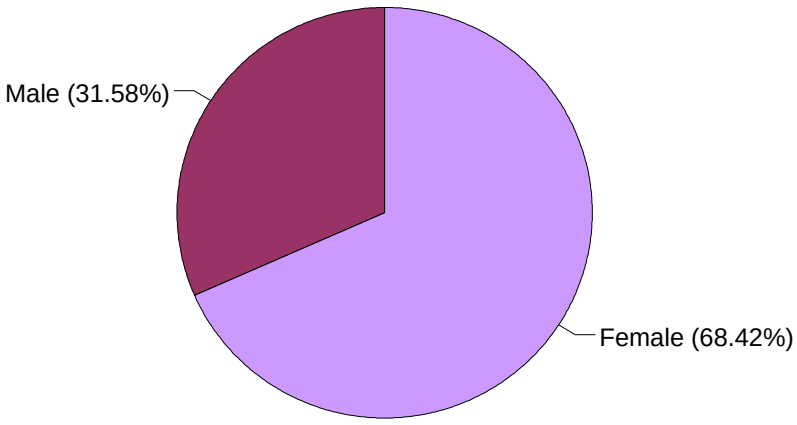


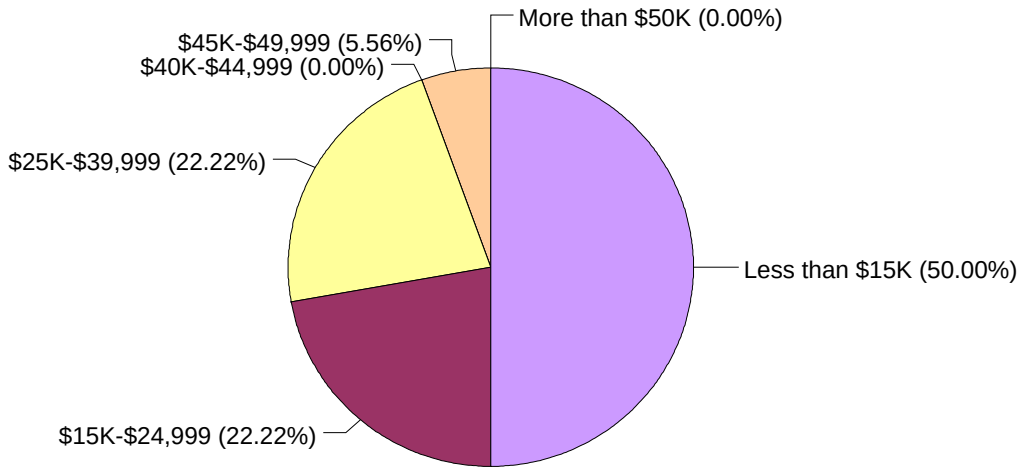
Figure V-18
Gender



Income

Income plays an important role in determining transit ridership and transit needs in Cheyenne. As illustrated in Figure V-19, approximately 50 percent (nine responses) of the curb-to curb service respondents earned less than $15,000. Only one respondent had an annual income above $40,000.

Figure V-19
Annual Income



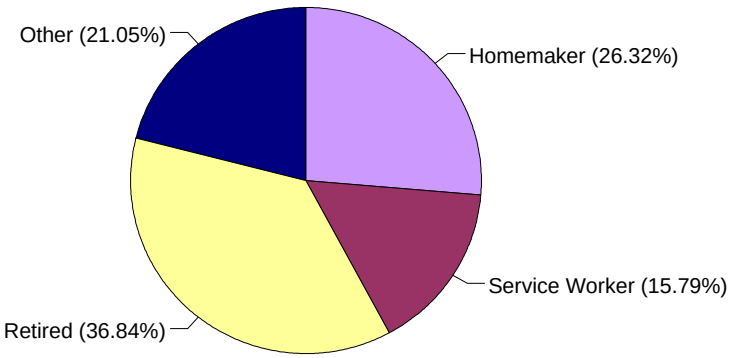
Ability to Drive

The majority (74 percent) of respondents did not have a driver's license and were unable to drive themselves. Passengers were asked if they had a vehicle available to be used for the trip instead of taking the bus. As much as 91 percent had no vehicle that could be used for the trip.

Occupation

Curb-to-curb passengers were asked to indicate their occupation. As shown in Figure V-20, many passengers (37 percent) indicated that they were retired and no longer working. The second most frequent response fell under the category of "homemaker" (26 percent).

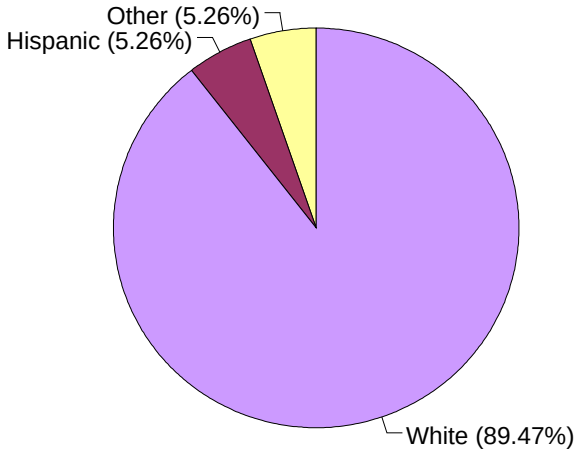
Figure V-20
Occupation



Ethnicity

An overwhelming majority of 89 percent of respondents (17 responses) defined themselves as "White." One response indicated Hispanic ethnicity, and one response indicated Portuguese (under "other"). Figure V-21 illustrates these responses.

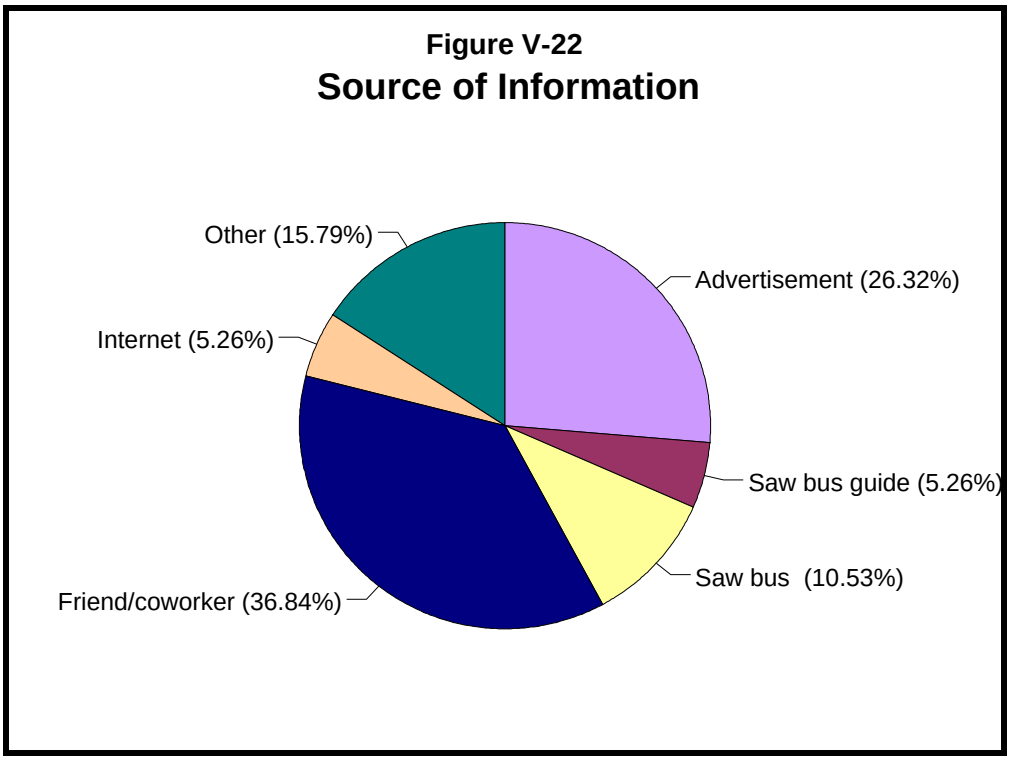
Figure V-21
Ethnicity



Source of Information

Passengers were asked to indicate how they first learned about the Cheyenne curb-to-curb service. The primary source of information was from a friend or a coworker (37 percent). Advertisements were effective for 26 percent of responses. Other sources of information indicated were visibility of the buses, bus guides, and the Internet. Figure V-22 shows these responses.

Figure V-22
Source of Information



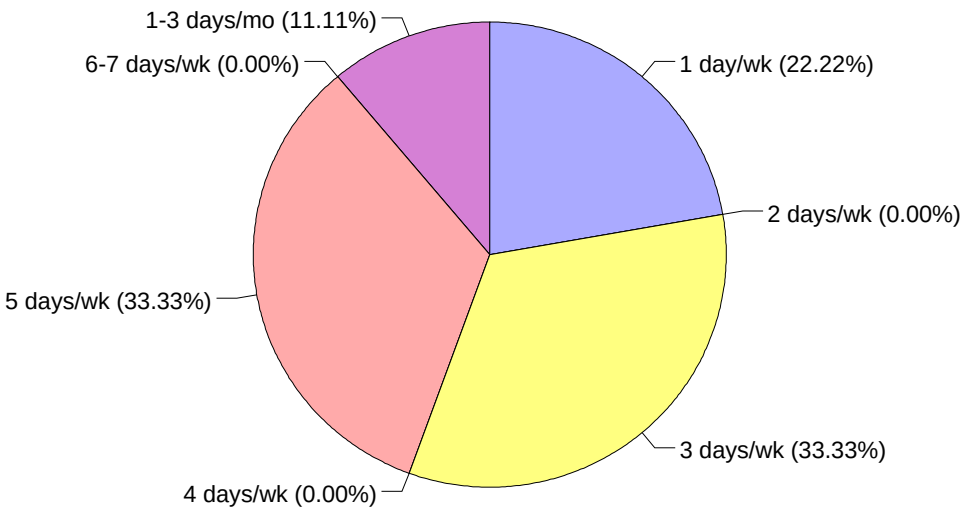
Use of Fixed-Routes

Curb-to-curb riders were asked if they were able to use the fixed-route services to meet any of their transportation needs. The purpose of this question was to find out if the passengers on the curb-to-curb service could use the fixed-route service instead, since the curb-to-curb is an expensive service to operate. Survey results show that 47 percent of curb-to-curb respondents were able to use the fixed-route services.

Those who responded positively to using fixed-route services were then asked how often they used the service. Most respondents indicated that they used the service

three or five days a week. Figure V-23 shows the frequency of use of fixed-routes by curb-to-curb riders.

Figure V-23
Frequency of Fixed-Route Use



Trip Characteristics and Frequency

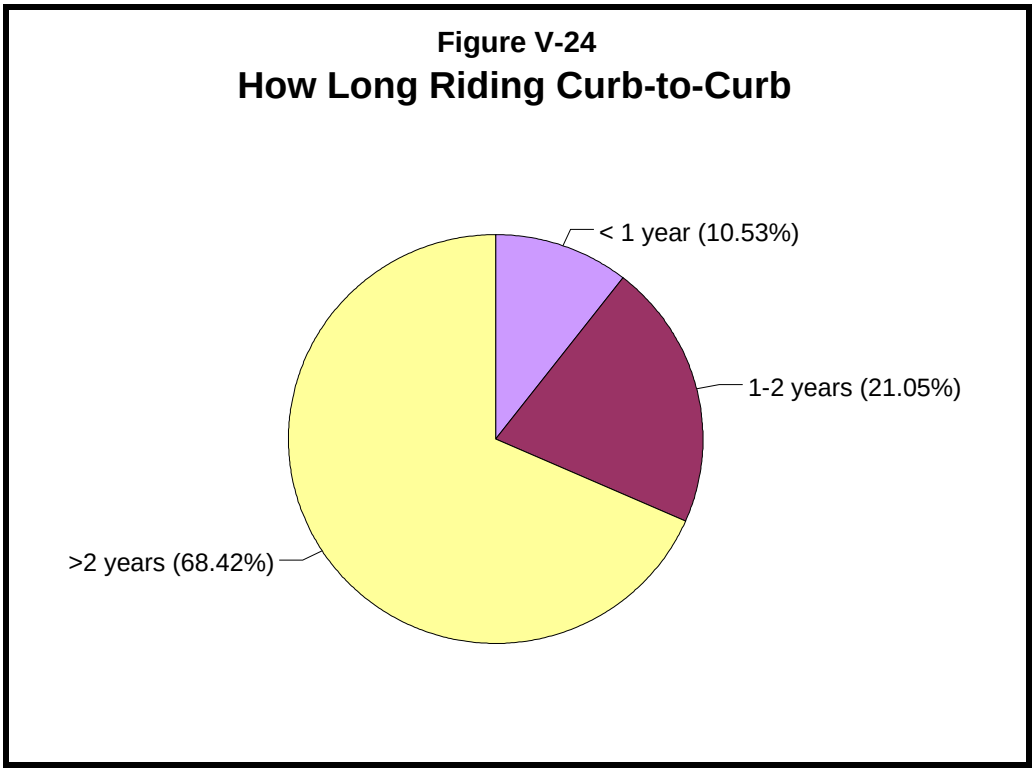
The survey asked passengers to provide information about the individual trip they were making on Cheyenne curb-to-curb service. Passengers were also asked the duration of time they have been riding the curb-to-curb service.

Frequency of Use

Fifty-three percent of respondents (10 responses) reported that they ride curb-to-curb five or more days per week. Thirty-two respondents (six responses) indicated that they ride three or four times a week; 16 percent of respondents (three responses) reported they ride one or two times a week.

Most respondents (68 percent) indicated that they have been riding the curb-to-curb service for over two years. Customers of Cheyenne curb-to-curb service seem to be loyal, since only two respondents had been riding for less than a year. Several riders (21 percent) indicated that they had been riding for approximately one year. Figure V-24 shows the results.

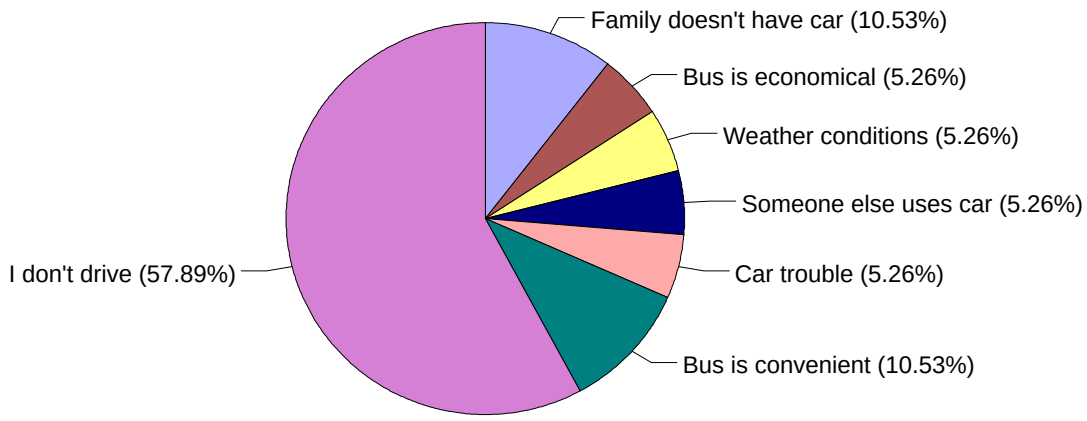
Figure V-24
How Long Riding Curb-to-Curb



Most Important Reason for Riding

Respondents were asked to identify the one most important reason for riding the bus. The most commonly expressed reason was because the respondent does not drive. A few people indicated car trouble or the lack of owning a car as the reason for riding. Figure V-25 illustrates these responses.

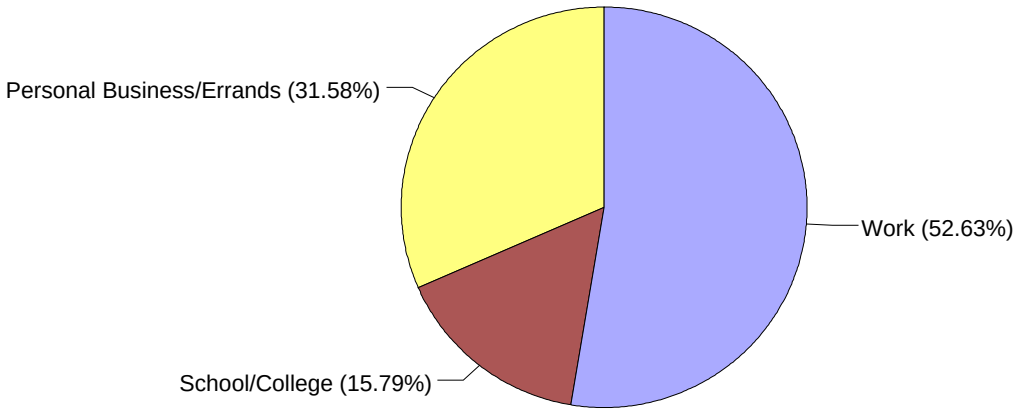
Figure V-25
Most Important Reason for Riding



Most Important Purpose for Riding

The most important purpose for riding the bus was work (53 percent), followed by personal business/errands which received 32 percent of responses. Figure V-26 shows the results.

Figure V-26
Most Important Purpose for Riding

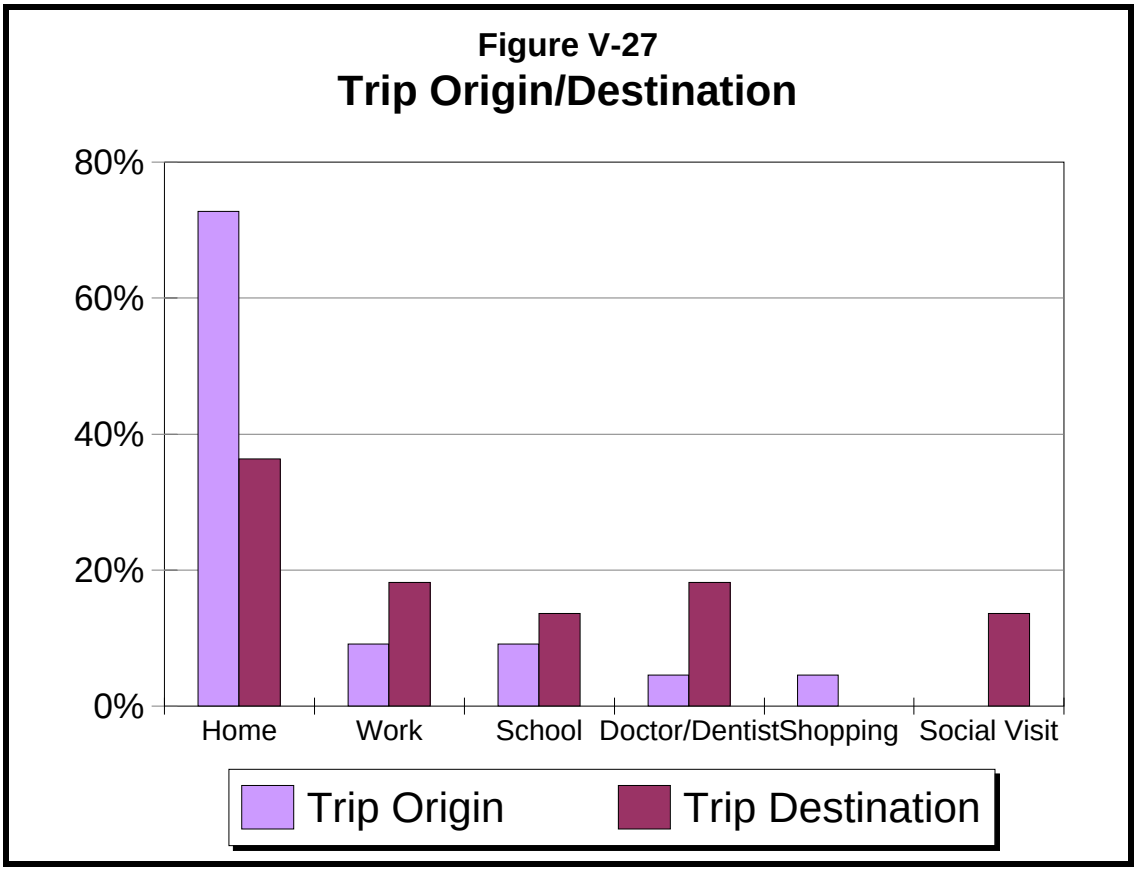


Trip Origins/Destinations

Passengers were asked to indicate trip origins and destinations so that travel patterns might be assessed. Most respondents (73 percent) reported that they were coming from home. Nine percent of respondents (two responses) came from work and another nine percent of respondents (two responses) came from school.

Figure V-27 illustrates trip origin and trip destination. As a destination, 36 percent of respondents (eight responses) indicated that they were heading home. Other responses were fairly evenly split between school, work, doctor, and social visits.

Figure V-27
Trip Origin/Destination



Perceptions of Cheyenne Transit

Passengers were asked to rate the quality of service provided by Cheyenne Transit. The responses were poor, fair, good, excellent, 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. The middle point of responses would be 2.5, so an average score of 3.0 or higher would indicate positive perceptions for that particular attribute. The responses are shown in Table V-7.

All characteristics of curb-to-curb service were scored positively.

Table V-7 Curb-to-Curb Quality of Service	
Attribute	**Response**
Cleanliness	3.6
Comfort	3.3
Service Frequency	3.4
Condition of Buses	3.3
Transfer Convenience	3.3
Schedule Reliability	3.5
Driver Courtesy	3.8
Area Served	3.6
Convenience	3.4
Fares	3.6
On-time Performance	3.3
Bus Routes	3.5
Bus Stop Safety	3.4

Additional Comments

Passengers were given the opportunity to include additional comments regarding curb-to-curb service. Many comments praised the drivers. Some comments indicated that buses should be more consistent in scheduling and driver decision making. Actual comments are included in Appendix F.

BOARDING AND ALIGHTING COUNTS

Boarding and alighting counts were conducted in conjunction with passenger surveys on August 30,2007. The temporary workers recorded where passengers boarded and exited the bus, both by bus stop and flag stop location. The market segments recorded were general public, whether the patron was a wheelchair passenger, and whether they used the bike rack provided in front/behind the bus. Passenger boarding and alighting data were entered into a spreadsheet and used to develop the summary maps presented in the following pages.

The boarding and alighting counts were used to analyze the existing ridership and to determine the locations that have the greatest demand and those that are underutilized. Figures V-28 to V-40 present the systemwide boarding map, the systemwide alighting map, and individual route maps. The route maps show the boardings and alightings and where they occur. Each map shows a scaled dot

representing the number of passenger boardings and alightings at each bus stop along the route.

Figure V-28
Downtown Boardings

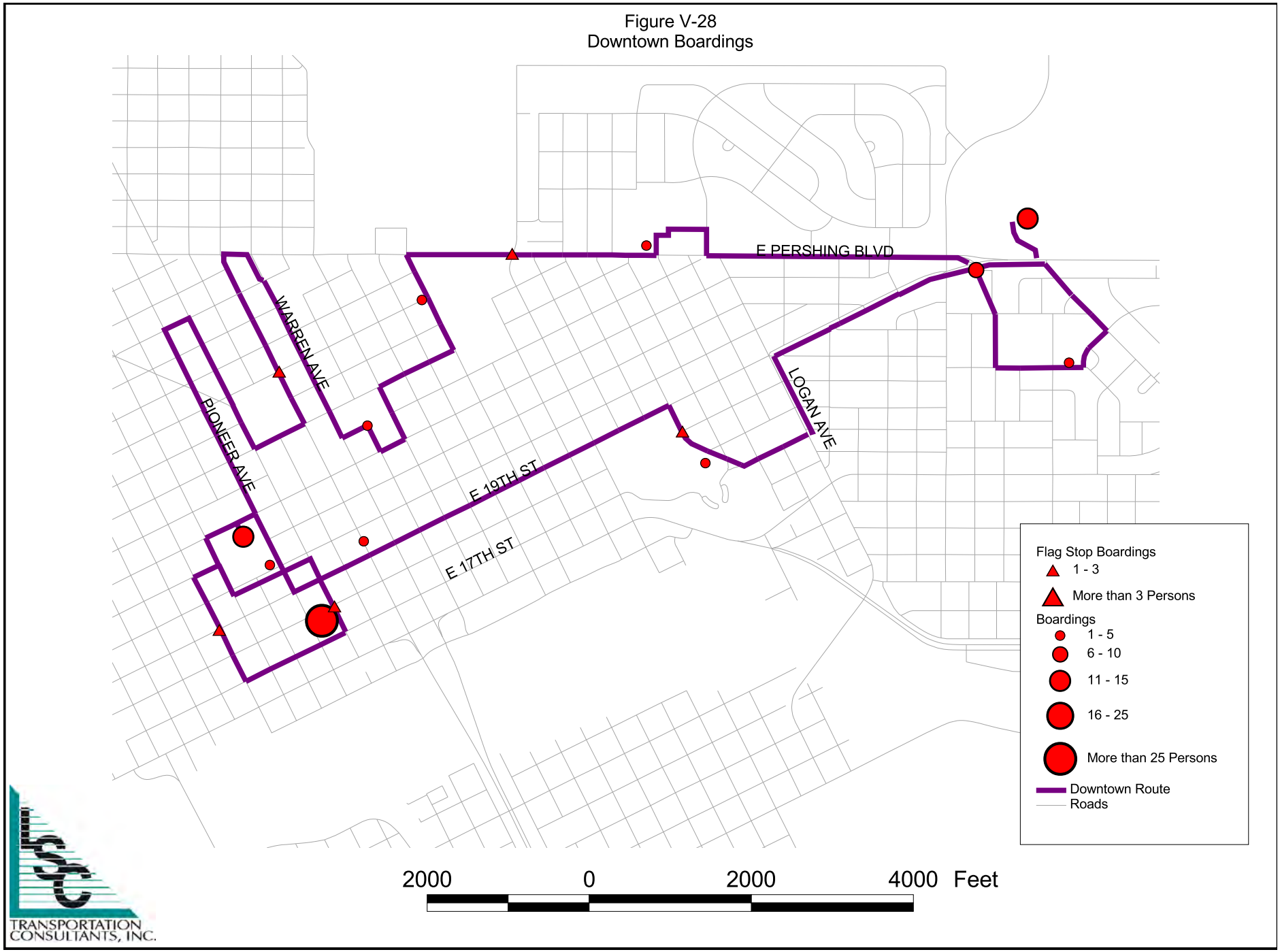


Figure V-29
Downtown Alightings

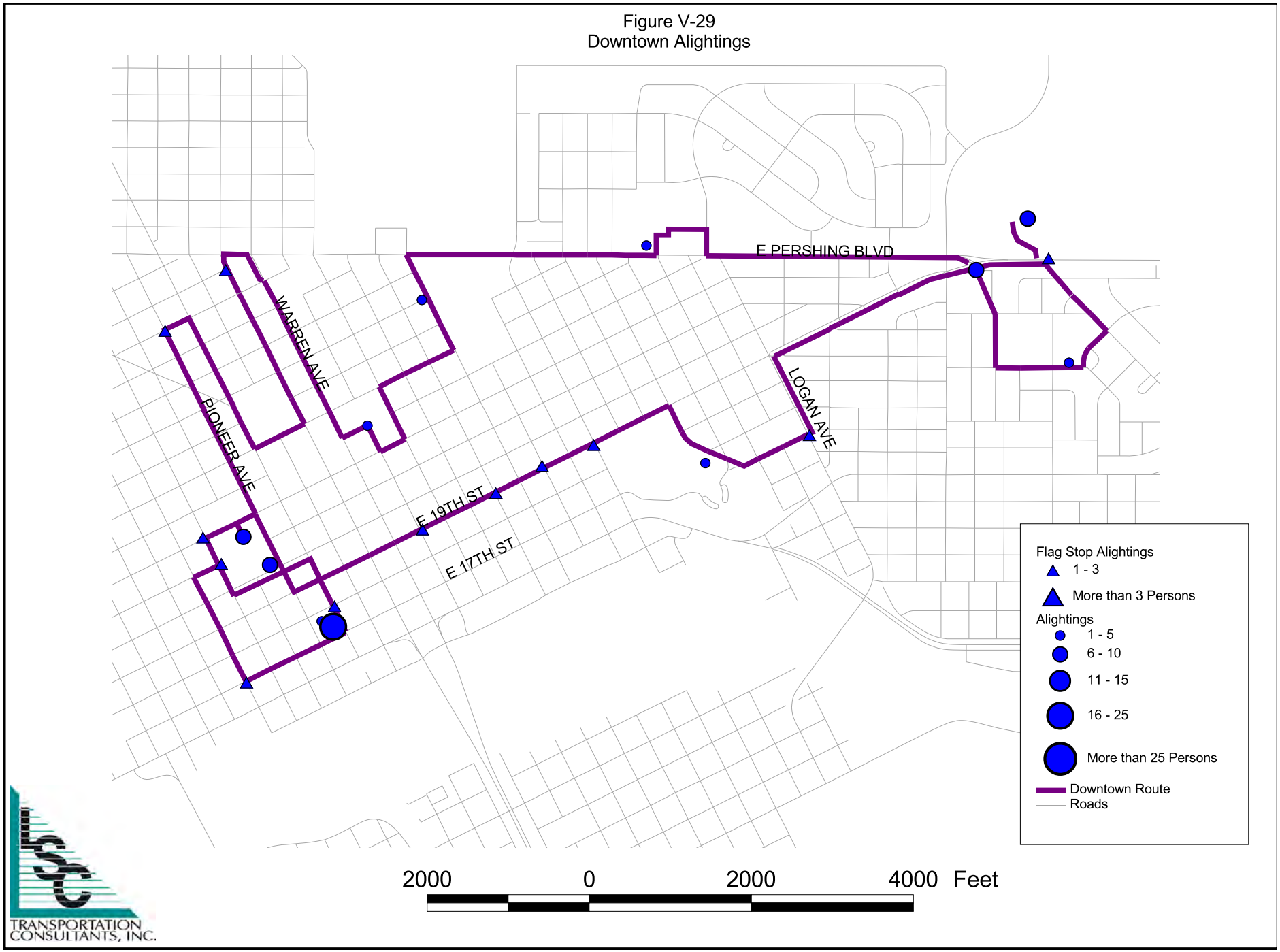


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Figure V-30
East Boardings

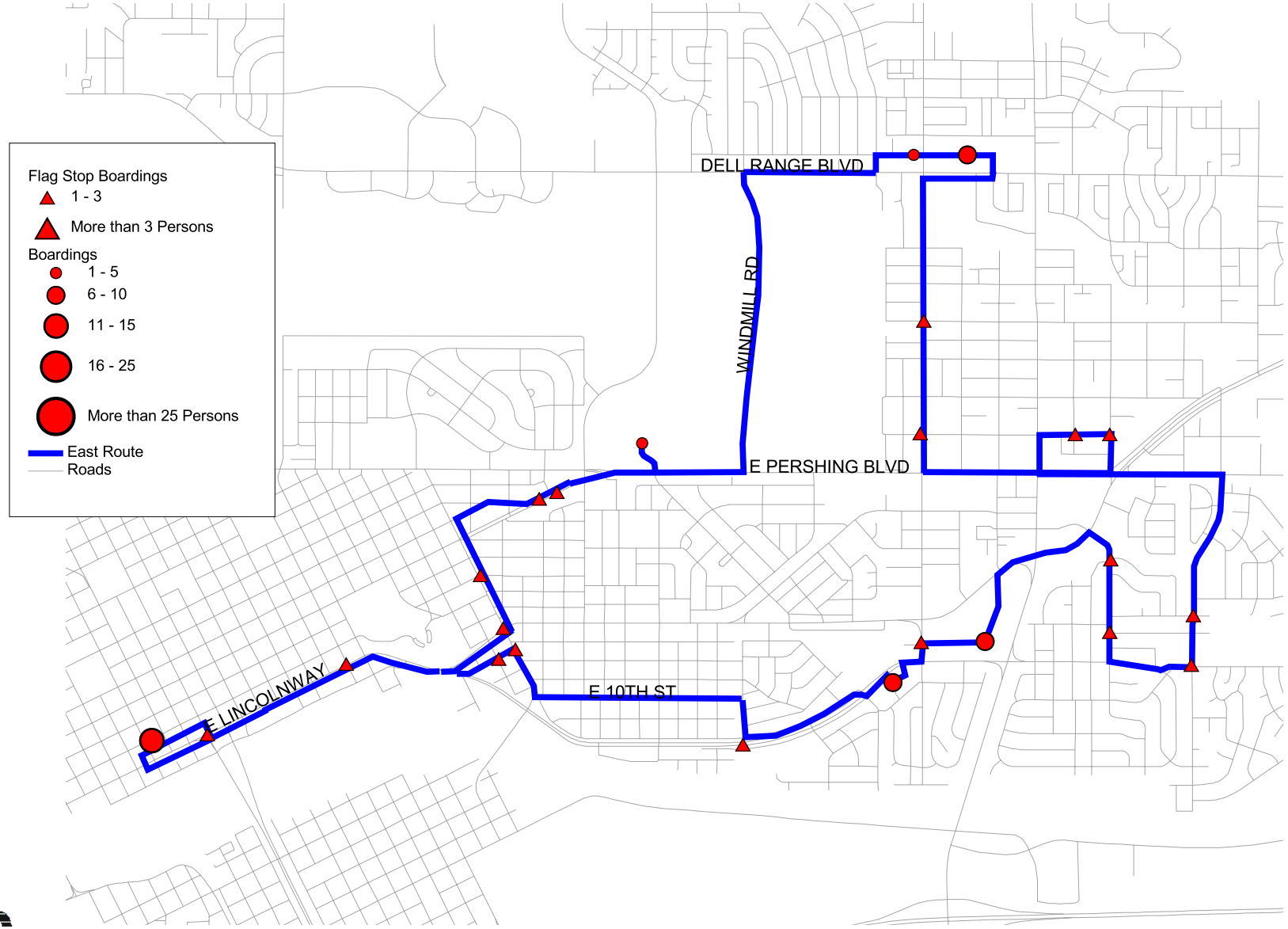

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Figure V-31

East Alightings

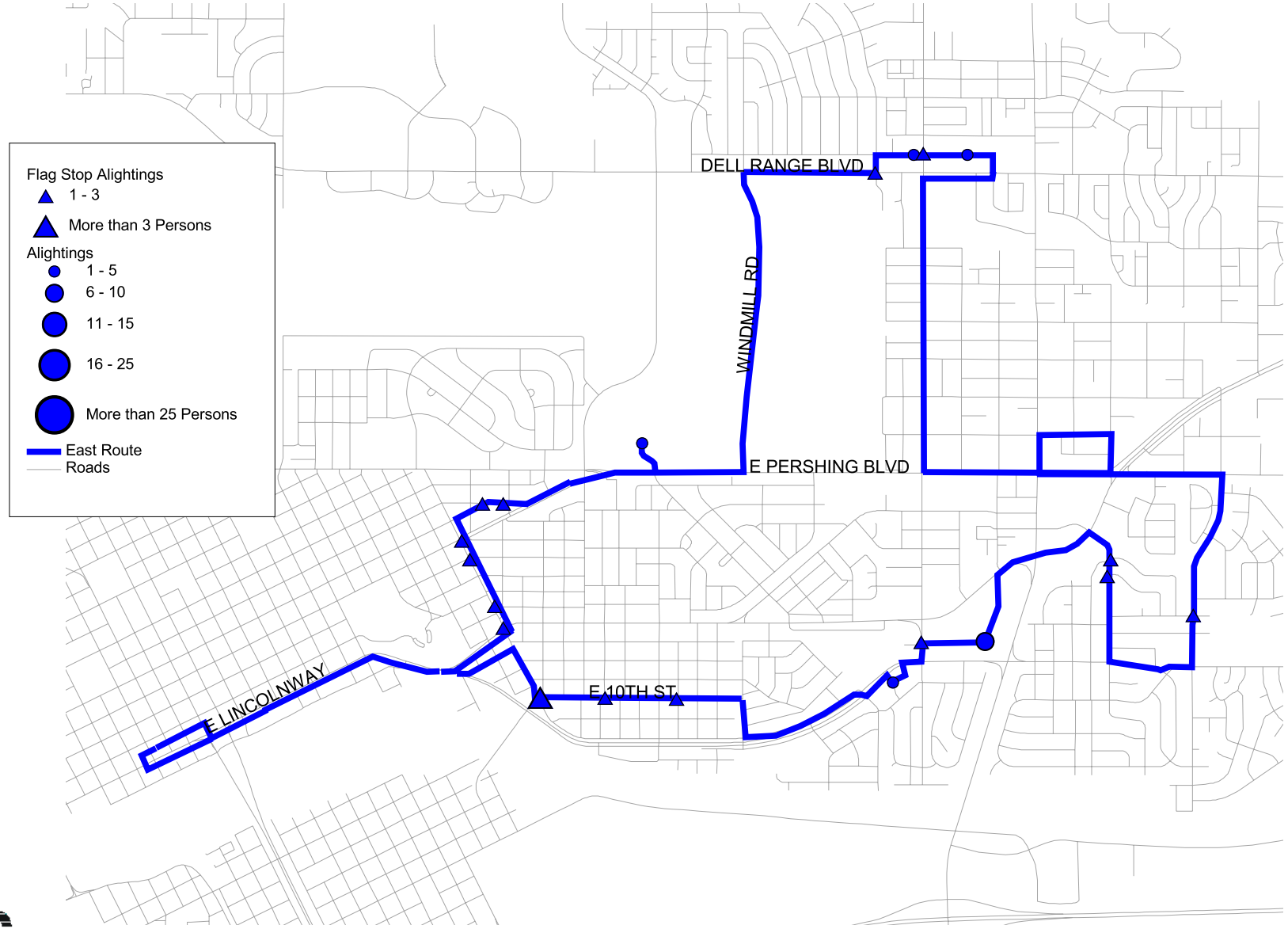

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Figure V-32

Northeast Boardings

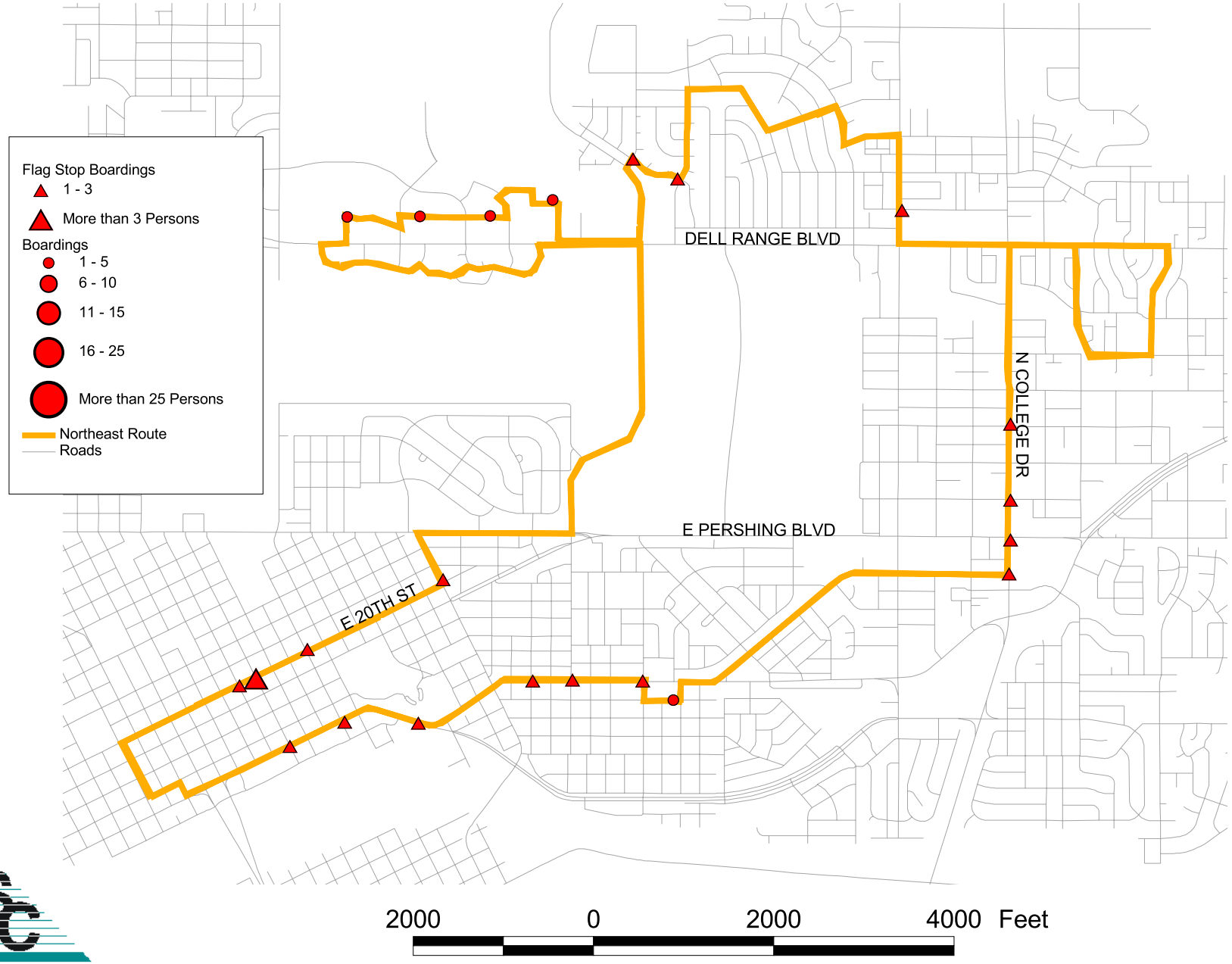

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Figure V-33

Northeast Alightings

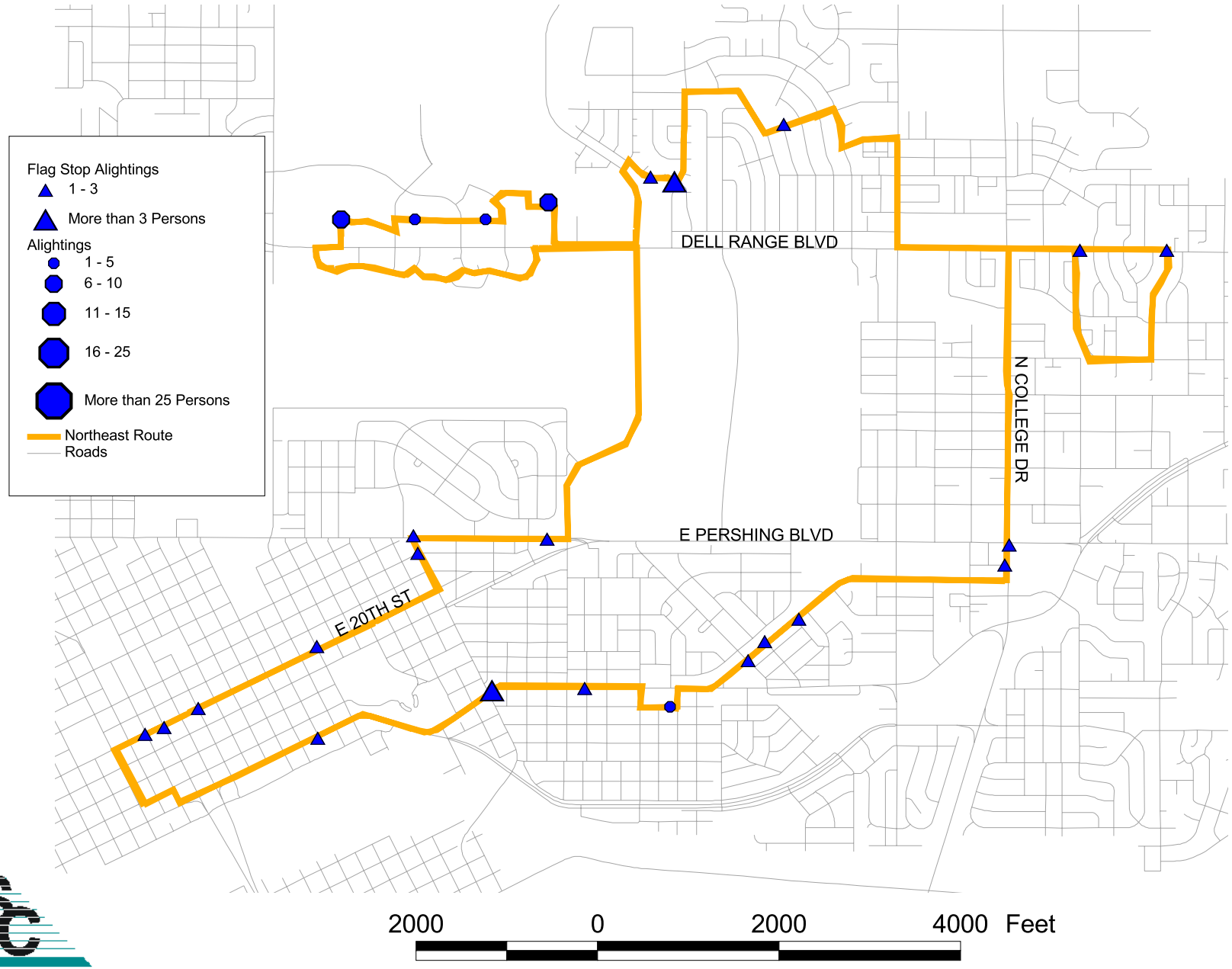

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Figure V-34

Northwest Boardings

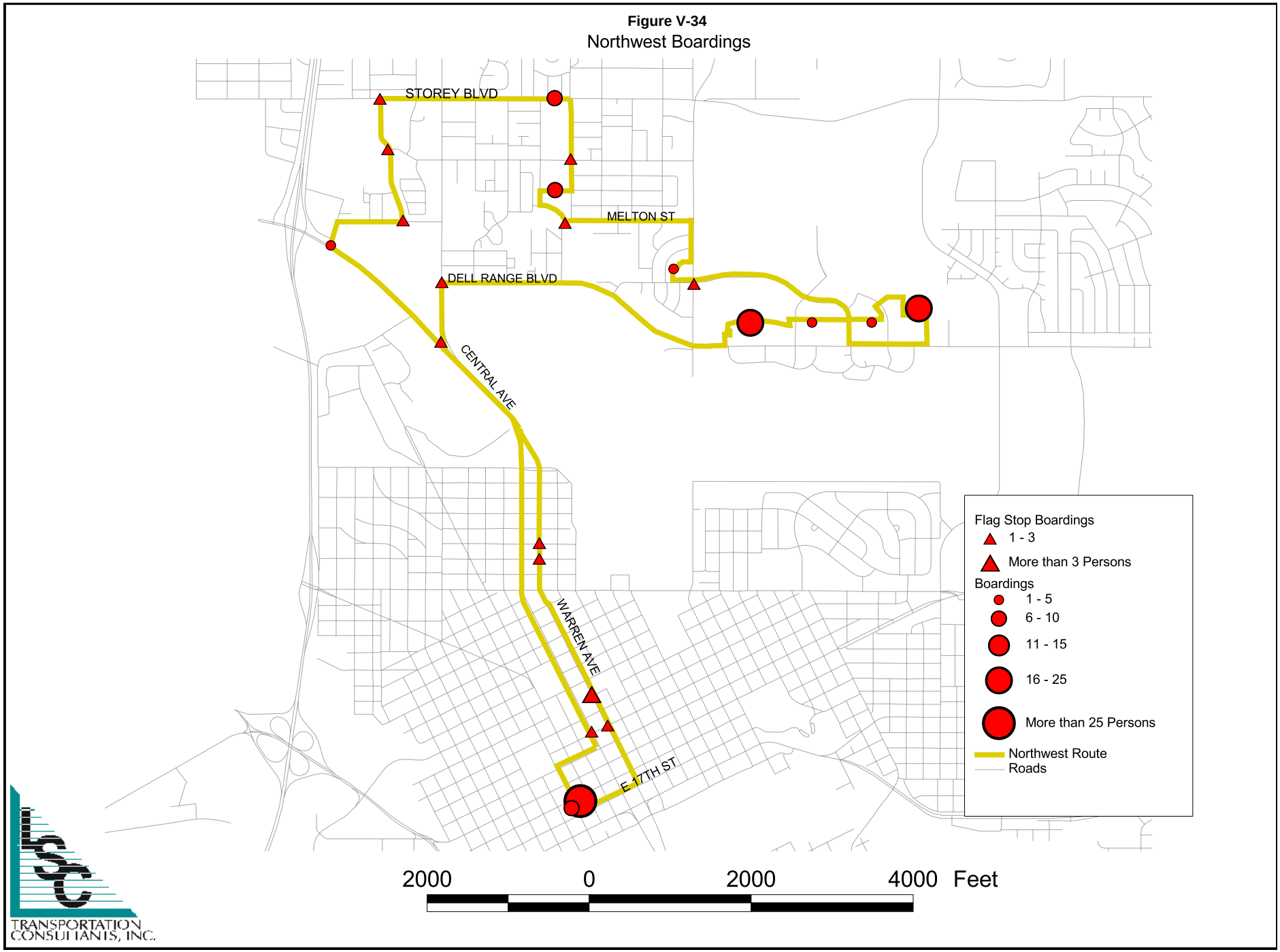

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Figure V-35

Northwest Alightings

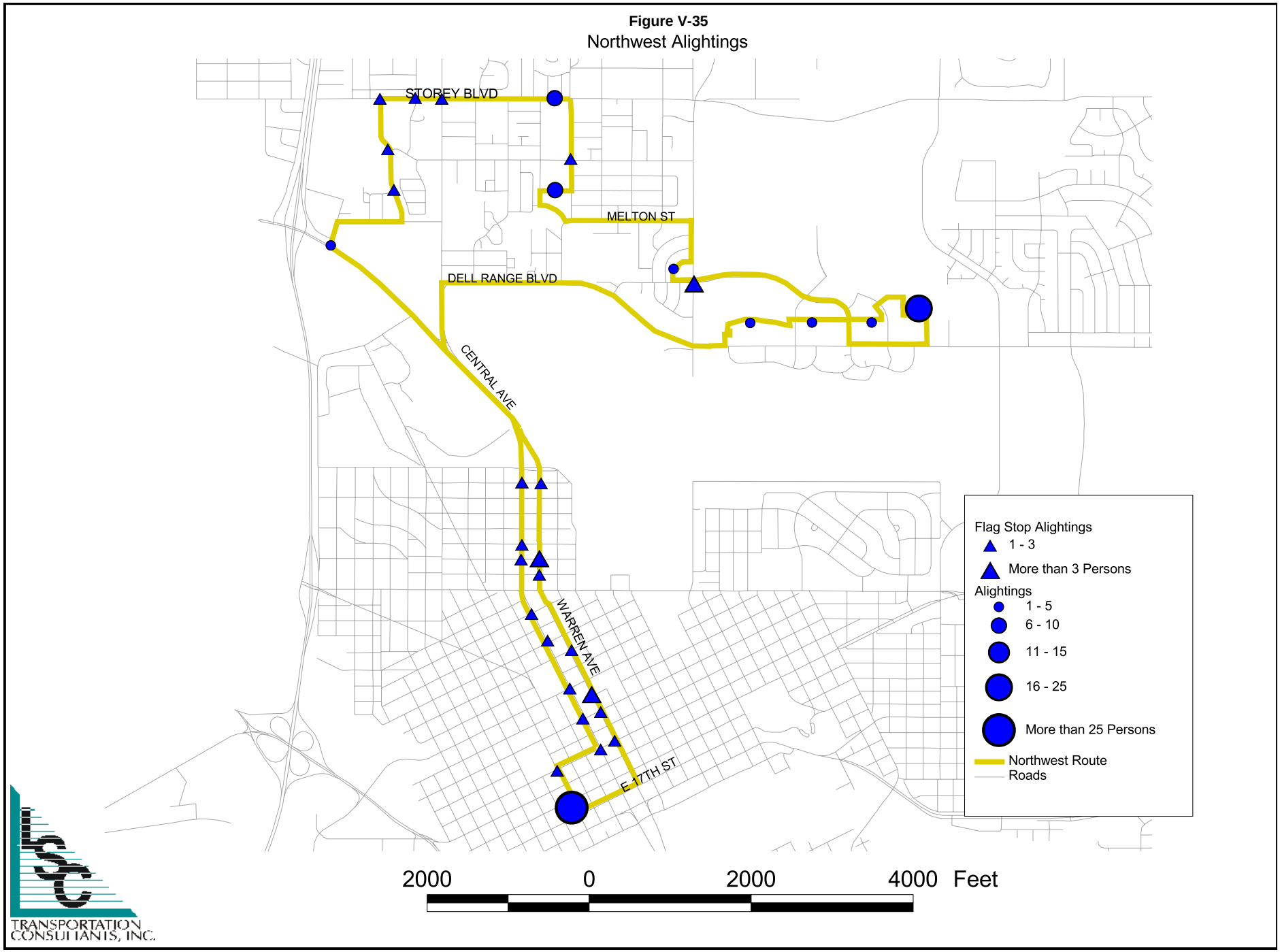

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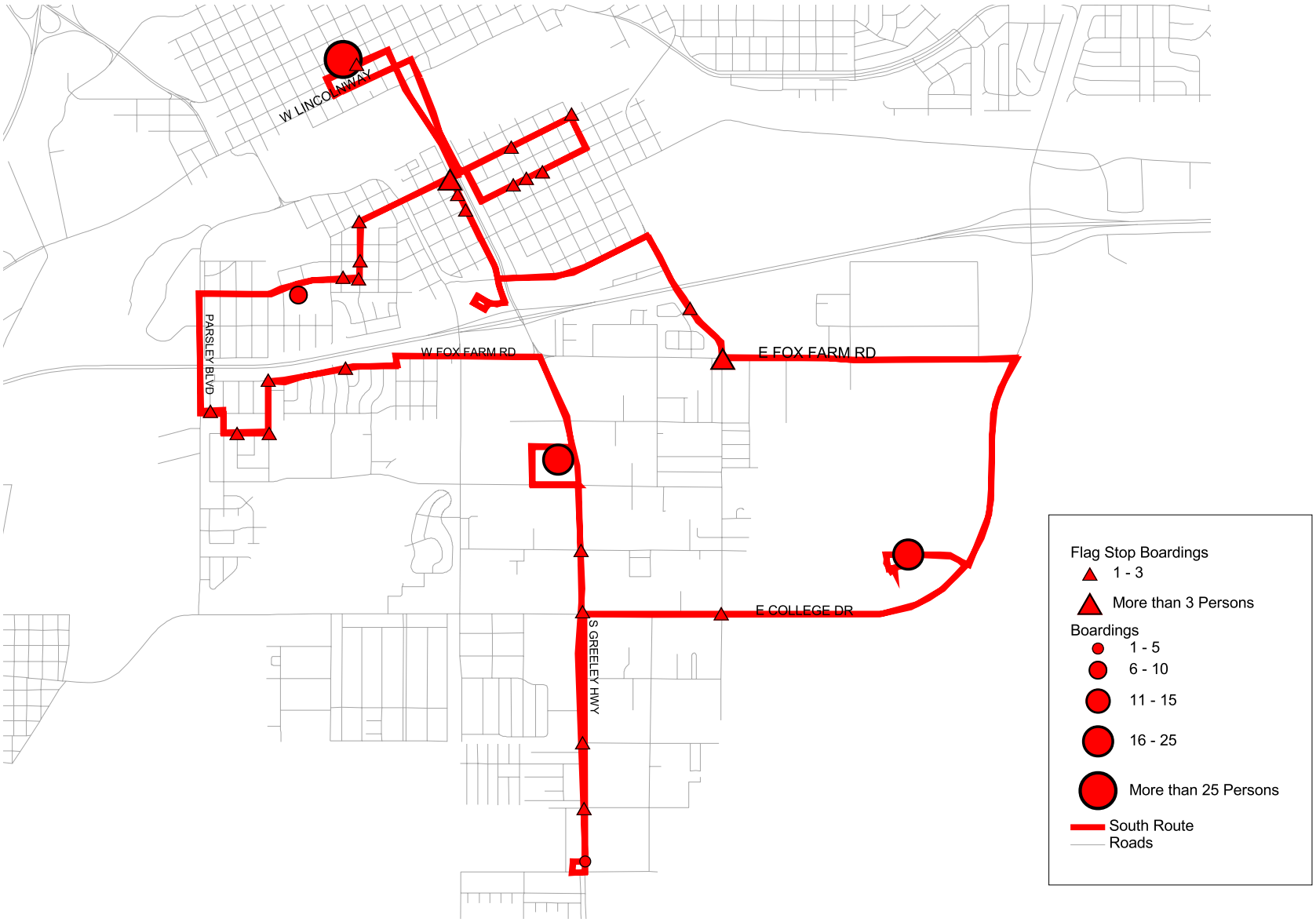
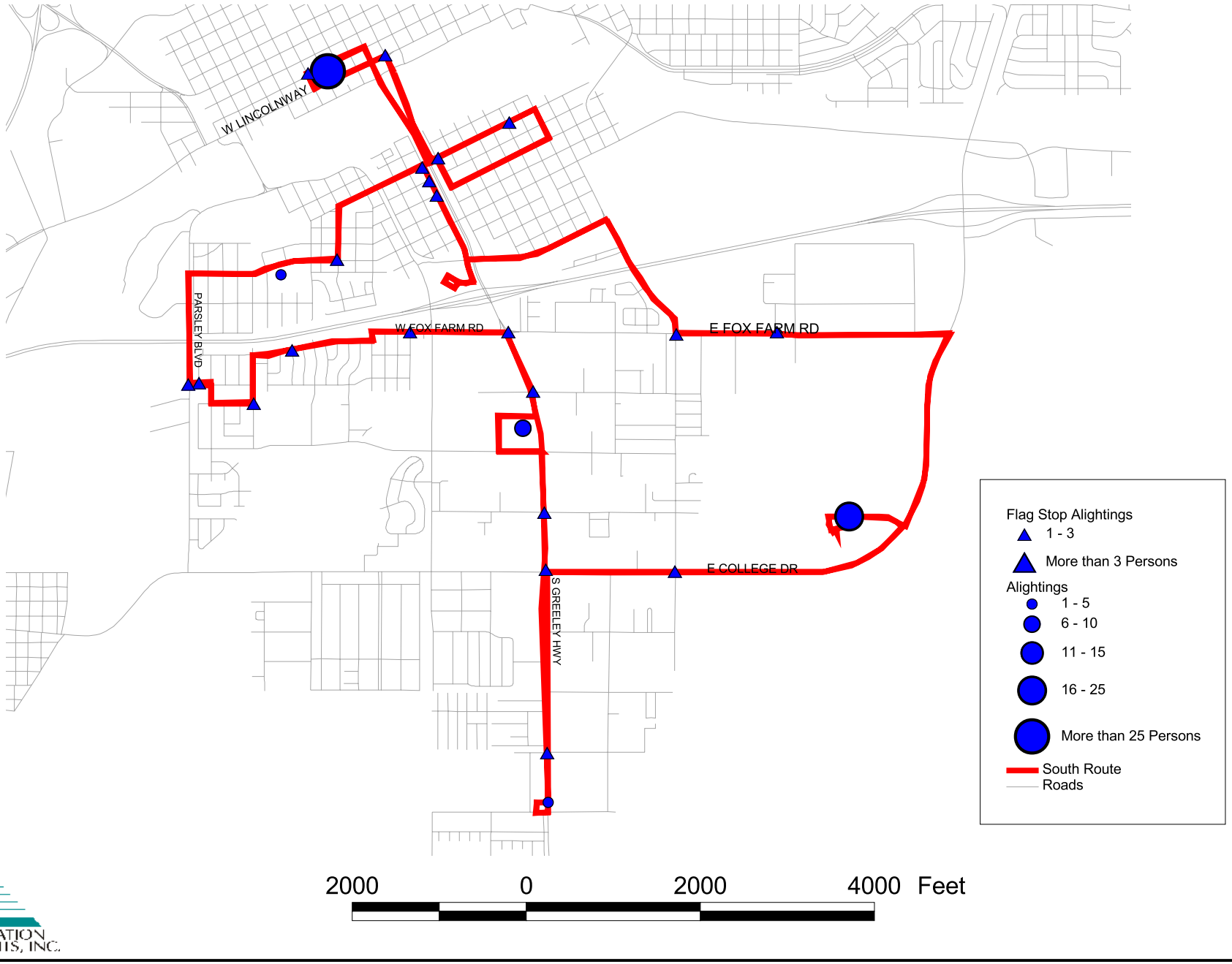
Figure V-36
South Boardings



TRANSPORTATION CONSULTANTS, INC.

Figure V-37

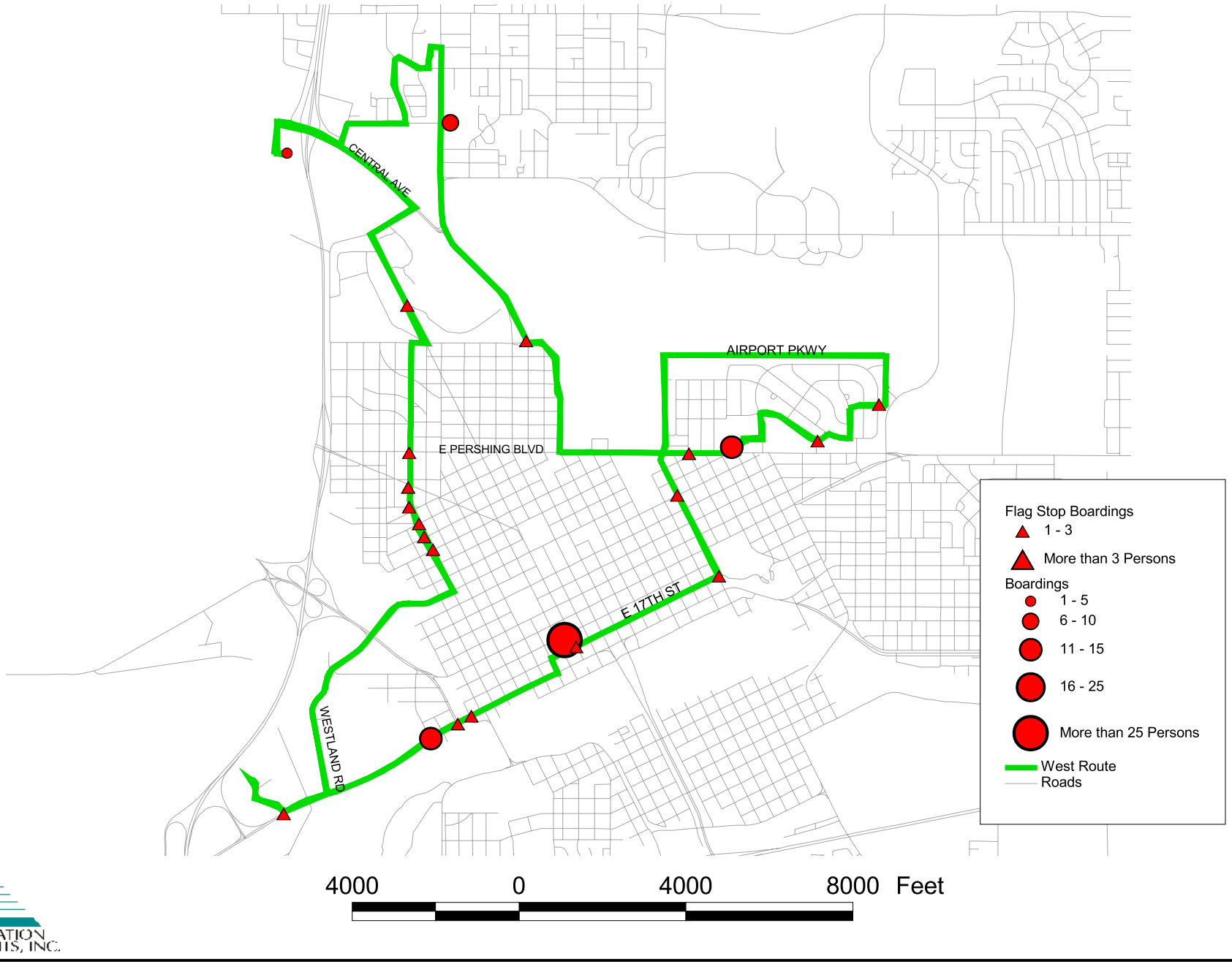
South Alightings



TRANSPORTATION CONSULTANTS, INC.

Figure V-38

West Boardings



TRANSPORTATION CONSULTANTS, INC.

Figure V-39

West Alightings

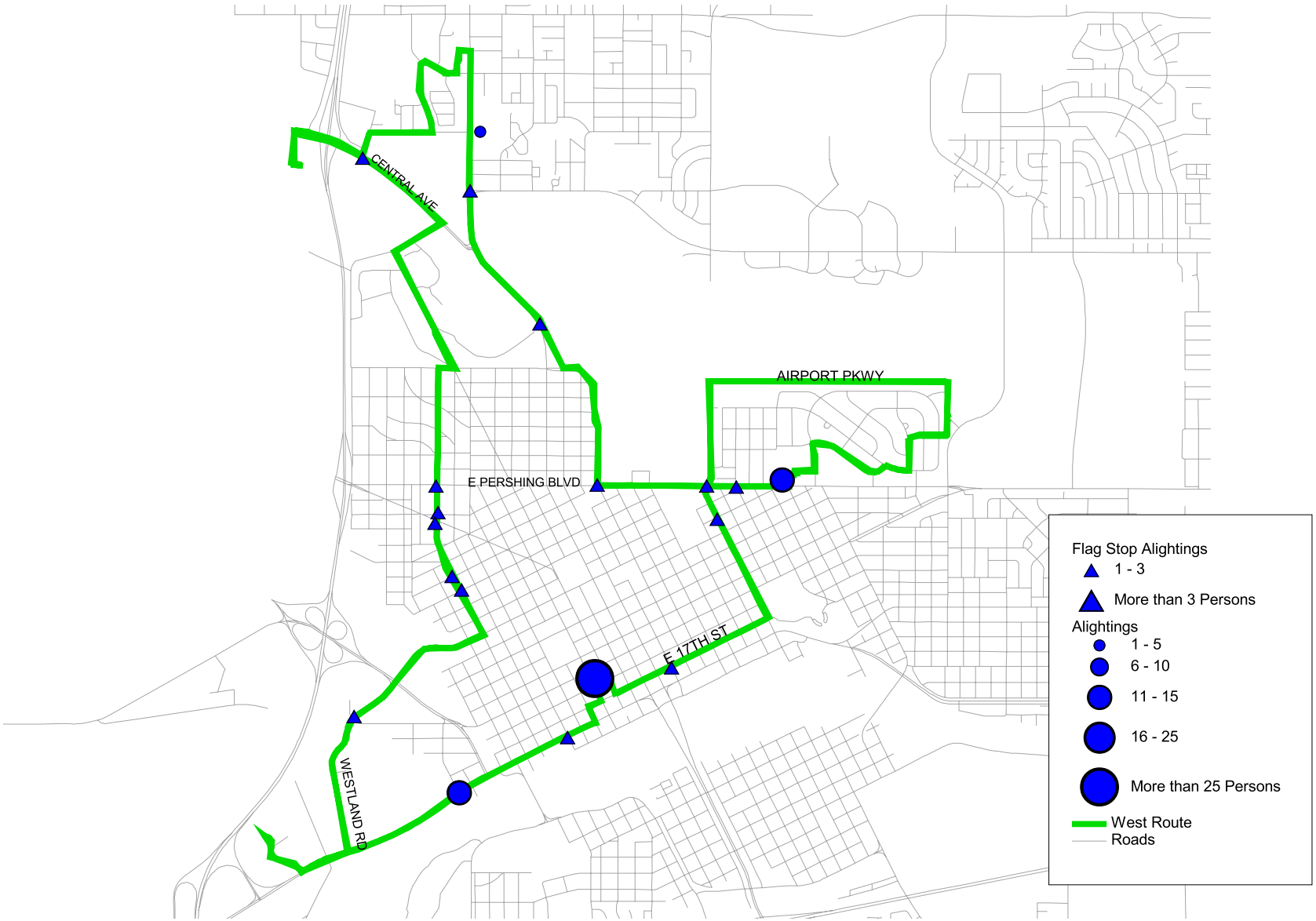


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Figure V-40
Systemwide Boardings

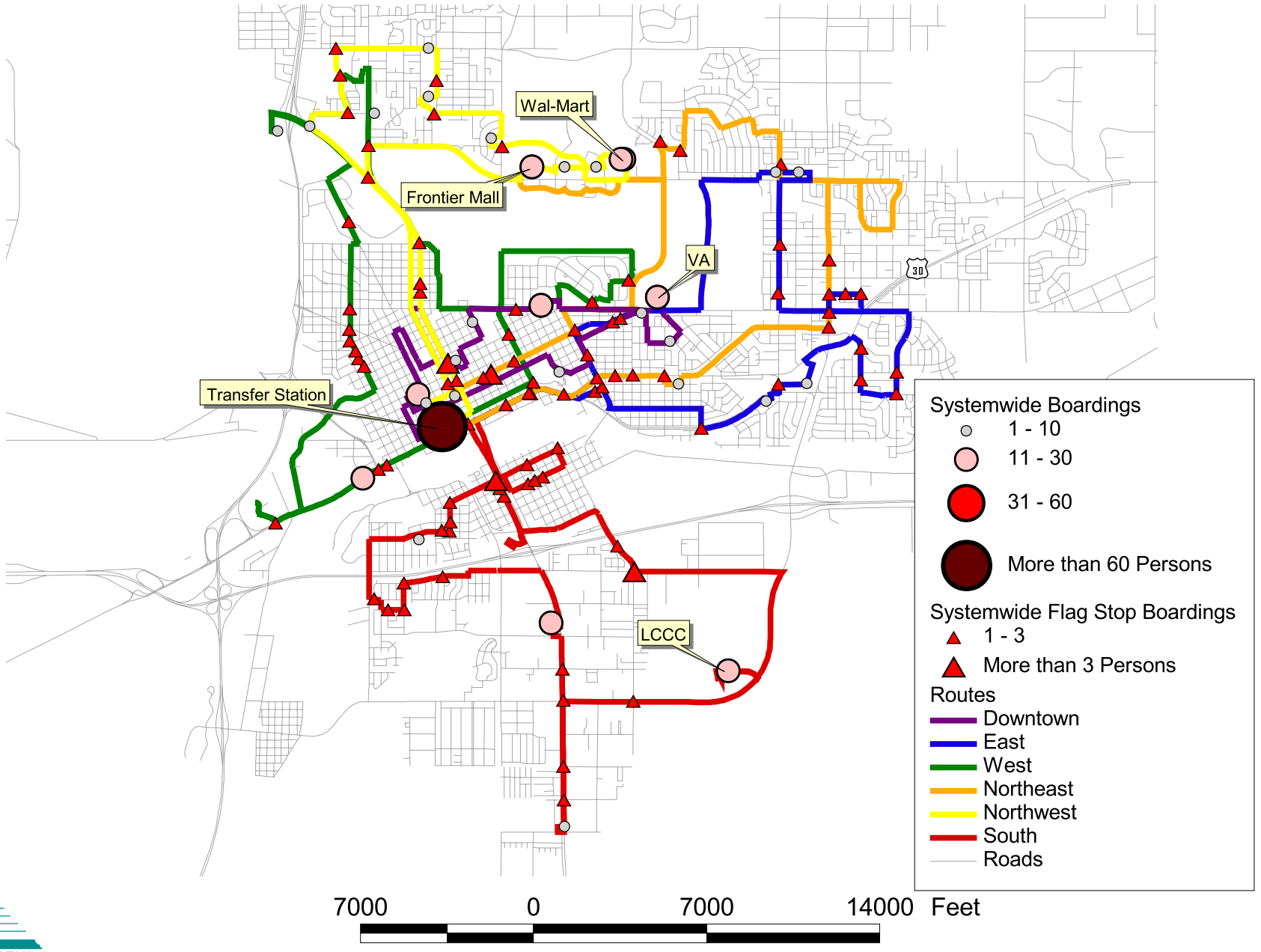

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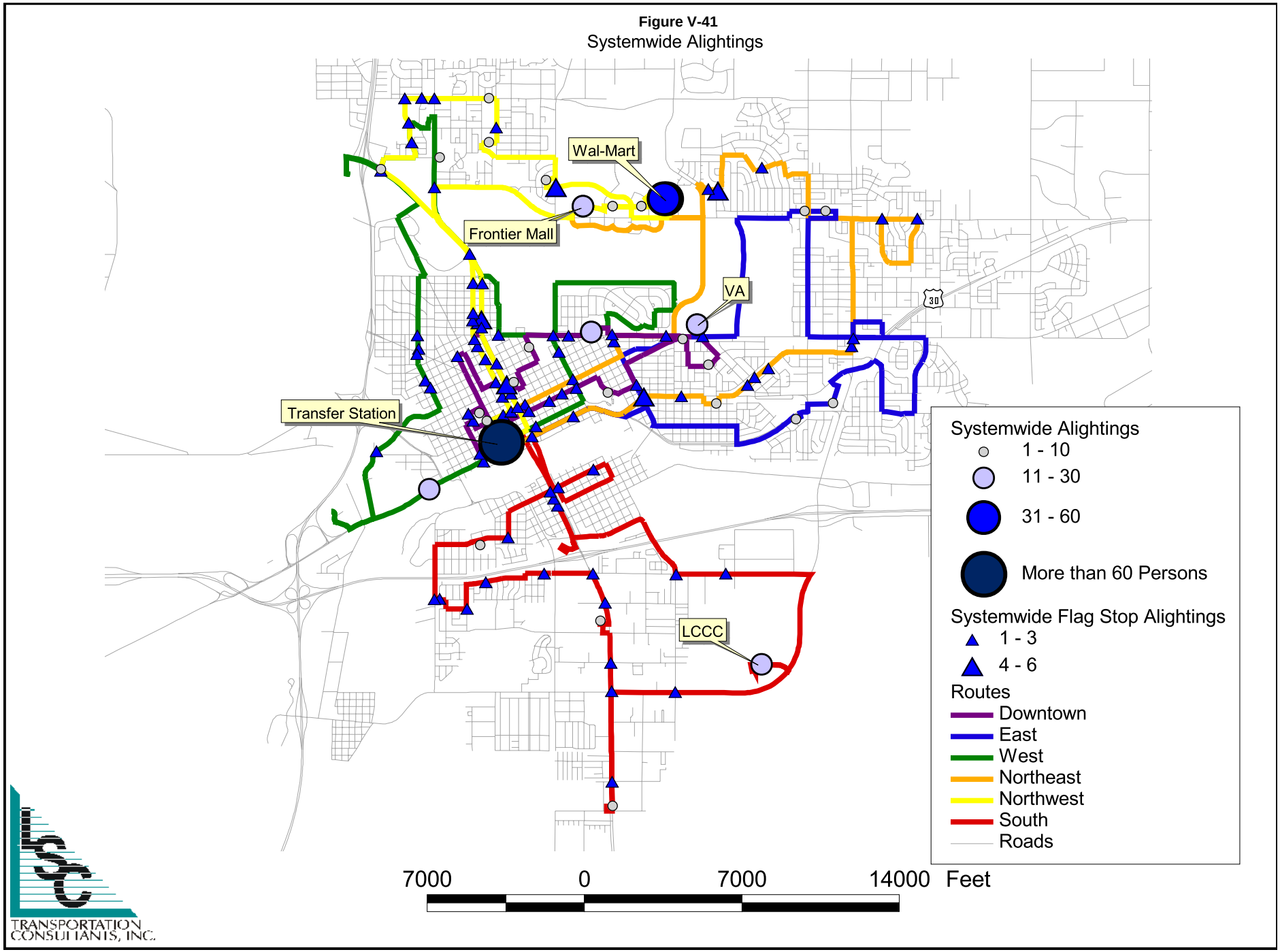
Figure V-41
Systemwide Alightings



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Running Times

This section presents a series of maps that detail the running times for the routes—the average amount of time that it takes for the bus to travel along each route segment. Colors were used to indicate the time it takes for the bus to travel along each route segment. Blue was used to indicate that the bus was on time (running within the +/- 5 minute window of the scheduled time). Red was used to indicate that the bus was running late and was operating more than five minutes later than the scheduled time. Green was used to indicate that the time to operate that route segment was running more than five minutes earlier than the scheduled time. The maps also show the average run time during the morning and afternoon peak hours. The morning peak hours were from 7:00 to 9:00 a.m., while the afternoon peak hours were from 3:00 to 5:00 p.m. Each route's average running time is calculated by dividing the sum of the segment run times by the number of runs on the route. The average running time is then compared to the scheduled amount of time that the bus should take to travel between the two scheduled points along the route. This information was collected on August 30, 2007 when LSC conducted the onboard surveys and the boarding/alighting counts. The survey workers were instructed to mark down the times that each bus arrived at and departed from each bus stop.

Figures V-42 to V-60 and Table V-8 show the results. As illustrated in the figures and table, most of the routes were running on time (within five minutes of the scheduled time), except for the last route segment to the transfer station. Most of the last route segments to the transfer station were running at least five minutes earlier than the scheduled time. These included the last segment of the following routes: Northeast Route, Northwest Route, South Route, East Route (morning peak hours), Downtown Route (all day and morning peak hours), and the West Route.

Figure V-42
Downtown Route Average Runtimes

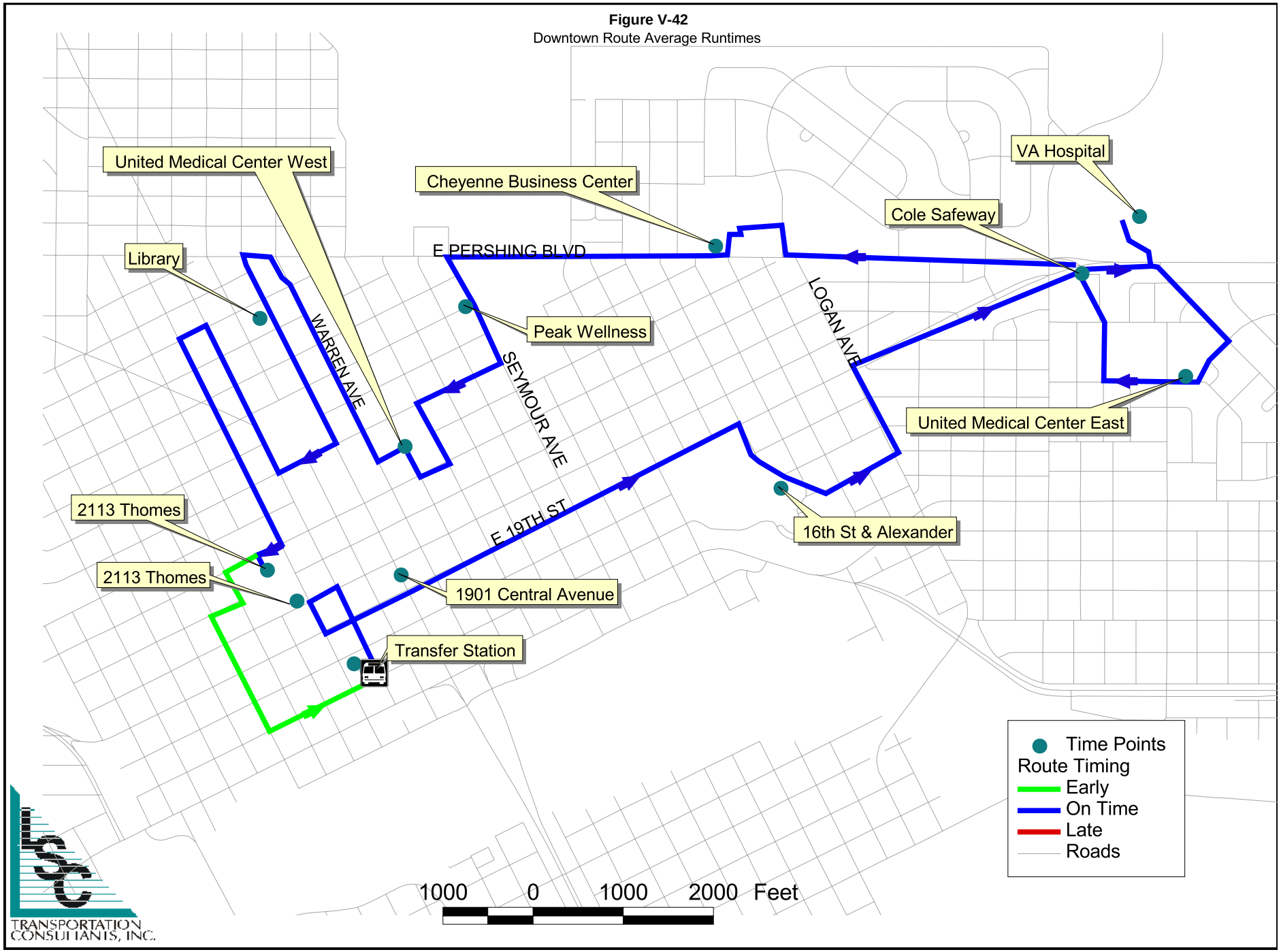

Figure V-43
Downtown Route AM Peak Hour Average Runtimes

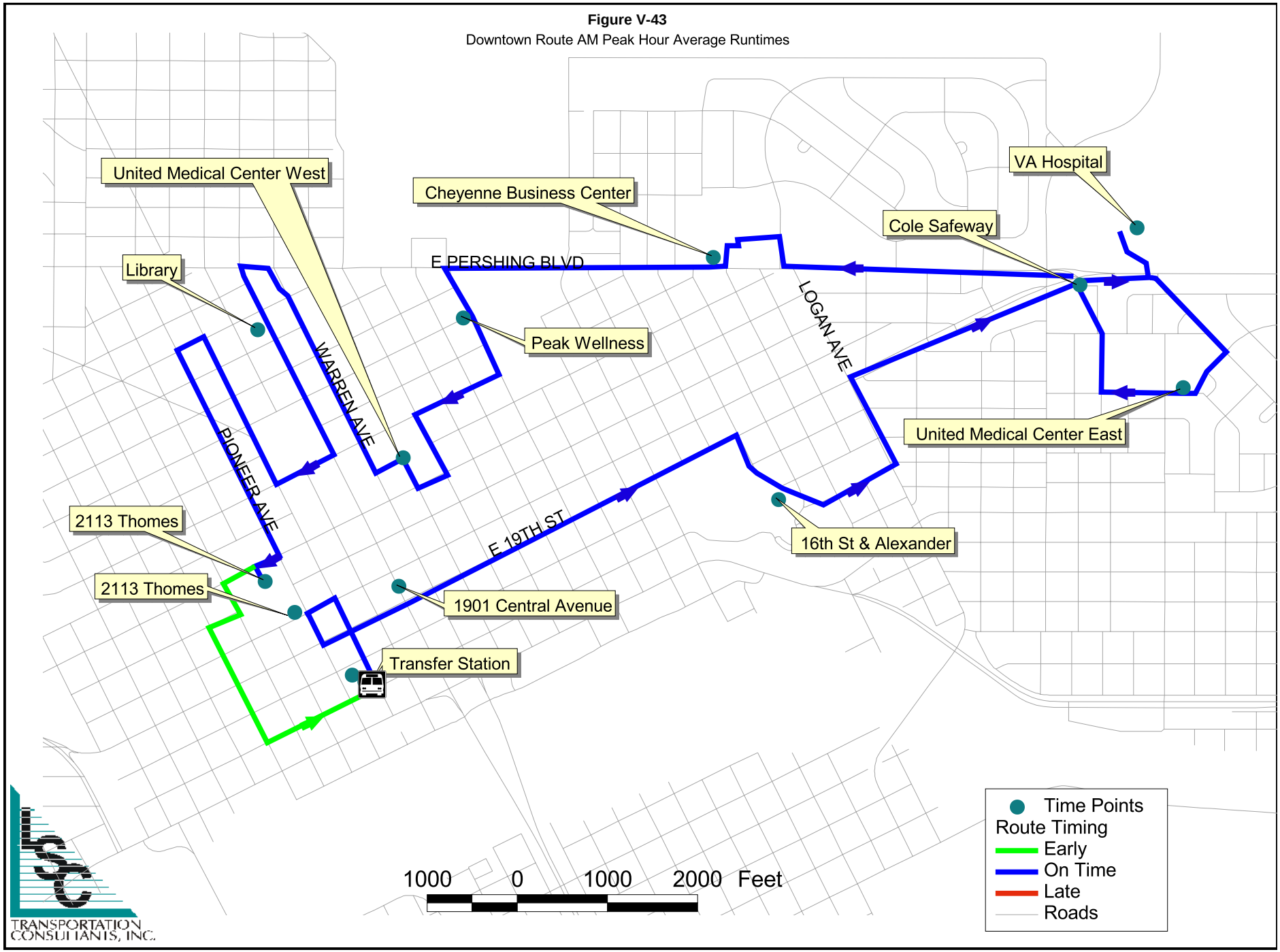

Figure V-44
Downtown Route PM Peak Hour Runtimes

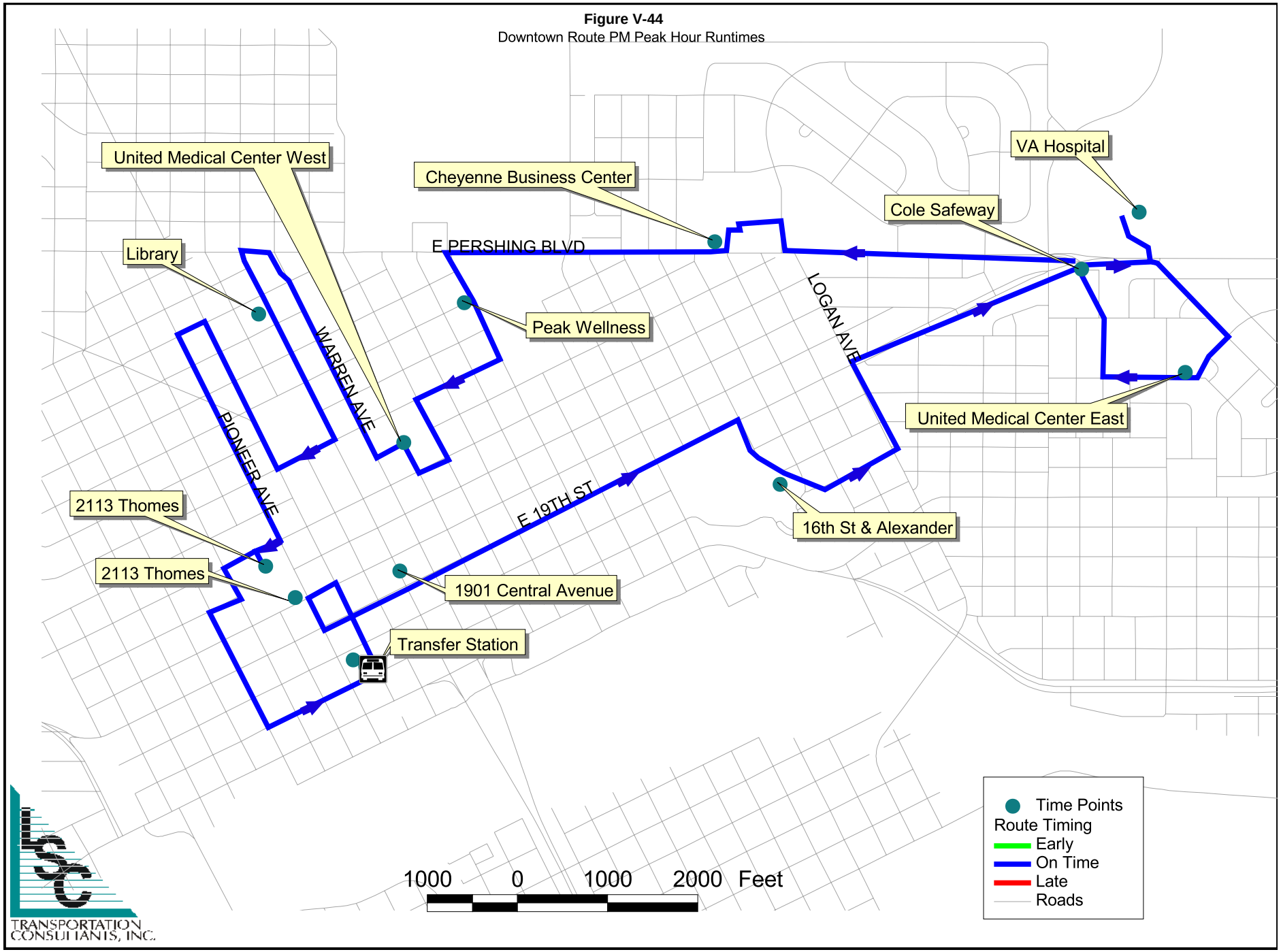

Figure V-45
East Route Average Runtimes

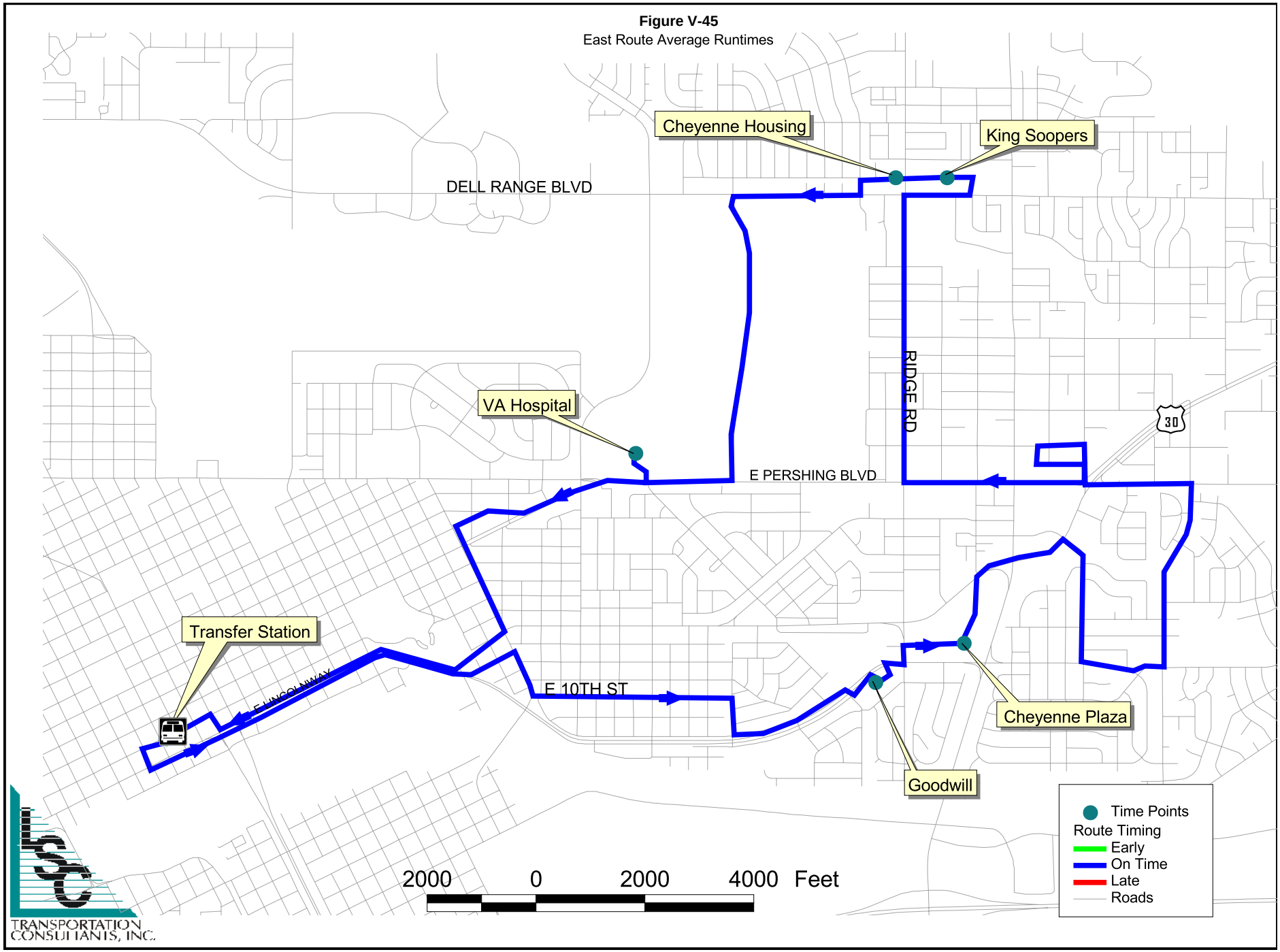

Figure V-46

East Route AM Peak Hour Average Runtimes

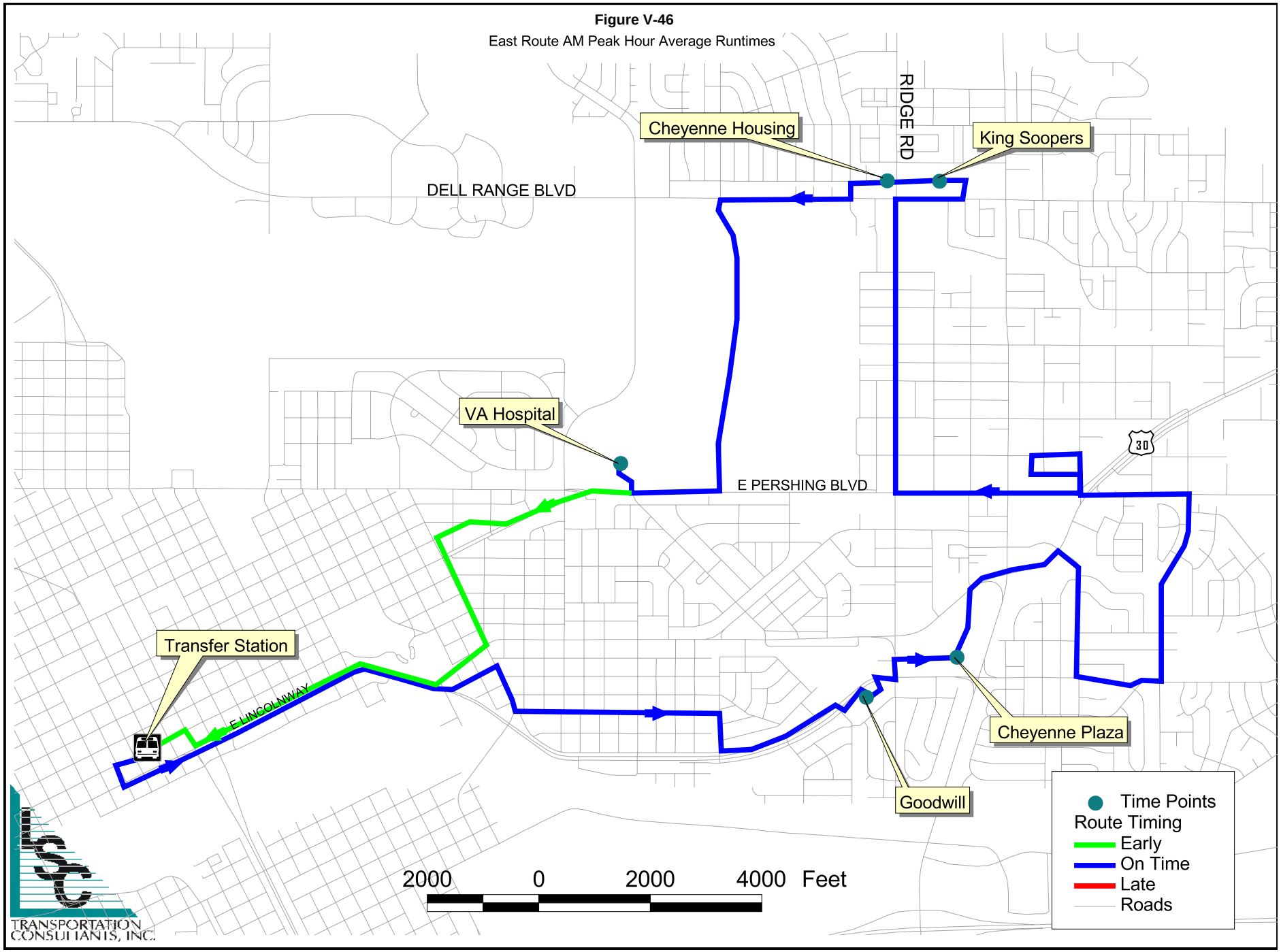

Figure V-47

East Route PM Peak Hour Runtimes

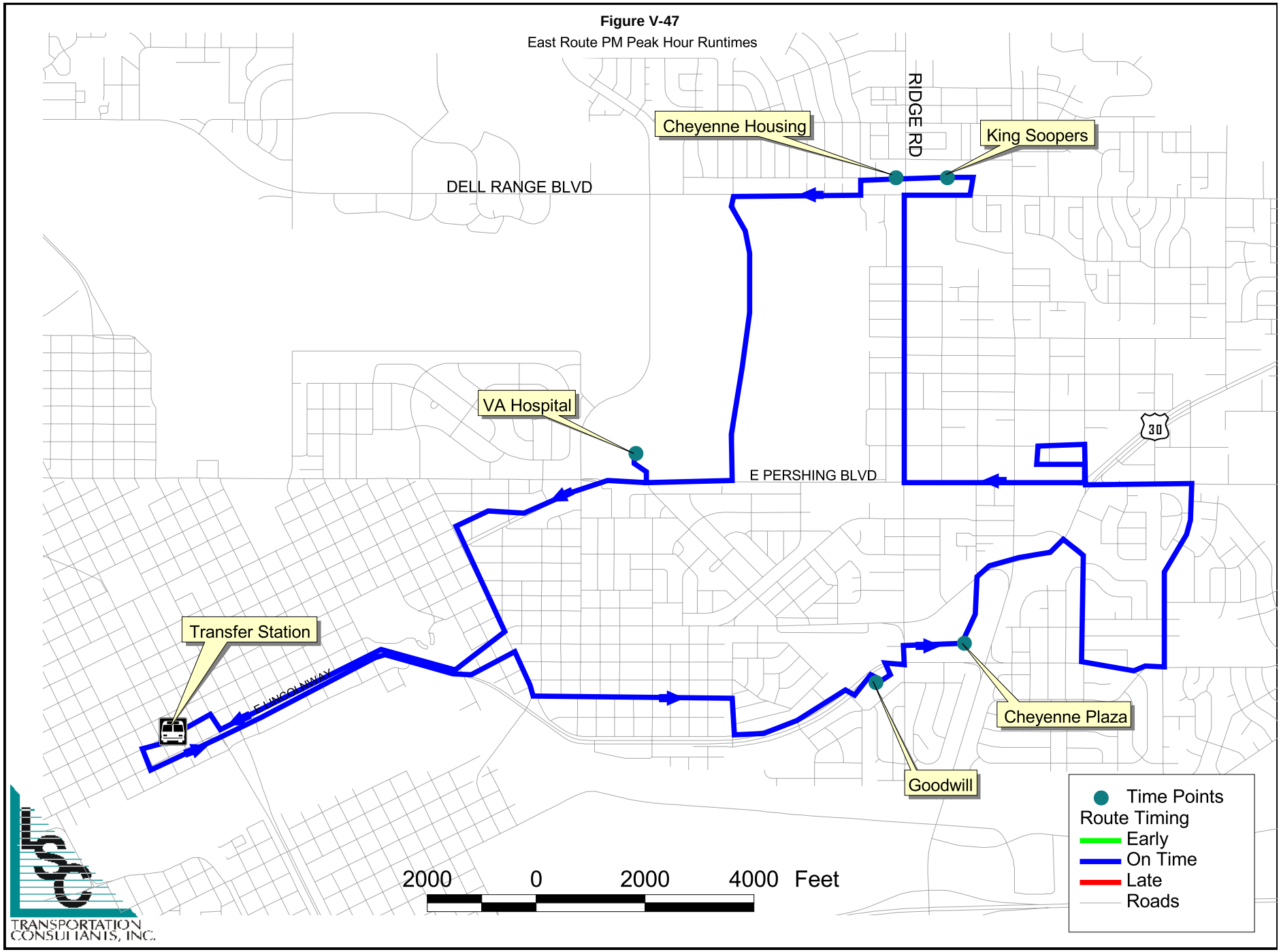

Figure V-48
Northeast Route Average Runtimes

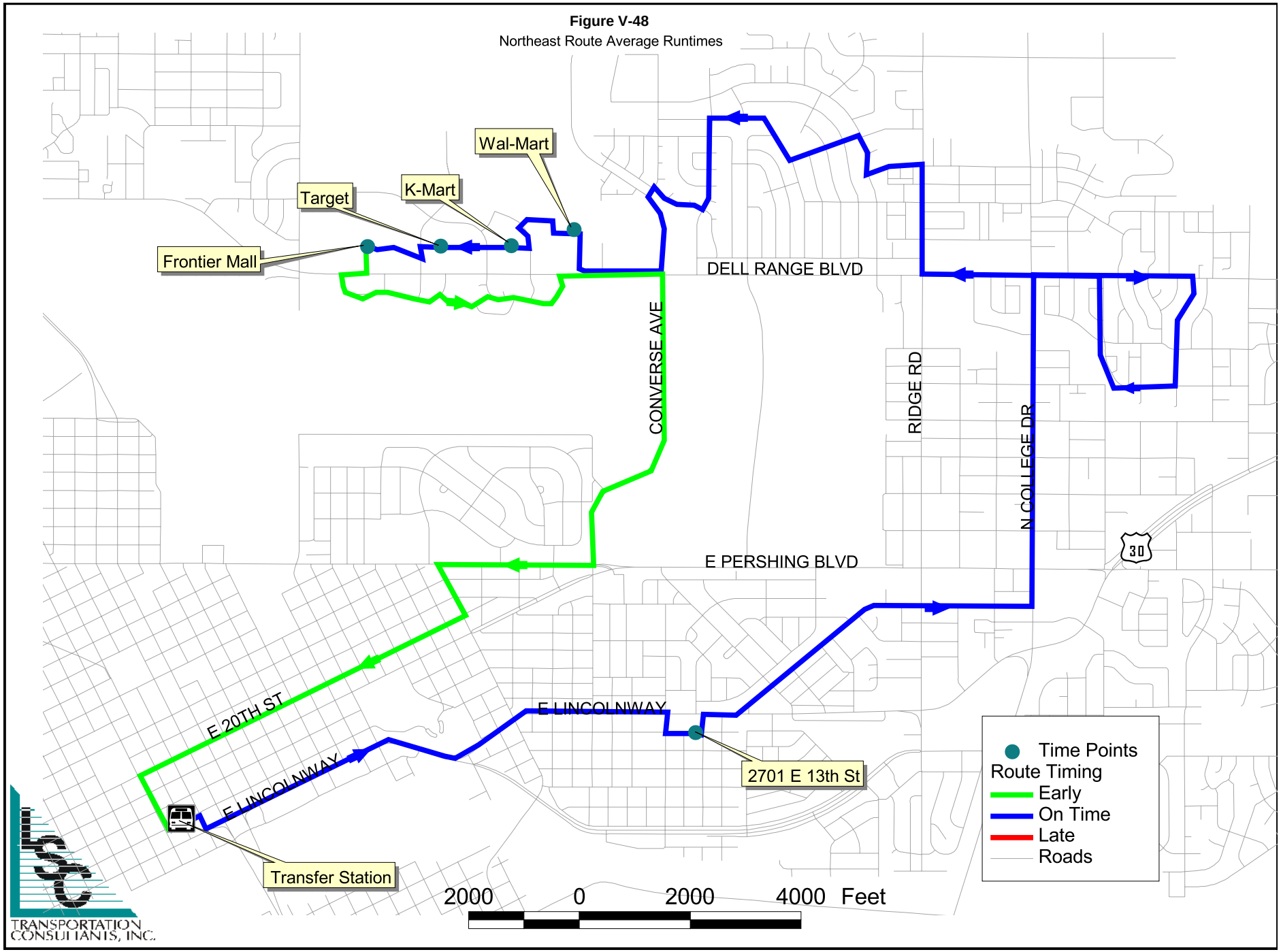

Figure V-49

Northeast Route AM Peak Hour Average Runtimes

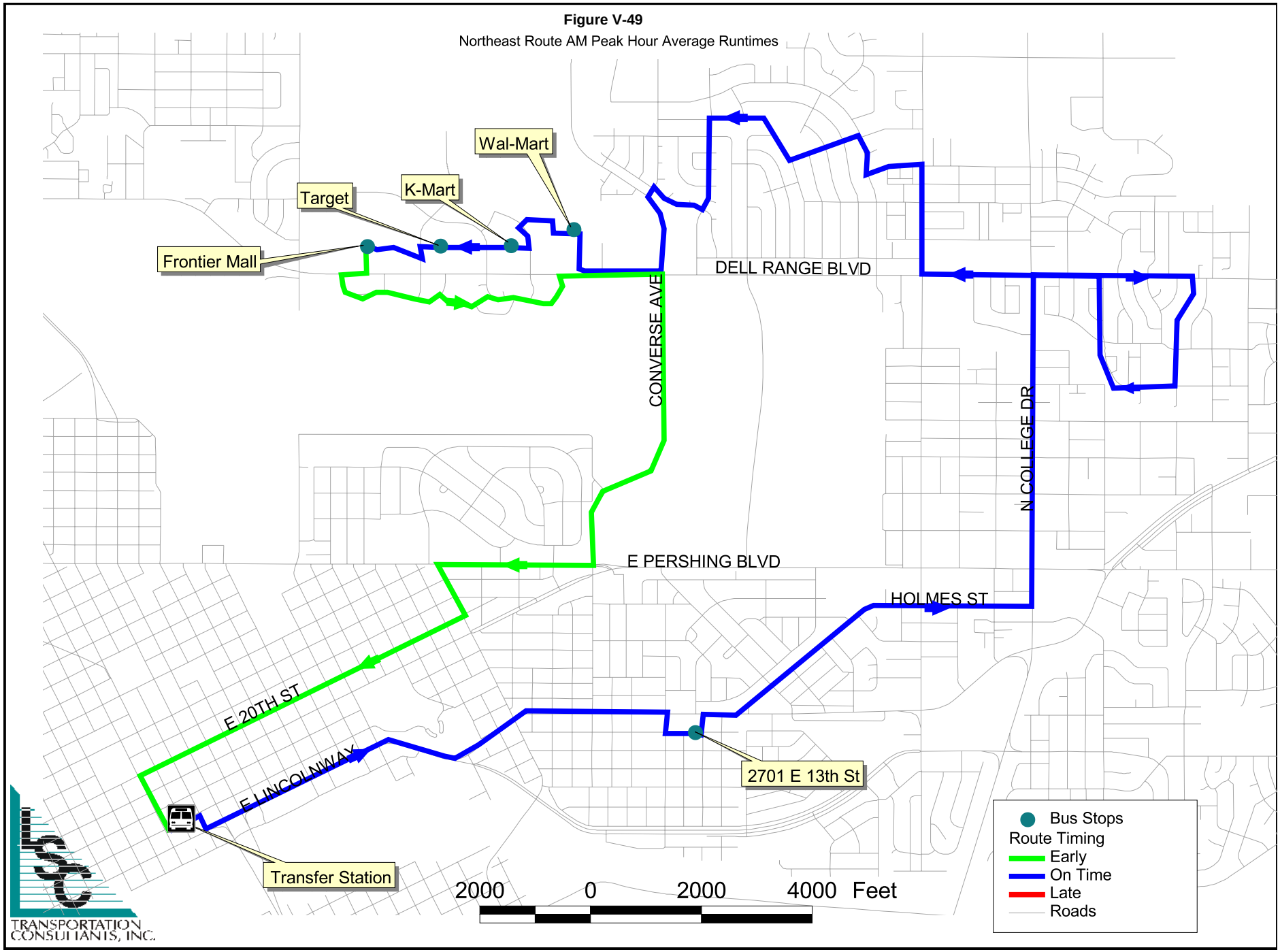

Figure V-50
Northeast Route PM Peak Hour Average Runtimes

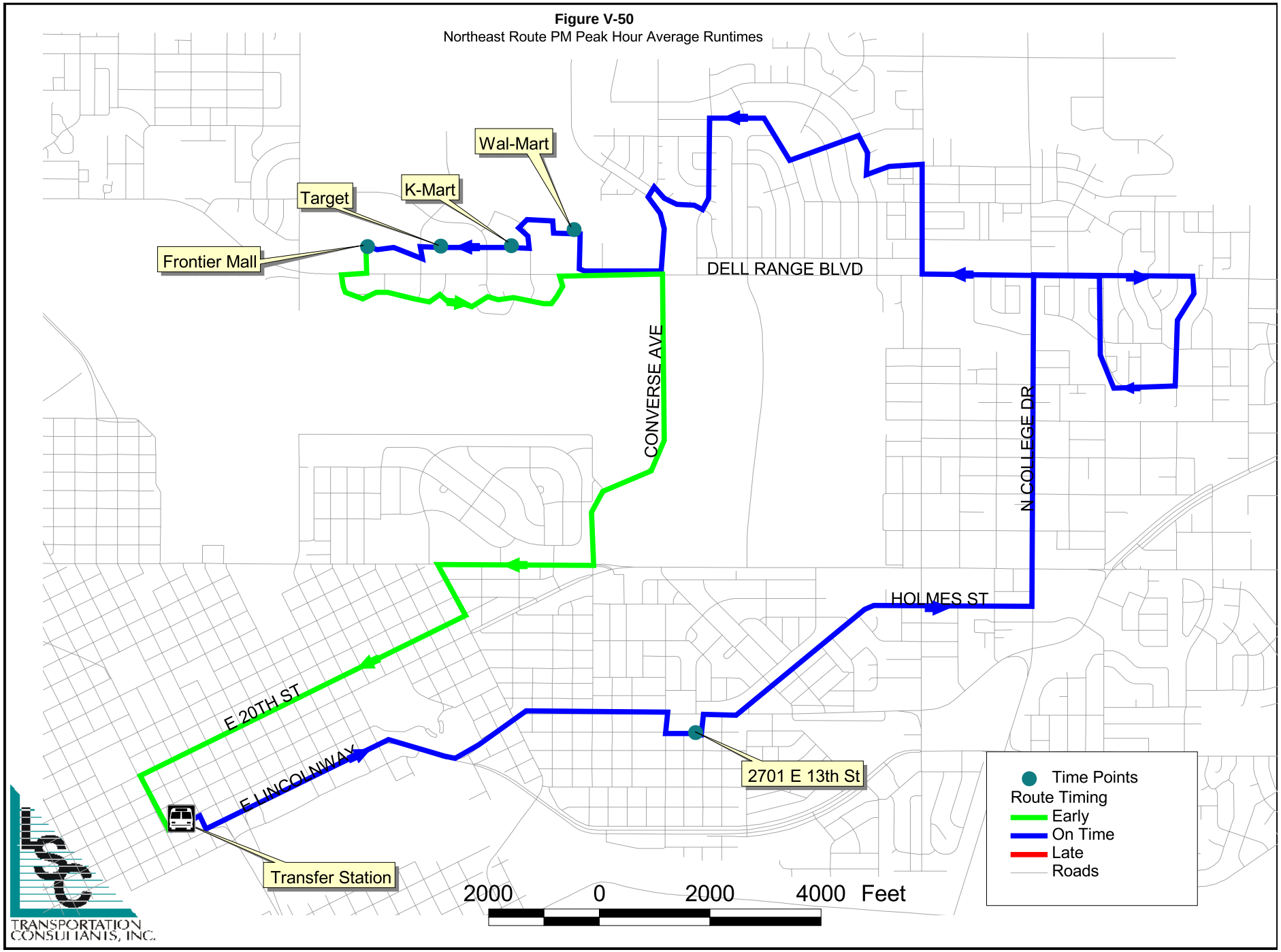

Figure V-51
Northwest Route Average Runtimes

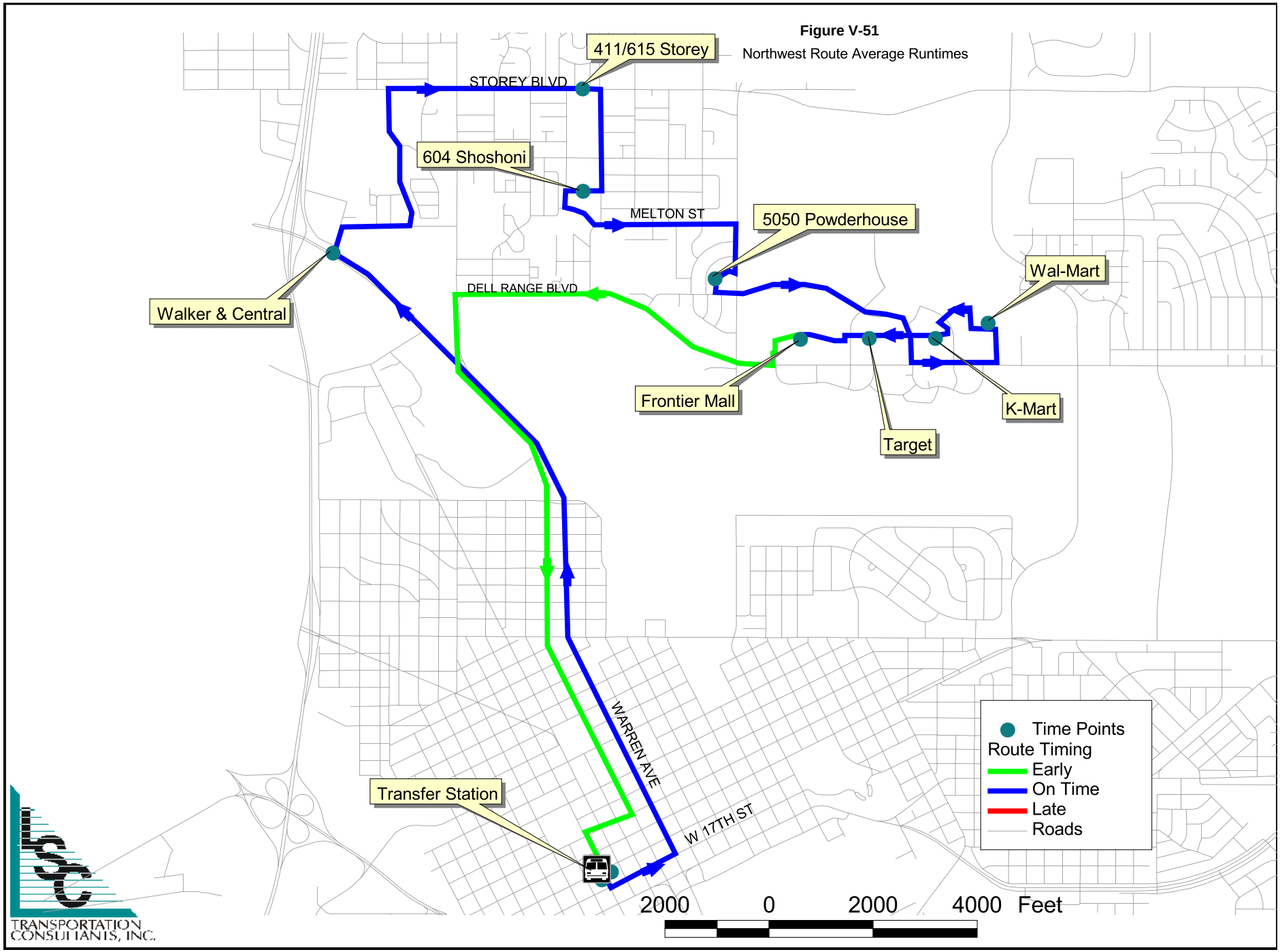

Figure V-52

Northwest Route AM Peak Average Runtimes

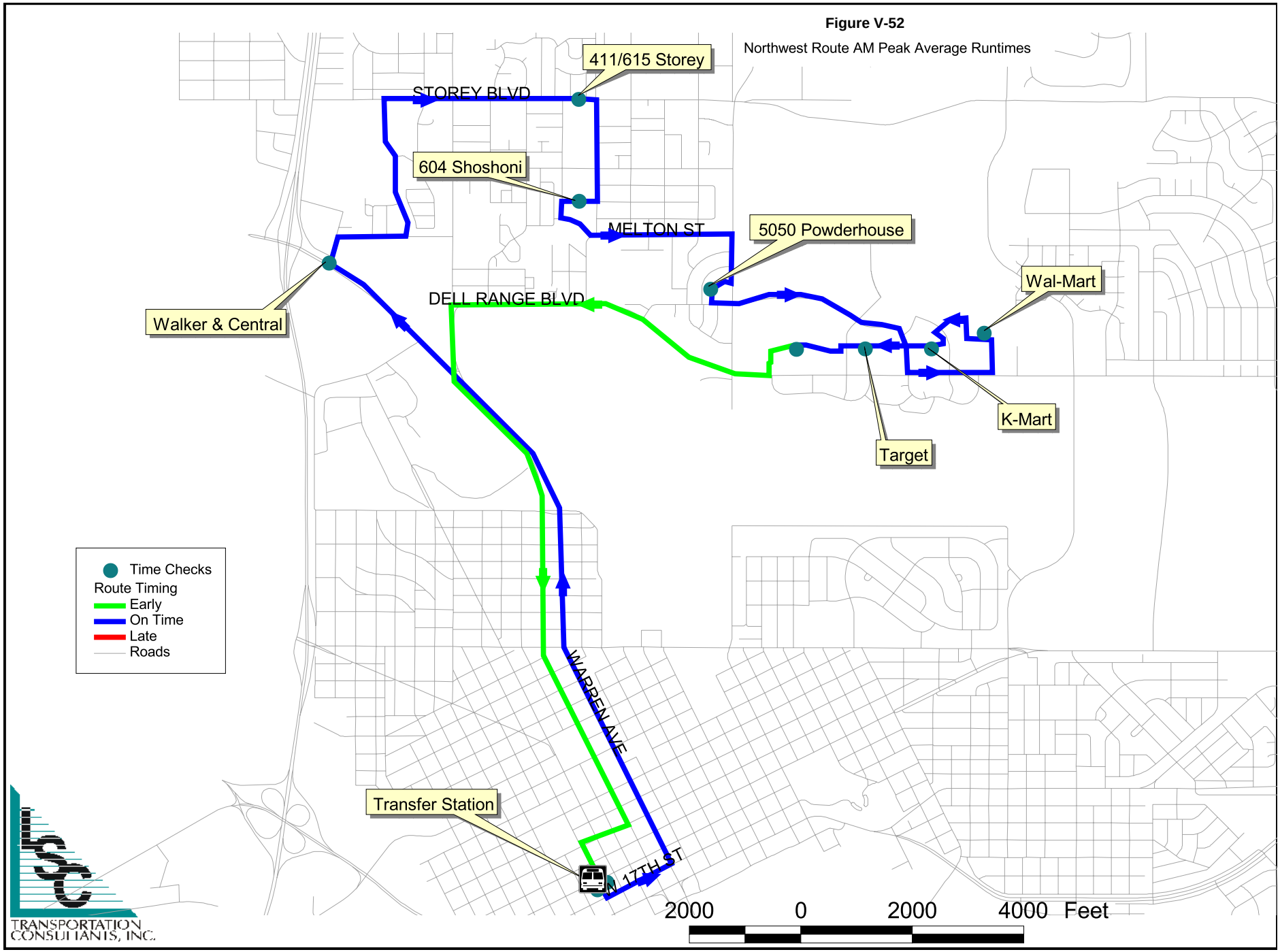

Figure V-53
Northwest Route PM Peak Average Runtimes

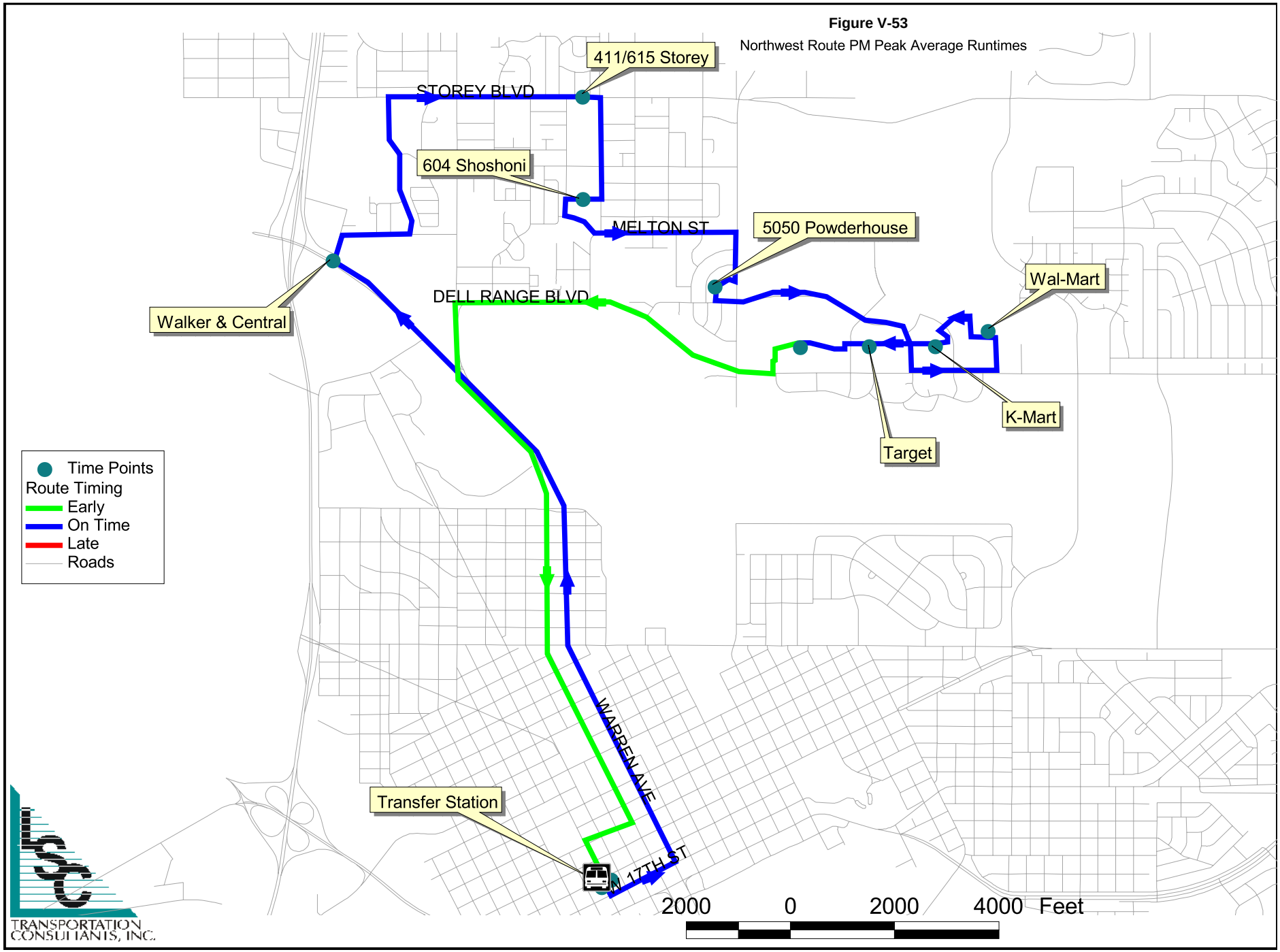

Figure V-54

South Route Average Runtimes

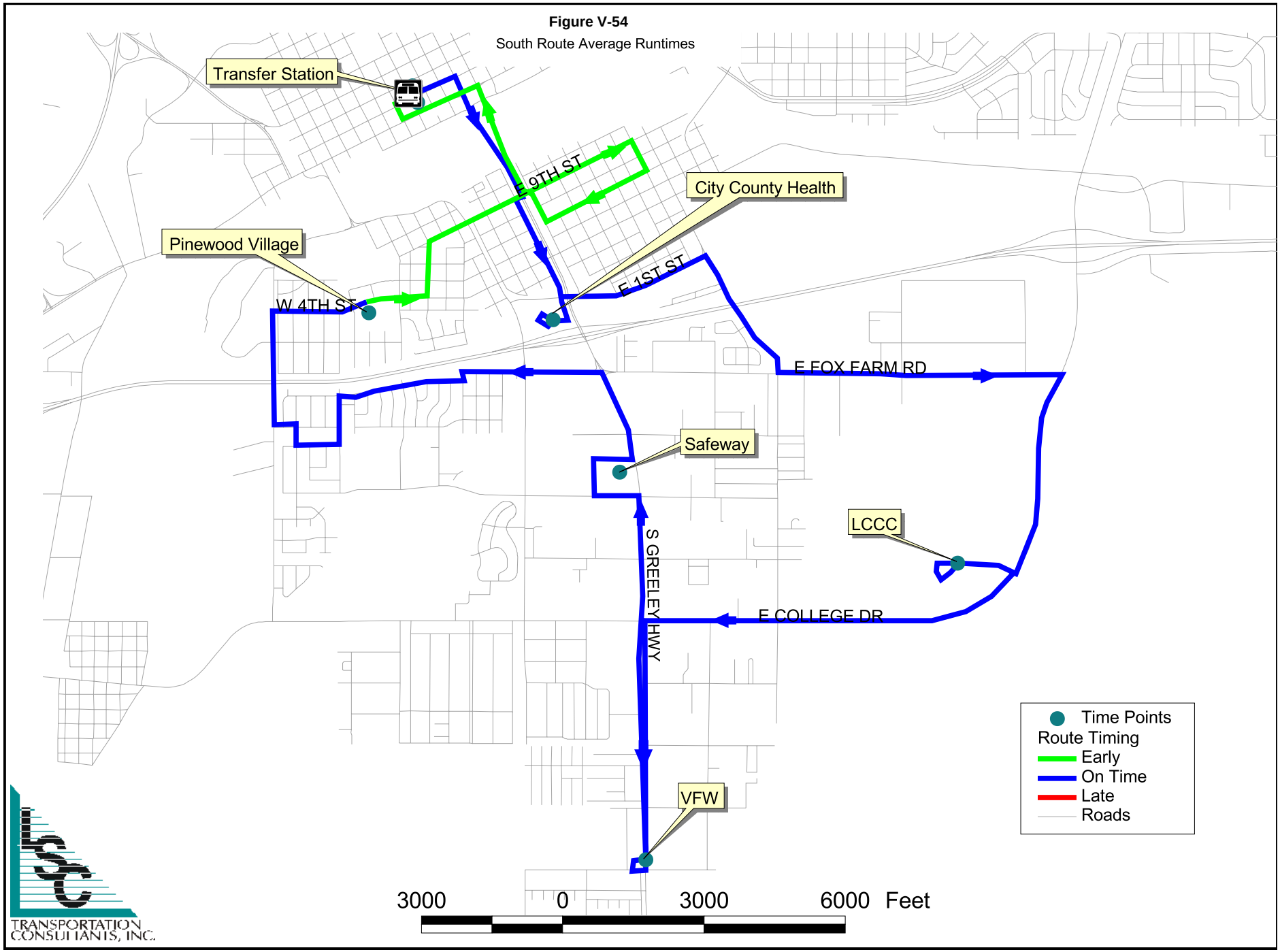

Figure V-55
South Route AM Peak Hour Average Runtimes

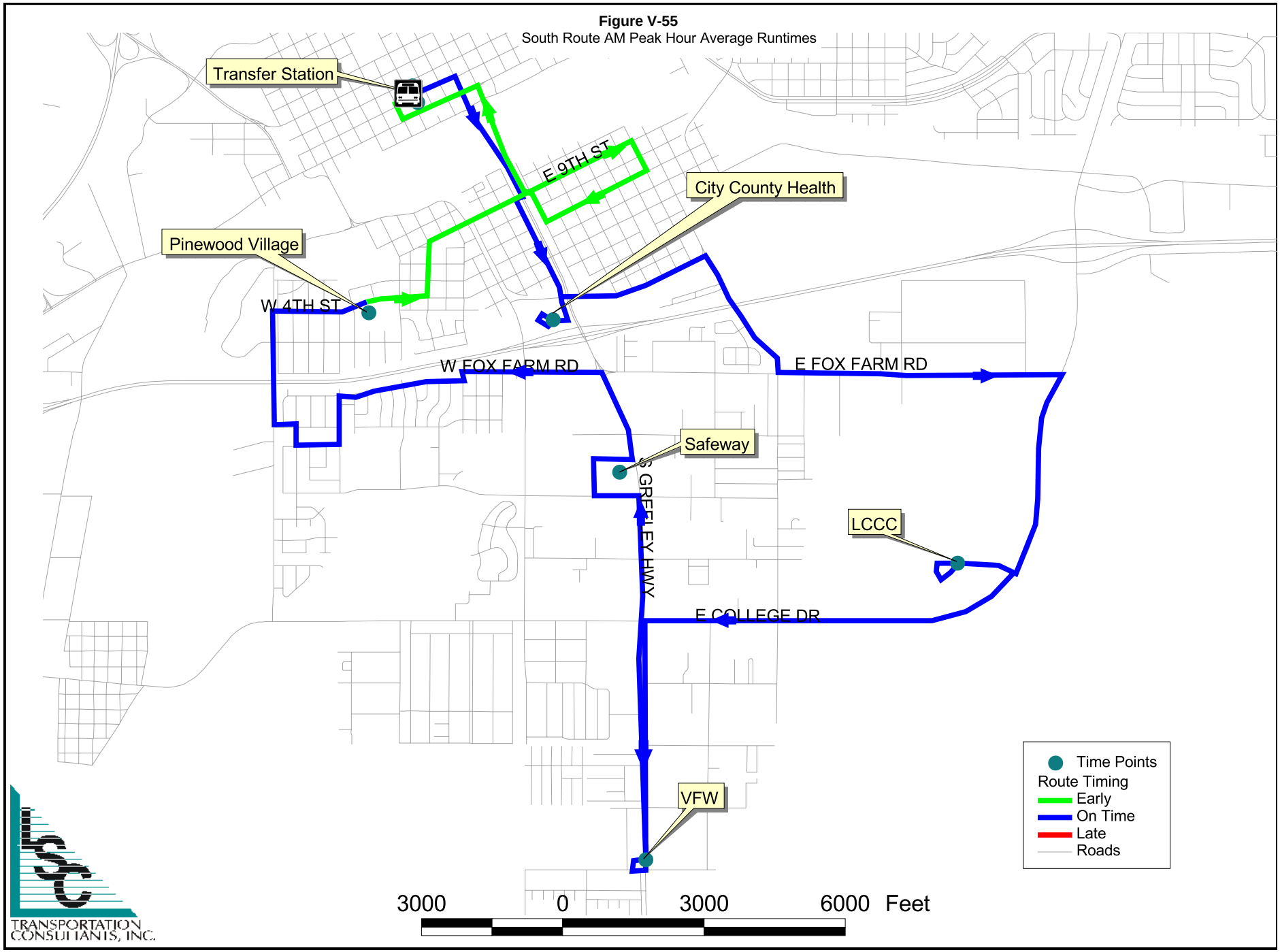

Figure V-56

South Route Average PM Peak Hour Runtimes

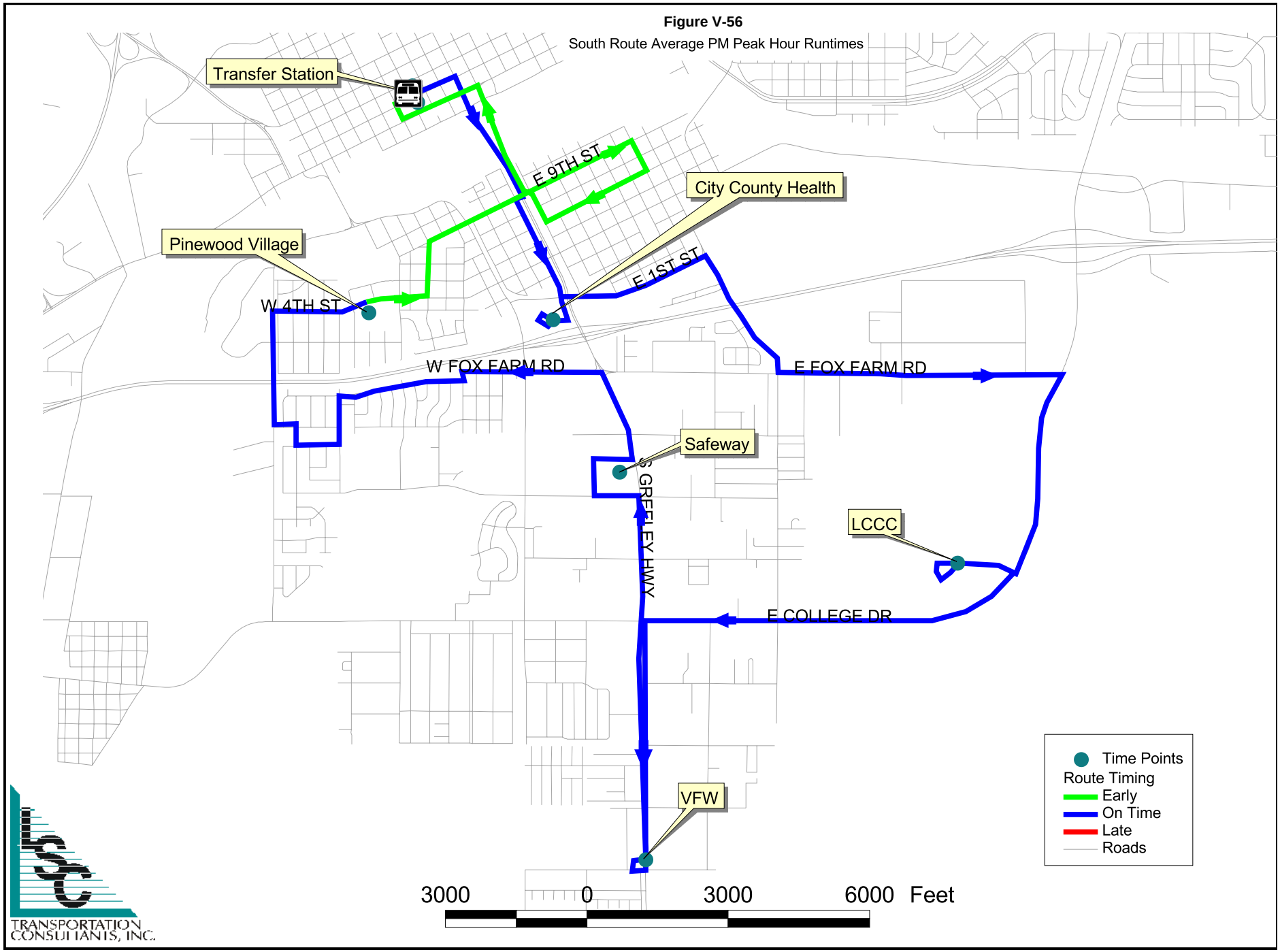

Figure V-57

West Route Average Runtimes

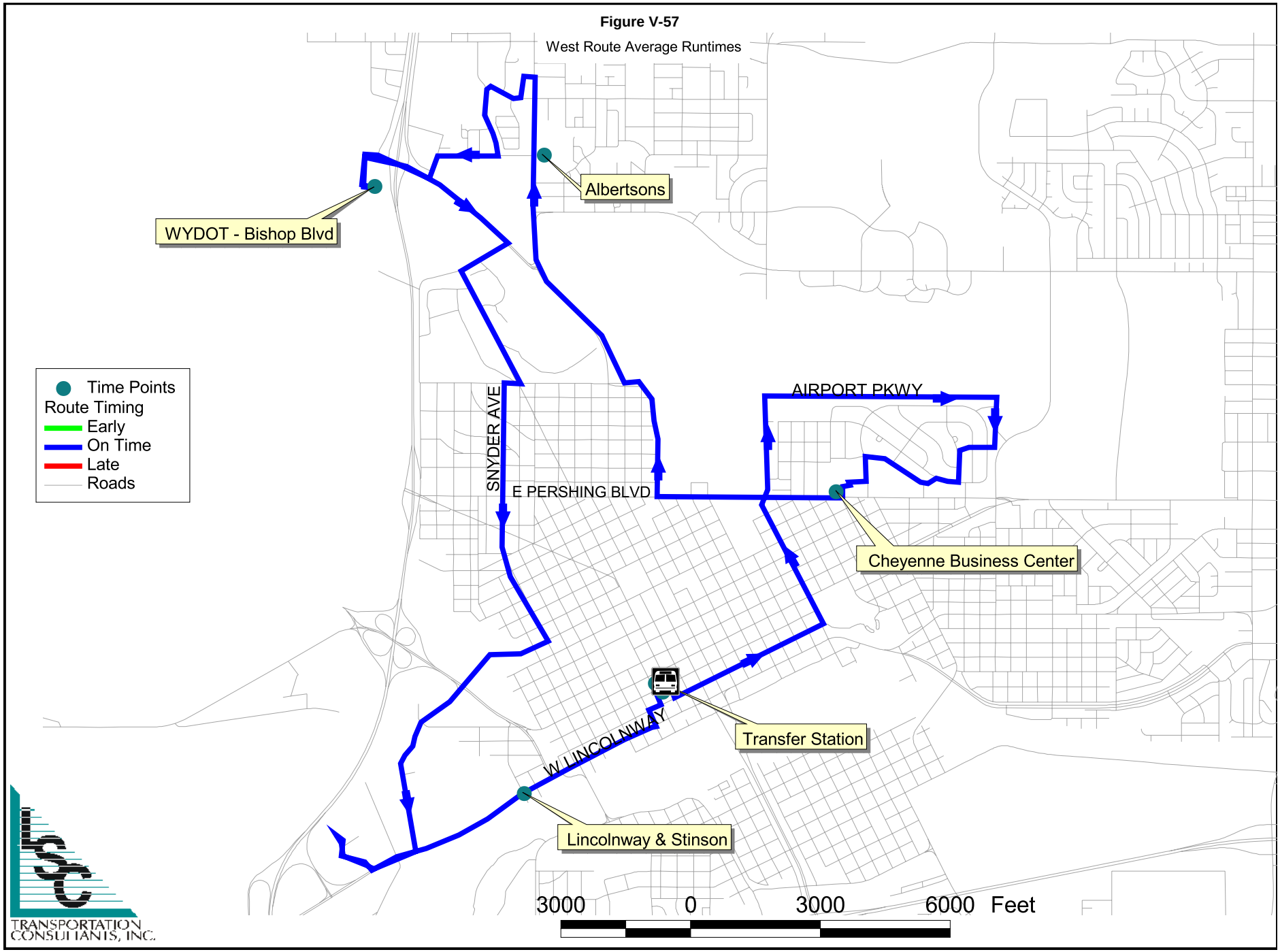

Figure V-58

West Route AM Peak Hour Average Runtimes

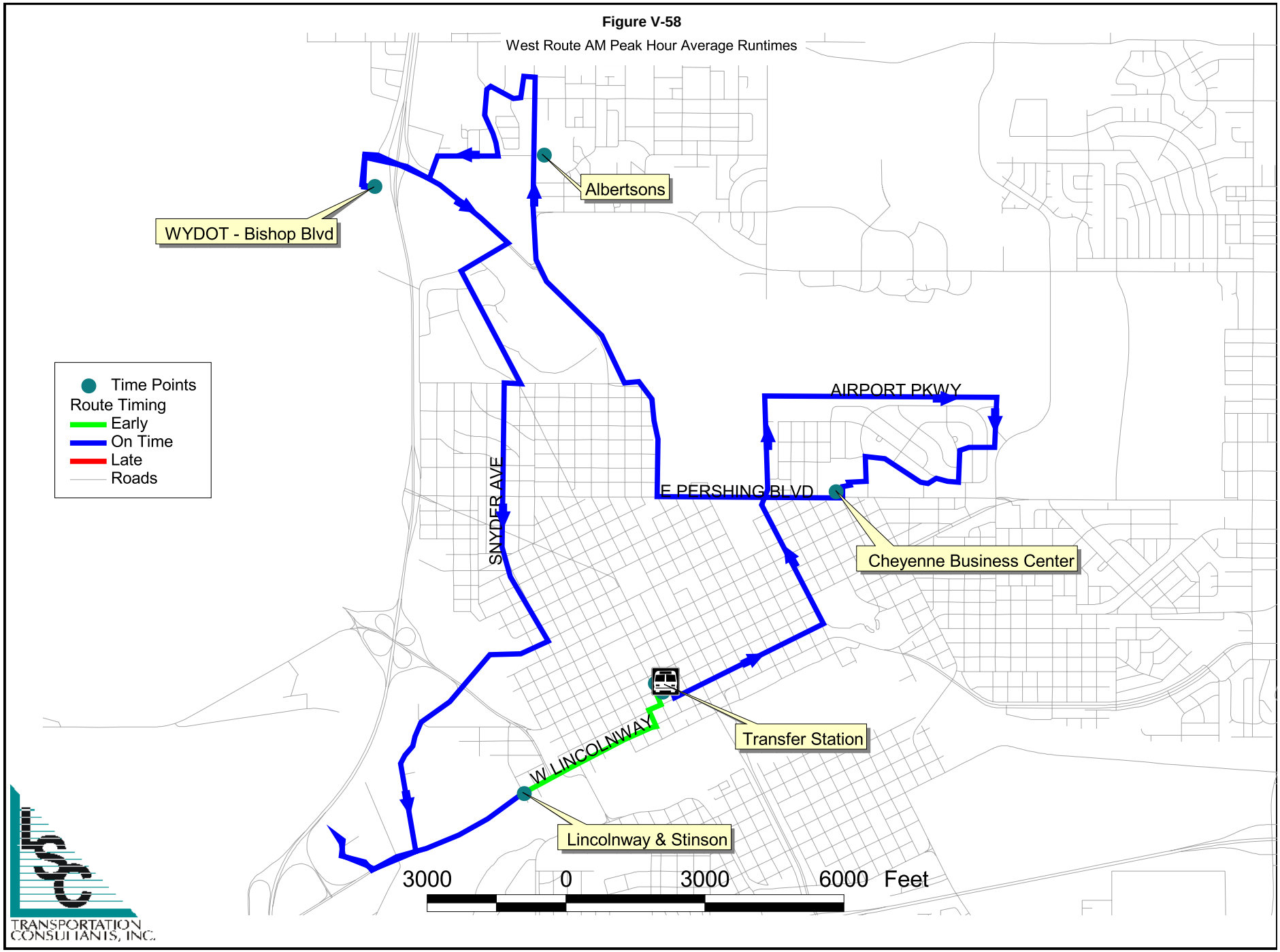

Figure V-59

West Route PM Peak Hour Average Runtimes

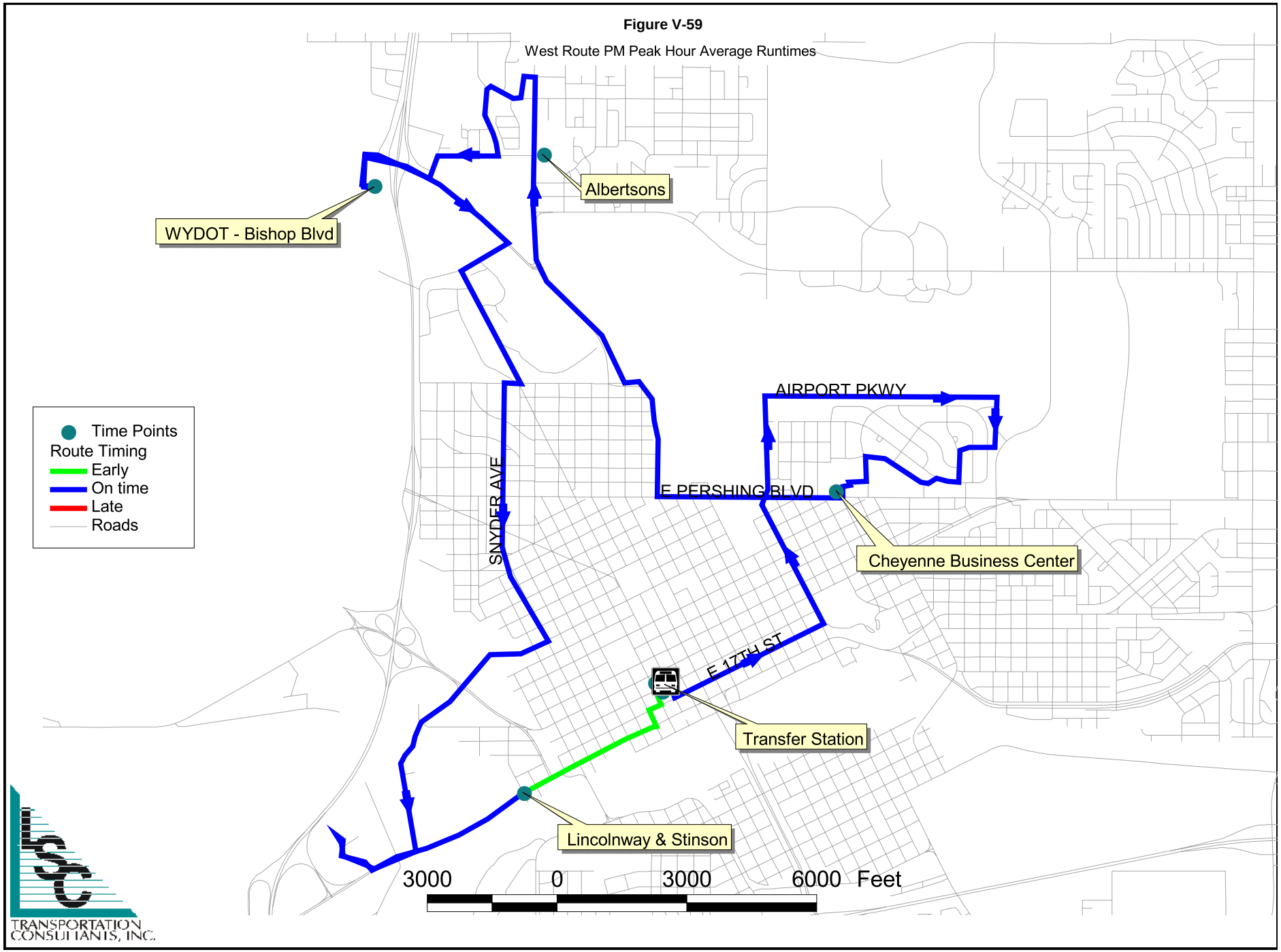

Figure V-60

Systemwide Average Runtimes

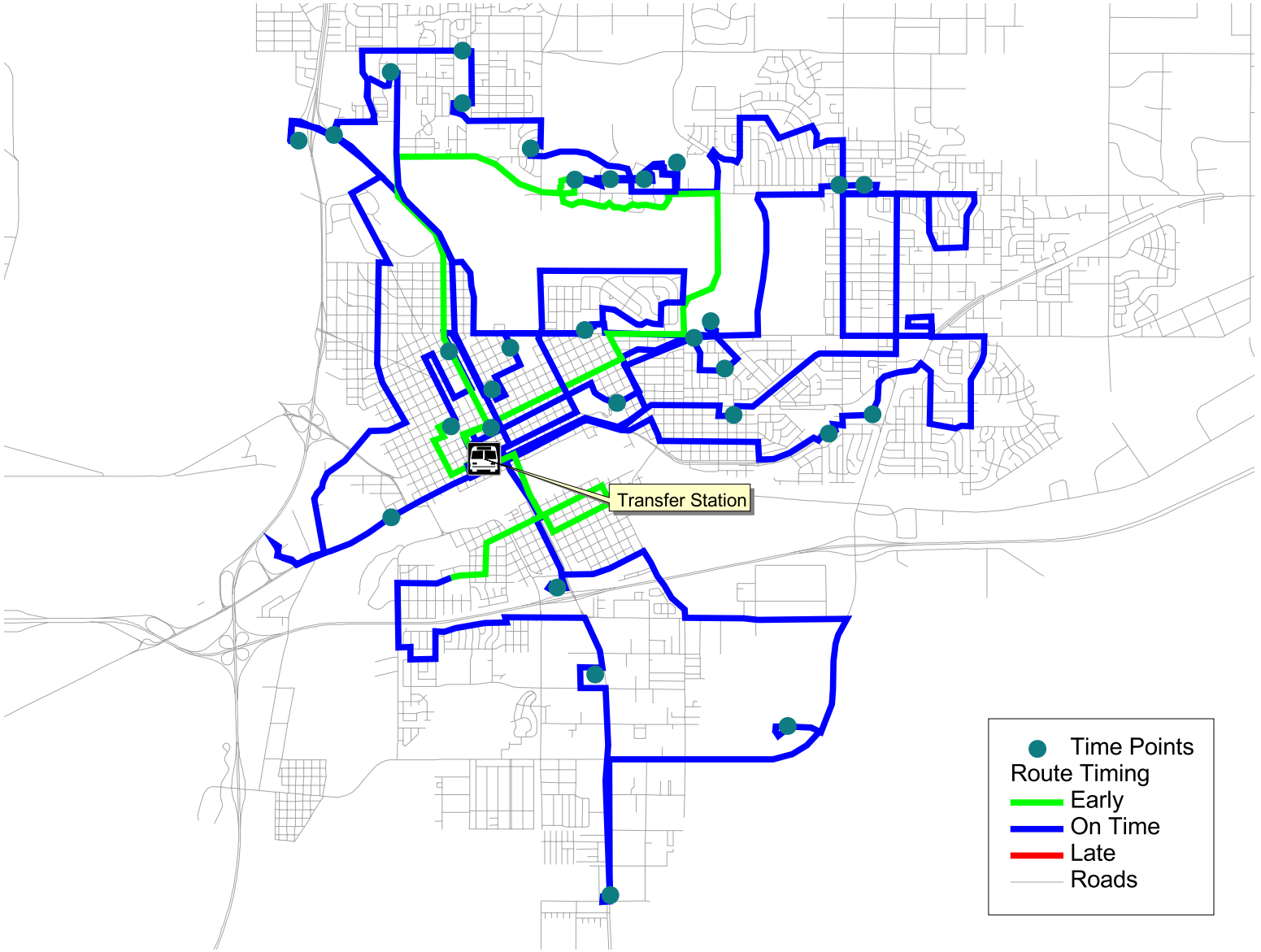

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Table V-8
Run Time Analysis

Segment (From - To)	Route	Scheduled Run Time (in minutes)	Actual Average Time (in minutes)	Time Difference* (in minutes)	Time Difference during AM Peak* (in minutes)	Time Difference during PM Peak* (in minutes)
Transfer Station - Cheyenne Business Center	West	16	15	-1	-1	-1
Cheyenne Business Center - Albertsons	West	9	10	1	1	1
Albertsons - WYDOT	West	5	5	0	0	0
WYDOT - Lincolnway & Stinson	West	16	17	1	2	-1
Lincolnway & Stinson - Transfer Station	West	9	4	-5	-6	-7
Transfer Station - City County Health	South	5	6	1	1	1
City County Health - LCCC	South	9	10	1	1	1
LCCC - VFW	South	8	7	-1	-1	-1
VFW - Safeway	South	5	4	-1	0	-1
Safeway - Pinewood Village	South	10	13	3	2	4
Pinewood Village - Transfer Station	South	19	12	-7	-7	-7
Transfer Station - Walker & Central	Northwest	8	9	1	2	1
Walker & Central - 411/615 Storey	Northwest	5	5	0	1	0
411/615 Storey - 604 Shoshoni	Northwest	2	3	1	0	2
604 Shoshoni - 5050 Powerhouse	Northwest	4	4	0	0	-1
5050 Powerhouse - Wal-Mart	Northwest	7	7	0	-1	1
Wal-Mart - Kmart	Northwest	3	3	0	0	0
Kmart - Target	Northwest	2	2	0	0	0
Target - Frontier Mall	Northwest	3	3	0	-1	1
Frontier Mall - Transfer Station	Northwest	21	13	-8	-9	-8
Transfer Station - 2701 E 13th St	Northeast	6	7	1	0	2
2701 E 13th St - Wal-Mart	Northeast	20	21	1	0	2
Wal-Mart - Kmart	Northeast	3	4	1	0	1
Kmart - Target	Northeast	2	2	0	0	0
Target - Frontier Mall	Northeast	3	2	-1	0	-2
Frontier Mall - Transfer Station	Northeast	31	13	-18	-19	-19
Transfer Station - Nationway & Mulberry Ave	East	11	14	3	1	4
Nationway & Mulberry Ave - Cheyenne Plaza	East	2	3	1	1	2
Cheyenne Plaza - Dell Range Blvd & Parkview	East	14	18	4	4	4
Dell Range Blvd & Parkview - Ridge Rd & Sheridan St	East	2	1	-1	-2	0
Ridge Rd & Sheridan St - Henderson Dr & E Pershing Blvd	East	6	6	0	-1	0
Henderson Dr & E Pershing Blvd - Transfer Station	East	20	16	-4	-6	-5
Transfer Station - 2113 Thomas	Downtown	3	4	1	1	2
2113 Thomas -1901 Central Ave	Downtown	3	4	1	0	2
1901 Central Ave- 16th st & Alexander	Downtown	3	3	0	0	1
16th st & Alexander - VA Hospital	Downtown	3	6	3	3	3
VA Hospital - United Medical Center East	Downtown	3	3	0	0	0
United Medical Center East - Cole Safeway	Downtown	2	3	1	0	2
Cole Safeway - Cheyenne Business Center	Downtown	5	5	0	-1	0
Cheyenne Business Center - Peak Wellness	Downtown	4	3	-2	-2	-1
Peak Wellness - United Medical Center West	Downtown	3	3	0	0	0
United Medical Center West - Library	Downtown	4	4	0	0	0
Library - 2113 Thomas	Downtown	5	6	1	1	2
2113 Thomas - Transfer Station	Downtown	14	5	-9	-10	-5

** Negative sign indicates that the bus arrived earlier than the scheduled time*

Source: CTP Onboard Survey, 2007.

Figure V-61 shows the average layover time (in minutes) at the transfer station by route. Four routes have an average layover of 10 to 13 minutes at the transfer station. This may sound like a desirable situation, but in fact it can also make the system inefficient. A reasonable layover would be five to six minutes. As an example, if a bus arrives, on average, eight minutes ahead of the scheduled time at the transfer station (assuming a five-minute layover), the bus must sit and wait for the next run time to begin, leading to a waste of time and money. This would result in 104 minutes a day over 255 operating days per year, for a total annual time of 442 hours and a total annual cost of $10,422 per route (based on a cost per revenue-hour of $23.58 from the cost allocation model presented in Chapter III). Figure V-61 illustrates that the routes with the greatest amount of layover time ***on average*** were the Downtown, Northwest, and Northeast routes with 13 minutes each. The ***maximum*** layover time at the transfer station observed was 17 minutes on the Downtown Route, while the route with the ***least*** layover time at the transfer station was four minutes on both the East and South routes.

Figure V-61
The Average Layover Time (in minutes) at Transfer Station by Route

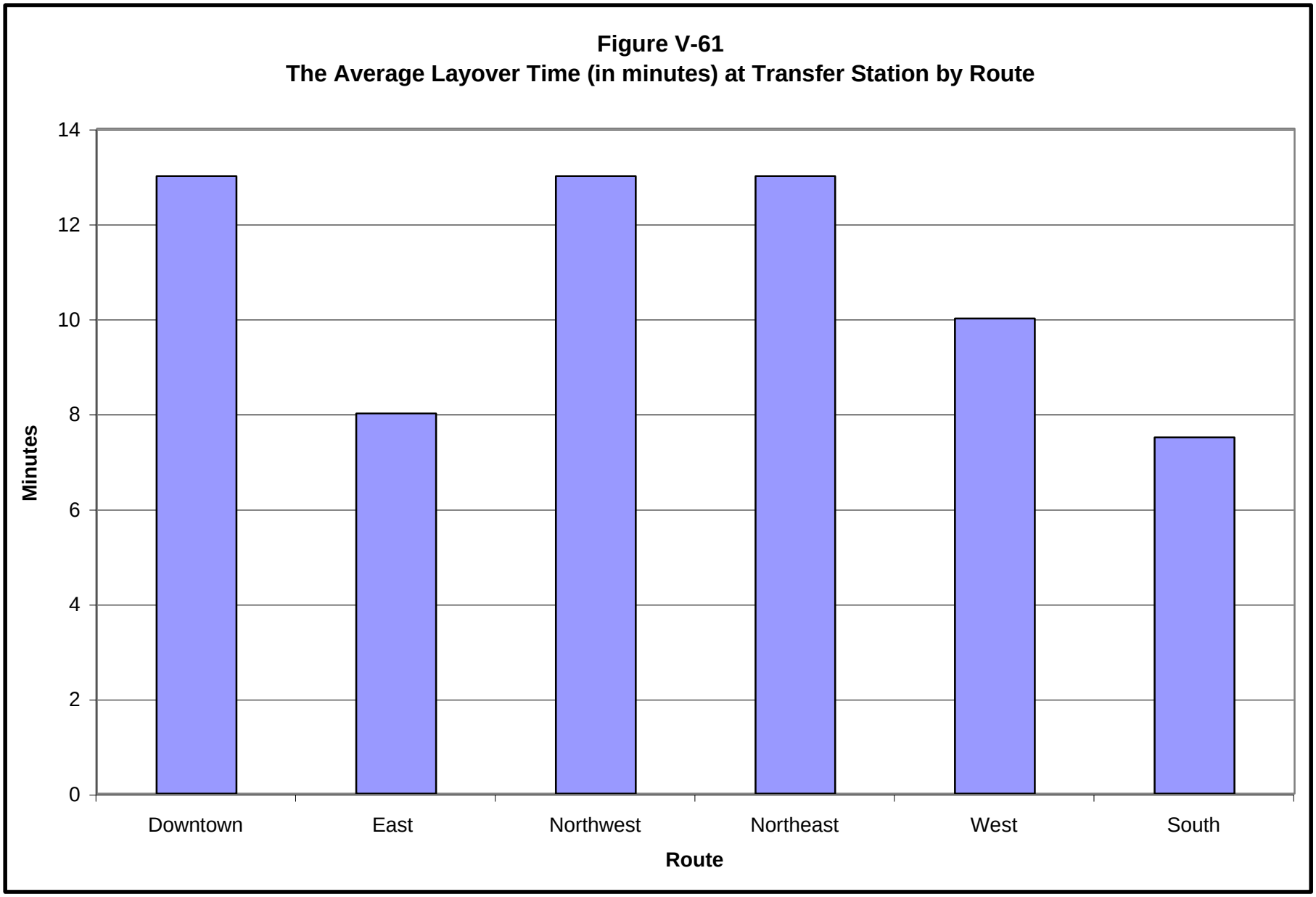
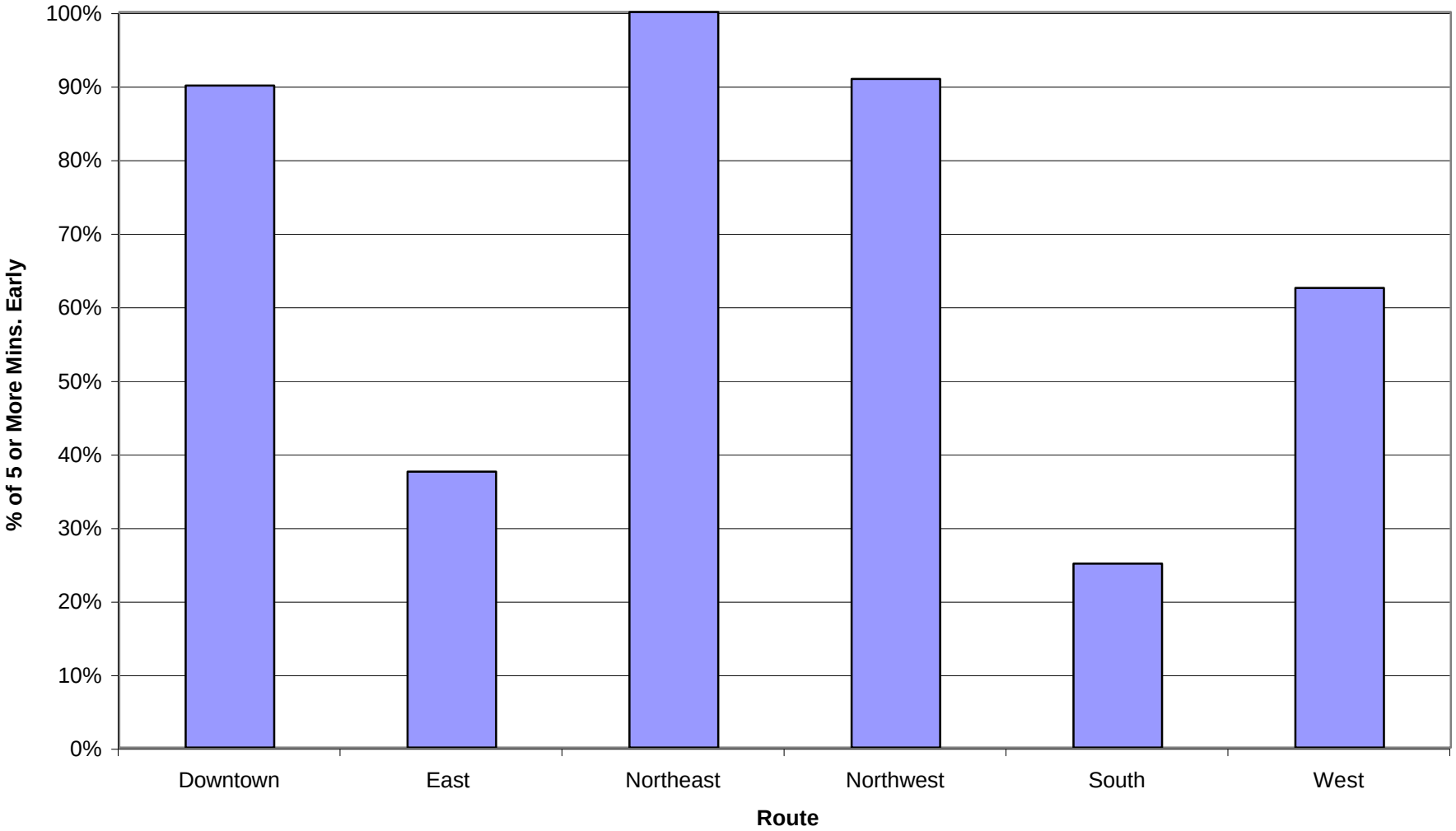


Figure V-62 shows the proportion of runs on each route that arrive at the transfer center five or more minutes early. This figure indicates that buses are frequently arriving early. Drivers were sometimes observed to incorporate some layover along the route. These results indicate that some routes have the potential to incorporate deviations without changes to schedules.

Figure V-62
Early Arrival at Transfer Center



Chapter VI

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER VI

Goals and Objectives

The LSC team, with input from the TAC, has developed a set of goals and objectives to guide the present and future transit operations and the expansion of the transit services within the City of Cheyenne. Many transit issues were identified during the July 2007 meeting. The LSC team used these issues to develop goals and several specific objectives for each goal. The goals were used to develop and evaluate the transit service alternatives, projects, and programs for the next five years.

TRANSIT SERVICE VISION

In developing the CTP Transit Development Plan (TDP) and Coordination Study, 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 transit service vision 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. Below is the mission statement for CTP. This mission statement is based on their existing mission statement and the 2006 Cheyenne Area Master Plan.

Mission Statement
The mission of CTP is to provide quality, safe, dependable, and courteous transit service to residents of and visitors to the City of Cheyenne by developing an efficient and effective transit system that allows for mobility and access to all residents within the service area.

Goals and Objectives

For transportation 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 the July 2007 meeting with the TAC, the LSC team formulated the draft goals and objectives for CTP. The goals and objectives are also based on the 2002 Transit Plan and the 2006 Master Plan. The goals and objectives have been reviewed by the TAC, and changes were made where appropriate.

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

Objective 1.a: Continue to serve the Cheyenne area as well as the surrounding rural areas, human services agencies, and medical centers.

Objective 1.b: Expand transit service to the following locations—major employment centers, nursing homes, high schools, colleges, educational institutions, shopping centers, and local recreational areas/parks.

Objective 1.c: Expand the transit service to include routes and regional connectors to the communities throughout Laramie 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: Refine fixed-route service where needed, based on the greatest transit demand and need.

Objective 1.f: Expand transit service for students, after-school programs, and employment trips.

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

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

Objective 2.c: Pursue state funding and Federal Transit Administration (FTA) Sections 5309, 5311, and 5310; JARC; and New Freedom funding for the transit service operations.

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

Objective 2.f: Maintain a farebox recovery ratio of at least 12 percent.

Goal #3: Provide high-quality customer-oriented transit service

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

Objective 3.b: 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. The bus stops should be located, at a minimum, at the major activity centers.

Objective 3.c: The fixed and regional 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: The 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: The 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: The paratransit service should be provided within three-quarters of a mile from the fixed routes.

Objective 3.i: The transit service should operate a minimum of six days per week in areas with the greatest transit needs.

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

Objective 3.k: Route schedules need to be user-friendly.

Objective 3.l: Annual training should be provided for all CTP employees.

Objective 3.m: The operating policies manual should be reviewed and updated every three years.

Goal #4: Provide efficient, effective, and safe transit service

Objective 4.a: Transit service should be provided to 80 percent of the population in the areas with the greatest transit needs.

Objective 4.b: Route service should be provided within one-quarter mile walking distance from the following:

- Shopping centers (50,000 square feet or larger)
- Schools (500 or more students)
- Hospitals (100 or more beds)
- Nursing homes (100 or more beds)
- Retirement homes (100 or more residents)

Objective 4.c: Route structures should minimize the number of transfers required for a rider to reach their destination.

Objective 4.d: The 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.e: The regional routes should maintain a minimum productivity of five passengers per service-hour. Those routes which do not meet the minimum standard should be reviewed annually for service changes.

Objective 4.f: CTP should operate with fewer than six vehicle accidents per 50,000 vehicle-miles.

Objective 4.g: Preventive maintenance service should preformed as scheduled at least 90 percent of the time.

Objective 4.h: Only 25 percent of the CTP fleet should exceed FTA's designated useful life.

Objective 4.i: CTP should coordinate the transit service with the other area transportation providers in order to meet regional transportation needs. A transportation broker service should be created that can pool vehicles and services.

Objective 4.j: The CTP staff should be involved in the land use planning process throughout the transit service area in order to promote increased access and mobility for the transit users, and thereby make the transit system a true element of the region's transportation system.

Goal #5: Promote transit service

Objective 5.a: Develop a statement of purpose and need that identifies the benefits of transit service in the community.

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 City of Cheyenne.

Objective 5.c: Continue to use every opportunity to promote the transit service including, but not limited to, the following ideas:

- List CTP in the regional telephone directory.
- Display the telephone number for rides prominently on all fleet vehicles.
- Continue providing information on the CTP website.
- Post flyers with the telephone number and hours of operation at various locations (such as train stations 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.

Shape

Chapter VII

CHAPTER VII

Transit Need Assessment

INTRODUCTION

In order to evaluate various service alternatives, it is important to have a methodology to estimate transit demand as a function of demographics, economics, and service characteristics. This chapter describes the development of three models used for Cheyenne which were utilized in the identification of transit service alternatives.

- Greatest Transit Needs Index Model
- Fixed-Route Demand Model
- ADA Demand Estimation Model

GREATEST TRANSIT NEEDS

The "greatest transit need" is defined as those areas in Cheyenne with the highest density of zero-vehicle households and elderly, disabled, and below-poverty populations. This information was used in the development of service alternatives, a coordinated plan for the area, and the identification of appropriate service constraints.

Methodology

The data included in Chapter II were used to calculate the greatest transit need. The categories used for the calculation were zero-vehicle households, elderly population, disabled population, and below-poverty population. Using these categories, LSC developed a "transit need index" to determine the greatest transit need. The density of the population for each US Census block group 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 Block Groups in order to provide equal representation.

The US Census Block Groups in the segment with the lowest densities were given a score of 1. The block groups in the segment with the next lowest densities were given a score of 2. This process continued for the remainder of the block groups. The block groups in the segment with the highest densities were given a score of 6. This scoring was completed for each of the categories (zero-vehicle households, elderly population, disabled population, and below-poverty population). After each of the block groups was scored for the four categories, the four scores were totaled to achieve an overall score. Table VII-1 presents the ranked scores for each US Census block group in Cheyenne. The scores range from four (lowest need) to 23 (highest need).

Table VII-1

2006 Greatest Transit Need Scores by Census Block Group

Cheyenne, Wyoming

Census Tract	Census Block Group	Land Area (sq.ml.)	Zero-Vehicle Households			Total # of Hhlds	Total Number of Elderly 60 & over			Mobility-Limited Population			Below-Poverty Population			Overall Score	Final	Total Population (Persons)
			#	Density (Persons per sq. mi)	rank	#	#	Density (Persons per sq. mi)	rank	#	Density (Persons per sq. mi)	rank	#	Density (Persons per sq. mi)	rank	(4-23)	(1-6)	#
2	1	1.2	64	52.3	3	490	218	179.0	2	104	85.7	3	167	137.1	3	11	2	1,079
2	2	0.7	54	82.5	4	515	215	326.7	3	62	93.6	3	194	295.0	4	14	4	1,254
2	3	1.1	61	54.3	4	678	219	196.5	2	52	46.8	2	246	220.9	4	12	3	1,642
3	1	0.1	17	163.7	6	311	117	1145.7	5	29	286.4	5	176	1728.8	6	22	6	927
3	2	2.2	25	11.4	2	648	217	98.6	2	93	42.2	2	164	74.4	3	9	2	1,881
4.01	1	0.8	18	23.1	2	307	184	239.1	3	38	48.9	2	22	28.5	2	9	2	790
4.01	2	4.0	8	2.1	2	1007	247	61.7	1	151	37.7	2	401	99.9	3	8	2	2,825
4.01	3	0.6	50	84.0	5	296	53	89.3	2	19	31.5	2	339	569.0	6	15	4	729
4.02	1	2.9	37	12.7	2	431	161	56.0	1	50	17.5	1	166	57.8	2	6	1	1,167
4.02	2	0.7	29	40.0	3	722	278	379.7	4	139	189.8	4	230	314.0	5	16	4	1,730
4.02	3	0.8	31	41.6	3	723	115	152.6	2	17	22.2	2	312	414.9	5	12	3	1,981
5	1	0.5	45	85.8	5	923	282	538.7	4	177	339.2	6	120	229.4	4	19	5	2,770
5	2	0.5	16	31.9	3	452	278	565.3	4	71	144.5	4	5	10.6	1	12	3	1,133
5	3	1.3	35	26.9	2	1162	391	296.7	3	99	75.2	3	318	241.3	4	12	3	2,738
6	1	0.4	22	54.5	4	665	548	1362.7	6	73	181.7	4	95	236.2	4	18	5	1,737
6	2	0.3	8	32.9	3	576	256	1006.5	5	166	653.2	6	98	386.2	5	19	5	1,264
6	3	0.3	34	108.3	5	838	388	1220.6	6	64	200.2	4	114	357.7	5	20	5	1,665
6	4	0.2	75	311.7	6	658	320	1329.2	6	123	510.9	6	99	411.3	5	23	6	1,438
7	1	1.4	189	139.9	5	695	279	206.4	3	122	90.4	3	292	216.4	3	14	4	1,409
7	2	0.3	55	164.6	6	825	304	903.7	5	92	273.3	5	89	264.0	4	20	5	1,547
7	3	0.4	75	167.7	6	832	119	265.5	3	90	200.3	4	219	489.1	6	19	5	1,601
8	1	1.6	0	0.0	1	223	118	73.9	2	24	15.0	1	58	36.6	2	6	1	510
8	3	0.1	11	81.4	4	280	275	1953.7	6	34	244.2	5	54	384.8	5	20	5	676
8	4	0.2	18	113.7	5	337	215	1377.9	6	53	341.1	6	53	341.1	5	22	6	759
9	1	0.7	20	26.7	2	355	198	266.8	3	52	70.2	3	14	18.3	2	10	2	699
9	2	0.5	17	34.1	3	309	148	303.0	3	59	121.6	4	106	217.7	3	13	3	620
9	3	0.1	22	202.9	6	328	208	1922.6	6	53	492.7	6	31	289.8	4	22	6	796
9	4	0.2	21	129.6	5	448	189	1173.1	5	13	77.8	3	79	492.6	6	19	5	883
10	1	0.1	38	341.5	6	221	142	1290.1	6	37	332.0	5	68	616.6	6	23	6	384
10	2	0.2	6	40.9	3	421	77	504.7	4	16	102.3	3	41	266.0	4	14	4	923
10	3	0.1	19	172.3	6	326	88	804.1	5	56	516.9	6	206	1885.9	6	23	6	844
10	4	0.1	30	343.9	6	269	64	723.3	4	23	260.9	5	140	1588.9	6	21	6	526
10	5	0.3	26	80.5	4	385	151	467.0	4	34	106.3	3	112	344.6	5	16	4	772
11	9	5.0	13	2.5	2	667	0	0.0	1	48	9.5	1	58	11.6	1	5	1	4,633
12	1	1.3	0	0.0	1	490	147	113.7	2	28	21.8	2	0	0.0	1	6	1	1,376
12	2	0.1	0	0.0	1	235	126	1158.3	5	24	220.2	5	22	201.0	3	14	4	640
12	3	0.2	0	0.0	1	268	284	1426.2	6	46	230.7	5	0	0.0	1	13	3	687
12	4	0.9	42	49.0	3	1089	378	443.9	4	101	118.9	4	161	188.8	3	14	4	2,299
13	1	0.4	19	51.3	3	728	284	775.5	4	15	39.9	2	66	179.6	3	12	3	1,941
13	2	0.4	66	160.3	5	945	506	1234.3	6	154	376.7	6	310	755.9	6	23	6	1,878
13	3	0.3	17	65.0	4	461	297	1157.1	5	11	44.7	2	14	52.8	2	13	3	1,180
13	4	2.7	10	3.9	2	610	293	108.3	2	50	18.5	1	78	28.9	2	7	2	1,683
14	1	1.0	8	8.2	2	438	241	235.4	3	38	36.7	2	41	39.7	2	9	2	1,249
14	2	0.2	40	244.8	6	550	148	914.6	5	61	373.6	6	148	914.6	6	23	6	1,415
14	3	1.9	152	81.0	4	1219	621	330.1	3	130	69.3	3	258	137.0	3	13	3	3,298
14	4	3.4	0	0.0	1	275	69	20.4	1	24	7.1	1	6	1.9	1	4	1	753
15.01	1	0.6	62	104.3	5	894	218	369.6	4	109	183.9	4	45	76.0	3	16	4	2,384
15.01	2	5.9	26	4.4	2	706	272	46.0	1	27	4.6	1	135	22.7	2	6	1	1,968
15.02	1	0.3	20	61.6	4	421	37	113.4	2	55	171.7	4	119	369.4	5	15	4	1,239
15.02	2	0.6	66	112.6	5	887	532	911.2	5	198	339.5	6	175	300.2	4	20	5	2,033
15.02	3	0.9	63	68.0	4	502	92	99.7	2	107	116.7	4	66	71.4	2	12	3	1,057
19	1	42.3	0	0.0	1	374	109	2.6	1	21	0.5	1	110	2.6	1	4	1	1,036
19	2	24.5	7	0.3	1	835	245	10.0	1	33	1.4	1	89	3.6	1	4	1	2,314
19	3	30.9	30	1.0	1	1060	320	10.4	1	120	3.9	1	202	6.5	1	4	1	2,981
20	1	48.5	6	0.1	1	728	246	5.1	1	62	1.3	1	131	2.7	1	4	1	2,120
CHEYENNE TOTAL:			***1,822***			***32,040***	***12,525***			***3,748***			***7,061***					***81,864***

Source: 2000 US Census; WYDOT Trip Generation Population Projection 2034; LSC, 2007.

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Results

Figure VII-1 presents Cheyenne study area's US Census block groups with the greatest transit need, along with the transit need index. Nine block groups were determined to have the greatest transit needs based on the zero-vehicle households, elderly population, disabled population, and below-poverty population. Table VII-2 presents information on these nine block groups. As shown in Figure VII-1, the greatest transit need is mainly in the downtown Cheyenne with a few located north of US Highway 30.

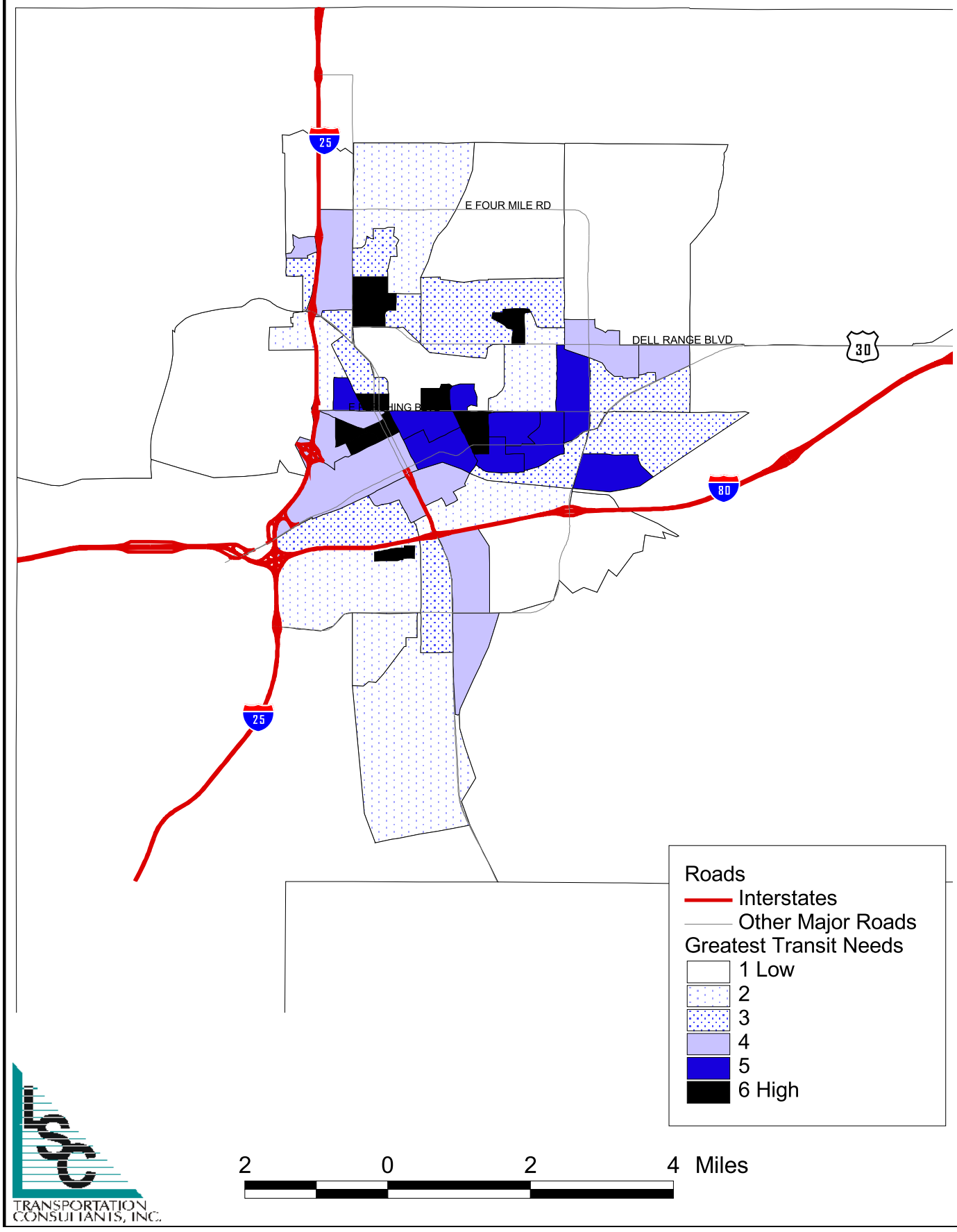
Table VII-2
Census Block Groups with Greatest Transit Need

Census Tracts	Census Block Groups	Overall Score	Description
6	4	23	West of the United Medical Center East
10	1	23	North of Wyoming State Government offices
10	3	23	West of the Wyoming State Government offices
13	2	23	Yellowstone Surgery Center, LLC
14	2	23	East of Wal-Mart
3	1	22	South of Interstate 80
8	4	22	West of VA Hospital
9	3	22	South of Cheyenne Airport
10	4	21	Cheyenne Police Department

Source: LSC, 2007.

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 service. As LSC examines service alternatives and coordination of services, Figure VII-1 can be used in the analysis to ensure that areas with a high transit need would be adequately served. Those US Census Block Groups not scoring in the highest category, but still having a high score, could still be considered a high priority for transit service.

Figure VII-1
Greatest Transit Needs



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. The model format is based on household vehicle ownership, average walking distance to bus stops, and frequency of operation. The basic approach is described in the paper, *Demand Estimating Model for Transit Route and System Planning in Small Urban Areas, Transportation Research Board, 730, 1979.* This model incorporates factors for walking distance, the distance traveled on the bus, and the frequency of service or headway.

The calibrated fixed-route model for Cheyenne Transit Program is presented in Table VII-3. This model reflects the existing population based on the 2006 population estimates and the 2006 ridership. The headways were decreased from the Cheyenne Transit TDP plan in 2002 from a 45-minute headway to the existing 60-minute headway. With the population increase in Cheyenne, the ridership has also increased, and the basic trip rates were slightly adjusted to reflect actual level of ridership. As shown in Table VII-3, the model generated 687 daily trips and approximately 214,000 annual trips—consistent with Cheyenne Transit Program's current ridership. This model does not include those trips that would need to still ride the paratransit service due to the FTA's ADA requirements.

The percentage of households with transit access was determined by the number of households within a quarter-mile of the transit service. Census block groups located entirely within a quarter-mile show 100 percent transit access.

This fixed-route model was then be used to estimate ridership for the alternate service concepts. The alternate concepts may be incorporated into the model by changing the percentage of households served by transit, the walking distance, and frequency of service. This model was applied to each of the service alternatives.

LSC also created an ideal fixed-route model based a several assumptions. This was done in order to create a basis to compare the existing 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, LSC generated the estimated demand for an ideal fixed-route service. LSC used 30-minute headways on all routes, an average walking distance to the route of 500 feet, and 100 percent of all households having access to transit. The model generated 2,126 daily trips and approximately 663,000 annual trips, as presented in Table VII-4.

Table VII-3
Calibrated Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	50%	32	213	0.2	0.03	500	1.25	1.2	60	0.6	0.85	3.7	6.5	10
2	2	515	54	461	100%	54	461	0.2	0.03	500	1.25	1.2	60	0.6	0.85	6.3	14.1	20
2	3	678	61	618	80%	48	494	0.2	0.03	500	1.25	1.2	60	0.6	0.85	5.6	15.1	21
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.9	9.0	11
3	2	648	25	623	40%	10	249	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.9	7.0	8
4.01	1	307	18	289	0%	0	0	0.2	0.03	3,000	0.7	0.9	60	0.6	0.85	0.0	0.0	0
4.01	2	1,007	8	999	10%	1	100	0.2	0.03	2,000	0.7	0.9	60	0.6	0.85	0.1	2.3	2
4.01	3	296	50	246	50%	25	123	0.2	0.03	1,000	1	1.1	60	0.6	0.85	2.3	3.5	6
4.02	1	431	37	394	50%	18	197	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.1	6.0	8
4.02	2	722	29	693	60%	18	416	0.2	0.03	1,000	1	1.1	60	0.6	0.85	1.6	11.7	13
4.02	3	723	31	692	60%	19	415	0.2	0.03	1,000	1	1.1	60	0.6	0.85	1.7	11.6	13
5	1	923	45	879	40%	18	351	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.1	10.8	13
5	2	452	16	436	90%	14	393	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.6	12.0	14
5	3	1,162	35	1,127	80%	28	902	0.2	0.03	500	1.25	1.2	60	0.6	0.85	3.3	27.6	31
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.5	19.7	22
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.0	17.4	18
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	60	0.6	0.85	4.0	24.6	29
6	4	658	75	583	100%	75	583	0.2	0.03	500	1.25	1.2	60	0.6	0.85	8.7	17.8	27
7	1	695	189	506	80%	151	405	0.2	0.03	500	1.25	1.2	60	0.6	0.85	17.6	12.4	30
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	60	0.6	0.85	6.4	23.6	30
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	60	0.6	0.85	8.7	23.1	32
8	1	223	0	223	90%	0	201	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.0	6.1	6
8	3	280	11	268	100%	11	268	0.2	0.03	1,000	1	1.1	60	0.6	0.85	1.1	7.5	9
8	4	337	18	319	100%	18	319	0.2	0.03	900	1.25	1.2	60	0.6	0.85	2.1	9.8	12
9	1	355	20	335	60%	12	201	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.4	6.1	8
9	2	309	17	292	100%	17	292	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.9	8.9	11
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.5	9.4	12
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.4	13.1	15
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	60	0.6	0.85	4.4	5.6	10
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.7	12.7	13
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	60	0.6	0.85	2.2	9.4	12
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	60	0.6	0.85	3.5	7.3	11
10	5	385	26	359	35%	9	126	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.8	3.5	4
11	9	667	13	654	5%	1	33	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.1	0.9	1
12	1	490	0	490	0%	0	0	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.0	0.0	0
12	2	235	0	235	0%	0	0	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.0	0.0	0
12	3	268	0	268	10%	0	27	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.0	0.8	1
12	4	1,089	42	1,048	40%	17	419	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.9	12.8	15
13	1	728	19	710	40%	8	284	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.9	8.7	10
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	60	0.6	0.85	7.6	26.9	35
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	60	0.6	0.85	1.9	13.6	16
13	4	610	10	600	10%	1	60	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.1	1.8	2
14	1	438	8	430	90%	8	387	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.7	10.9	12
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	60	0.6	0.85	4.6	15.6	20
14	3	1,219	152	1,066	60%	91	640	0.2	0.03	500	1.25	1.2	60	0.6	0.85	10.6	19.6	30
14	4	275	0	275	0%	0	0	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.0	0.0	0
15.01	1	894	62	833	90%	55	749	0.2	0.03	500	1.25	1.2	60	0.6	0.85	6.4	22.9	29
15.01	2	706	26	680	5%	1	34	0.2	0.03	1,000	1	1.1	60	0.6	0.85	0.1	1.0	1
15.02	1	421	20	401	5%	1	20	0.2	0.03	1,500	0.7	0.9	60	0.6	0.85	0.1	0.5	1
15.02	2	887	66	821	100%	66	821	0.2	0.03	1,000	1	1.1	60	0.6	0.85	6.1	23.0	29
15.02	3	502	63	439	40%	25	176	0.2	0.03	1,500	0.7	0.9	60	0.6	0.85	1.6	4.0	6
19	1	374	0	374	2%	0	7	0.2	0.03	3,000	0.7	0.9	60	0.6	0.85	0.0	0.2	0
19	2	835	7	827	2%	0	17	0.2	0.03	9,000	0.7	0.9	60	0.6	0.85	0.0	0.4	0
19	3	1,060	30	1,030	0%	0	0	0.2	0.03	500	1.25	1.2	60	0.6	0.85	0.0	0.0	0
20	1	728	6	722	2%	0	14	0.2	0.03	3,000	0.7	0.9	60	0.6	0.85	0.0	0.3	0
Subtotal		**32,040**	**1,822**	**30,218**		1,322	17,943							Estimated Weekday Ridership				687

Source: LSC, 2005.

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Table VII-4
Ideal Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	100%	64	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.3	23.0	40
2	2	515	54	461	100%	54	461	0.2	0.03	500	1.25	1.2	30	1.4	1.5	14.7	24.9	40
2	3	678	61	618	100%	61	618	0.2	0.03	500	1.25	1.2	30	1.4	1.5	16.4	33.4	50
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.9	20
3	2	648	25	623	100%	25	623	0.2	0.03	500	1.25	1.2	30	1.4	1.5	6.8	33.6	40
4.01	1	307	18	289	100%	18	289	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.8	15.6	20
4.01	2	1,007	8	999	100%	8	999	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	53.9	56
4.01	3	296	50	246	100%	50	246	0.2	0.03	500	1.25	1.2	30	1.4	1.5	13.6	13.3	27
4.02	1	431	37	394	100%	37	394	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.9	21.3	31
4.02	2	722	29	693	100%	29	693	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.9	37.4	45
4.02	3	723	31	692	100%	31	692	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.5	37.4	46
5	1	923	45	879	100%	45	879	0.2	0.03	500	1.25	1.2	30	1.4	1.5	12.2	47.4	60
5	2	452	16	436	100%	16	436	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.2	23.6	28
5	3	1,162	35	1,127	100%	35	1127	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.6	60.9	70
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	34.7	41
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	30.7	33
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.3	43.4	53
6	4	658	75	583	100%	75	583	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	31.5	52
7	1	695	189	506	100%	189	506	0.2	0.03	500	1.25	1.2	30	1.4	1.5	51.2	27.3	79
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	41.6	57
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	40.9	61
8	1	223	0	223	100%	0	223	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	12.1	12
8	3	280	11	268	100%	11	268	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.1	14.5	18
8	4	337	18	319	100%	18	319	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.8	17.2	22
9	1	355	20	335	100%	20	335	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.4	18.1	23
9	2	309	17	292	100%	17	292	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.8	20
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	16.5	22
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.7	23.0	29
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.2	9.9	20
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	22.4	24
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	16.6	22
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	12.9	21
10	5	385	26	359	100%	26	359	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.1	19.4	26
11	9	667	13	654	100%	13	654	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.4	35.3	39
12	1	490	0	490	100%	0	490	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	26.5	26
12	2	235	0	235	100%	0	235	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	12.7	13
12	3	268	0	268	100%	0	268	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	14.5	14
12	4	1,089	42	1,048	100%	42	1048	0.2	0.03	500	1.25	1.2	30	1.4	1.5	11.3	56.6	68
13	1	728	19	710	100%	19	710	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	38.3	43
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	47.5	65
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	24.0	29
13	4	610	10	600	100%	10	600	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.8	32.4	35
14	1	438	8	430	100%	8	430	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	23.2	25
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.8	27.6	38
14	3	1,219	152	1,066	100%	152	1066	0.2	0.03	500	1.25	1.2	30	1.4	1.5	41.3	57.6	99
14	4	275	0	275	100%	0	275	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	14.9	15
15.01	1	894	62	833	100%	62	833	0.2	0.03	500	1.25	1.2	30	1.4	1.5	16.7	45.0	62
15.01	2	706	26	680	100%	26	680	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.1	36.7	44
15.02	1	421	20	401	100%	20	401	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.4	21.6	27
15.02	2	887	66	821	100%	66	821	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	44.3	62
15.02	3	502	63	439	100%	63	439	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.0	23.7	41
19	1	374	0	374	100%	0	374	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	20.2	20
19	2	835	7	827	100%	7	827	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.0	44.7	47
19	3	1,060	30	1,030	100%	30	1030	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	55.6	64
20	1	728	6	722	100%	6	722	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	39.0	41
Subtotal		**32,040**	**1,822**	**30,218**		1,822	30,218							Estimated Weekday Ridership				2,126

Source: LSC, 2005.

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ADA ELIGIBILITY MODEL

LSC prepared demand estimates for the demand-response ridership based on a methodology developed by the Federal Transit Administration (FTA). Factors used in this methodology include demographics, eligibility criteria, service area, availability of other services, socioeconomic characteristics, service characteristics, and fares.

Paratransit trips are frequently designated as:

- *Program-related:* Program-related trips occur only to support specific programs, and 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 are produced with this methodology and are shown in Table VII-5. The demand estimates have been calculated by census block group and show the current demand for paratransit services in Cheyenne. The annual trips for Cheyenne area's certified paratransit population ranges from approximately 21,768 to 47,890 annual trips. This certified paratransit population range is consistent with Cheyenne Transit Program's paratransit ridership of 23,722.

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Table VII-5
2006 Estimated Paratransit Demand - Cheyenne

Census Tract	Census Block Group	Total 2006 Population	% of Mobility-Limited Population 2006 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
2	1	1,079	9.7%	104	60.0%	63	25%	26	2.0	4.4	1,503	3,306	626	1,377
2	2	1,254	4.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
2	3	1,642	3.2%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
3	1	927	3.2%	29	60.0%	18	25%	7	2.0	4.4	421	926	175	386
3	2	1,881	4.9%	93	60.0%	56	25%	23	2.0	4.4	1,337	2,942	557	1,226
4.01	1	790	4.8%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
4.01	2	2,825	5.4%	151	60.0%	91	25%	38	2.0	4.4	2,179	4,793	908	1,997
4.01	3	729	2.6%	19	60.0%	11	25%	5	2.0	4.4	270	595	113	248
4.02	1	1,167	4.3%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
4.02	2	1,730	8.0%	139	60.0%	83	25%	35	2.0	4.4	1,998	4,396	833	1,832
4.02	3	1,981	0.8%	17	60.0%	10	25%	4	2.0	4.4	240	529	100	220
5	1	2,770	6.4%	177	60.0%	106	25%	44	2.0	4.4	2,554	5,620	1,064	2,341
5	2	1,133	6.3%	71	60.0%	43	25%	18	2.0	4.4	1,022	2,248	426	937
5	3	2,738	3.6%	99	60.0%	59	25%	25	2.0	4.4	1,427	3,140	595	1,308
6	1	1,737	4.2%	73	60.0%	44	25%	18	2.0	4.4	1,052	2,314	438	964
6	2	1,264	13.1%	166	60.0%	100	25%	41	2.0	4.4	2,389	5,256	995	2,190
6	3	1,665	3.8%	64	60.0%	38	25%	16	2.0	4.4	917	2,016	382	840
6	4	1,438	8.6%	123	60.0%	74	25%	31	2.0	4.4	1,773	3,901	739	1,625
7	1	1,409	8.7%	122	60.0%	73	25%	31	2.0	4.4	1,758	3,868	732	1,611
7	2	1,547	5.9%	92	60.0%	55	25%	23	2.0	4.4	1,322	2,909	551	1,212
7	3	1,601	5.6%	90	60.0%	54	25%	22	2.0	4.4	1,292	2,843	538	1,185
8	1	510	4.7%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
8	3	676	5.1%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
8	4	759	7.0%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	1	699	7.5%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
9	2	620	9.6%	59	60.0%	36	25%	15	2.0	4.4	856	1,884	357	785
9	3	796	6.7%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	4	883	1.4%	13	60.0%	8	25%	3	2.0	4.4	180	397	75	165
10	1	384	9.5%	37	60.0%	22	25%	9	2.0	4.4	526	1,157	219	482
10	2	923	1.7%	16	60.0%	9	25%	4	2.0	4.4	225	496	94	207
10	3	844	6.7%	56	60.0%	34	25%	14	2.0	4.4	811	1,785	338	744
10	4	526	4.4%	23	60.0%	14	25%	6	2.0	4.4	331	727	138	303
10	5	772	4.5%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
11	9	4,633	1.0%	48	60.0%	29	25%	12	2.0	4.4	691	1,521	288	634
12	1	1,376	2.0%	28	60.0%	17	25%	7	2.0	4.4	406	893	169	372
12	2	640	3.8%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
12	3	687	6.7%	46	60.0%	28	25%	11	2.0	4.4	661	1,454	275	606
12	4	2,299	4.4%	101	60.0%	61	25%	25	2.0	4.4	1,457	3,206	607	1,336
13	1	1,941	0.8%	15	60.0%	9	25%	4	2.0	4.4	210	463	88	193
13	2	1,878	8.2%	154	60.0%	93	25%	39	2.0	4.4	2,224	4,892	927	2,038
13	3	1,180	1.0%	11	60.0%	7	25%	3	2.0	4.4	165	364	69	152
13	4	1,683	3.0%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
14	1	1,249	3.0%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
14	2	1,415	4.3%	61	60.0%	36	25%	15	2.0	4.4	871	1,917	363	799
14	3	3,298	4.0%	130	60.0%	78	25%	33	2.0	4.4	1,878	4,132	783	1,722
14	4	753	3.2%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
15.01	1	2,384	4.6%	109	60.0%	65	25%	27	2.0	4.4	1,563	3,438	651	1,432
15.01	2	1,968	1.4%	27	60.0%	16	25%	7	2.0	4.4	391	859	163	358
15.02	1	1,239	4.5%	55	60.0%	33	25%	14	2.0	4.4	796	1,752	332	730
15.02	2	2,033	9.8%	198	60.0%	119	25%	50	2.0	4.4	2,855	6,281	1,190	2,617
15.02	3	1,057	10.2%	107	60.0%	64	25%	27	2.0	4.4	1,548	3,405	645	1,419
19	1	1,036	2.0%	21	60.0%	13	25%	5	2.0	4.4	301	661	125	275
19	2	2,314	1.4%	33	60.0%	20	25%	8	2.0	4.4	481	1,058	200	441
19	3	2,981	4.0%	120	0.0%	0	0%	0	2.0	4.4	0	0	0	0
20	1	2,120	2.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
Total		***81,864***	***5%***	***3,748***		***2,177***		***907***			**52,244**	**114,937**	**21,768**	**47,890**

(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.

Chapter VIII

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER VIII

Service Alternatives

INTRODUCTION

The basis for any short-range transit plan is the careful consideration of realistic transit services. The capital requirements, financial plans, and management options can then be developed to support the planned services. The main purpose of Chapter VIII is to develop a basic level of understanding of the different types of transit services that are used by transit providers and the way that various transit services function. This information—along with the vehicle types, goals, and objectives—was used in developing the transit service alternatives.

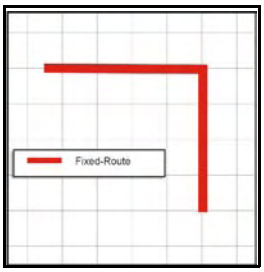
The second portion of this chapter presents the service alternative and options that LSC has developed based on input from the public, transit drivers, and the Stakeholder Committee.

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, fixed-route, flex-route, and commuter transportation.

Fixed-Route Service

Fixed-route service fits the popular description of a transit system with transit vehicles operating on specified routes and following set schedules. Specific bus 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

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 routes having one-half-mile spacing. However, 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 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 people 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 bus stop, wait for the vehicle, and the comparatively slow travel time make the option of a private automobile an easy choice. Where there are significant congestion issues or limited parking availability, fixed-route transit 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 to young working couples who may be able to use the bus rather than own two vehicles.

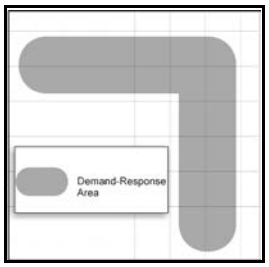
The Americans With Disabilities Act (ADA) requires that communities with fixed-route transit service also provide complementary paratransit service that operates, at a minimum, in a three-quarter mile radius of each fixed route. Paratransit service is typically much more costly to operate than fixed-route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

Demand-Response Service

Demand-response transit 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

Demand-Response Service

some immediate requests may be filled if time permits and if the service is particularly needed. The general public transit service operated by the Dawson County Urban Transportation District in Glendive, Montana and STAR in Rock Springs/Green River, Wyoming are examples of successful demand-response services.

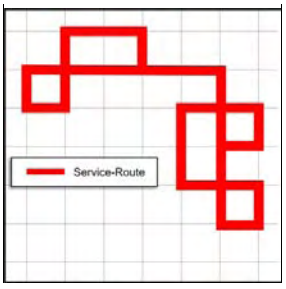


Demand-Response Service

The concept of demand-response 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 transit has been used almost exclusively in this country 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.

Service Routes

One concept that is being implemented in some communities as an alternative to 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 one or two blocks of all houses. The service route also directly serves major destinations such as senior centers, commercial areas, and medical centers. However, the service route provides a higher in-vehicle travel time and a longer wait for the bus than normally acceptable to the general public. The Bus in Butte, Montana and MET in Billings, Montana are examples of successful service routes.



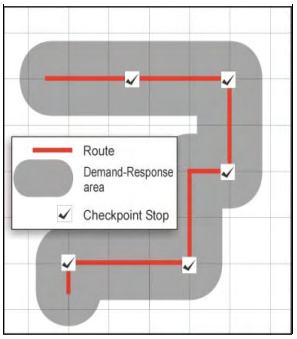
Service Routes

Flexible Routes

Another alternative is flexible routes such as route deviation or checkpoint service. With flexible routes, transit 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 with a 10- to 15-minute window at each designated stop.

Route Deviation

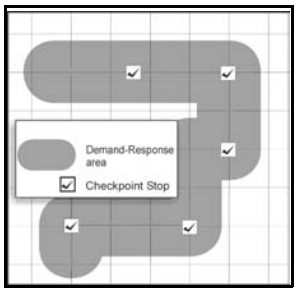
With route deviation, transit vehicles follow a specific route, but can leave the route to serve demand-response origins and destinations. The vehicles are required to return to the designated route within one block of the point of deviation to ensure that all intersections along the route are served. 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.



Route Deviation

Checkpoint Service

Under checkpoint service, the transit vehicles make periodic scheduled stops at major activity centers. The specific routes are not established between checkpoints, which allows the vehicles to provide demand-response service and alleviates the need for the ADA-mandated 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 an advance reservation 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



Checkpoint Service

specified route for the vehicles to use. Checkpoint service requires only that the vehicle arrive at the next checkpoint within the designated time window.

Regional and Commuter Service

With regional and commuter service, the route is primarily designed to link different communities together for employment purposes. These communities may be within the same geographic area. In urban areas, this type of service is commonly known as express or limited express service. In rural areas, the regional and commuter service links communities across the study area with each other and with communities outside the study area.

Vanpool Service

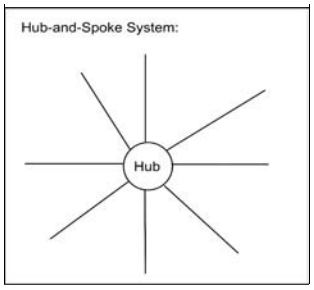
Vanpool service operates more of a point-to-point function. Vanpool service gathers riders within a community and then travels directly to a major employment center (such as the Frontier Mall). Normally, a transit agency owns and maintains the vehicles. Individuals using the vanpool share the travel cost and may even share the driving responsibilities. The schedule and route of the vanpool service depends upon the individuals participating in the vanpool. Vanpool service is limited to individuals within the program and has limited service for medical or shopping trips. Vanpool service is primarily for employment trips for non-disabled individuals, since there are liability issues with disabled individuals riding on vanpool service.

SYSTEM ROUTE STRUCTURE

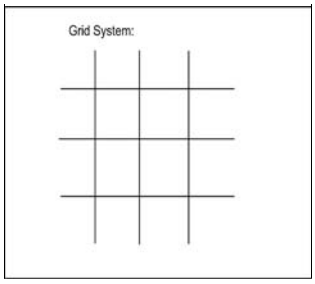
There are different ways that transit services function together to create a transit system. The system route structures include radial, grid, loop, and hybrid.

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 such as a central business district or downtown area.

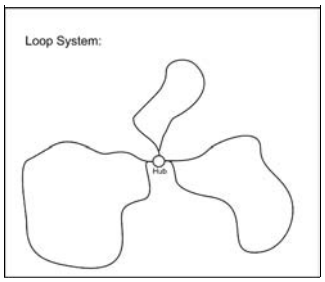


Grid Route Structure



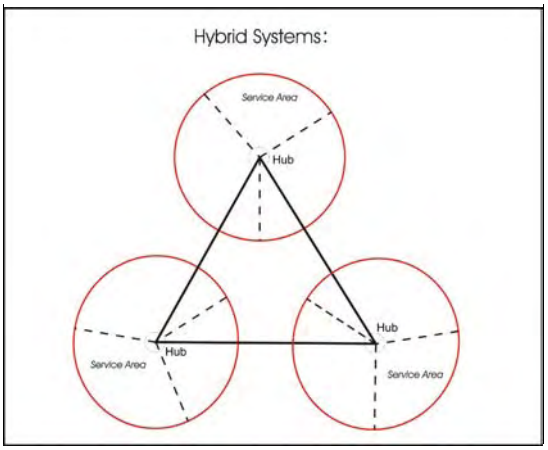
In a grid route structure, all of the routes function along a two-way direction (either north/south or east/west). The routes are normally spaced at equal distances if the roadway structure permits. A grid route structure has no center transfer location. Transfers are conducted at the intersections of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

Loop Route Structure



In a loop route structure, all of the routes function along a one-way direction that circles around a portion of the community. There is one central transfer location. A loop route structure is mainly used in smaller communities where there is lower population density in order to provide transit service across a large area with fewer routes. This reduces the overall cost, but increases the running time of the bus to complete the route. CTP currently operates a loop route structure.

Hybrid Route Structure



A hybrid route structure combines elements of the radial, grid, loop, and suburban service route structures into a single interconnecting network. The hybrid route structure has transit vehicles that operate by different methods. The first tier consists of vehicles that operate on a fixed route in a grid, radial, or loop structure in order to collect transit riders along the route. The next tier consists of vehicles that operate regional service in order to move transit riders quickly across an area.

TRANSIT SERVICE OPTIONS

A basis for any short-range 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 alternative must be evaluated using locally-established goals and objectives. Any alternative which does not support the mission statement of public transportation or the corresponding goals and objectives should not be considered for implementation.

The following discussion evaluates the various transit service alternatives, each of which is made up of several different types of transit services. The alternatives were based on information and input gathered from the Stakeholders Committee meetings, public comments, and the onboard survey results. The survey questionnaire is shown in Appendix B. The public comments are presented in Appendix A. The results of the onboard survey were reviewed in Chapter V of this document.

Maintain Status Quo

Services

A good starting point for the evaluation of transit service alternatives is the consideration of the "status quo." The status quo alternative involves no change in the service provided by CTP. This 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 service has six fixed routes and demand-response service. The annual cost is estimated at $1.35 million. The total number of revenue-hours is 35,600. The total number of annual passengers is 238,200 with a cost per passenger of $5.67. Table VIII-1 presents the level of service for the status quo alternative. The cost of the service has increased over the past few years. Since 2002, the annual service cost has increased from $1.1 million to over $1.35 million (a 22 percent increase). Ridership has also increased over the same time period.

Appendix G includes the estimated demand model for the existing transit service. The results show there is a very good level of service with over 222,600 annual trips. The largest single factor that can be expected to impact the region over the next five-year planning period is population growth which will result in increased demand for transit services.

Based on the information presented in the Snapshot and Structure sections of this document, the status quo alternative will not meet the needs, goals, and objectives of the community or the stakeholders. The purpose of this analysis is to determine if there is one better way to have the transit system function in order to meet the needs of the community and to analyze the system impacts of developing new and additional transit services to meet the needs of the community's residents.

Advantages

The advantage of maintaining the existing transit service and transportation providers is that there is no additional cost for CTP.

Disadvantages

The major disadvantage of maintaining the status quo is that CTP will only meet a few of the community's stated needs or fix the identified system issues. There is also a growing fiscal problem of the curb-to-curb service costs consuming over 46 percent of the operational budget, but only providing 10 percent of the system total ridership. This service is not sustainable into the future.

Table VIII-1
Level of Service - Status Quo

		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost ($) per Pass.
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Fixed Route	6:00 am - 6:00 pm M-S	6	974	72	278,029	21,480	307	189,778	9	$730,333	$3.85
Curb-to-Curb	6:00 am - 6:00 pm M-S	6	479	31	147,089	9,513	307	22,675	2.4	$468,736	$20.67
Stride (Contract Service)	School Days	5	300	23	60,000	4,624	200	25,757	5.6	$151,680	$5.89
Total/Avg					**485,118**	**35,617**		**238,210**	**6.69**	**$1,350,749**	**$5.67**

Note: Costs based on LSC analysis, 2007.

Alternative I - Route-Deviation Service

Services

In order to meet the needs identified in the Snapshot and Structure sections of this document and based on public input, LSC and the Stakeholders Committee developed various transit service alternatives. Alternative I is an adjustment to the existing transit system and includes deviation routes, weekend service, weekday evening service, demand-response service, and regional routes. Figure VIII-1 presents the route structure of Alternative I. Table VIII-2 presents the level of service for Alternative I. The following sections detail the different services' functions.

Deviation Routes

As part of Alternative I, the existing fixed routes will be changed to deviation routes in order to reduce the inefficiencies of the curb-to-curb service. The deviation routes will operate on the same route structure as the existing fixed routes. LSC shifted revenue-hours from the demand-response service to the deviation-route service. The deviation routes will deviate up to three-quarters of a mile off the route in order to cover the ADA requirements and some of the demand-response service. Each deviation route bus may deviate once per run. Therefore, there are two deviations per route per hour because there are two buses operating on each route. The deviation-route service is designed to cover over 150 deviations per day, or about 39,000 deviations per year.

The deviation-route service will operate 12 buses, with two buses on each route on a 30-minute headway from 6:00 a.m. to 6:00 p.m. every weekday, for a total of 144 revenue-hours per day (or about 36,720 revenue-hours per year). The model presented in Appendix G estimated an annual ridership of 337,300 passengers and an annual cost of $1.4 million.

Figure VIII-1
Alternative I

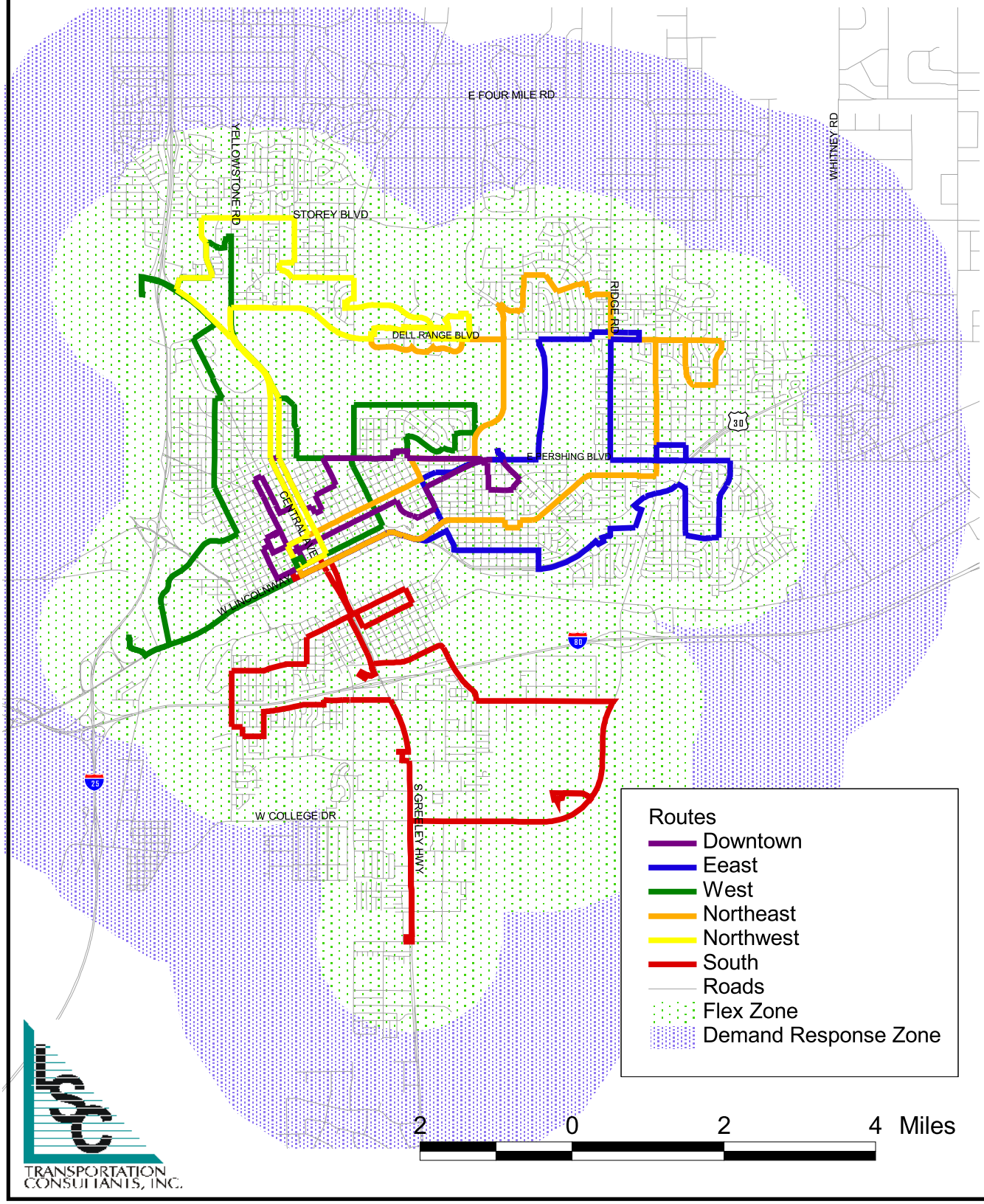


Table VIII-2
Level of Service - Alternative I

		# 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.
Route Deviation (30 minutes)	6:00 am - 6:00 pm (M-F)	12	2,165	144	552,024	36,720	255	337,280	9.2	$1,420,437	$4.21
Route Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	6	902	60	46,904	3,120	52	16,952	5.4	$120,691	$7.12
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	3	360	36	91,800	9,180	255	30,596	3.3	$326,808	$10.68
Evening Service (60 minutes)	6:00 -10:00 pm (M-F)	6	361	24	92,004	6,120	255	31,429	5.1	$189,392	$6.03
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,045,052**	**65,300**		**463,723**	**7.10**	**$2,467,951**	**$5.32**

Note: Costs based on LSC analysis, 2007.

Weekend Service and Weekday Evening Service

Based on public input, the second element of Alternative I is weekend service and weekday evening service.

The deviation-route service will operate on Saturdays via the same routes presented in Figure VIII-1. The Saturday service will operate six buses, with one bus on each route on a 60-minute headway from 7:00 a.m. to 5:00 p.m., for a total of 48 revenue-hours per day. The estimated annual ridership is 16,950 passengers. The estimated annual cost is $120,700.

The deviation-route service will also operate on weekday evenings via the same routes presented in Figure VIII-1. The evening service will operate six buses, with one bus on each route on a 60-minute headway from 6:00 to 10:00 p.m., for a total of 6,120 revenue-hours per year. The estimated annual ridership is 31,430 passengers. The estimated annual cost is $189,392.

Demand-Response/ADA Service

LSC reduced the number of revenue-hours for the curb-to-curb service that CTP operates. After reviewing the current dispatching process, LSC recommends that CTP move to a computer-based dispatching software like RouteMatch, Easy Ride, and Trapeze. This will allow CTP to increase the effectiveness of the demand-response service covering the Stride contract service that CTP currently operates, as well as for the existing and future trips outside the service area (up to two miles off the routes). This computerized system will be for both the demand-response service and the deviation routes. The demand-response service will also aid in covering the ADA requirements. This improvement of effectiveness reduces hourly cost thereby increasing the number of revenue-hours that the overall system can provide.

The weekday demand-response service will operate three buses on a 24-hour advance reservation basis from 6:00 a.m. to 6:00 p.m., for a total of 36 revenue-hours per day. The estimated annual ridership is 30,600 passengers. The estimated annual cost is $326,800.

The Sunday demand-response service will operate four buses on a 24-hour advance reservation basis from 7:00 a.m. to 5:00 p.m., for a total of 40 revenue-hours per day (or 2,080 revenue-hours per year). The estimated annual ridership is 6,400 passengers. The estimated annual cost is $72,800.

Regional Routes

Alternative I will also include four peak-hour regional routes operating from the rural areas of Laramie County into the City of Cheyenne. Each regional route will operate one bus during the morning and afternoon peak commuter times on week-days, for a total of 16 revenue-hours per day. The estimated annual ridership is 15,300 passengers. The estimated annual cost is $186,200. The regional routes are presented in Figure VIII-2.

Capital

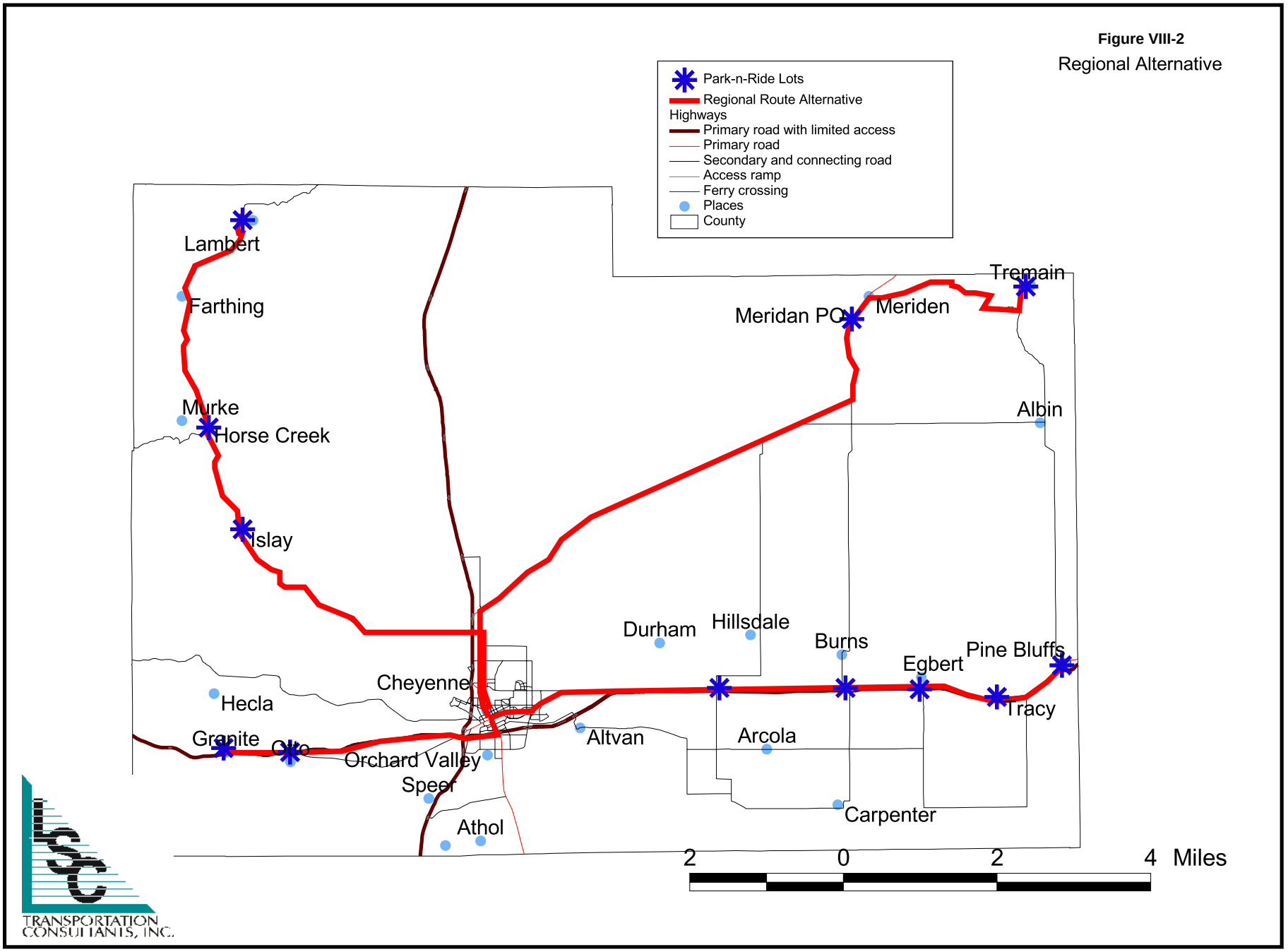
The first infrastructure required to implement Alternative I will be the installation of transit stops. The number and spacing of the transit stops will vary based on density. In more dense urban areas, the transit stops will be spaced 800 to 1,200 feet apart. In less dense urban areas, the transit stops will be spaced up to 2,500 feet apart. Based on the linear miles of the routes and an average of 1,500 feet between the transit stops, the estimated number of total transit stops is about 65 for the urban area (with 32 outbound and 33 inbound transit stops).

Since Alternative I uses seven vehicles more than the existing service. CTP will need to purchase seven buses plus one spare.

CTP will need to purchase a computerized dispatching system for the demand-response and deviation-route service. Along with the dispatching software, CTP will need to invest in an automatic vehicle location (AVL) system. This will allow real time management of the vehicles in operation and improve response time.

Figure VIII-2

Regional Alternative



LSC TRANSPORTATION CONSULTANTS, INC.

Advantages

A major advantage of Alternative I is that it increases the mobility and access for the CTP residents. The alternative improves the level of service in the community without changing the route structure. This reduces the confusion and complexity that may arise with systemwide changes. The alternative also increases the service area that CTP covers with the demand-response services and the regional routes in the suburban and rural areas of the region.

Disadvantages

The major disadvantage of Alternative I is the increase in operating and capital costs for CTP. With an estimated $2.46 million annual operating cost, Alternative I will increase operating costs by $1.1 million over the existing costs. Since the system will remain a loop structure, passengers may still experience long travel times.

Model Evaluation and Summary

Appendix G presents the fixed-route, demand-response, and ADA paratransit models that LSC used to estimate the level of service and the number of trips that can be served with Alternative I. On an average weekday, the ridership for Alternative I will be 1,625 passengers. This results in 440,000 passengers per year based on 255 days of service. With weekend service, the annual ridership increases to 463,700 passengers. Compared to the other alternatives, Alternative I will produce the highest level of trip production. The trips per revenue-hour will be greater than the existing service.

As presented in Table VIII-6 (at the end of Chapter VIII), Alternative I will result in the following estimates:

- $5.32 cost per passenger-trip
- $2.4 million annual cost
- 7.1 passengers per hour
- 463,700 annual passengers

Alternative II - Hub-and-Spoke Deviation Service

Services

Alternative II is an adjustment to the existing transit system and includes deviation routes, weekend service, weekday evening service, demand-response service, and regional routes. Figure VIII-3 presents the route structure of Alternative II. Table VIII-3 presents the level of service for Alternative II. The following sections detail the different services' functions.

Deviation Routes

As part of Alternative II, the existing fixed routes will be changed to deviation routes in order to reduce the inefficiencies of the curb-to-curb service. Alternative II also alters the six current loop routes into eight routes, with two loop route and six bidirectional routes. LSC shifted revenue-hours from the demand-response service to the deviation-route service. The deviation routes will deviate up to three-quarters of a mile off the route in order to cover the ADA requirements and some of the demand-response service. Each deviation-route bus may deviate once per run. Therefore, there are two deviations per route per hour because there are two buses operating on each route. The deviation-route service is designed to cover over 170 deviations per day, or about 43,000 deviations per year.

The deviation-route service will operate 16 buses, with two buses on each route on a 30-minute headway from 6:00 a.m. to 6:00 p.m. every weekday, for a total of 192 revenue-hours per day (or about 48,960 revenue-hours per year). The model presented in Appendix G estimated an annual ridership of 350,050 passengers at an annual cost of $1.9 million.

Figure VIII-3
Alternative II

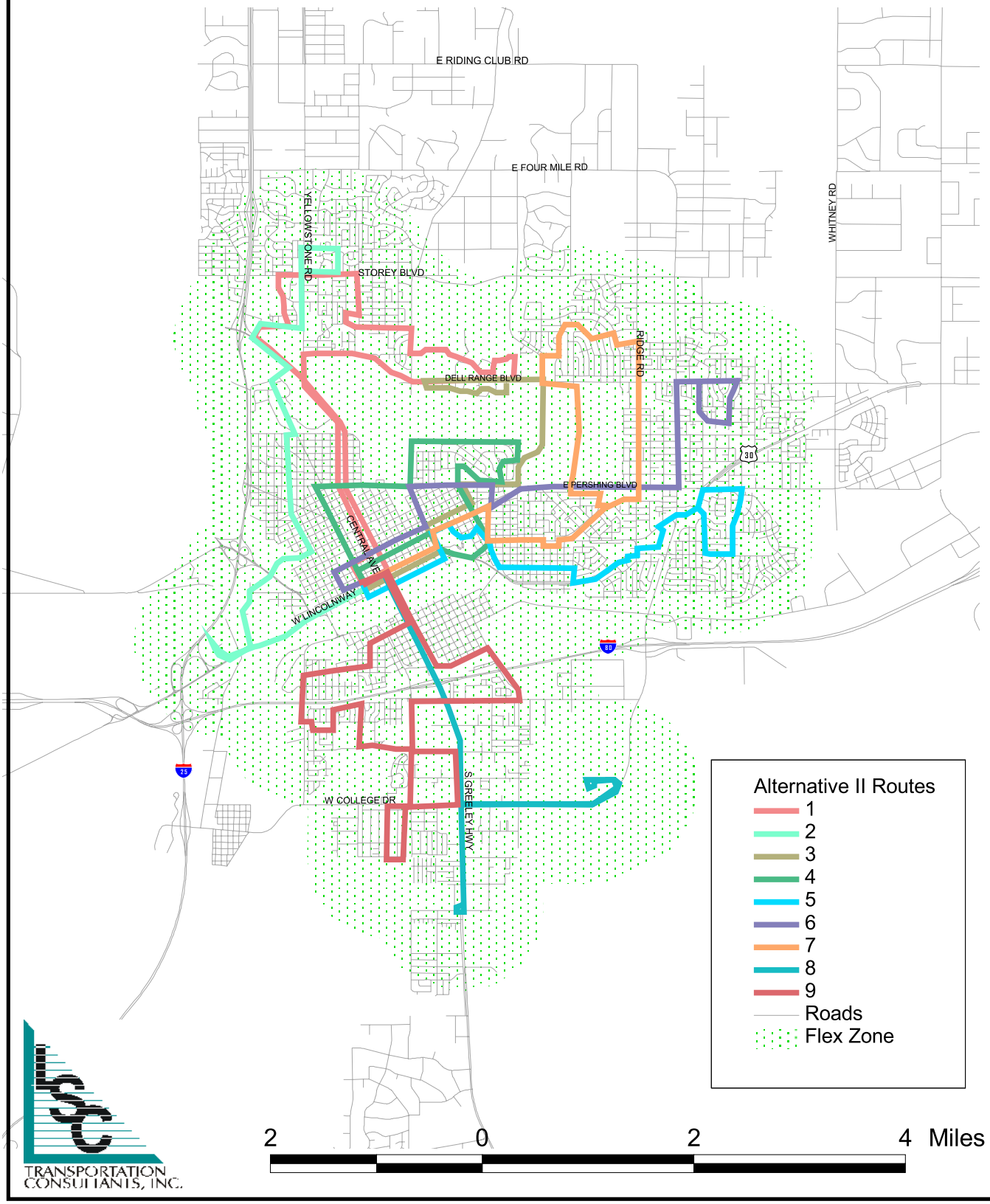


Table VIII-3
Level of Service - Alternative II

		# 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.
Route Deviation (30 minutes)	6:00 am - 6:00 pm (M-F)	16	2,966	192	756,432	48,960	255	350,047	7.1	$1,906,411	$5.45
Route Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	8	640	80	33,280	4,160	52	16,952	4.1	$143,000	$8.44
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	1	120	12	30,600	3,060	255	11,494	3.8	$108,936	$9.48
Total/Avg	6:00 -10:00 pm (M-F)	8	1,483	32	378,216	8,160	255	32,706	4.0	$377,739	$11.55
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,669	3.2	$72,774	$10.91
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,460,848**	**74,500**		**458,926**	**6.16**	**$2,946,710**	**$6.42**

Note: Costs based on LSC analysis, 2007.

Weekend Service and Weekday Evening Service

Based on public input, the second element of Alternative II is weekend service and weekday evening service.

The route-deviation service will operate on Saturdays via the same routes presented in Figure VIII-3. The Saturday service will operate eight buses, with one bus on each route on a 60-minute headway from 7:00 a.m. to 5:00 p.m., for a total of 80 revenue-hours per day. The estimated annual ridership is 16,950 passengers. The estimated annual cost is $143,000.

The route-deviation service will also operate on weekday evenings via the same routes presented in Figure VIII-3. The evening service will operate eight buses, with one bus on each route on a 60-minute headway from 6:00 to 10:00 p.m., for a total of 8,160 revenue-hours per year. The estimated annual ridership is 32,700 passengers. The estimated annual cost is $377,700.

Demand-Response/ADA Service

LSC reduced the number of revenue-hours for the curb-to-curb service that CTP operates. After reviewing the current dispatching process, LSC recommends that CTP move to a computer-based dispatching software like RouteMatch, Easy Ride, and Trapeze for both the demand-response service and the deviation routes. This will allow CTP to increase the effectiveness of the demand-response service, covering the Stride contract service that CTP currently operates and the new deviation routes. The demand-response service will also aid in covering the ADA requirements. This improvement of effectiveness reduces hourly cost thereby increasing the number of revenue-hours that the overall system can provide.

The weekday demand-response service will operate one bus on a 24-hour advance reservation basis from 6:00 a.m. to 6:00 p.m., for a total of 12 revenue-hours per day. The estimated annual ridership is 11,500 passengers. The estimated annual cost is $109,000.

The Sunday demand-response service will operate four buses on a 24-hour advance reservation basis from 7:00 a.m. to 5:00 p.m., for a total of 40 revenue-

hours per day (or 2,080 revenue-hours per year). The estimated annual ridership is 6,670 passengers. The estimated annual cost is $72,800.

Regional Routes

Alternative II will also include four peak-hour regional routes operating from the rural areas of Laramie County into the City of Cheyenne. Each regional route will operate one bus during the morning and afternoon peak commuter times on weekdays, for a total of 16 revenue-hours per day. The estimated annual ridership is 15,300 passengers. The estimated annual cost is $186,200. The regional routes are presented in Figure VIII-2.

Capital

The first infrastructure required to implement Alternative II will be the installation of transit stops. The number and spacing of the transit stops will vary based on density. In more dense urban areas, the transit stops will be spaced 800 to 1,200 feet apart. In less dense urban areas, the transit stops will be spaced up to 2,500 feet apart. Based on the linear miles of the routes and an average of 1,500 feet between the transit stops, the estimated number of total transit stops is about 500 for the urban area (with 250 outbound and 250 inbound transit stops).

Since Alternative II uses an average of 26 transit vehicles per day, there will a need to purchase 10 buses in order to maintain a good spare vehicle ratio.

CTP will need to purchase a computerized dispatching system for the demand-response and deviation-route service. Along with the dispatching software, CTP will need to invest in an automatic vehicle location (AVL) system. This will allow real time management of the vehicles in operation and improve response time.

Advantages

A major advantage of Alternative II is that it increases the mobility and access for the CTP residents. Alternative II also decreases the travel time by reducing the use of loop routes. The travel between origin and destination is more direct in Alternative II.

Disadvantages

The major disadvantage of Alternative II is the increase in operating and capital costs for CTP. With an estimated $2.9 million annual operating cost, Alternative II will increase operating costs by $1.5 million over the existing costs. Also, the productivity of Alternative II is the second lowest of all the alternatives in terms of passengers per hour.

Model Evaluation and Summary

Appendix G presents the fixed-route, demand-response, and ADA paratransit models that LSC used to estimate the level of service and the number of trips that can be served with Alternative II. On an average weekday, the ridership for Alternative II will be 1,600 passengers. This equates to 409,500 passengers per year based on 255 days of service. With weekend and other service, the annual ridership increases to 458,900 passengers. Compared to the other alternatives, Alternative II has the lowest level of trip production. However, the trips per revenue-hour will be greater than the existing service.

As presented in Table VIII-6 (at the end of Chapter VIII), Alternative II will result in the following estimates:

- $6.42 cost per passenger-trip
- $2.9 million annual cost
- 6.1 passengers per hour
- 458,900 annual passengers

Alternative III - Neighborhood Circulation Service

Services

Alternative III is an adjustment to the existing transit system and includes deviation routes, jump routes, weekend service, weekday evening service, demand-response service, and regional routes. Figure VIII-4 presents the route structure of Alternative III. Table VIII-4 presents the level of service for Alternative III. The following sections detail the different services' functions.

Figure VIII-4
Alternative III

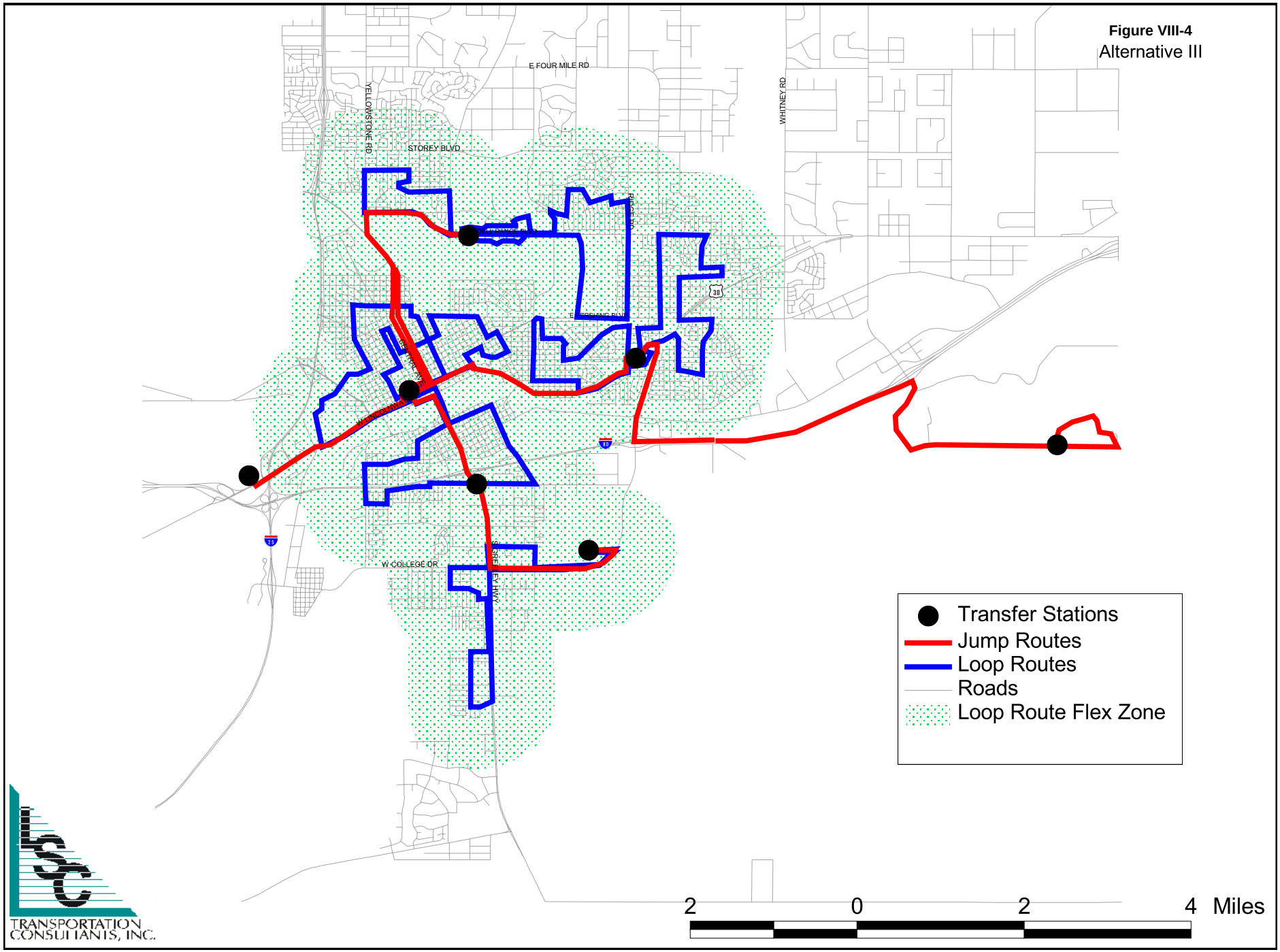


Table VIII-4
Level of Service - Alternative III

		# 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.
Hybrid Routes (30 minutes)	6:00 am - 6:00 pm (M-F)	12	1,964	144	500,922	36,720	255	337,280	9.2	$1,389,137	$4.12
Saturday Service (30 minutes)	7:00 am - 5:00 pm	12	1,637	120	85,124	6,240	52	19,240	3.1	$236,062	$12.27
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	1	120	12	30,600	3,060	255	11,494	3.8	$108,936	$9.48
Evening Service (30 minutes)	6:00 -10:00 pm (M-F)	12	655	48	167,025	12,240	255	31,429	2.6	$370,461	$11.79
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,045,991**	**68,420**		**446,909**	**6.53**	**$2,515,221**	**$5.63**

Note: Costs based on LSC analysis, 2007.

Deviation and Jump Routes

As part of Alternative III, the existing fixed routes will be changed to deviation and jump routes in order to reduce the inefficiencies of the curb-to-curb service. Alternative III is a hybrid system including eight circulator deviation routes and two jump routes.

Each deviation route will serve one portion of the community and will link the neighborhoods to the nearest major activity centers (such as the mall, plaza, and downtown area). LSC shifted revenue-hours from the demand-response service to the deviation-route service. The deviation routes will deviate up to three-quarters of a mile off the route in order to cover the ADA requirements and some of the demand-response service. Two deviations per route per hour are allowed because of the 30-minute headway. The deviation-route service is designed to cover over 170 deviations per day, or about 43,000 deviations per year. The deviation-route service will operate eight buses, with one bus on each route on a 30-minute headway from 6:00 a.m. to 6:00 p.m. every weekday, for a total of 100 revenue-hours per day (or about 25,500 revenue-hours per year).

The jump routes will link the activity centers together. At the transfer stations, passengers can link from the circulator deviation routes to the jump routes to access other portions of the City of Cheyenne. The jump routes only stop at the transfer stations. The jump routes also link to the business park on the far east side. The jump routes will operate four buses with two buses on each route from 6:00 a.m. to 6:00 p.m. every weekday on a 30-minute headway, for a total of 44 revenue-hours per day (or about 11,220 revenue-hours per year).

The model presented in Appendix G estimated an annual ridership of 337,300 passengers at an annual cost of $1.38 million.

Weekend Service and Weekday Evening Service

Based on public input, the second element of Alternative III is weekend service and weekday evening service.

The deviation and jump route service will operate on Saturdays via the same routes presented in Figure VIII-4. The Saturday service will operate 12 buses, with one bus on each deviation route and two buses on each jump route on a 30-minute headway from 7:00 a.m. to 5:00 p.m., for a total of 120 revenue-hours per day. The estimated annual ridership is 19,240 passengers. The estimated annual cost is $236,000.

The deviation and jump-route service will also operate on weekday evenings via the same routes presented in Figure VIII-4. The evening service will operate 12 buses, with one bus on each deviation route and two buses on each jump route on a 30-minute headway from 6:00 to 10:00 p.m., for a total of 12,240 revenue-hours per year. The estimated annual ridership is 31,430 passengers. The estimated annual cost is $370,400.

Demand-Response/ADA Service

LSC reduced the number of revenue-hours for the curb-to-curb service that CTP operates. After reviewing the current dispatching process, LSC recommends that CTP move to a computer-based dispatching software like RouteMatch, Easy Ride, or Trapeze. This will allow CTP to increase the effectiveness of the demand-response service, covering the Stride contract service that CTP currently operates, as well as the new hybrid service. The demand-response service will also aid in covering the ADA requirements. This improvement in effectiveness reduces the hourly cost, thereby increasing the number of revenue-hours that the overall transit system can provide.

The weekday demand-response service will operate one bus on a 24-hour advance reservation basis from 6:00 a.m. to 6:00 p.m., for a total of 12 revenue-hours per day. The estimated annual ridership is 11,500 passengers. The estimated annual cost is $109,000.

The Sunday demand-response service will operate four buses on a 24-hour advance reservation basis from 7:00 a.m. to 5:00 p.m., for a total of 40 revenue-hours per day (or 2,080 revenue-hours per year). The estimated annual ridership is 6,400 passengers. The estimated annual cost is $72,800.

Regional Routes

Alternative II will also include four peak-hour regional routes operating from the rural areas of Laramie County into the City of Cheyenne. Each regional route will operate one bus during the morning and afternoon peak commuter times on weekdays, for a total of 16 revenue-hours per day. The estimated annual ridership is 15,300 passengers. The estimated annual cost is $186,200. The regional routes are presented in Figure VIII-2.

Capital

The first infrastructure required to implement Alternative III will be the installation of transit stops. The number and spacing of the transit stops will vary based on density. In more dense urban areas, the transit stops will be spaced 800 to 1,200 feet apart. In less dense urban areas, the transit stops will be spaced up to 2,500 feet apart. Based on the linear miles of the service routes and an average of 1,500 feet between the transit stops, the estimated number of total transit stops is about 180 for the urban area. There will also be a need for seven transit stations for the jump routes to link with the circulator deviation routes.

Alternative III needs an additional five vehicles plus one spare in order to operate this service.

CTP will need to purchase a computerized dispatching system for the demand-response and deviation-route service. Along with the dispatching software, CTP will need to invest in an automatic vehicle location (AVL) system. This will allow real time management of the vehicles in operation and improve response time.

Advantages

A major advantage of Alternative III is that it increases the mobility and access for the CTP residents. Alternative III allows passengers to quickly cross the city, thereby decreasing travel time when going from one end of the city to the other end of the city.

Disadvantages

The major disadvantage of Alternative III is the increase in operating and capital costs for CTP. With an estimated $2.5 million annual operating cost, Alternative III will increase operating costs by $1.16 million over the existing costs. Another disadvantage to the alternative is that a passenger may need to transfer more than once to reach their final destination. The productivity of Alternative III is the second lowest of all the alternatives in terms of passengers per hour.

Model Evaluation and Summary

Appendix G presents the fixed-route, demand-response, and ADA paratransit models that LSC used to estimate the level of service and the number of trips that can be served with Alternative III. On an average weekday, the ridership for Alternative III will be 1,550 passengers. This equates to 395,500 passengers per year based on 255 days of service. With weekend and other service, the annual ridership increases to 446,900 passengers. Compared to the other alternatives, Alternative III has the second lowest level of trip production. However, the trips per revenue-hour will be greater than the existing service.

As presented in Table VIII-6 (at the end of Chapter VIII), Alternative III will result in the following estimates:

- $5.63 cost per passenger-trip
- $2.5 million annual cost
- 6.53 passengers per hour
- 446,900 annual passengers

Alternative IV - Fixed-Route Service

Services

Alternative IV is an adjustment to the existing transit system and includes fixed routes, weekend service, weekday evening service, paratransit/demand-response service, and regional routes. Figure VIII-5 presents the route structure of Alternative IV. Table VIII-5 presents the level of service for Alternative IV. The following sections detail the different services' functions.

Figure VIII-5
Alternative IV

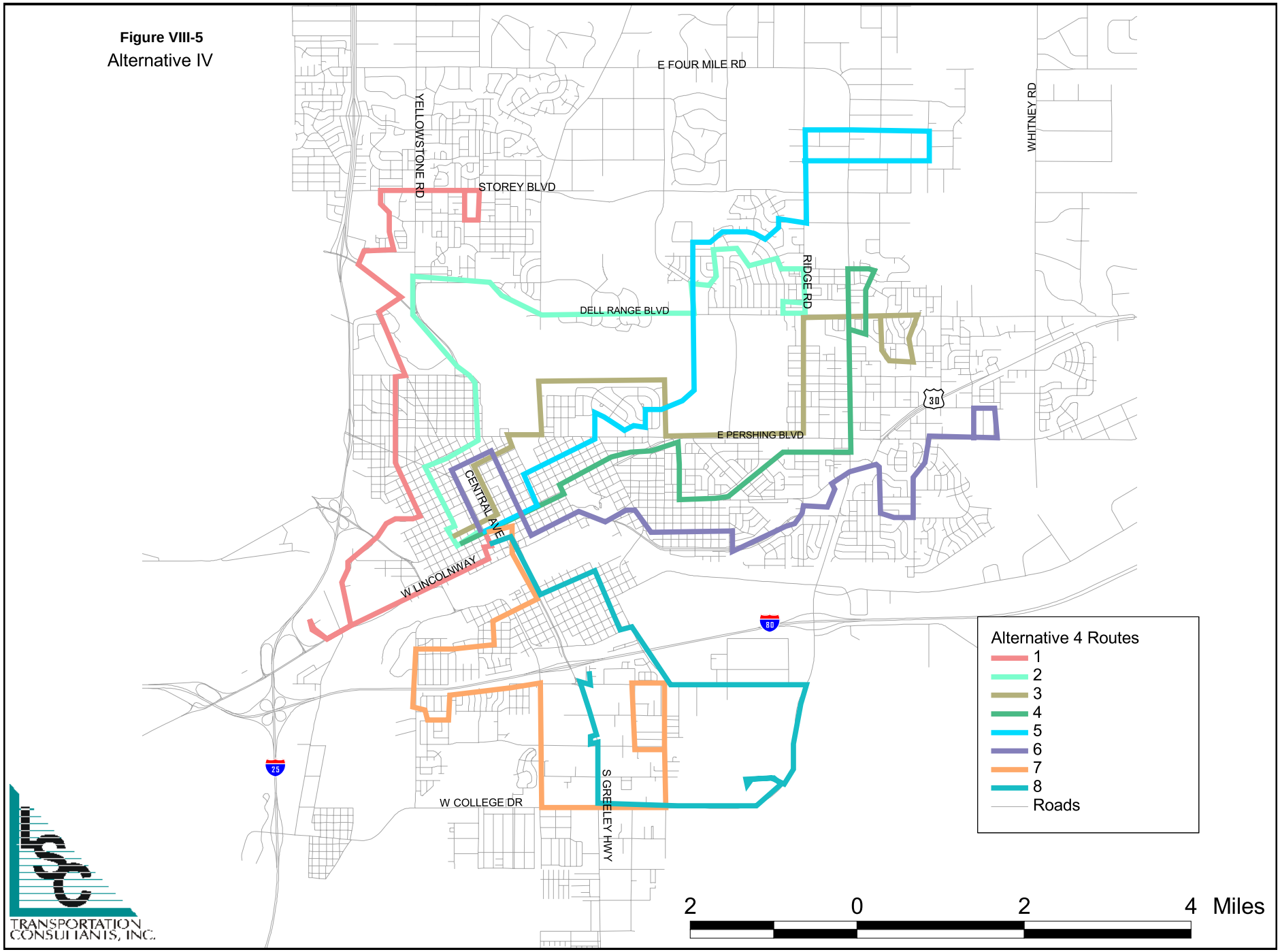


Table VIII-5
Level of Service - Alternative IV

		# 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.
Fixed-Route Service (30 minutes)	Peak Hours	16	3,281	192	836,604	48,960	255	333,666	6.8	$1,955,516	$5.86
Route Service Saturday (60 minutes)	7:00 am - 5:00 pm	8	1,640	80	85,301	4,160	52	10,206	2.5	$157,376	$15.42
ADA Service	6:00 am - 10:00 pm (M-F)	3	450	45	114,750	11,475	255	27,670	2.4	$408,510	$14.76
Evening Fixed-Route Service (60 minutes)	6:00 -10:00 pm (M-F)	8	546	32	139,128	8,160	255	29,696	3.6	$260,586	$8.78
Sunday Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,804	3.3	$72,774	$10.70
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	4	186,170	$12.17
Total/Avg					**1,438,103**	**82,915**		**449,100**	**5.42**	**$3,192,612**	**$7.11**

Note: Costs based on LSC analysis, 2007.

Fixed Routes

As part of Alternative IV, the existing fixed routes (six loop routes) will be changed into eight bidirectional fixed routes. LSC shifted revenue-hours from the demand-response service to the fixed-route service. Unlike the other alternatives, Alternative IV does not have deviating routes.

The fixed-route service will operate 16 buses, with two buses on each route on a 30-minute headway from 6:00 a.m. to 6:00 p.m. every weekday, for a total of 192 revenue-hours per day (or about 48,900 revenue-hours per year). The model presented in Appendix G estimated an annual ridership of 333,600 passengers and an annual cost of $1.95 million.

Weekend Service and Weekday Evening Service

Based on public input, the second element of Alternative IV is weekend service and weekday evening service.

The fixed-route service will operate on Saturdays via the same routes presented in Figure VIII-5. The Saturday service will operate eight buses, with one bus on each route on a 60-minute headway from 7:00 a.m. to 5:00 p.m., for a total of 80 revenue-hours per day. The estimated annual ridership is 10,206 passengers. The estimated annual cost is $157,400.

The fixed-route service will also operate on weekday evenings via the same routes presented in Figure VIII-5. The evening service will operate eight buses, with one bus on each route on a 60-minute headway from 6:00 to 10:00 p.m., for a total of 8,160 revenue-hours per year. The estimated annual ridership is 29,700 passengers. The estimated annual cost is $260,600.

Paratransit/Demand-Response Service

LSC changed the curb-to-curb service that CTP operates to a ADA paratransit service. This service will only be for the certified ADA individuals in the community. The current passengers using the curb-to-curb service will no longer be allowed to use the demand-response service unless they are certified eligible under ADA eligibility guidelines. After reviewing the current dispatching process,

LSC recommends that CTP move to a computer-based dispatching software like RouteMatch, Easy Ride, or Trapeze for the paratransit service. This will allow CTP to increase the effectiveness of the paratransit demand-response service and the Stride contract service that CTP presently operates.

The weekday paratransit demand-response service will operate three buses on a 24-hour advance reservation basis from 6:00 a.m. to 10:00 p.m., for a total of 12 revenue-hours per day. The estimated annual ridership is 27,670 passengers. The estimated annual cost is $408,510.

The Sunday demand-response service will operate four buses on a 24-hour advance reservation basis from 7:00 a.m. to 5:00 p.m., for a total of 40 revenue-hours per day (or 2,080 revenue-hours per year). The estimated annual ridership is 6,800 passengers. The estimated annual cost is $72,770.

Regional Routes

Alternative IV will also include four peak-hour regional routes operating from the rural areas of Laramie County to the City of Cheyenne. Each regional route will operate one bus during the morning and afternoon peak commuter times on weekdays, for a total of 16 revenue-hours per day. The estimated annual ridership is 15,300 passengers. The estimated annual cost is $186,200. The regional routes are presented in Figure VIII-2.

Capital

The first infrastructure required to implement Alternative IV will be the installation of transit stops. The number and spacing of the transit stops will vary based on density. In more dense urban areas, the transit stops will be spaced 800 to 1,200 feet apart. In less dense urban areas, the transit stops will be spaced up to 2,500 feet apart. Based on the linear miles of the routes and an average of 1,500 feet between the transit stops, the estimated number of total transit stops is about 450 for the urban area (with 225 outbound and 225 inbound transit stops).

Since Alternative IV uses an average of 28 transit vehicles per day, there will be a need to purchase 12 buses in order to maintain a good spare vehicle ratio.

CTP will need to purchase a computerized dispatching system for the demand-response and deviation-route service. Along with the dispatching software, CTP will need to invest in an automatic vehicle location (AVL) system. This will allow real time management of the vehicles in operation and improve response time.

Advantages

A major advantage of Alternative IV is that it increases the mobility and access for the CTP residents. Alternative IV also decreases the travel time by reducing the use of loop routes. The travel between origin and destination is more direct in Alternative IV. This alternative also does not have deviation routes, thereby improving the passengers' sense of effective travel.

Disadvantages

The major disadvantage of Alternative IV is the increase in operating and capital costs for CTP. With an estimated $3.1 million annual operating cost, Alternative IV will increase operating costs by $1.75 million over the existing costs. This is the most expensive of all the alternatives. Also, the productivity of Alternative IV is the lowest of all the alternatives in terms of passengers per hour. A large portion of the increased cost of this alternative is the need to operate the paratransit service for every hour the fixed-route service operates.

Model Evaluation and Summary

Appendix G presents the fixed-route, demand-response, and ADA paratransit models that LSC used to estimate the level of service and the number of trips that can be served with Alternative IV. On an average weekday, the ridership for Alternative IV will be 1,590 passengers. This equates to 406,000 passengers per year based on 255 days of service. With weekend and other service, the annual ridership increases to 449,100 passengers. Compared to the other alternatives, Alternative IV has the lowest level of trip production.

As presented in Table VIII-6 (at the end of Chapter VIII), Alternative IV will result in the following estimates:

- $7.11 cost per passenger-trip
- $3.19 million annual cost
- 5.4 passengers per hour
- 449,100 annual passengers

SUMMARY

Chapter VIII has provided information on various transit service alternatives for CTP. The alternatives include maintaining the status quo; adding deviation routes, jump routes, regional routes, or demand-response service; expanding hours; or expanding levels of service. Table VIII-6 provides a comparison of the transit service alternatives.

Table VIII-6

Service Alternatives - Cost Estimates

Options		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost ($) per Pass.
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Status Quo											
Fixed Route	6:00 am - 6:00 pm M-S	6	974	72	278,029	21,480	307	189,778	9	$730,333	$3.85
Curb-to-Curb	6:00 am - 6:00 pm M-S	6	479	31	147,089	9,513	307	22,675	2.4	$468,736	$20.67
Stride (Contract Service)	School Days	5	300	23	60,000	4,624	200	25,757	5.6	$151,680	$5.89
Total/Avg					**485,118**	**35,617**		**238,210**	**6.69**	**$1,350,749**	**$5.67**
Alternative I - Route-Deviation Service											
Route Deviation (30 minutes)	6:00 am - 6:00 pm (M-F)	12	2,165	144	552,024	36,720	255	337,280	9.2	$1,420,437	$4.21
Route Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	6	902	60	46,904	3,120	52	16,952	5.4	$120,691	$7.12
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	3	360	36	91,800	9,180	255	30,596	3.3	$326,808	$10.68
Evening Service (60 minutes)	6:00 -10:00 pm (M-F)	6	361	24	92,004	6,120	255	31,429	5.1	$189,392	$6.03
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,045,052**	**65,300**		**463,723**	**7.10**	**$2,467,951**	**$5.32**
Alternative II - Hub-and-Spoke Deviation Service											
Route Deviation (30 minutes)	6:00 am - 6:00 pm (M-F)	16	2,966	192	756,432	48,960	255	350,047	7.1	$1,906,411	$5.45
Route Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	8	640	80	33,280	4,160	52	16,952	4.1	$143,000	$8.44
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	1	120	12	30,600	3,060	255	11,494	3.8	$108,936	$9.48
Evening Service (60 minutes)	6:00 -10:00 pm (M-F)	8	1,483	32	378,216	8,160	255	32,706	4.0	$377,739	$11.55
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,669	3.2	$72,774	$10.91
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,460,848**	**74,500**		**458,926**	**6.16**	**$2,946,710**	**$6.42**
Alternative III - Neighborhood Circulation Service											
Hybrid Routes (30 minutes)	6:00 am - 6:00 pm (M-F)	12	1,964	144	500,922	36,720	255	337,280	9.2	$1,389,137	$4.12
Saturday Service (30 minutes)	7:00 am - 5:00 pm	12	1,637	120	85,124	6,240	52	19,240	3.1	$236,062	$12.27
Demand-Response/ADA Service	6:00 am - 6:00 pm (M-F)	1	120	12	30,600	3,060	255	11,494	3.8	$108,936	$9.48
Evening Service (30 minutes)	6:00 -10:00 pm (M-F)	12	655	48	167,025	12,240	255	31,429	2.6	$370,461	$11.79
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	3.8	$186,170	$12.17
Total/Avg					**1,045,991**	**68,420**		**446,909**	**6.53**	**$2,515,221**	**$5.63**
Alternative IV - Fixed-Route Service											
Fixed-Route Service (30 minutes)	6:00 am - 6:00 pm (M-F)	16	3,281	192	836,604	48,960	255	333,666	6.8	$1,955,516	$5.86
Route Service Saturday (60 minutes)	7:00 am - 5:00 pm	8	1,640	80	85,301	4,160	52	10,206	2.5	$157,376	$15.42
ADA Service	6:00 am - 10:00 pm (M-F)	3	450	45	114,750	11,475	255	27,670	2.4	$408,510	$14.76
Evening Fixed-Route Service (60 minutes)	6:00 -10:00 pm (M-F)	8	546	32	139,128	8,160	255	29,696	3.6	$260,586	$8.78
Sunday Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,804	3.3	$72,774	$10.70
Stride (Contract Service)	School Days	5	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Regional Service	Peak Hours	4	720	16	183,600	4,080	255	15,300	4	$186,170	$12.17
Total/Avg					**1,438,103**	**82,915**		**449,100**	**5.42**	**$3,192,612**	**$7.11**

Note: Costs based on LSC analysis, 2007.

Chapter IX

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER IX

Vehicle Types

INTRODUCTION

In recent years, the need for vehicles smaller than the standard 35- or 40-foot transit bus has increased. Across the United States, small transit vehicles have become widely used by grantees of several state and/or federally funded programs. The use of small transit vehicles is increasing, as both small and large transportation providers are finding the vehicles appropriate in a variety of service environments. Small transit vehicles are advantageous over standard transit buses in several ways. They are more maneuverable, easier to drive, more cost-effective when passenger demand is low, quieter, and generally more attractive to many passengers and communities.

VEHICLE CHARACTERISTICS

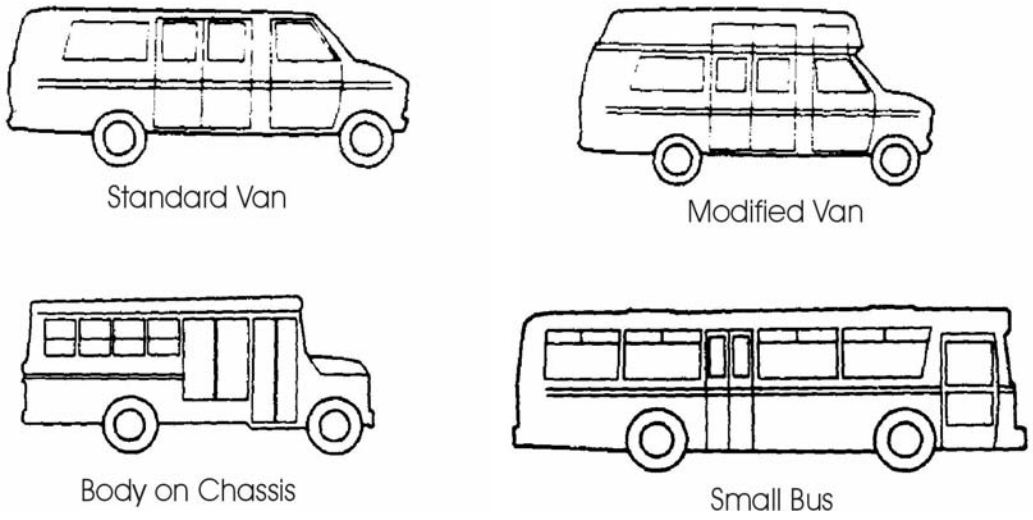
This chapter has been included to assist CTP and the Stakeholders Committee with choosing appropriate vehicle types in the development of future transit service. There are numerous types and sizes of small transit vehicles on the market and these are frequently changing. There is no standard method of grouping the various types of small transit vehicles. Also, there is a lack of conclusive vehicle performance data because of the novelty of this field of mass transit. The combination of these factors may result in questions and confusion for agencies desiring to procure a small transit vehicle.

Vehicle Overview

The expression "small transit vehicle" refers to a vehicle smaller than the 35- or 40-foot standard transit bus. Within this group of small transit vehicles, there are a number of different types and sizes. There is no accepted standard for the terms

used to describe the subgroups of small transit vehicles. For the purpose of this study therefore, LSC divided the vehicles into four groups based on their method of construction, vehicle source, and seating capacity. The four groups include: standard vans, modified vans, body-on-chassis vehicles, and small buses. The designs of the four groups are shown in Figure IX-1.

Figure IX-1



Source: Pennsylvania Department of Transportation

Standard Vans

Standard vans, also known as minivans, are produced by the major automobile manufacturers as part of their standard production line. Therefore, standard vans are readily available for purchase and the maintenance/service and parts are easier to obtain. Standard vans are relatively small, with a seating capacity ranging from 5 to 15 passengers. They offer greater maneuverability and are easy to drive because of their size. Standard vans also cost less initially than do other small transit vehicles.

However, standard vans have several disadvantages. Since standard vans are designed for personal use, they may not be durable in transit service. The

expected life of a standard van in transit service is three to five years of typical use, depending on a number of factors. Difficult entry into the vehicle is another problem. The high first step and the low roof make entry difficult for elderly and disabled passengers. The low roof also inhibits movement within the van, particularly for elderly and disabled passengers moving to and from their seats. Passengers with mobility impairments (i.e., using crutches or walkers) have difficulty gaining access to seats, especially in the rear of the vehicle, because of narrow aisles. If a wheelchair ramp or lift is stored in the vehicle, it often protrudes into the van, further limiting seating space and maneuvering room. In addition, the limited interior headroom of most standard vans makes it impossible for some people in wheelchairs to sit up straight when entering the vehicle.

Despite these disadvantages, many providers have successfully used standard vans to transport their riders. If limited interior space does not pose a problem, standard vans can be a useful alternative as a transit vehicle.

Modified Vans

As previously mentioned, standard vans have accessibility problems and limited headroom. As a result, vans are frequently modified to overcome these limitations and meet special needs. The modifications usually adjust the structure and/or include the addition of equipment to improve the performance of vans as transit vehicles. These modifications enable the vans to accommodate different types of passengers or provide added comfort and utility for passengers.

Increasing van size, particularly the height, is the most common modification. This is often accomplished by raising the roof through the addition of a bubble-top or pop-top, lowering the floor, or both. Other modifications may involve enlarging the entrances; reinforcing and insulating the walls and roof; adding wheelchair lifts, ramps, or low-rise steps to improve accessibility; widening the body and changing the seating arrangement to increase aisle width and make passenger movement easier inside the vehicle; installing rubber floor matting, padding on hard surfaces,

and grabrails/stanchions for support; and adding heaters and air conditioners for passenger safety and comfort.

Modifications can also be made to the chassis of the van to increase vehicle durability. These may include an extended or widened wheelbase, heavy-duty brakes, improved transmission, and heavy-duty suspension. Modified vans generally can seat from 9 to 16 passengers. Although modified vans may be longer and slightly wider than standard vans, they are still relatively easy to drive and maneuver. The modifications create more room inside the van so movement is less restricted, providing passengers with more comfort. Accessibility is generally easier in modified vans than in standard vans.

However, modified vans do possess potential drawbacks. A raised roof can make the vehicle difficult to handle in heavy winds or on sharp curves and there is a potential for leaks to develop at points where the raised roof is attached to the vehicle. Another drawback to modified vans is reduced fuel mileage due to the added weight of the modifications and the increased wind resistance caused by the raised roof.

Body-on-Chassis Vehicles

Body-on-chassis vehicles are produced in two ways. The first method involves building a bus body on the rear of a commercial van chassis. The second method involves building a complete bus body on a light-duty truck or motor home chassis. Since the second method is used to build standard school buses, a number of school bus manufacturers have expanded into the small transit vehicle market. A supplier of body-on-chassis vehicles will purchase a chassis produced by a company such as Chevrolet, Dodge, Ford, GMC, or International Harvester. The body is then constructed on the chassis, normally around a steel frame attached to the chassis.

Body-on-chassis vehicles are available in various sizes, with seating capacities ranging from 12 to 30 passengers. Body-on-chassis vehicles offer certain advantages over vans. For example, body-on-chassis vehicles tend to be more durable than vans, having an expected life of five to seven years depending on a number of factors. Another advantage is that some body-on-chassis vehicles have dual rear wheels, making them more stable than vans. Body-on-chassis vehicles offer more interior space, which is often necessary for lift equipment and wheelchair stations. Some body-on-chassis vehicles also have transit-type folding doors and low steps for ease of entry.

Another advantage is a larger fuel tank capacity, which can be especially helpful when fueling stops are infrequent. Body-on-chassis vehicles are available with diesel engines, which is advantageous since diesel fuel is normally less expensive and diesel engines are generally more durable and fuel-efficient. However, vehicles fueled by diesel may be louder than those fueled by gasoline, which is an important consideration to keep in mind.

A drawback of body-on-chassis vehicles is that they are not built on a durable transit chassis. Many transit experts feel that a small heavy-duty bus should be purchased when a passenger capacity greater than 22 passengers is needed. Also, some manufacturers produce body-on-chassis models with less than full standing room, making them unsuitable for many transit applications. Operators have commented that the body-on-chassis vehicles have stiff suspensions which produce a bumpy ride. The process of adding a body to a chassis can also result in special problems, such as the body being insecurely attached to the chassis, inaccessibility of chassis components for repair and inspection, and damage of electrical components during body assembly.

Small Buses

Small buses contain one feature found in few other small transit vehicles—durability. In a small bus, the durability of a standard transit bus is combined with the advantages of a small transit vehicle. Small buses are the largest of the small transit vehicles, seating from

18 to 35 passengers. They are referred to as "purpose built buses," since they are designed specifically for transit service and each is constructed as a single unit. In other words, both the body and chassis are supplied by one manufacturer. Since they are designed for transit use, small buses have an expected service life of 10 to 15 years, depending on a number of factors.

Another advantage of small buses is their larger size, which provides a good amount of interior vehicle space. This is especially convenient for passengers in wheelchairs or those who require additional room in which to maneuver. Many of the components of small buses (i.e., transmission, engine, and axles) are identical to the heavy-duty components of standard-sized transit buses, which may make maintenance easier as those standard parts are more readily available.

Small buses use diesel fuel as opposed to gasoline. However, the fuel savings may be offset by the high purchase price of small buses. Also, small buses are less maneuverable and more difficult to drive because of their size.

The best sources of information on small buses are usually the manufacturers themselves, dealers or distributors, and other transit systems that have recently purchased similar equipment. The small bus industry is growing, with a variety of types and seating plan options now available.

Impact of Using Smaller Vehicles

Table IX-1 provides a vehicle comparison that includes the existing information, advantages, and disadvantages for each vehicle type. Category C, in Table IX-1, presents the seating capacity for the different vehicle types. The Americans with Disabilities Act of 1990, Section 38.23 requires all public transit agencies to have a minimum of two wheelchair tiedowns in all vehicles over 22 feet and a minimum of one wheelchair tiedown in all vehicles under 22 feet. This regulation has an impact on the actual number of seats in vehicles and the seating variations used in vehicles.

Table IX-1
Vehicle Type Comparison

Category	Standard Van / Minivan	Modified Van / Minivans	Body-on-Chassis	Small Bus
A Capital Cost	**$25,000**	**$35,000**	**$65,000**	**$160,000**
B Vehicle Life (yrs)	4	4	7	12
C Seating	5-11	5-11	12-21	23-30
D Advantages	1 Easy to maneuver 2 Cost less	1 Easy to maneuver 2 Passengers comfortable w/ modifications	1 More durable than vans 2 Dual rear wheels on some models 3 Low front entry step 4 Small vehicle appearance 5 Easy to maneuver	1 Durable 2 Long vehicle life expectancy 3 Large size 4 Heavy-duty built - thus maintenance costs lower 5 Easily identified in community 6 More passenger space 7 Many seating options 8 Smooth passenger ride
E Disadvantages	1 Not durable - short vehicle life 2 Difficult entry into vehicle 3 Low roof in vehicle 4 Hard to move within vehicle 5 Passenger crowding on vehicle 6 Increased maintenance on vehicle 7 Cannot accommodate large groups	1 Not durable - short vehicle life 2 Passenger crowding on vehicle 3 Increased maintenance on vehicle 4 Cannot accommodate large groups	1 Not durable - short vehicle life 2 Passenger crowding on vehicle 3 Increased maintenance on vehicle 4 Cannot accommodate large groups 5 Stiff suspension results in bumpy ride 6 Changes transit appearance in community	1 Buses may appear empty when passenger load low 2 Cost more than other small vehicles 3 Requires more storage space than small vehicles
F LSC Recommendation	Yes	Yes	Yes	No

*NOTE: *Based on available actual costs, 2007.*

VEHICLE SELECTION

In the vehicle selection process, the criteria must be evaluated to ensure the best vehicle fit for future transit service. The key is to match the vehicle to the particular type of service for which it will be used and to the physical environment in which it will be operated, while staying within budget constraints. The selection of a particular body style and vehicle size are affected primarily by the following factors: service considerations, costs, maintenance and storage requirements, operating environment, and other factors.

Service Type

The service type is an important consideration in the vehicle selection process. Larger vehicles (small buses), for example, may be effectively utilized for longer trips, while smaller vehicles (vans) seem better suited for demand-response service and short trips. Vans may become uncomfortable for passengers over long distances due to the limited interior space. On the other hand, buses provide comfort but may be difficult to maneuver in city traffic, narrow streets, neighborhoods, and driveways. The service area also determines how a vehicle should be equipped. In large service areas, for example, an extra-capacity fuel tank may be appropriate.

Service Demand

Another key factor in determining what size vehicle to purchase is service demand. In an efficient transit operation, the vehicle is usually sufficiently filled. Ideally, the number of people entering the vehicle is equal to the number of people exiting so that the vehicle is never overcrowded or empty.

Passenger Needs

Passenger needs must also be considered when selecting transit vehicles. Not only must the vehicle be able to accommodate every passenger, but also any special equipment that may be required. For example, passengers in wheelchairs require a ramp or lift to enter/exit the vehicle, handrails for support, wheelchair securement devices for safety, and sufficient room in which to ride and maneuver. Although this equipment is essential for wheelchair passengers, it adds weight to

the vehicle and caution must be taken not to exceed the maximum weight capacity.

Passenger comfort and safety is another area that should never be overlooked when selecting a vehicle. Certain tradeoffs, however, may be made. For example, seats with arms may make a bus ride more comfortable for some passengers, but these seats can be difficult to get in and out of. Comfortable padded seats and interior improvements may be desired for long trips, but may be an unnecessary expense for short routes.

Costs

The decision to buy a small transit vehicle and what type to buy will be based upon available funds. Initial purchase (capital), maintenance, and operating costs should be considered when selecting a vehicle. The costs for fuel, vehicle durability, replacement parts, and labor can be a worthwhile trade-off to capital cost. For example, a more costly vehicle is sometimes more durable and less expensive to operate over its useful life than a vehicle with a lower purchase price.

Maintenance and Storage Requirements

A good maintenance program is as important to a successful transit operation as is the purchase of the vehicles themselves. Major maintenance work early in the vehicle's life should be covered by the vehicle's warranty. After the warranty expires, the transit service needs to develop a maintenance program for the transit vehicle through the City of Cheyenne Public Works Department, which handles the maintenance of all transit vehicles.

One issue that may be encountered with vehicle warranty provisions stems from the fact that some small transit vehicles are constructed by several manufacturers. With modified vans, for example, the modifications are not usually made by the original manufacturer. A modifier acquires the van and alters it according to an agreement with the buyer. Since the vans are assembled or modified by more

than one company, it may be difficult for the regional transit service to prove which company is responsible if problems occur. Similar problems may occur with body-on-chassis vehicles, since one company manufactures the body and another the chassis. To facilitate clear warranties and ensure the future transit service receives the most complete and trouble-free warranty service, all responsibility should be with the bidder and the warranties the bidder provides should cover the entire vehicle.

Operating Environment

Climate dictates whether auxiliary heaters or air conditioners are needed, as well as the type of tires the vehicle requires.

Road conditions are an important consideration in choosing a vehicle. Service in urban or residential areas requires vehicles with a small turning radius that can maneuver through narrow or one-way streets, cul-de-sacs, and driveways. Narrow or limited-capacity bridges, low underpasses, and winding roads located along service routes may also limit the selection of vehicles. On the other hand, open highway travel requires less vehicle maneuverability and virtually any vehicle type may be appropriate.

Another consideration is the terrain. For service areas with a lot of steep hills, for example, a vehicle with heavy-duty brake capacity, adequate power, and possibly brake retarders should be purchased.

Other Factors

There are several other considerations in selecting appropriate transit vehicles, such as uniformity of fleet, drivers' needs, insurance, community acceptance, and government regulations. Some of these considerations are discussed below.

Uniformity of Fleet

It is advantageous to have a uniform fleet of vehicles. This may, however, be difficult to obtain when different types of transit services are offered. The primary advantage of uniformity relates to maintenance and repairs. Mechanics need only be familiar with one type of vehicle and it is simpler and cheaper to acquire and

keep a parts inventory. This improves the efficiency of the maintenance operation since, as problems develop in one vehicle, steps can be taken to ensure the problem does not recur with the other vehicles. Fleet uniformity in passenger capacity and seating arrangement also makes scheduling and dispatching easier because the vehicles are interchangeable. The main disadvantage of fleet uniformity is that it limits the fleet's responsiveness to the varying demands of transit service.

Drivers' Needs

The transit vehicle drivers operate long hours. The drivers' needs should be considered in vehicle purchase. Driver visibility and comfort play a key role in many transit agencies. Some transit operations depend upon volunteers to drive the vehicles. As these volunteer drivers may be inexperienced, vehicles should be purchased that are maneuverable and relatively easy to drive. However, this is not the case for CTP since the transit vehicle drivers are full-time employees.

Community Acceptance

Systems with small transit vehicles often operate in residential communities. Therefore, any vehicles purchased should be as acceptable to the community as possible. Service in residential areas may require small, relatively quiet, unobtrusive vehicles. This may be difficult due to vehicle operations and fleet uniformity. Small diesel buses, for example, may not be acceptable in some communities due to the engine noise.

SUMMARY

This chapter has discussed the advantages and disadvantages of the different types of vehicles. Many factors are involved in sizing the appropriate vehicle for a transit agency and the different types of services offered. Table IX-2 presents a wide range of vehicle characteristics. The approximate costs for the vehicles range from $35,000 to $275,000. Hybrid fuel vehicles are much more expensive than the standard diesel engines. However, many communities are turning to hybrid fuel vehicles to assist in the fight against air pollution and reduce fuel costs.

Table IX-2
Vehicle Information for CTP

Factors	El Dorado National Escort FE-25 Custom Chassis	StarTrans Senator Cutaway - Chevrolet	AVS - 22 Hybrid - Electric	Blue Bird Q-Bus	Thomas MVP-EF	World Trans 3000
	VEHICLE TYPE					
	Small Bus	***Body-on-Chassis***	***Small Bus***	***Small Bus***	***Small Bus***	***Small Bus***
1 Air Conditioning	Available	Available	Available	Available	Available	Available
2 Altoona Tested	Yes	Yes	Yes	Yes	Yes	Yes
3 Cost	**$90,000**	**$60,000- $75,000**	**$275,000**	**$230,000**	**$160,000**	**$160,000**
4 Driver Visibility	Good	Good	Good	Good	Good	Good
5 Est. Annual Maintenance Cost	**$10,000**	**$10,000**	**$20,000**	**$15,000**	**$12,000**	**$15,000**
6 Length	25'	24'	22'	29'	25'	26' 9"
7 Seating Capacity	18 + 2 wc	16 + 2 w/c	22 +1 wc/ perimeter only	20 - 26 + w/c	varies - approx. 20 + w/c	17 + 2 w/c
8 Step Height	10"	11"	15"	14"	N/A	11"
9 Number of Wheelchair Ties	2	2	1	2	2	2
10 Aisle Width	14"	92.5"	93"	15"	N/A	N/A
11 Appearance / Visibility	Good	Good	Good	Good	Good	Good
12 Brakes	Front/Rear Disc	Power	Air over Hydraulic	Disc or Air	N/A	Dual hydraulic disc
13 Door Width	31" x 80"	32" x 83"	36"	30"	N/A	32" x 88"
14 Doors Opening In or Out	out	out	out	out	out	out
15 Empty Weight	11,300	N/A	N/A	N/A	N/A	N/A
16 Engine Size	7.4 L or 8.1L Gas or 6.5 L Diesel	Vortec 5700 or 7400 or 6.5 L Diesel	Micro Turbine ; Diesel, CNG, LP	Diesel/Gas	Diesel/Gas	175 Cummins diesel
17 Engine Type	7.4 L or 8.1L Gas or 6.5 L Diesel	Vortec 5700 or 7400 or 6.5 L Diesel	Micro Turbine ; Diesel, CNG, LP	Diesel/Gas	Diesel/Gas	175 Cummins diesel
18 Expected Vehicle Life	7 yrs	4-5 yrs	7 yrs	10-12 yrs	7 yrs	7 yrs
19 Floor Height	28"	80"	N/A	N/A	N/A	83"
20 Fuel Consumption	10-11 mpg	N/A	N/A	N/A	N/A	N/A
21 Fuel Tank Capacity	40 gal	35 gal	electric / Diesel or CNG	40 or 60 gal	N/A	51 gal
22 GVWR	14,800	12,300	27,000	26,300-30,000	N/A	18,780
23 Interior Headroom	77"	75"	75"	76"	73" or 78"	83"
24 Noise	80 DB	N/A	N/A	N/A	N/A	N/A
25 Number of Doors	1 + 1 wc	1 + 1 wc	N/A	2	1 + 1 wc	1 + 1 w/c
26 Overhang	97.5"	N/A	67"/45"	varies	varies	71" / 70"
27 Safety	N/A	N/A	N/A	N/A	N/A	N/A
28 Standing Room Availability	Yes	Yes	Yes	Yes	Yes	Yes
29 Steering	Power/Tilt	Power/Tilt	Power	TAS 65	N/A	Power/Tilt
30 Suspension	Front - Coil w/ Air Springs; Rear - Multi-leaf Spring	HD Spring & Shock	pneumatic	Spring or Air	Spring or Air	Air Suspension
31 Tire Size	225/70R x 19.5"	225 - 16 D	265 / 70R 19.5	10 R 22.5 G	N/A	245 / 70 R 19.5
32 Transmission	Automatic	Automatic	N/A	Automatic	Automatic	Allison AT 545 - automatic
33 Turning Radii	29'	N/A	32'	25'	N/A	24'
34 Wheelbase	158"	177"	147"	132"	136" or 155"	154"
35 Wheelchair Access Type	Rear	Rear	Front	Rear / Side	Rear	Center
36 Width	87"	96"	92'	96"	N/A	96"

#3 - Estimates from vendors subject to change.

#5 - Maintenance estimates from vendors.





Table IX-2 (continued)
Vehicle Information for CTP

Factors	El Dorado National Escort FE-23 Chevrolet Chassis	Blue Bird CS Series	Champion CTS	Mercedes Sprinter Public Service-16	El Dorado National Aerotech
	VEHICLE TYPE				
	Small Bus	***Small Bus***	***Small Bus***	***Small Bus***	***Body-on-Chassis***
1 Air Conditioning	Available	Available	Available	Available	Available
2 Altoona Tested	Yes	Yes	Yes	N/A	Yes
3 Cost	**$80,000**	**$116,000**	**$85,000**	**$75,000**	**$60,000**
4 Driver Visibility	Good	Good	Good	Good	Good
5 Est. Annual Maintenance Cost	**$10,000**	**$12,000**	**$10,000**	**N/A**	**$10,000**
6 Length	23'	25'	26'	22'	20'
7 Seating Capacity	13 + 2 wc	21 - 26 + w/c	16 + w/c	13+w/c	10
8 Step Height	10"	14"	N/A	N/A	11"
9 Number of Wheelchair Ties	2	2	2	2	2
10 Aisle Width	14"	16"	N/A	N/A	varies
11 Appearance / Visibility	Good	Good	Good	Good	Good
12 Brakes	Front/Rear Disc	Air over Hydraulic	N/A	N/A	Hydraulic disc
13 Door Width	31" x 80"	30"	N/A	N/A	27"
14 Doors Opening In or Out	out	out	out	out	out
15 Empty Weight	11,300	N/A	N/A	11,000	N/A
16 Engine Size	7.4 L or 8.1L Gas or 6.5 L Diesel	Diesel	Gas/Diesel	Gas/Diesel	Diesel
17 EngineType	7.4 L or 8.1L Gas or 6.5 L Diesel	Diesel	Gas/Diesel	Gas/Diesel	Diesel
18 Expected Vehicle Life	7 yrs	10-12 yrs	7 yrs	7 yrs	4 - 5 yrs
19 Floor Height	28"	N/A	N/A	N/A	N/A
20 Fuel Consumption	10-11 mpg	N/A	N/A	N/A	N/A
21 Fuel Tank Capacity	40 gal	45 gal	60 gal	N/A	35 gal
22 GVWR	14,800	25,000	N/A	N/A	9,500
23 Interior Headroom	77"	77"	76"	N/A	80"
24 Noise	80 DB	N/A	N/A	N/A	N/A
25 Number of Doors	1 + 1 wc	1 + 1 wc	1 + 1 wc	1	1 + 1 w/c
26 Overhang	97.5"	81" / 97"	N/A	37" / 64"	30" / 92"
27 Safety	N/A	N/A	N/A	N/A	N/A
28 Standing Room Availability	Yes	Yes	Yes	Yes	Yes
29 Steering	Power/Tilt	TAS 65	N/A	N/A	Power
30 Suspension	Front - Coil w/ Air Springs; Rear - Multi-leaf Spring	Spring or Air	N/A	N/A	Coil / Leaf
31 Tire Size	225/70R x 19.5"	10 R 22.5 G	8 x 19.5	N/A	LT 225 / 17 R 16E
32 Transmission	Automatic	Automatic	Automatic	N/A	Automatic
33 Turning Radii	29'	25'	N/A	N/A	24'
34 Wheelbase	158"	132"	158"	158"	138"
35 Wheelchair Access Type	Rear	Rear / Side	Rear	Side	Rear / Side
36 Width	87"	96"	96"	78"	96"

#3 - Estimates from vendors subject to change.

#5 - Maintenance estimates from vendors.

Chapter X

TRANSPORTATION
CONSULTANTS, INC.

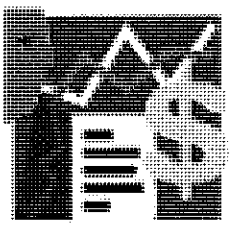
CHAPTER X

Organizational Alternatives

INTRODUCTION

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. Organizational and legal issues for multi-jurisdictional transit agencies further compound this challenge. This chapter provides an evaluation of the organizational (institutional) alternatives for transit services for the study area. An important objective of this study is to present recommendations for an organizational framework for public transit which are acceptable to the parties involved and that can be realistically implemented. With this goal in mind, the following discussion presents an analysis of the most appropriate organizational alternatives and a basis for making a decision.

ORGANIZATIONAL STRUCTURES



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 organizational structure must be developed to manage and operate the transit service. The identification of a cost-effective and politically appropriate organizational structure is therefore a key element in the improvement of public transportation services. This study approaches the organizational alternatives from a practical standpoint, rather than a theoretical one. As the population in the region changes, so will the demands upon the existing agencies. The following section examines the organizational alternatives that the region may use in developing the transit service.

Transit services throughout the western United States have a variety of organizational structures—independent agencies (such as Crested Butte, Colorado); transit districts (such as Dawson County, Montana Urban Transportation District and Utah Transit Authority); departments of a municipal government (such as

Billings, Montana and Logan, Utah); departments of county government (such as Valley County, Montana and Summit County, Colorado); nonprofit corporations; and tribal programs (such as Flathead Reservation and Northern Cheyenne Reservation, Montana).

Criteria

Based upon the history of transit organizations serving areas with low population densities, the following criteria should guide the selection of the institution for managing and operating improved transportation services within the study 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; and
- Which has the ability to contract for services and the construction of infrastructure.

Alternatives

Government Department

A government department is one alternative to consider. A government department can contract with human service agencies or private entities to provide specified transportation services. The main advantage of a government department is that it has legitimate authority to conduct transit services within its political boundary. This organizational structure has worked well in the past for CTP and many other transit services, but does have some drawbacks.

The disadvantages of a government department are that the local council or governmental body has the final decision-making power regarding the management, operation, and financing of transportation services (which may or may not be a high priority) and that it may provide little long-term stability in the funding of the transit services. Another disadvantage is that, with transit services crossing many political boundaries, no one government department may have the authority to operate the regional service without approval of the adjacent local governments.

Regional Transportation Authority

Wyoming municipalities and counties have the authority to establish a Regional Transportation Authority (RTA) per Section 18-14-101 of the Wyoming statutes (see Appendix H). Local governments have flexibility in designing the boundaries of the RTA, which may include all or a portion of the areas of the participating jurisdictions. The RTA is a regional, multi-jurisdictional entity that becomes a separate subdivision of the state, but which operates pursuant to an intergovernmental agreement adopted by its member governments. The RTA is authorized to impose a property tax not to exceed an annual levy of one-half mill on each dollar of assessed valuation of a county or municipality property, with voter approval.

The advantage of a RTA is that only a vote of the local governing body is needed, rather than a vote by the residents, to set up the RTA. The disadvantage of a RTA is that it needs a vote of the residents to levy taxes in order to generate funding for transit services, or has to ask the local county or community government entities for funding.

Intergovernmental Transit Agency

An intergovernmental transit agency (ITA) can be formed between the City of Cheyenne, Laramie County, and human service providers. The governing board should have equal representation from each entity. An ITA has been successfully implemented in other locations and can build upon the services already established within the region.

If provided with a dedicated local funding source, an ITA provides stability and helps ensure the continuation of transit service within the community. An ITA

requires cooperation from each entity and requires voter approval to establish a dedicated local funding source to support the transit agency. The ITA can create agreements with the existing transportation providers to provide a portion of the transit service within the region, thereby linking several transportation providers together to improve access and mobility without creating a new large agency.

SUMMARY

Table X-1 ranks each organizational 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 the organizational structure to generate adequate funding relative to the projected subsidy requirements. Administrative impacts refer to the level of effort involved in implementing the organizational structure and the ability to provide coordinated service throughout the region. Political acceptability refers to the likelihood of an organizational structure being accepted by the public and local governments.

Table X-1
Organizational Alternatives Comparison Matrix

Organizational Alternative	Legal Capability	Revenue Generation Capacity	Administrative Impacts	Political Acceptability
Government Department	■	◙	■	■
Regional Transportation Authority	■	■	◙	◙
Intergovernmental Transit Agency	◙	□	◙	■

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

Source: LSC, 2007.

The first column (legal capability) in Table X-1 shows that all of the alternatives are permitted legally to some degree, with each alternative having the same level of authority to engage in certain activities related to revenue generation. The second column (revenue generation capacity) indicates that the RTA has a strong ability to generate funding, while the funding ability of the government department is moderate and the ITA is weaker. The third column (administrative impacts) shows that a government department is rated strongly because it has administrative capability. The RTA and ITA are rated as having moderate administrative impact. The fourth column (political acceptability) indicates that the government department and ITA are rated as having strong political acceptability, while the RTA has a moderate rating.

The government department has the greatest overall rating of the three organizational structures. The next highest rating is the RTA, while the ITA has the lowest rating. This overall rating is based on the ability of the organizational structure to sustain transit service over the long term. LSC has found that, in a situation such as that found in the study area, the government department has the greatest ability to sustain transit service over the long term.

LSC recommends that the Stakeholders Committee and community leaders maintain the existing organizational structure of the government department in the short term. In the long term, the Stakeholders Committee and community leaders should move toward a future vote of the residents to develop a RTA and support the expansion of the transit service.

Chapter XI

CHAPTER XI

Financial Alternatives

INTRODUCTION

Chapter XI provides an evaluation of the funding options 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. Organizational and legal issues for multi-jurisdictional transit agencies further compound this challenge. An important objective of this study is to present recommendations for an institutional framework and a financing plan for public transit that are acceptable to the parties involved and that can be realistically implemented. With this goal in mind, the following discussion presents an analysis of the most appropriate financial alternatives and a basis for making a decision.

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 short-range and long-range plans. Potential strategies for funding the transit services within the study area are described below.

Capital Funding

The existing and future transit services will require capital funding for vehicle procurement and transit facilities. The following strategies for funding the capital development should be considered.

Federal funding (along with any state matching funds) should be applied for, both within the existing Federal Transit Administration (FTA) Sections 5307, 5309, 5316, and 5317 programs and through the 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 that they cannot compete in this arena. Close coordination with the Wyoming Department of Transportation (WYDOT) will help CTP remain 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 (such as vehicles and transit facilities) examines the long-range transit system's development needs. Many transit systems outgrow their facilities quickly and face costly relocation and expansion needs because of inadequate space or other constraints. The financial management system of any future organization overseeing the regional transit service should include specific provisions for fleet replacement and other capital investments. Note that buses and certain other capital facilities purchased with federal participation (80 percent under SAFETEA-LU) are also eligible for federal participation toward 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 transit system will be funding the routine operations and maintenance including the daily transit service, vehicle maintenance, and system administration. Labor represents about 75 percent of the operating costs, with the majority of that amount going toward 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 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.

CTP collects fares as part of the transit system funding, although this is not an ideal source of revenue. Due to the realities of a transit 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, for example. 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 country 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 transit demand. This means that the ideal funding sources for operations and maintenance are those that have the flexibility to be increased or expanded as the transit demand grows. Such flexibility will, in most cases, require voter approval. The important consideration is that the need for growth has been anticipated, and that the potential for larger budgets is not precluded by the choice of a specific funding source.

Overall Service Considerations

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

Local and Regional Funding Sources

In Wyoming, statutory municipalities and counties have only those powers to fund transit that are explicitly created by a state statute. The principal funding sources for local and regional transit systems within Wyoming are described below.

Office of State Lands and Investment

The Office of State Lands and Investment program generates funding for communities, school districts, and counties for infrastructure and transportation services capital and operations. The program funding is generated by the state leasing land for mineral resource development, grazing, and special permits. The 2006 fiscal statement reported $188 million in total revenue.

General Fund Appropriations

Counties and municipalities may appropriate funds for transit operations, maintenance, and capital needs. Funds to be appropriated generally come 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.

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, since the potential funds generated by interior advertising are comparatively low. Advertising on bus shelters has also been used to pay for the cost of providing the shelters.

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 is essential to providing adequate transportation services within the study area. The major employers in the City of Cheyenne should be considered potential sources of revenue. These firms may be willing to help support the cost of alternative fuel vehicles or the operating costs for employee transportation.

Transportation Impact Fees

The traditional methods of funding transportation improvements required by new development raise questions of equity. Sales taxes and property taxes are applied to both existing residents and new residents attracted by the development. Hence, 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 upon the community.

LSC's previous work has indicated that the levy of impact fees upon 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 roads, followed by water and sewer projects. A program specifically for mass transit has been established in San Francisco, for example. However, this is not a likely source for transit funding within urban Wyoming.

A number of administrative and long-term considerations must be addressed. It is necessary to legally assure the use on which the fees are computed will not change in the future by placing a note restricting the use on the face of the plat recorded in public records. The transportation impact fee program should be reviewed annually. The validity of the program and its acceptability to the community are increased if a time limit is placed upon the spending of collected funds. Fees should be collected at the time that a building permit is issued. Transportation impact fee funds need to be strictly segregated from other funds. Note that the imposition of such a fee program can constrain capital funding sources developed in the future, as a new source may result in a double payment.

Lodging Tax

The appropriate use of lodging taxes (occupancy taxes) has long been the subject of debate. Historically, the bulk of lodging taxes has been used for marketing and promotion efforts regarding conferences and general tourism. In other areas, such as resorts, 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. Taxation of this type has been used successfully in Park City, Utah; Sun Fremont, Idaho; Telluride, Colorado; and Durango, Colorado.

A lodging tax shares many of the advantages and disadvantages of a sales tax. 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.

Ad Valorem Property Taxes for Capital Projects

Wyoming counties are authorized to impose property taxes for specific capital projects with voter approval, according to Section 39-13-103 of the Wyoming statutes.

Regional Transportation Authority

Wyoming municipalities and counties have the authority to establish a Regional Transportation Authority (RTA), according to Section 18-14-101 of the Wyoming statutes. Local governments have flexibility in designing the boundaries of the

RTA, which may include all or a portion of the areas of the participating jurisdictions. The RTA is a regional, multi-jurisdictional entity that becomes a separate subdivision of the state, but which operates pursuant to an intergovernmental agreement adopted by its member governments. The RTA is authorized to impose a property tax not to exceed an annual levy of one-half mill on each dollar of assessed valuation of a county or municipality property, with voter approval.

Special Districts

Wyoming local governments may create service districts or improvement districts, according to Section 18-12-101 of the Wyoming statutes. The districts are generally funded from fees or property taxes. The districts are limited in their usefulness as mechanisms for funding transit systems, particularly in a multi-jurisdictional setting.

Local College Funding

A strategy successfully applied in several similar cities to generate transit funding from college campuses is to levy a student activity fee for transit services or an established amount from the college general fund. An activity fee will have to be approved by a majority of the students and will be applied each school semester or quarter. If a $5 activity fee per semester for transit service was approved by the Western Wyoming College students, the approximate annual revenue will be $5,500 (based upon an estimated 1,100 student enrollment). The activity fee will not dip into the college's general fund. The additional funds will allow increased transit service for the college students, including more frequent service or possibly a night route.

Conclusions

The best and most versatile of the above funding sources for local and regional transit services is the RTA, which offers more options for funding sources and much greater flexibility in designing the boundaries of a multi-jurisdictional transit system. However, consideration will need to be given to the issue of residents and businesses paying a tax. In the short term, it is recommended that the future planning for CTP focus on funding from the City of Cheyenne. As the transit service grows, CTP and the City of Cheyenne will need to move toward creating a

RTA and obtaining a local vote for a stable funding source that will allow for the creation and improvement of future transit services.

Federal Transit Funding

Through SAFETEA-LU, the federal government has substantially increased the transit funding levels for rural and small urban areas. Also, changes in the program requirements have provided increased flexibility regarding the use of federal funds. Following are discussions of the federal transit funding programs for which the regional transit service may be eligible.

FTA Section 5309 - Capital Improvement Grants

The FTA Section 5309 program 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, and there is no indication that this trend toward earmarking the funds will change. In recent fiscal years, rural and small urban areas have received a greater share of these funds than in previous years.

FTA Section 5307 - Public Transportation for Urbanized Areas

The FTA Section 5307 program makes federal resources available to urbanized areas and to governors for transit capital/operating assistance and transportation-related planning in urbanized areas. 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. 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, overhaul/rebuilding, crime prevention, security equipment, and construction of maintenance/passenger facilities; and capital investments in new and existing fixed guideway systems including rolling stock, vehicle overhaul/rebuilding, tracks, signals, communications, and computer hardware/software. All preventive maintenance costs and some of the Americans with Disabilities Act (ADA) 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. However, a few areas under 200,000 in population have been designated as transportation management areas and receive apportionments directly. The total funding available through 5307 is estimated at $1.5 million in fiscal year 2007 and $1.6 million in fiscal year 2008. The total amount of funding over the years of SAFETEA-LU is estimated at $6.3 million.

Operating assistance is not an eligible expense for urbanized areas with populations of 200,000 or more. 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 the disabled. 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.

FTA Section 5316 - Job Access and Reverse Commute Program

The FTA Section 5316 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 (MPOs), counties, and public transit agencies, among others. A 50 percent non-Department of Transportation (DOT) match is required, but other federal funds may be used as part of the match. According to SAFETEA-LU, this funding is now allocated by the state rather than the FTA. The grants are for a one-year period. Therefore, an agency may submit for this funding every year. Wyoming is programmed to receive $890,000 in FTA Section 5316 funding during the years 2006 to 2009.

FTA Section 5317 - New Freedom

FTA Section 5317 New Freedom funding is for states to provide formula grants for operating and capital expenses related to transportation services for the disabled. The program's primary purpose is to increase access beyond the standard ADA paratransit requirements. Public and private transportation providers are eligible for the funding. The formula for this funding is consistent with the rural formula funding calculation. It is estimated that Wyoming will receive $440,000 in FTA Section 5317 funding during the years 2006 to 2009.

Transit Benefit Program

The Transit Benefit Program is a provision within the Internal Revenue Code 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 vehicles. Under Section 132 of the Internal Revenue Code, employers can provide up to $110 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. 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 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. 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.

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.

Temporary Assistance for Needy Families

States receive the Temporary Assistance for Needy Families (TANF) grants to provide cash assistance, work opportunities, and necessary support services for needy families with children. States may choose to spend some of their TANF funding on transportation and related services for program beneficiaries.

Head Start Program

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 funding can be used to provide transportation service, acquire vehicles, and provide technical assistance to local Head Start centers.

Other Federal Funds

The US Department of Transportation funds other programs, including the Research and Special Programs Administration and the National Highway Traffic Safety Administration's State and Community Highway Grants Program (which funds transit projects that promote safety). A wide variety of other federal funding programs provide support for elderly and handicapped transportation programs, including the following:

- Retired Senior Volunteer Program
- Title IIIB of The Older Americans Act
- Medicaid Title XIX
- Veterans' Affairs
- Job Training Partnership Act
- Developmental Disabilities

- Housing and Urban Development - Bridges to Work and Community Development Block Grants
- Department of Energy
- Vocational Rehabilitation
- Health Resources and Services Administration
- Senior Opportunity Services
- Special Education Transportation
- Justice Department - Weed and Seed Program
- National Endowment for the Arts
- Agriculture Department - Rural Enterprise Community Grants
- Department of Commerce - Economic Development and Assistance Programs
- Environmental Protection Agency - Pollution Prevention Projects

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.

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.

Due to the varying amount of state transit funding within Wyoming and the limited amount of federal funding, it is evident that transit funding must be addressed at the local level. State and federal funding are not consistent. Only a strong local transit subsidy funding source will allow the many plans and proposals for transportation improvements to reach implementation with an assur-

ance of ongoing operating funding. Though all of the options regarding local funding have drawbacks, 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
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CHAPTER XII
Coordination Strategies

INTRODUCTION

The basis for any transit coordination plan is careful consideration of the realistic strategies. Financial plans and management options can then be developed to support the planned coordination. Each coordination strategy must be evaluated using a cost-to-benefit analysis and must meet state and federal requirements. Any strategy that does not end in a positive financial benefit or improved mobility to the community or does not meet state and federal requirements should not be considered for implementation. The following discussion presents potential transit coordination strategies for the City of Cheyenne transportation providers.

FEDERAL REQUIREMENT AND SUPPORT FOR COORDINATION

SAFETEA-LU includes a requirement that any funding for projects under the Federal Transit Administration (FTA) Section 5310, Jobs Access Reverse Commute (JARC), and New Freedom programs must be based on a local coordinated transportation plan. Some of the human services transportation providers in the study area may be eligible for funding under the Section 5310 program, while some of the enhanced services discussed may be eligible for funding under the JARC or New Freedom programs. Without the support of a local coordinated transportation plan, these activities will not be eligible for funding under the specific federal programs.

The FTA has developed information for communities to use in creating coordination efforts to meet the federal rules. Federal support for coordination of transportation programs is primarily provided under the United We Ride (UWR) program. United We Ride is an interagency federal initiative that supports states and their localities in developing coordinated human service delivery systems. Coordination efforts were directed by a Presidential Executive Order in February 2004, which formed the Transportation Coordinating Council on Access and Mobility.

The UWR program provides both technical support and funding through state coordination grants. These grants can be used to assist states in conducting a comprehensive state assessment using the UWR Framework for Action and developing a comprehensive state action plan for coordinating human service transportation. For those states with an existing comprehensive state action plan, grants can be used for implementing one or more of the elements identified within the Framework for Action.[1]

COORDINATION STRATEGIES

The following section details the different types of strategies that can be implemented for the study area and reviews the benefits and implementation steps for each strategy.

Joint Procurement

Joint procurement (or bulk purchase) is a cost-effective approach to increasing purchasing power. Joint maintenance and fuel purchase is being more widely used across the country, especially given the rising costs of parts and fuel. Shared maintenance can be done quite easily between agencies in a given locale. Many times, human service providers and other local providers contract out maintenance to a local vendor. While there may be very few qualified maintenance professionals, it may allow a competitive process between agencies to perform fleet maintenance between multiple agencies. Insurance pooling is likely the most difficult joint procurement possibility.

Benefits

- Reduces each agency's capital outlay.
- Creates an economy of scale in purchases, thereby reducing the overall operational cost per agency.
- An agency may be able to shift funding from maintenance and capital to service hours in order to increase the level of service or operations of the transit system within the region.

[1] Federal Transit Administration at http://www.fta.dot.gov/legal/federal_register/2004/12174_15861_ENG_HTML.htm.

Implementation Steps

- The agencies need to meet in order to develop a basic understanding of how the procurement process will work.
- Intergovernmental agreements should be developed and agreed upon.

Shared Vehicle Storage and Maintenance Facilities

The agencies can share indoor storage space and maintenance facilities in geographic localities. Shared storage, especially if and when vehicles are stored outside, can aid in reducing engine wear during cold weather startup. Obviously, if a provider is conducting its own maintenance on vehicles, it can likely share maintenance costs with another local provider.

Benefits

- Reduces maintenance costs, resulting in additional funds available for operations.
- Reduces lost time due to vehicles not starting in cold weather, thereby improving the overall performance of the transit service.
- Sharing a facility or building a facility together increases the amount of local match, and will increase the level of FTA funding to the region.

Implementation Steps

- The agencies need to meet in order to identify the best existing facility among the coordinated agencies or the best location for a shared facility.
- The facility should be centrally located in order to reduce the possible deadhead time.
- The amount of space that each agency will get in the facility should be designated based on each agency's funding participation for the facility.
- A grant will need to be developed to purchase or upgrade the facility.

Joint Grant Applications

The transit providers in the region should agree to submit a single grant to the state and/or FTA for transit funding for their capital and operational needs.

Benefits

- Reduces the amount of time that each agency needs to spend in developing a grant on its own.

- May increase the local match funding for state and/or FTA transit funding.
- The agencies are able to use each other's knowledge in developing a grant.

Implementation Steps

- The agencies should review their needs and create a list of capital and operational requirements.
- The agencies should itemize their lists and determine a priority of needs.
- The grant should be developed based on the priority lists.
- The grant should be approved by each of the agencies' boards/councils, along with approval of the local match funding.
- Interagency agreements should be approved in order to allow the grants to be passed through a single agency.
- The agencies should submit one final grant.

Joint Training Programs

Joint training programs between agencies, in everything from preventative maintenance to safe wheelchair tie-down procedures, can lead to more highly skilled employees. Joint training can also lead to reduced training costs with agencies that each possess a specialized trainer who can be responsible for one or more disciplines. For example, one agency can provide Passenger Assistance Training (PAT), one agency can specialize in preventative maintenance training, etc. The agencies can also purchase special training from reputable organizations/companies and allow other agencies' employees to attend. Training costs should be shared between the agencies.

Benefits

- Reduces each agency's training budget.
- The drivers and staff have more opportunities to learn from each other.

Implementation Steps

- The training needs of each agency's staff should be identified.
- The training courses that meet the greatest needs should be determined.
- The agency or organization/company that can provide the needed training should be identified.
- State and/or federal grants that can assist in paying for the training should be determined.

Sharing Expertise

Similar to sharing training resources, agencies can share their expertise in such areas as grant writing, computer skills, and general assistance in operation of transportation services (such as tips for dispatching or accounting procedures). Sharing expertise may be as general as a list of personnel across the region who have some expertise in a particular field that may benefit another agency. A "yellow pages" of subject matter experts made available to each agency may be helpful in operating transportation service.

Benefits

- Reduces the need for costly training sessions for drivers and staff, and decreases lost production time.
- Knowledge is passed on to other staff members and agencies, thereby increasing the efficiencies for the region's transit providers.

Implementation Steps

- The information, field of work, and expertise needed to operate an effective transit service should be identified.
- The individual in each agency that has expertise in each field of work should be determined.
- A yellow pages or contact list of the individuals in each agency that have expertise in certain fields of knowledge should be created.

Coordinating Council

Similar to a coalition, a coordinating council is made up of myriad agencies and partners with a common goal of coordinating transportation resources. This group differs from a coalition in that it is primarily made up of agencies that have a need for service and other groups (such as local municipalities) specifically formed to accomplish a strategic goal (such as to implement a new service). The coordinating council acts similarly to a Transportation Advisory Committee (TAC) in either a local or regional area.

Benefits

- Allows greater input from the key transportation agencies in the region.
- The members can share information and knowledge on a one-on-one basis.
- Increases the integration of transit planning within the region.

Implementation Steps

- The agencies interested in being members of the council should meet and develop by-laws for the council.
- The council members should elect a Chair and Vice Chair.
- The council members should develop a mission statement, vision, goals, and objectives.
- The council members should set a date for the monthly or quarterly meeting.

Joint Planning and Decision Making

Joint planning and decision making involves agencies working cooperatively either with other similar agencies or with a local provider in order to make known the needs of their clients and become involved in the local planning of services. For example, several local human service agencies may meet with the local transit planners in an area to develop operations plans that attempt to meet the needs of the agencies' clients.

Benefits

- Reduces the need for expensive planning documents for each agency.
- Allows more complex coordination in capital development and operational functions.
- Reduces duplication of services among the coordinating agencies.

Implementation Steps

- The agencies should meet with regional transit and transportation planners to develop a scope of work for the planning process.
- The scope of work should identify the goals and objectives.
- A timeline should be developed for completion of the planning document.
- The planning document should develop recommendations for making decisions regarding operations, services, capital, funding, coordination process, and administration functions.

Coalitions

A coalition is a group of agencies and organizations that are committed to coordinating transportation and have access to funding. The coalition should include local stakeholders, providers, decision makers, business leaders, council of governments, users, and others as appropriate. The coalition can be either an informal or formal group that is recognized by the decision makers and that has some

standing within the community. Coalitions can be established for a specific purpose (such as to obtain specific funding) or for broad-based purposes (such as to educate local communities about transportation needs).

Benefits

- Develops a broad base of support for improvement of transit services in the region.
- The coalition will be able to speak with community and regional decision makers, thereby increasing local support for local funding.

Implementation Steps

- The individuals in the region who are interested in improving transit's level of service and have the time and skills to develop a true grassroots coalition should be identified.
- A meeting of these individuals should be set up to present the needs and issues that face the agencies.
- The agencies should work with the coalition to provide base information and data on the existing and future needs of transit across the region.

Vehicle Sharing

Vehicle sharing requires that agencies own and operate vehicles. Memoranda of Understanding or Joint Agreements are needed for this strategy to work properly. Agencies that operate vehicles are able to share those vehicles with other agencies in a variety of circumstances, such as when one agency has a vehicle mechanical breakdown or when the capacity for a specific trip is at its maximum.

Benefits

- Reduces the overall local capital outlay.
- These funds can be shifted to cover operational costs or increase the level of service.
- These funds can also be used for capital funding for facilities, equipment, and other capital assets.

Implementation Steps

- Each agency should identify its individual vehicle schedules and when its vehicles can be shared.

- Vehicle schedules listing the time the individual vehicles are available should be created and distributed among the agencies.
- A system of tracking the vehicles that are being shared should be developed in order to track the vehicle miles, hours, and maintenance.

Contracts for Service

An agency may contract with another human service agency or a public provider to provide needed trips. This can be done occasionally on an as-needed basis or as part of scheduled service. One example is a local Head Start contracting for service with a local public provider. The contract revenue can then be used as local match for the local public provider, using the same drivers and vehicles as used previously. Many times the drivers are also Head Start aides or teachers.

Benefits

- Increases the amount of local match that can be used to pull additional state and/or federal funding for transit services into the region.
- Reduces duplication of services in the region, thereby creating an economy of scale and improving the overall transit performance level.

Implementation Steps

- The agencies should meet to identify the needs and capacities of the contract parties.
- A contract should be developed detailing the responsibility of each party.

Provide Vehicles

An agency can provide a used vehicle—one that is either being replaced or retired—to another agency. This can be done either through a transfer of title, donation for a small price (in the case of a retired vehicle), or sale to a local agency in desperate need of a replacement vehicle.

Benefits

- Reduces the capital outlay for the agency that obtains the used vehicle.
- Reduces the need to retire older vehicles in the fleet.
- Allows human service transportation providers to obtain vehicles that they might otherwise not be able to purchase, due to the cost of a new vehicle and the level of federal capital funding they are able to receive.

Implementation Steps

- The agencies should meet to determine the procedures for transferring a vehicle from one agency to another, as well as the level of overall need for vehicles.
- The agencies that receive federally funded vehicles should review their fleet and determine which vehicles can be transferred to other agencies.
- The agencies that wish to receive vehicles should review their fleet needs.

One-Call Center

A shared informational telephone line provides potential users with the most convenient access to information about all transportation services in the region.

Benefits

- Reduces the administrative costs for the participating agencies.
- A one-call center is the first step to centralized dispatching.
- The users will only need to call one telephone number in order to obtain all the transit information they need, thereby improving customer service.

Implementation Steps

- The agencies should meet to determine which agency will house the call center, how the call center will be funded, and what information will be provided to customers.
- The telephone line should be set up and the needed communication equipment should be purchased.
- A marketing brochure should be developed detailing the purpose of the call center, hours of service, and telephone number.

Centralized Functions (Reservations, Scheduling, Dispatching)

A single office can oversee the dispatching of vehicles and the scheduling of reservations for all of the participating transportation agencies in order to provide transportation service within a geographic area.

Benefits

- Reduces duplication of administrative costs based on an economy of scale.
- Increases the marketability of the region's transit service.
- Improves fleet coordination.

Implementation Steps

- The agencies should meet to determine which agency will house the centralized reservations, scheduling, and dispatching.
- Each agency's level of funding for the dispatching service cost should be identified.
- Intergovernmental agreements should be created detailing the responsibility of each agency.

Transportation Broker

A third-party agency can be created as a transportation broker to interface between the transportation providers and users. The transportation broker should centralize dispatching, record keeping, and possibly vehicle maintenance.

Benefits

- Reduces duplication of administrative costs based on an economy of scale.
- Marketability of the region's transit service will be increased.
- Fleet coordination will be improved.

Implementation Steps

- The agencies should meet to determine if the broker service will be set up as a new agency or under an existing agency.
- Each agency's level of funding for the dispatching service cost should be identified.
- Intergovernmental agreements should be created detailing the responsibility of each agency.

Consolidated Transportation Program

A consolidated transportation program occurs when all transit services are provided by a single agency. This includes vehicles, facilities, administration functions, maintenance, and operations.

Benefits

- Creates an economy of scale, thereby reducing the cost per passenger, administrative costs, and operational costs.

- Increases the level of local match funding available to obtain federal funding through contract services provided to other agencies in the region.
- Reduces duplication of services and facilities.

Implementation Steps

- Intergovernmental agreements should be created detailing the level of service that will be provided by the single agency for the level of funding detailed in the contract.
- Each agency's council or board will need to approve the intergovernmental agreement.
- A new board should be created for the consolidated agency. The board should consist of the participating agencies and should oversee the service.
- All vehicles and facilities should be transferred to the consolidated agency.

Outreach to Allow for Participation

The transportation stakeholders and local transit providers can conduct outreach to allow for participation in the coordination strategies. The first step was to review the above list of strategies and determine which strategies can be used to improve transportation services for the transit-dependent. This planning process has identified needs (service gaps and duplication of services) and local resources. LSC and the Stakeholders Committee, based on input from the public, have chosen several of the strategies to implement in order to meet the identified needs. Efforts to solicit involvement and participation have be documented in Appendix A, which includes comments from public meetings, and Appendix I, which includes meeting sign-in sheets.

The following agencies should participate in the local service area coordination meeting and in the development of any coordinated transit effort:

- Area transportation planning agencies
- Transit riders and potential riders
- Public transportation providers
- Private transportation providers
- Nonprofit transportation providers
- Human service agencies funding and/or supporting access for transportation services

- Government agencies administering health, employment, or other support programs for targeted populations
- Nonprofit organizations serving targeted populations
- Advocacy organizations serving targeted populations
- Security and emergency management agencies
- Appropriate local and/or state officials
- Business community representatives
- Community-based organizations
- Economic development agencies
- Job training and placement agencies
- Elected officials

INITIAL COORDINATION STRATEGIES

Based on existing information, LSC has developed the following coordination strategies for the purpose of discussion:

- Develop a coordination council.
- Create a coalition of transportation stakeholders.
- Continue and expand contract service.
- Develop agreements that allow CTP to continue as the consolidated transit program.
- Improve transit service to the human service providers in the City of Cheyenne.

A coordination council or coalition will represent a step toward achieving coordinated transportation services within the study area. The coordination council or coalition should work with the human service providers to develop a basic understanding of the transit issues and how to work together cooperatively. Through this process, the area will be able to implement the other coordination strategies of contract services and centralizing operational functions.

Build

Chapter XIII

TRANSPORTATION
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CHAPTER XIII

Strategic Implementation Plan

INTRODUCTION

LSC has prepared the following strategic implementation plan for CTP in order to identify the steps to be taken now and into the future. Chapter XIII includes the service plan and the implementation steps for each phase of the preferred transit plan. The strategic implementation plan is broken into three elements—short term, mid-term, and long term. The implementation of each element was developed based on achieving benchmarks and funding levels. In addition to the implementation plan, LSC has included organizational, coordination, and marketing plans.

ORGANIZATIONAL PLAN

Under the direction of the Cheyenne City Council, CTP should continue to operate the general public transportation service. The city 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 this chapter can be implemented.

COORDINATION PLAN

The coordination strategies recommended at this time for CTP and the study area are listed below. The strategies were based on input and Chapter XII of this document. The first step in this coordination plan is to have CTP continue the effort of working with Stride.

LSC has developed the following coordination strategies:

- Develop a coordination council.
- Create a coalition of transportation stakeholders.
- Continue and expand contract service.

- Develop agreements that allow CTP to continue as the consolidated transit program.
- Improve transit service to the human service providers in the City of Cheyenne.

A coordination council or coalition will represent a step toward achieving coordinated transportation services within the study area. The coordination council or coalition should work with the human service providers to develop a basic understanding of the transit issues and how to work together cooperatively. Through this process, the area will be able to implement the other coordination strategies of contract services and centralized operational functions. The coordination meeting should be conducted or held every quarter. The coordination council or coalition will need to set up bylaws and an organizational structure in order to conduct productive meetings.

Many of these human service providers and other transportation providers have attended the coordination meetings held throughout this planning process. The strategies above will allow the connection and dialog that started in this planning process to continue. Appendix I presents the sign-in sheets for the coordination effort that was conducted in this planning process. The CTP and MPO staff requested that the coordination meetings be held in conjunction with the public meetings in order to create a more open planning process that allowed the public to be involved in all elements of development of the coordination plan.

PREFERRED SERVICE AND IMPLEMENTATION PLAN

Preferred Transit Service Plan

The preferred transit service plan will continue to focus on stable transit-user markets, such as the elderly and disabled. It will 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 area, particularly in developments with low density.

Short-Term Service Plan

LSC met with the CTP and MPO staff to review any possible route adjustments. These route adjustments can be done within the next year. The team also discussed ADA eligibility and fare structure for the curb-to-curb service.

Dispatching Software

It is recommended that CTP purchase computerized dispatching software in order to decrease overcrowding and improve inefficiencies of the curb-to-curb service. Table XIII-1 presents the estimated impact of installing dispatching software. The annual ridership can be increased without increasing the number of annual revenue-hours or the fiscal budget for the curb-to-curb service. This is based on increasing the number of annual trips from 22,675 to 35,200 by increasing the passengers per hour from 2.4 to 3.7 with an hourly cost of $38.

In order to carry 35,000 annual trips at 2.4 passengers per hour, the number of revenue-hours will have to increase by 5,250 to 14,760, thereby causing the budget for the curb-to-curb service to increase to over $560,880. If the total annual trips remained at 22, 675, the number of revenue-hours can be decreased by 3,385 if the passengers per revenue-hour were increased to 3.7, equivalent to a savings of $235,500 annually based on an hourly cost of $38.

Table XIII-1
Curb-to-Curb Level of Service Improvement

Level of Service		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost ($) per Pass.
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Existing Curb-to-Curb	6:00 am - 6:00 pm M-S	6	479	31	147,089	9,513	307	22,675	2.4	$468,736	$20.67
Future Curb-to-Curb (with Computerized Dispatching)	6:00 am - 6:00 pm M-S	6	744	31	228,325	9,513	307	35,198	3.7	$468,736	$13.32
Future Curb-to-Curb (with Computerized Dispatching)	6:00 am - 6:00 pm M-S	6	479	31	147,089	6,128	307	22,675	3.7	$233,185	$10.28

Route Adjustments

This section reviews the realignments and adjustments of the CTP existing routes. Each of the routes were reviewed for efficiencies, effectiveness, boardings, alightings, bus boarding locations, and functionality. The route adjustments are recommended for all phases of the plan. All of the adjustments are recommended for implementation before Phase I of the preferred transit service plan. Figures XIII-1 through XIII-6 detail the routes, bus boarding locations, and time points. Detailed layouts of sample bus stops are included in Appendix J.

Figure XIII-1
Downtown Route

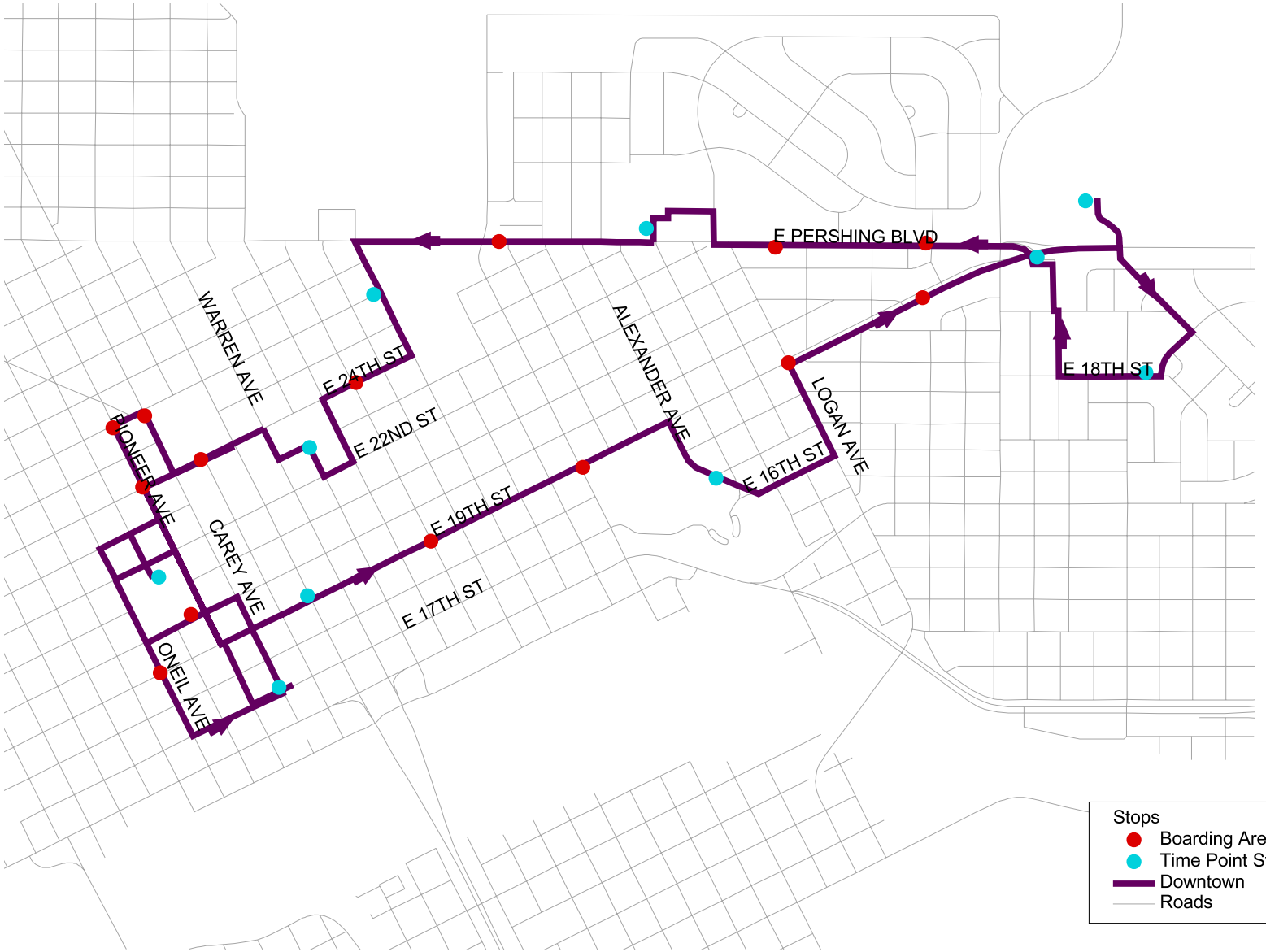

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Figure XIII-2
East Route

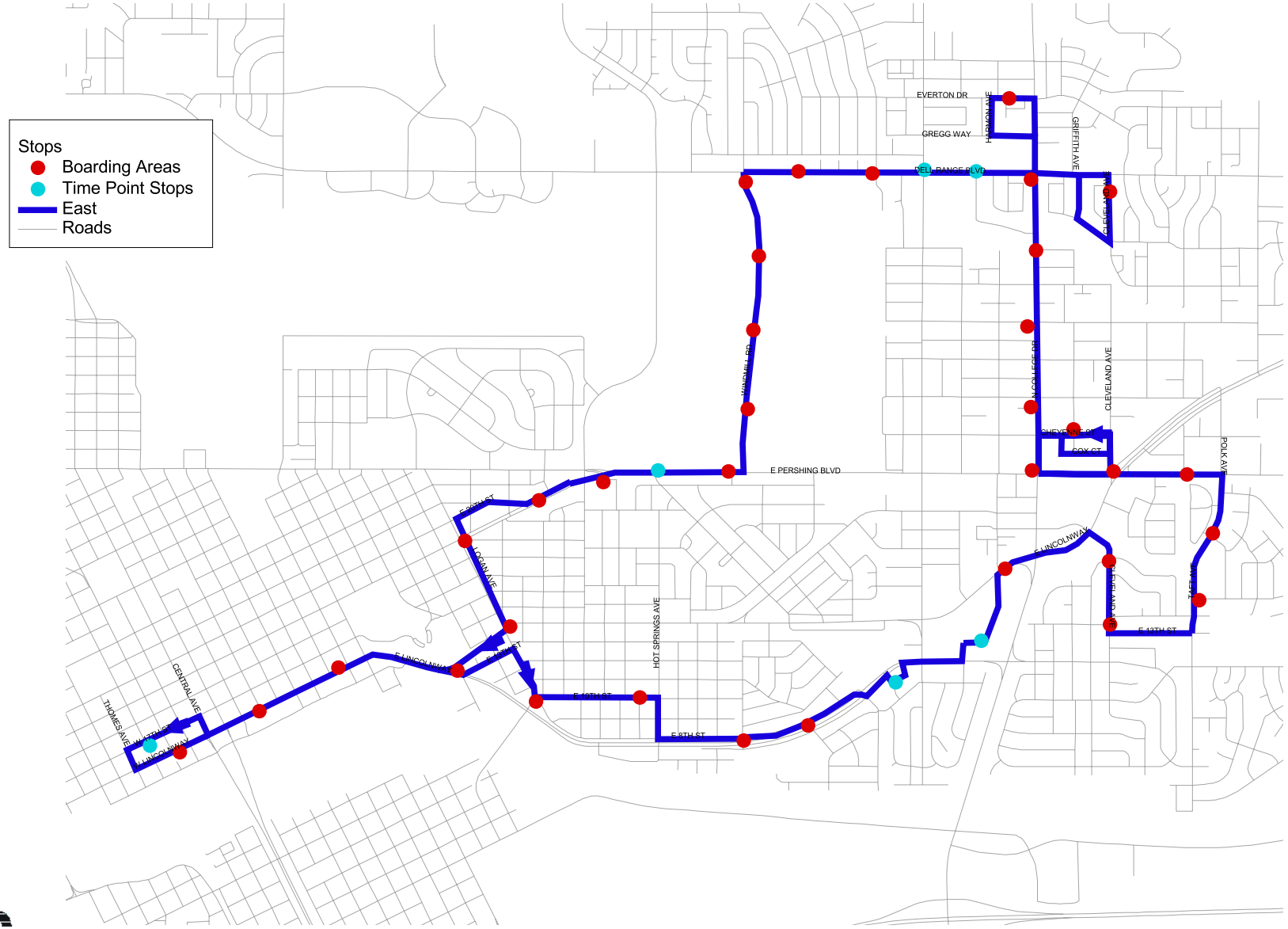

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Figure XIII-3
Northeast Route

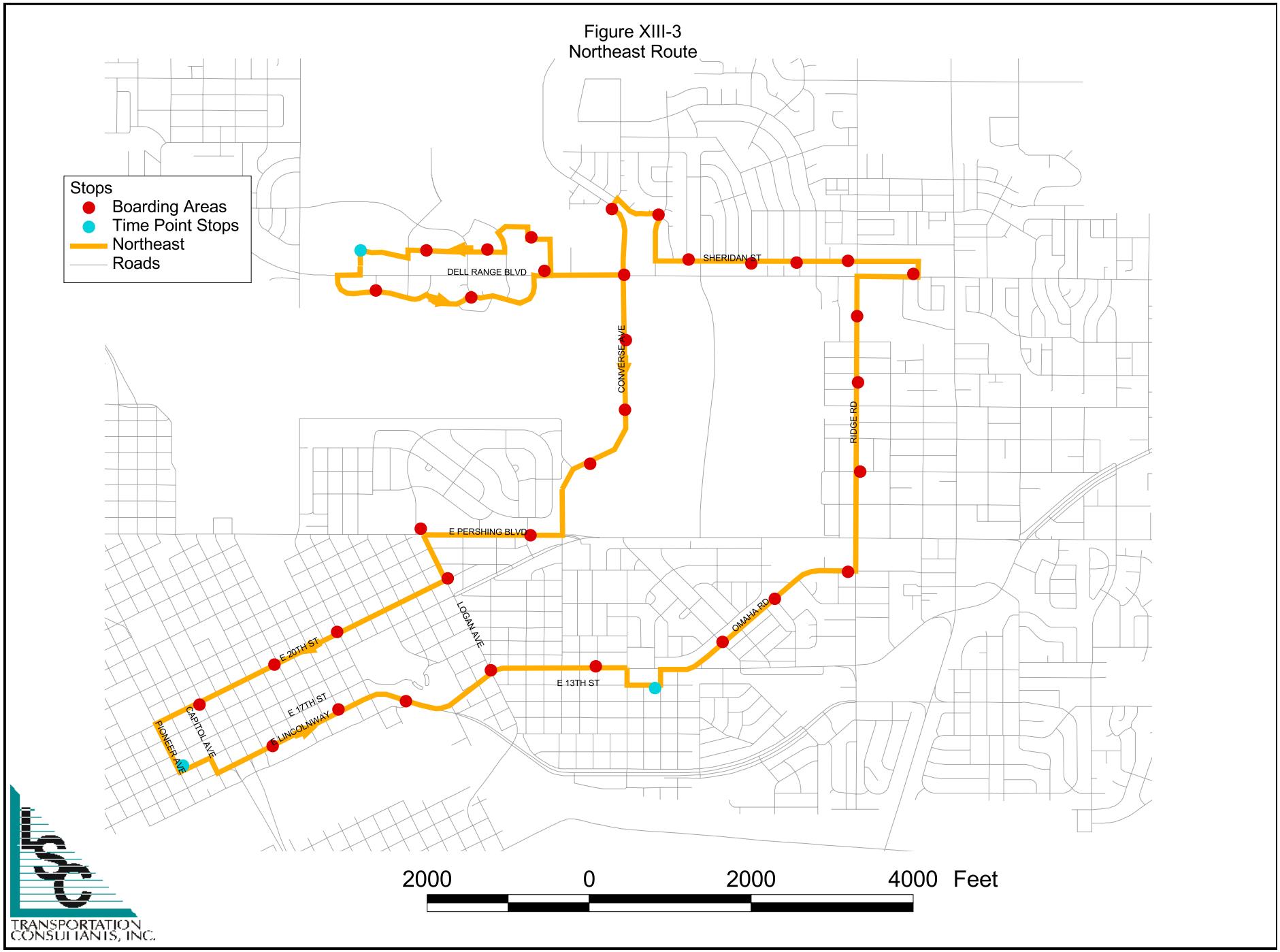

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Figure XIII-4
Northwest Route

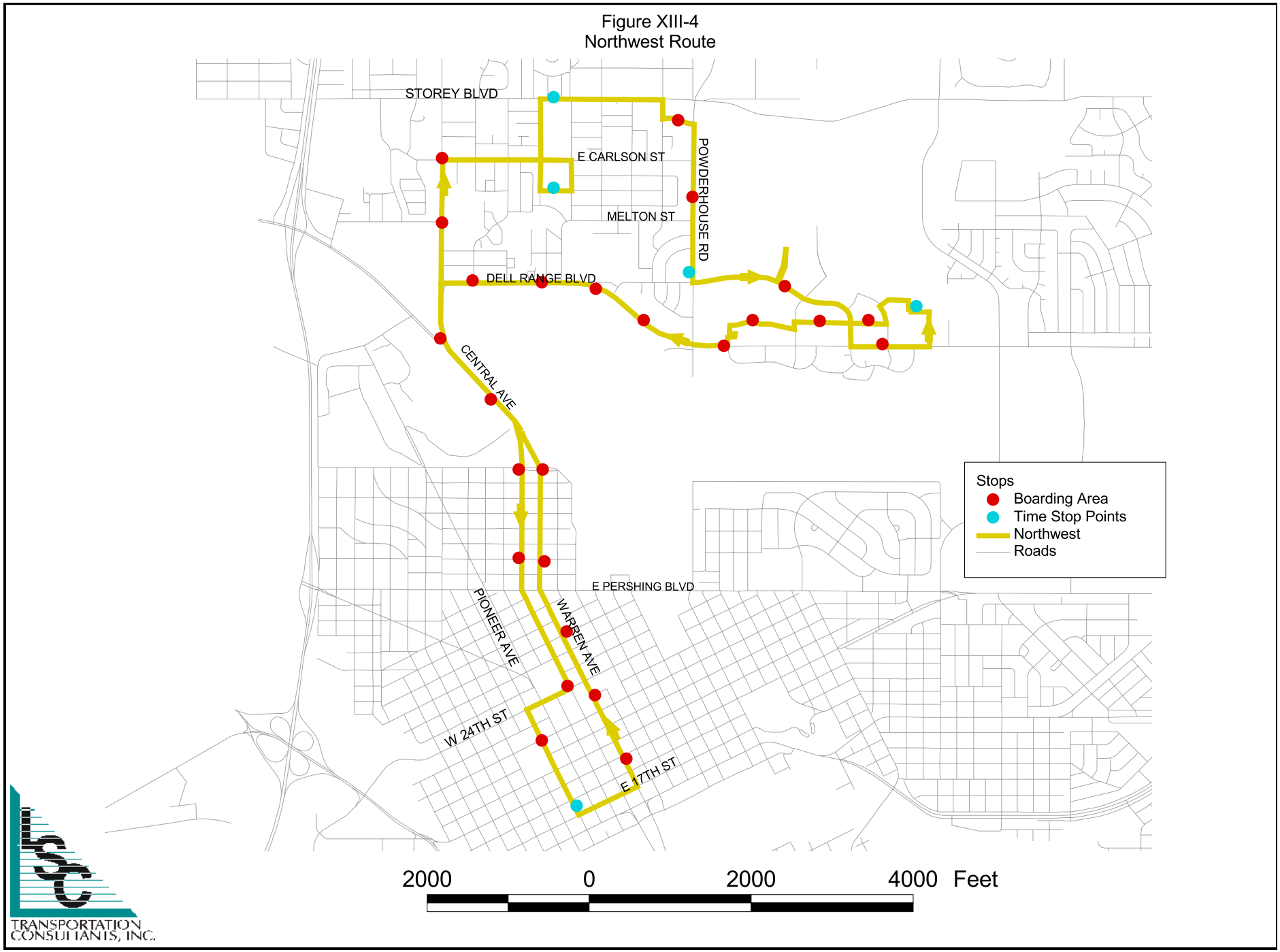

Figure XIII-5
South Route

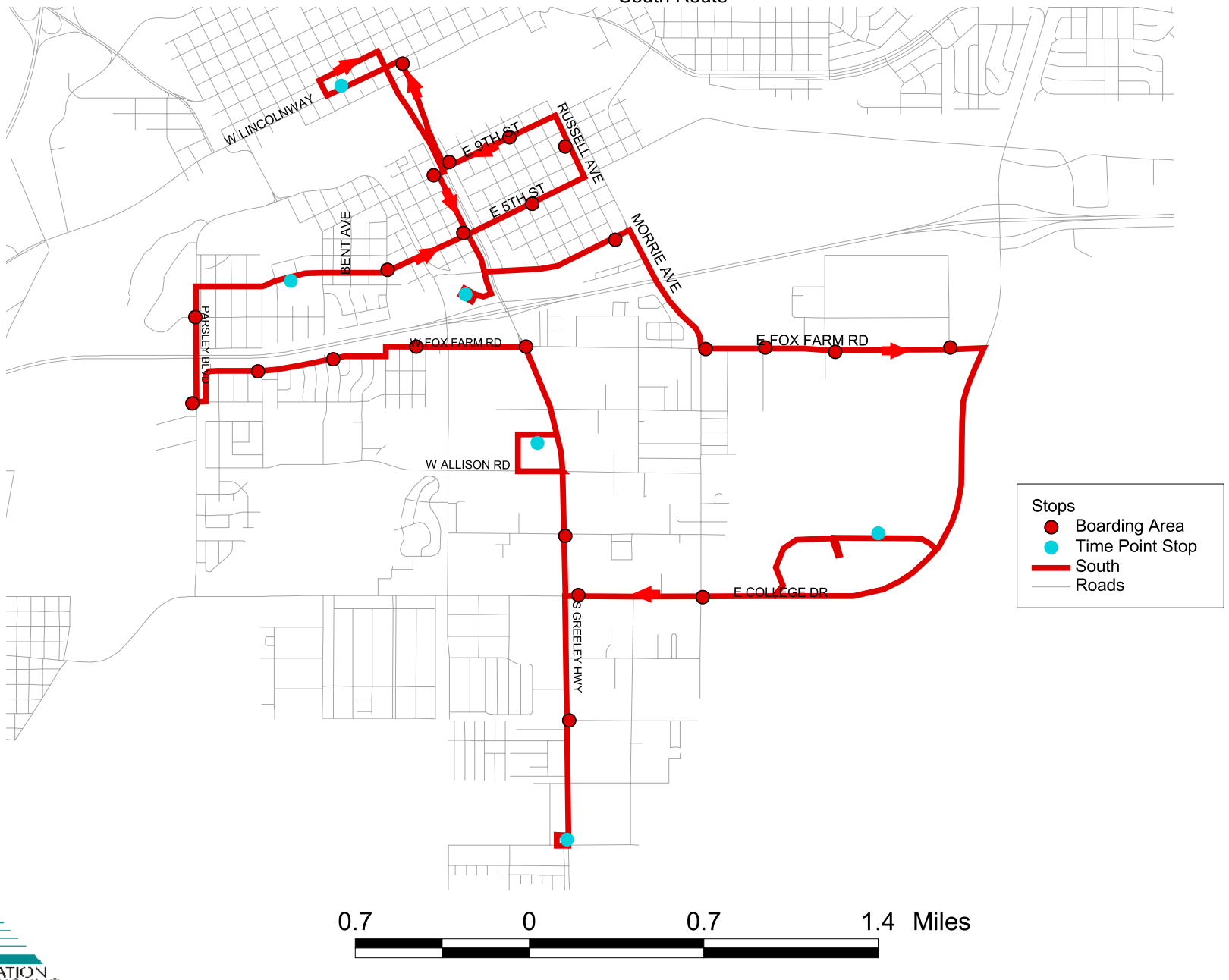

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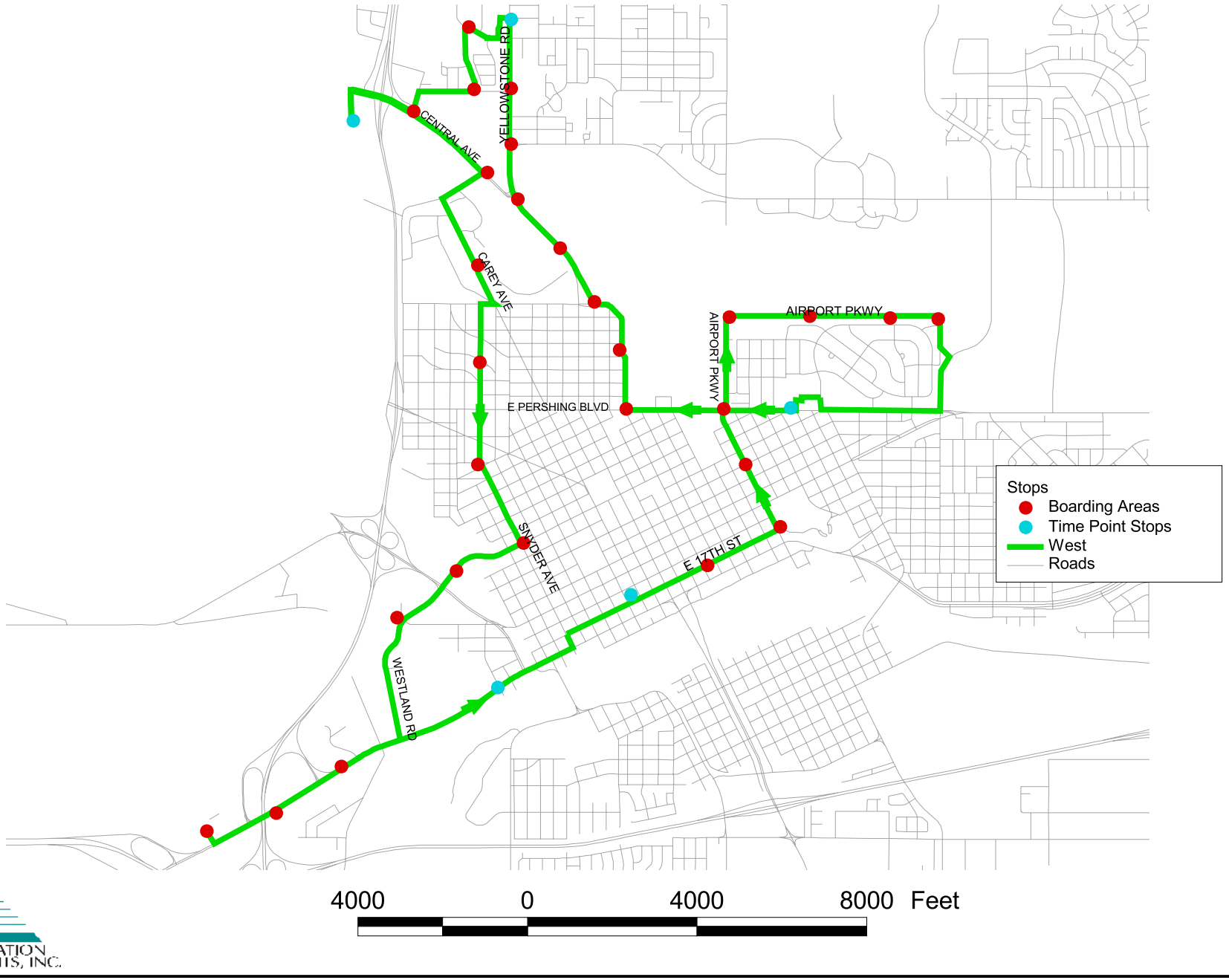
Figure XIII-6
West Route



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Short-Term Implementation Plan

In the short term, CTP will need to purchase a computerized dispatching software to improve the curb-to-curb effectiveness. The second element is for CTP to shift from flag bus stops to formal bus stops. CTP will need 340 bus stops/boarding areas throughout the transit network. The third element is the minor adjustment to the route structure. The last element of the short-term implementation plan is fare restructuring in order to shift those riders that can use the fixed-route service off of the curb-to-curb service.

In order to implement the short-term recommendations effectively, CTP needs to use the Americans with Disabilities Act (ADA) Paratransit Eligibility Manual, DOT-T-93-17, September 1993. There are three categories that determine if an individual is eligible for paratransit service. A brief overview is provided in the box below. More detailed information on these categories is provided in Appendix K. The full Paratransit Eligibility Manual is on the Federal Transit Administration (FTA) web site at http://ntl.bts.gov/DOCS/ada.html. CTP will need to use these categories to determine which individuals are eligible for paratransit service. Appendix L presents a draft city council resolution for implementation of the short-term transit plan.

Category 1 Eligibility

The first category of eligibility includes those persons unable to use fully accessible fixed route services. Included in this category is: "Any individual with a disability who is unable, as the result of a physical or mental impairment (including a vision impairment), and without the assistance of another individual (except the operator of a wheelchair lift or other boarding assistance device), to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals width disabilities." [37.123(e)(1)]

Category 2 Eligibility

The second category of eligibility includes: "Any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device and is able, with such assistance, to board, ride, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities if the individual wants to travel on a route of the system during the hours of operation of the system at a time, or within a reasonable period

of such time, when such a vehicle is not being used to provide designated public transportation on the route." [37.123(e)(2)]

Category 3 Eligibility

The third category of eligibility includes: "Any individual with a disability who has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such system." [37.123(e)(3)]

Benefits

- The Cheyenne residents will obtain improved transit service. The curb-to-curb service will increase mobility for those riders that need special services.

Timing

- Planning for the new route adjustments should be completed in 2008, and implementation of the route adjustments should begin in late 2008.
- CTP needs to assess their need for the purchasing of a computerized dispatching system. This will require developing specifications for the system, and then releasing a request for proposal from vendors.
- In 2008, CTP will need to have public meetings on both the route changes and the fare restructuring.
- By 2009, the fare restructuring should be approved and installed.
- Starting in late 2008 and early 2009, CTP will need to work with the City Planning and Public Works Departments to refine the bus stop locations.
- By early 2009, CTP will need to start installing 65 to 70 bus stops a year for the next five to six years.
- CTP will need to review the ADA Paratransit Eligibility Manual and determine how the eligibility process, staffing, and training will be conducted.
- CTP will need to receive ADA training, and then begin the evaluation process of individual paratransit riders.

Responsibility

- CTP will be responsible for planning and implementing the transit service changes.
- CTP should develop an education program for the new transit service and fare structure at least three months before the service changes are implemented. This should include public meetings to inform the public about the new transit service and allow for public comments.
- CTP should conduct test runs of the proposed routes and make any necessary changes to the schedules.

- CTP will need to determine if there is a need for additional staff in order to conduct ADA eligibility and training.

Implementation Steps

- CTP and the MPO staff should set up a quarterly coordination meeting with the human service providers to discuss the existing and future needs and services.
- CTP should educate the public about the fare structure, use of the bus stops, and route adjustments.
- CTP should apply for the appropriate operating funding for the existing service and capital funding for the computerized dispatching system and bus stops.
- CTP should advertise the new changes and bus stops with the local newspaper, radio, and television stations.
- CTP should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.
- With assistance from the City Planning and Public Works Departments and the Wyoming Department of Transportation (WYDOT), CTP should install 340 bus stops throughout the system.
- CTP should review the ADA Paratransit Eligibility Manual.
- CTP should develop eligibility standards for the curb-to-curb service which follow the ADA regulations.
- CTP may implement pilot programs for route-deviation and other services.

Mid-Term and Long-Term Service and Implementation Plans

At the October 2007 and January 2008 meetings, the CTP and MPO staff agreed that Alternative I should be the preferred transit service plan. Alternative I is based on the adjusted service structure presented in the short-term service plan, but with deviated routes and one demand-response vehicle. This moves the fixed-route service to deviated routes and decreases the curb-to-curb service. LSC worked with the Stakeholders Committee and bus drivers to develop the preferred transit service plan, including the following adjustments to Alternative I:

- Add phases to the implementation plan
- Adjust the existing routes to improve route function
- Add bus stops
- Add express routes in Phase IV

The proposed CTP service changes will be for the mid-term and long term, starting in 2009 or 2010 at the earliest and continuing to 2016. The changes include

restructuring the current system to a combination of deviated loop routes, demand-response service, and local express service; expanding weekday service hours; and adding Sunday service. The following sections detail the transit service that will be implemented in each phase.

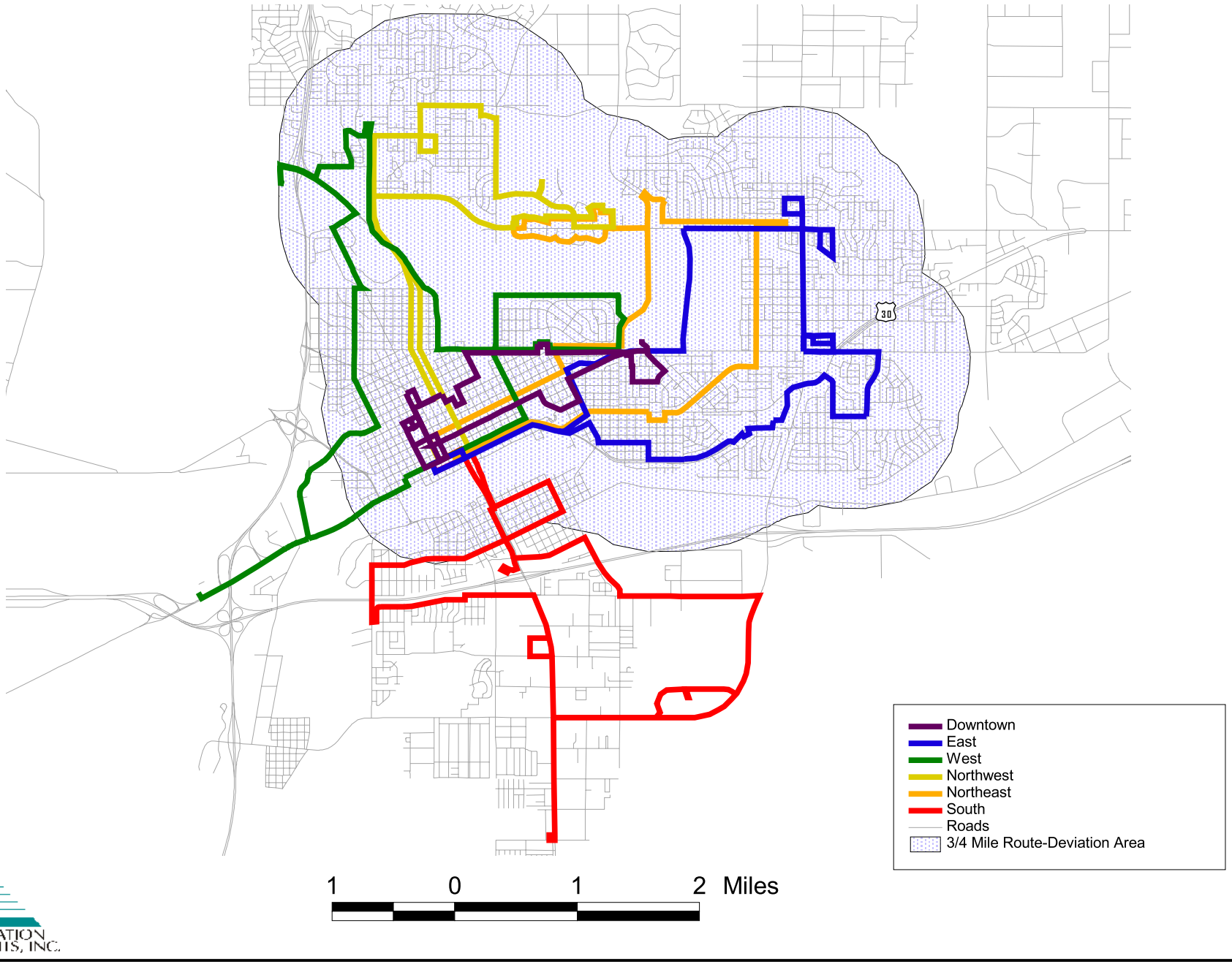
Phase I (Mid-Term)

Phase I will include six routes based on the short-term plan. The Northwest and East routes will change to deviated service. The Downtown, Northeast, South, and West routes will provide fixed-route service. The curb-to-curb service will be reduced from 9,500 to 3,800 revenue-hours annually. Figure XIII-7 presents the CTP system with deviation buffer zones at three-quarters of a mile. These buffer zones will cover a portion of the ADA and curb-to-curb service. The reduction of the curb-to-curb service allows those revenue-hours to be used to extend service from 6:00 to 10:00 p.m. on weekdays.

Route Service

The route service will operate six routes each with one bus 307 days a year on a 60-minute headway from 6:00 a.m. to 10:00 p.m. on weekdays and from 7:00 a.m. to 5:00 p.m. on Saturdays. The Northwest and East routes will deviate up to three-quarters of a mile to pick up passengers who schedule rides 24 hours in advance, but must return to the route within one block of the deviation. The Downtown, Northeast, South, and West routes will provide fixed-route service on weekdays and deviated service on Saturdays. The estimated cost of the route service is $1.01 million annually. The estimated ridership for the route service is 215,330 passengers annually. As an element of the deviated-route service, CTP will need to purchase a computerized dispatching system which will allow the buses to deviate off the route to pick-up passengers.

Figure XIII-7
Phase I Preferred System



Curb-to-Curb Service

Phase I includes curb-to-curb service, reduced from the current 9,500 revenue-hours to 3,825 revenue-hours. The difference in revenue-hours is shifted to the route evening service. The curb-to-curb service will operate 255 days a year with three buses from 7:00 a.m. to 6:00 p.m. on weekdays. On Saturday, the routes will operate deviated-route service and, therefore, there is no need for curb-to-curb service on Saturday. The estimated cost of this service is $188,470 annually. The estimated ridership is 11,340 passengers annually. The recommended computerized dispatching system will increase the efficiencies of the curb-to-curb service, allowing for an easier shift for the riders from the curb-to-curb service to the deviated-route service. The dispatching system will also allow CTP to improve the routing and matching of demand-response passengers, thereby decreasing the revenue-hours for this service.

Contract Service

Currently, CTP contracts to provide transportation for disabled children through Stride service. It is assumed this contract service will not change. The contract service is estimated to operate 4,000 revenue-hours annually. The estimated cost of the contract service is $151,700 annually. The estimated ridership is 25,800 passengers annually.

Summary

CTP should continue to focus on stable transit-user markets, such as the elderly and disabled. It will 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).

Table XIII-2 presents the level of service for Phase I. The annual cost for the Phase I transit service is approximately $1.35 million without inflation. The estimated ridership is 252,430 passengers annually. This results in a cost per passenger-trip of $5.36. Following is a summary of the estimated additional costs and passengers for the Phase I transit service:

- $5.36 cost per passenger-trip
- $1.35 million annual cost

- 7.13 passengers per hour
- 252,430 annual passengers

It is estimated that 13 regular vehicles plus two spare vehicles will be needed to operate the Phase I transit service. CTP currently has 12 vehicles in their fleet capacity. Therefore, CTP will need to purchase three vehicles to implement the Phase I transit service.

In Phases I through III, CTP will need to install a total of 340 bus boarding areas along the route service. Additional details on the capital needs are presented later in this chapter.

Table XIII-2
Level of Service - Phase I

Options		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost per Passenger
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Fixed-Route (60 minutes) (Southwest, Northeast, West)	6:00 am - 6:00 pm (M-F)	4	552	48	140,760	12,240	255	111,302	9.1	$446,990	$4.02
Route-Deviation (60 minutes) (East, Northwest)	6:00 am - 6:00 pm (M-F)	2	476	24	121,482	6,120	255	55,651	9.1	$254,795	$4.58
Route-Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	6	902	60	46,904	3,120	52	16,952	5.4	$120,691	$7.12
Evening Service Deviated (60 minutes)	6:00 -10:00 pm (M-F)	6	361	24	92,004	6,120	255	31,429	5.1	$189,392	$6.03
Stride (Contract Service)	School Days	4	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Curb-to-Curb Service	6:00 am - 6:00 pm M-F	3	690	15	175,950	3,825	255	11,338	3.0	$188,470	$16.62
Total/Average			**3,281**		**637,100**	**35,425**		**252,429**	**7.13**	**$1,352,016**	**$5.36**

Note: Costs based on LSC analysis, 2007.

Phase I Implementation (Mid-Term)

This section details the steps that need to be taken in order to implement Phase I of the preferred transit service plan.

Benefits

- Cheyenne residents will obtain increased connectivity and mobility throughout the area.

Benchmarks

- CTP will need to develop and implement a public involvement process to educate the users of the transit service and community on all aspects of the deviated-route service, changes to the curb-to-curb service, and the expansion of evening service.
- CTP will need to train the bus drivers on how to operate deviated bus routes.
- CTP will need to purchase a computerized dispatching system in order to effectively implement the deviated-route service.
- CTP will need to obtain City Council approval on a new fare structure that includes a deviation fare of $1.50 to $5.00 based on ADA eligibility.

Responsibility

- CTP will be responsible for planning and implementing the preferred transit service plan for the study area.
- CTP will need to train the bus drivers on the operations of the new transit service.
- CTP will need to develop an education program for the new transit service at least three months before the service changes are implemented. This should include public meetings to inform the public about the new transit service and allow for public comments.
- CTP will need to conduct test runs of the proposed service and make any necessary changes to the schedules.
- CTP will need to obtain City Council approval of the new fare structure.

Implementation Steps

- CTP should educate the public about the new transit service.
- CTP and MPO staff will need to work through the transportation coalition process developed in the coordination plan, detailed above, in order to develop the future phases of the preferred transit service plan.
- CTP should apply for the appropriate operations funding for the new transit service.
- CTP will need to purchase vehicles for the implementation of Phase I.

- CTP should print and distribute copies of the new transit service schedules and brochures throughout the service area.
- CTP should advertise the new transit service with the local newspaper, radio, and television stations.
- CTP should continue to collect passenger ridership data and evaluate the new transit service on a monthly basis.
- With assistance from the City Planning and Public Works Departments and WYDOT staff, CTP should identify locations and conduct installations of formal bus stops.

Phase II (Mid-Term)

Phase II will include the same types of transit service as Phase I, but the route service will move to full deviation with a seventh route and Sunday demand-response service. Based on the information from the planning process, there is a need for a second route to cover the southern portion of the community. Figure XIII-8 presents the seven routes of the CTP system, including the new South route. The existing South route will be renamed the College route. All seven routes will be deviated routes. The curb-to-curb service will be reduced to 2,550 annual revenue-hours. The difference in revenue-hours will be shifted to create new demand-response service on Sundays.

Figure XIII-8
Phase II Preferred System

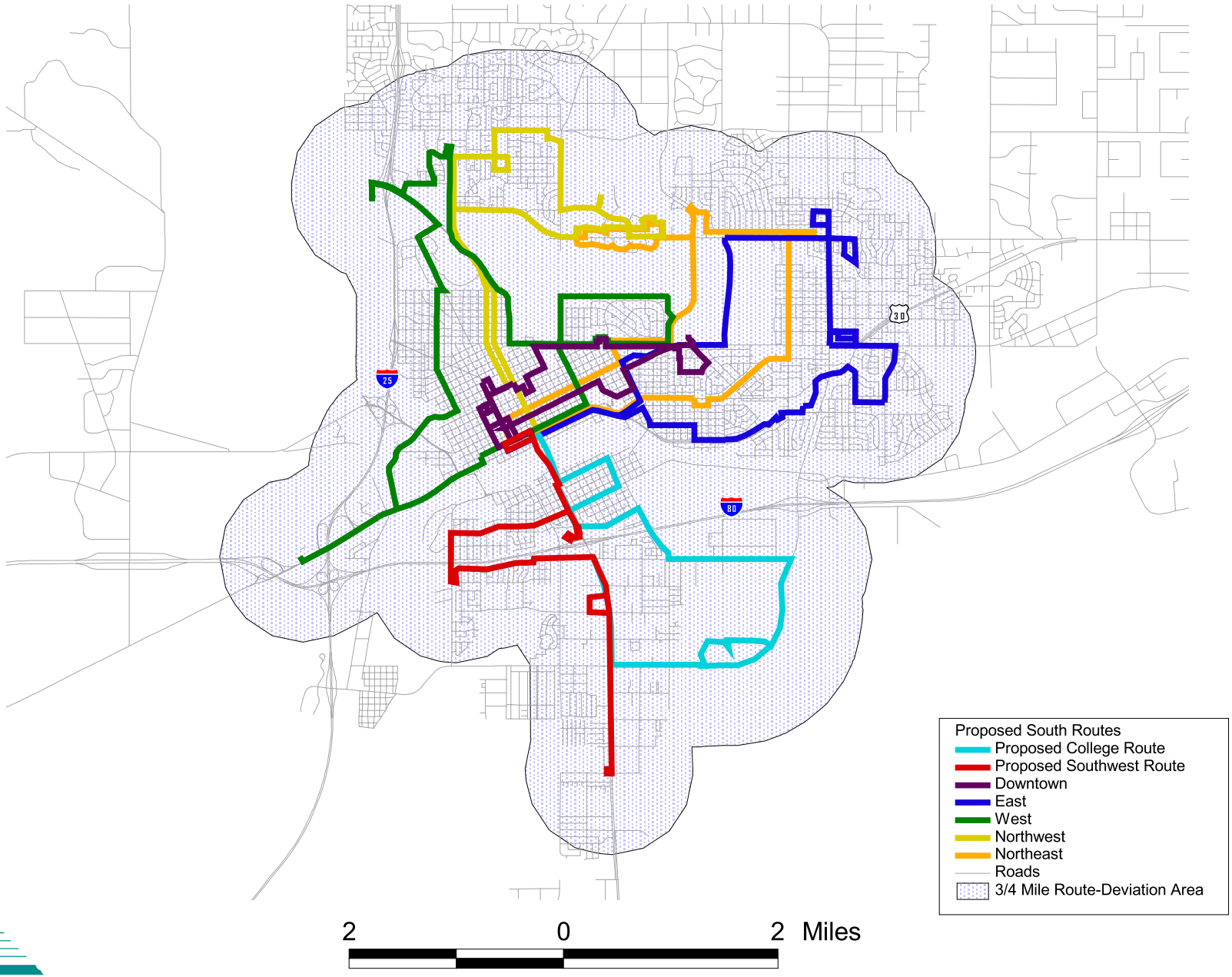


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Table XIII-3 presents the level of service for Phase II. The annual cost for the Phase II transit service is approximately $1.48 million without inflation. The estimated ridership is 256,750 passengers annually. This results in a cost per passenger-trip of $5.79. Following is a summary of the estimated additional costs and passengers for the Phase II transit service:

- $5.79 cost per passenger-trip
- $1.48 million annual cost
- 6.53 passengers per hour
- 256,750 annual passengers

It is estimated that 13 vehicles plus two spares will be needed to operate the Phase II transit service. The vehicles purchased in Phase I will allow Phase II to be implemented without additional vehicle purchases.

Table XIII-3
Level of Service - Phase II

Options		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost per Passenger
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Route-Deviation (60 minutes -- all routes)	6:00 am - 6:00 pm (M-F)	7	1,202	84	306,612	21,420	255	168,640	7.9	$819,154	$4.86
Route-Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	6	1,002	60	52,104	3,120	52	16,952	5.4	$123,876	$7.31
Evening Service Deviated (60 minutes)	6:00 -10:00 pm (M-F)	6	401	24	102,204	6,120	255	31,429	5.1	$194,390	$6.18
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	4	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Curb-to-Curb Service	6:00 am - 6:00 pm M-F	2	460	10	117,300	2,550	255	7,558	3.0	$125,647	$16.62
Total/Average			**3,725**		**656,940**	**39,290**		**256,746**	**6.53**	**$1,487,520**	**$5.79**

Note: Costs based on LSC analysis, 2007.

Phase II Implementation (Mid-Term)

This section details the steps that need to be taken in order to implement Phase II of the preferred transit service plan.

Benefits

- The Cheyenne residents will obtain increased access and mobility throughout the service area.

Benchmarks

- CTP will need to develop and implement a public involvement process to educate the users of the transit service and community on all aspects of the deviated-route service. This public education program will also need to cover the changes to the curb-to-curb service and the creation of demand-response service on Sundays.
- CTP will need to maintain a productivity level of seven passengers per revenue-hour on the deviated-route service in Phase I before Phase II can be implemented.
- CTP should have an overall cost per passenger-trip of less than $6.
- Evening service should achieve ridership of more than 25,000 passengers annually.
- Annual ridership for the total transit system should be more than 240,000 passengers.

Responsibility

- CTP will be responsible for planning and implementing Phase II.
- CTP should develop an education program for the new transit service at least three months before changes to the service are implemented. This should include public meetings to inform the public about the new transit service and allow for public comments.
- CTP will need to obtain City Council and County approval for additional funding, grants, or intergovernmental agreements for the new transit services.

Implementation Steps

- CTP should educate the public about the new transit service.
- CTP should apply for the appropriate operations funding for the new transit service.
- CTP should work with the City Council and County to secure additional funding.
- CTP should print and distribute copies of the new transit service schedules and brochures throughout the service area.

- CTP should advertise the new transit service with the local newspaper, radio, and television stations.
- CTP should collect passenger ridership data and evaluate the new transit service on a monthly basis.
- CTP should continue to install bus boarding areas along all routes.

Phase III (Long Term)

Phase III will include the same types of transit service as Phase II, but will increase the level of service. The deviated-route service will decrease the headway on all seven routes from 60 minutes to 30 minutes for the peak hours. The remainder of the day, the deviated-route service will operate on a 60-minute headway. The curb-to-curb service will be reduced to 2,040 annual revenue-hours.

Table XIII-4 presents the Phase III level of service. Phase III is estimated to have a total of 49,490 annual revenue-hours. The annual cost for the Phase III transit service is approximately $1.75 million without inflation. The estimated ridership is 337,990 passengers annually. This results in a cost per passenger-trip of $5.19. Following is a summary of the estimated additional costs and passengers for the Phase III transit service:

- $5.19 cost per passenger-trip
- $1.75 million annual cost
- 6.83 passengers per hour
- 337,990 annual passengers

It is estimated that 19 vehicles plus three spares will be needed to operate the Phase III transit service. CTP will need to purchase seven additional vehicles in order to implement Phase III.

Table XIII-4
Level of Service - Phase III

Options		# 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 Passenger
Route-Deviation Peak-Hour Service (30 minutes) (All Routes)	Peak Hours	14	601	84	153,306	21,420	255	168,640	7.9	$725,254	$4.30
Route-Deviation (60 minutes)	6:00 am - 6:00 pm (M-F)	7	601	42	153,306	10,710	255	84,320	7.9	$409,577	$4.86
Route-Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	6	1,002	60	52,104	3,120	52	16,952	5.4	$123,876	$7.31
Evening Service Deviated (60 minutes)	6:00 -10:00 pm (M-F)	6	401	24	102,204	6,120	255	31,429	5.1	$194,390	$6.18
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	4	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Curb-to-Curb (Floater) Service	6:00 am - 6:00 pm M-F	1	108	8	27,540	2,040	255	4,488	2.2	$76,997	$17.16
Total/Average			**3,373**		**567,180**	**49,490**		**337,995**	**6.83**	**$1,754,548**	**$5.19**

Note: Costs based on LSC analysis, 2007.

Phase III Implementation (Long Term)

This section details the steps that need to be taken in order to implement Phase III of the preferred transit service plan.

Benefits

- The Cheyenne residents will obtain increased connectivity and mobility throughout the area.

Benchmarks

- CTP will need to maintain and update the public involvement process to educate the users of the transit service and community on all aspects of the deviated-route service. This public education program will also need to cover the changes to the curb-to-curb service.
- CTP will need to maintain a productivity level of seven passengers per revenue-hour on the deviated-route service in Phase II before Phase III can be implemented.
- CTP should have an overall cost per passenger-trip of less than $6.
- Sunday service should achieve ridership of more than 5,500 passengers annually.
- Annual ridership for the total transit system should be more than 240,000 passengers.

Responsibility

- CTP will be responsible for planning and implementing Phase III.
- CTP should develop an education program for the new transit service at least three months before changes to the service are implemented. This should include public meetings to inform the public about the new transit service and allow for public comments.
- CTP will need to obtain City Council and County approval for additional funding, grants, or intergovernmental agreements for the new transit services.

Implementation Steps

- CTP should educate the public about the new transit services.
- CTP should apply for the appropriate operations funding for the new transit service.
- CTP should work with the City Council and County to secure additional funding.
- CTP will need to purchase vehicles for the implementation of Phase III.
- CTP should print and distribute copies of the new transit service schedules and brochures throughout the service area.

- CTP should advertise the new transit service with the local newspaper, radio, and television stations.
- CTP should collect passenger ridership data and evaluate the new transit service on a monthly basis.
- CTP should continue to install bus stops along all routes.

Phase IV - Future Transit Development

Phase IV will include the same types of transit service as Phase III, but with increased level of service and the addition of express routes. The deviated routes will operate with decreased headways from 60 minutes to 30 minutes, for a total of 52,600 annual revenue-hours. The express routes (from Alternative III) will be included in Phase IV to increase the flexibility and mobility of the transit service, and allow CTP to service several major employment centers outside the existing transit service area. The express routes are presented in Figure XIII-9, and will operate from 6:00 a.m. to 6:00 p.m. on weekdays.

Table XIII-5 presents the Phase IV level of service. Phase IV is estimated to have a total of 72,960 annual revenue-hours. The annual cost for the Phase IV transit service is approximately $2.8 million without inflation. The estimated ridership is 471,275 passengers annually. This results in a cost per passenger-trip of $5.98. Following is a summary of the estimated additional costs and passengers for the Phase IV transit service:

- $5.98 cost per passenger-trip
- $2.8 million annual cost
- 6.46 passengers per hour
- 471,275 annual passengers

It is estimated that 23 vehicles plus four spares will be needed to operate the Phase IV transit service. CTP will need to purchase an additional five vehicles to implement Phase IV.

Figure XIII-9
Phase IV Preferred System

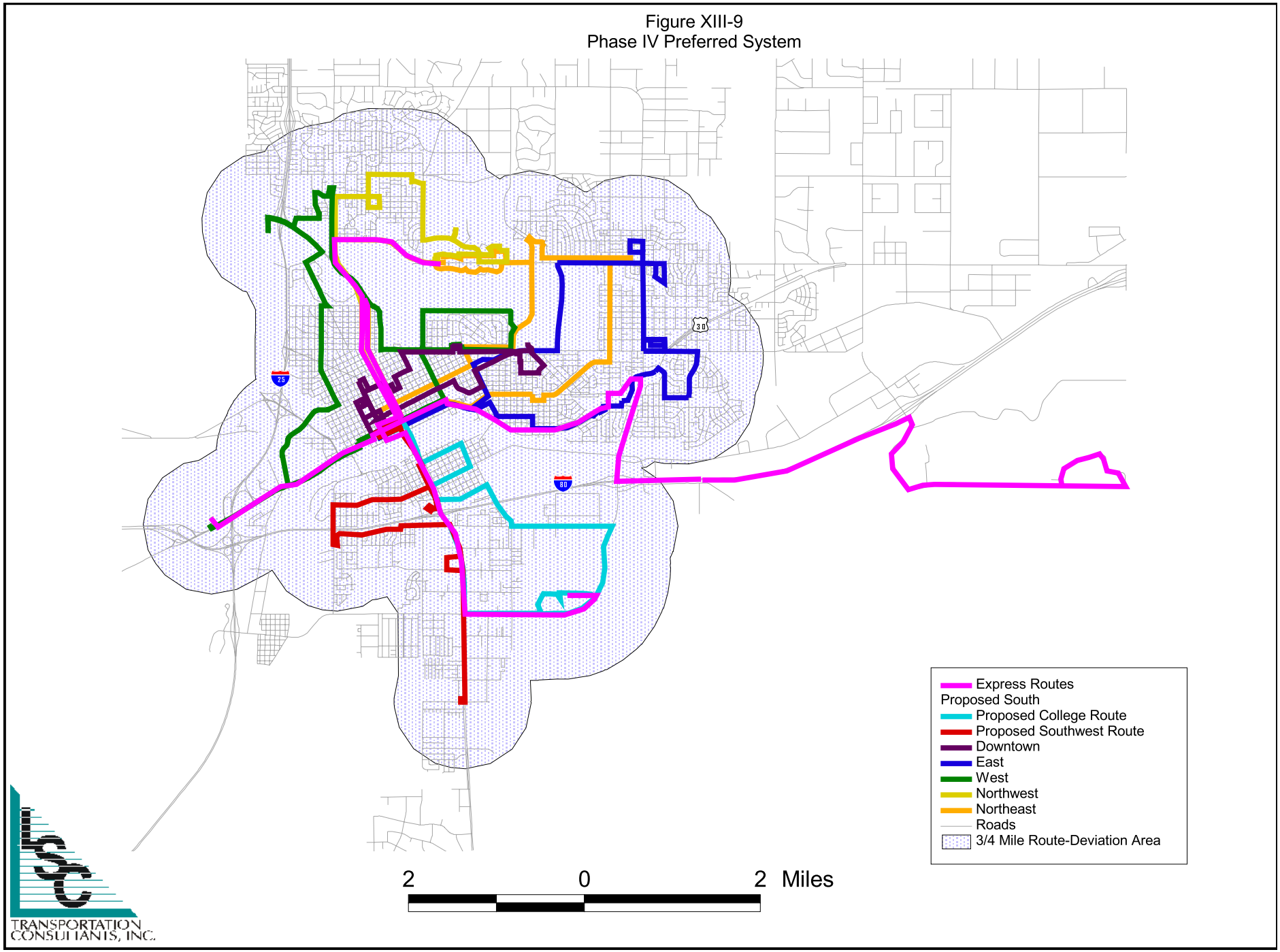

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Table XIII-5
Level of Service - Phase IV

Options		# of Veh.	Total Daily		Total Annual		Operating Days	Annual Ridership	Pass. per Hour	Operating Cost Annual	Cost per Passenger
			Vehicle-Miles	Vehicle-Hours	Vehicle-Miles	Vehicle-Hours					
Route-Deviation (30 minutes)	6:00 am - 6:00 pm (M-F)	14	2,405	168	613,224	42,840	255	337,280	7.9	$1,638,309	$4.86
Route-Deviation Saturday (60 minutes)	7:00 am - 5:00 pm	7	1,002	70	52,104	3,640	52	16,952	4.7	$139,203	$8.21
Evening Service Deviated (60 minutes)	6:00 -10:00 pm (M-F)	6	401	24	102,204	6,120	255	31,429	5.1	$194,390	$6.18
Sunday Service Demand-Response	7:00 am - 5:00 pm	4	360	40	18,720	2,080	52	6,409	3.1	$72,774	$11.35
Stride (Contract Service)	School Days	4	300	20	60,000	4,000	200	25,757	6.4	$151,680	$5.89
Express Routes	6:00 am - 6:00 pm (M-F)	4	1,200	48	306,000	12,240	255	48,960	4.0	$548,199	$11.20
Curb-to-Curb (Floater) Service	6:00 am - 6:00 pm (M-F)	1	72	8	18,360	2,040	255	4,488	2.2	$71,375	$15.90
Total/Average			**5,740**		**1,170,612**	**72,960**		**471,275**	**6.46**	**$2,815,928**	**$5.98**

Note: Costs based on LSC analysis, 2007.

Phase IV Implementation (Long Term)

This section details the steps that need to be taken in order to implement Phase IV of the preferred transit service plan.

Benefits

- The Cheyenne residents will obtain increased connectivity and mobility throughout the area.

Benchmarks

- CTP will need to maintain and update the public involvement process to educate the users of the transit service and community on all aspects of the deviated-route service. This public education program will also need to cover the changes to the curb-to-curb service.
- CTP will need to maintain a productivity level of more than six passengers per revenue-hour on the deviated-route service in Phase III before Phase IV can be implemented.
- CTP should have an overall cost per passenger-trip of less than $6.
- Annual ridership for the total transit system should be more than 335,000 passengers.

Responsibility

- CTP will be responsible for planning and implementing Phase IV.
- CTP should develop an education program for the new transit service at least three months before changes to the service are implemented. This should include public meetings to inform the public about the new transit service and allow for public comments.
- CTP will need to obtain City Council and County approval for additional funding, grants, or intergovernmental agreements for the new transit services.

Implementation Steps

- CTP should educate the public about the new transit services.
- CTP should apply for the appropriate operations funding for the new transit service.
- CTP should work with the City Council and County to secure additional funding.
- CTP will need to purchase vehicles for the implementation of Phase IV.
- CTP should print and distribute copies of the new transit service schedules and brochures throughout the service area.
- CTP should advertise the new transit service with the local newspaper, radio, and television stations.

- CTP should collect passenger ridership data and evaluate the new transit service on a monthly basis.
- CTP should continue to install bus boarding areas along all routes.

Fare Structure - Preferred Service

LSC recommends a new fare structure which will aid in the development of the preferred transit service. Since the new transit service in Cheyenne is a deviated-route system, each deviation can impact the route's running time and level of service. In order to limit the number of deviations and encourage individuals to use the nearest bus boarding area, LSC recommends different fares for general fares and deviated-route fares. The fare structure is also designed to encourage riders to move over to the deviated-route service from the curb-to-curb service. Table XIII-6 presents the recommended fare structure for the new transit service.

Table XIII-6
CTP Transit Fares

General Route Fare	$1 per ride
Deviation (ADA eligible) Fare	$.50 per deviation plus $1.00 base fare
Deviation (non-ADA eligible) Fare	$5 per ride
Curb-to-Curb Service	$5 per ride
ADA Curb-to-Curb Service	$2 per ride
Seniors Base Fare	$1 Donation
Children (under 5 years of age)	Free
Transfers	Free
Students (under 18 years of age)	$.75 per ride
Between 4:00 and 6:00 p.m.	$.50 per ride
Monthly Pass	$30.00
Punch Cards	$20.00
Student Pass	$22.50
Student Punch Cards	$15.00

Source: CTP and LSC 2007

CAPITAL PLAN FOR THE SHORT TERM

Bus Stops and Shelters

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

LSC recommends that the boarding areas be placed about every 1,200 to 1,500 feet along each route. The bus stops with shelters should be placed at key locations such as the major employment, shopping, and medical destinations. Transit shelters should also be placed at locations where there is an identified high number of riders with no building (shelters) already near the bus stop. LSC estimates a total of 340 bus stops with 34 to 40 shelters.

Each bus boarding area should include, at a minimum, a sign on a pole that identifies the location as a transit stop and that displays the schedule and route that serve the location. Each boarding area should also have a concrete pad for the transit users to stand on. The boarding areas at key locations should have a bench and shelter. Bus stop diagrams are presented in Appendix J.

The cost is estimated at $1,200 to $1,500 for each boarding area and $10,000 to $15,000 for each shelter. LSC has estimated that CTP can implement about $90,000 worth of bus boarding areas and shelters a year over the next six years.

New and Replacement Vehicles

LSC recommends that CTP replace 13 vehicles over the next five years in order to maintain the existing service. This does not include the expansion of the fleet to implement the preferred transit service plan. Details on the recommendations for vehicle replacement purchases are shown in Table XIII-7. The vehicle costs are shown in the year of delivery and implementation.

The total cost of the replacement vehicles over the next six years for the short-term service plan is $1 million, based on an estimated cost of $75,000 per vehicle. The total local match funding needed for the replacement and new vehicles will be about $200,000 over the next six years, with the remaining portion funded by FTA and WYDOT. At this time, the total vehicle cost for the preferred transit service plan has not been estimated.

Table XIII-7
Vehicle Replacement (Six-Year Plan)

	2009	2010	2011	2012	2013	2014
Replacement Body-on-Chassis	4	5	1	0	2	1

Source: LSC, 2008.

Dispatching Software

It is recommended that CTP employ the use of a new computer software and hardware system for scheduling and dispatching the curb-to-curb service and deviated-route service trips. This computerized system will replace the existing semi-manual system and will make scheduling and dispatching much easier, efficient, and effective. The computerized system will help CTP better facilitate the requests for service, will decrease the cost of the curb-to-curb service, and is needed for the deviated-route service.

The recommended change is to begin grouping trips around the pre-arranged requests. At the beginning of the day, the scheduler should group trips according to the requested time, pick-up zone, and destination zone. These groups may be adjusted throughout the day, but should form the core schedule to which new requests are added. The groups should be well-defined about two hours before the actual travel time and should be assigned to specific vehicles. New requests should then be added to the appropriate vehicle based on that vehicle's schedule. This approach provides the advantage of using the maximum information to optimize the schedules. As trips are grouped, the potential for improved productivity is increased.

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 $34,000 over the next six years, with about $27,200 in federal funding and $6,800 in local match funding.

Capital Costs and Needs for the Mid-Term/Long-Term Plan

Three of the phases will require the purchase of new buses. In Phase I, three buses will need to be purchased. In Phase III, seven buses will need to be purchased. In Phase IV, five buses will need to be purchased. These capital costs are not included in the financial plan at this time.

FUNDING PLAN

The following section presents the proposed financial plan for the next six years for the existing service. This financial plan does not include the cost of the preferred service plan at this time. Table XIII-8 presents the expenditures and revenues for CTP over the years 2009 through 2014, with the assumption of an annual five percent inflation rate.

LSC recommends that CTP continue to apply for federal and state grant funding in order to support public transportation services in the Cheyenne area. Federal funding is expected to remain relatively stable over the next few years. CTP should also continue to work toward establishing new revenue sources. Additional funds may be generated by pursuing grants from agencies and foundations, other than WYDOT or FTA.

In the short term, LSC recommends that CTP apply for FTA 5307 and 5309, TANF, Medicaid, CDC, local, and senior center funding. Under the new SAFETEA-LU rules, both TANF and Medicaid funding can be used for the local match transit operations.

Table XIII-8
Transit Plan, 2009-2014 (assumed 5% inflation)

	2009	2010	2011	2012	2013	2014	Total
EXPENSES							
OPERATING							
Route Service	$805,192	$845,452	$887,724	$932,111	$978,716	$1,027,652	$5,476,847
Curb-to-Curb Service	$516,781	$542,621	$569,752	$598,239	$628,151	$659,559	$3,515,102
Stride Service	$167,227	$175,589	$184,368	$193,586	$203,266	$213,429	$1,137,465
							$0
Marketing Program / Public Education	$10,000	$10,500	$11,025	$11,576	$12,155	$12,763	$68,019
Subtotal	**$1,499,201**	**$1,574,161**	**$1,652,869**	**$1,735,512**	**$1,822,288**	**$1,913,402**	**$10,197,433**
CAPITAL							
Transit Buses	$330,750	$393,750	$78,750	$0	$157,500	$78,750	$1,039,500
Transit Stop Improvements (60 stops over 6 years)	$90,000	$94,500	$99,225	$104,186	$109,396	$114,865	$612,172
Office / Administration / Maintenance Eq./Radios	$5,000	$5,250	$5,513	$5,788	$6,078	$6,381	$34,010
Subtotal	**$425,750**	**$493,500**	**$183,488**	**$109,974**	**$272,973**	**$199,997**	**$1,685,682**
TOTAL EXPENSES	**$1,924,951**	**$2,067,661**	**$1,836,356**	**$1,845,487**	**$2,095,261**	**$2,113,399**	**$11,883,115**
REVENUES							
Operation							
FTA 5307 Operational / State Grant Funding	$744,600	$781,830	$820,922	$861,968	$905,066	$950,320	$5,064,707
State Grants	$76,000	$79,800	$83,790	$87,980	$92,378	$96,997	$516,945
Subtotal	**$820,600**	**$861,630**	**$904,712**	**$949,948**	**$997,445**	**$1,047,317**	**$5,581,652**
Capital							
FTA 5307 Capital	$340,600	$394,800	$146,790	$87,980	$218,378	$159,997	$1,007,945
FTA 5309 Capital	$0	$0	$0	$0	$0	$0	$0
Subtotal	**$340,600**	**$394,800**	**$146,790**	**$87,980**	**$218,378**	**$159,997**	**$1,007,945**
Local Revenues							
Operational (Local Match)	$326,695	$415,464	$443,273	$472,471	$503,130	$535,321	$2,696,354
Capital (Local Match)	$85,150	$98,700	$36,698	$21,995	$54,595	$39,999	$337,136
Intergovernmental Agreements	$56,150	$58,958	$61,905	$65,001	$68,251	$71,663	$381,927
Advertising	$18,000	$18,000	$18,000	$18,000	$18,000	$18,000	$108,000
Fares	$277,755	$279,066	$286,884	$295,094	$303,713	$312,764	$1,755,276
Subtotal	**$763,750**	**$870,188**	**$846,760**	**$872,560**	**$947,688**	**$977,748**	**$5,278,694**
TOTAL REVENUES	**$1,924,951**	**$2,126,618**	**$1,898,262**	**$1,910,487**	**$2,163,512**	**$2,185,062**	**$11,868,292**

Source: LSC, 2008.

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. LSC anticipates $1.5 million in operational costs in fiscal year 2009 and $1.57 million in fiscal year 2010, with an increase in each of the following years based on implementation of the additional phases. LSC's assumes that, with the computerized dispatching system, the cost of curb-to-curb service can be maintained with the rate of inflation.

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 matching federal funds.
- The funding helps to provide a service needed by the local citizens.

Timing

- CTP should immediately begin the process of obtaining funds from the local government entities and agencies within the service area for the existing transit service. This includes capital for the replacement vehicles, computerized dispatching system, and bus stops.
- The local communities' budgetary offices should be prepared to incorporate local transit funding when the transit budget is presented for the fiscal year 2009 budget cycle.

Responsibilities

- CTP will be responsible for presenting the initial funding information to City Council and other governmental bodies, and for building support for local transit funding.
- CTP will be responsible for developing the transit budget and presenting the budget to the local governments.
- CTP should educate the public on the benefits of the existing and new transit services in order to obtain political support.

Implementation Steps

- CTP should meet with local agencies and government officials to present the need for local transit funding.
- CTP should prepare the detailed transit operating budget for approval by the City Council.

- CTP should present the approved transit budget to local agencies and local governments.
- 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.

MARKETING PLAN

This section outlines several effective preliminary marketing strategies that can be used by CTP. These strategies represent "best practices" from across the nation. They are taken from the *Transit Cooperative Research Program (TCRP), Report 50: A Handbook of Proven Marketing Strategies for Public Transit,* sponsored by the FTA and the Transportation Research Board. The TCRP Report 50 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 focused 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 CTP.

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
6. Accurately represent the transit service as a whole.

Although there are many other definitions of what a marketing strategy should consist of, it should be something that is a comprehensive part of the agency's overall goal of providing safe and efficient transit service. Marketing strategies should not be forgotten or discarded, even if there are no funding dollars available to support a comprehensive marketing strategy. Many strategies only take some initiative, foresight, 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 and operating efficiency. Measures of operating effectiveness can be tested with performance factors such as passenger-trips per mile, hour, and capita. Measures of efficiency can be tested using the following measures: costs per passenger-trip, hour, mile, and capita. LSC recommends that CTP continue to collect and analyze key performance measures in order to make adjustments to the existing and new transit services.

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 true measure of marketing success is an increase in ridership. Other such measures of success include revenue generation, farebox

recovery, and ongoing passenger perception surveys from onboard surveys, telephone surveys, focus groups, or mailings conducted on a regular basis. Such performance measures will be very important in terms of the new transit service.

Preliminary Marketing Steps

One of the primary steps in determining how to tailor a marketing program to your agency is to determine how CTP 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. CTP should review its answers to 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 you 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 will say?
- If you asked customers how they heard about the service for the first time, do you think they can tell you?
- If you sampled the general community population, will they be able to tell you anything about CTP service (such as how much it costs, where it goes, and how to use it)?
- Will local businesses, clubs, organizations, etc. donate to your organization?
- How will customers rank service on a scale of 1 to 10? Will you be surprised by their responses?

These are the key questions that need to be addressed as CTP continues to improve and market itself as the main 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

This section presents marketing examples from across the country, 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 the Rural Transit 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.

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. 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.

Flyer Distribution - Blacksburg Transit

Blacksburg Transit in Blacksburg, Virginia posts single-page flyers throughout the Virginia Tech 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.

Connecting the Worker to the Workplace - Triangle Transit Authority

The Triangle Transit Authority (TTA) in Research Triangle Park, North Carolina held job fairs that focused on the importance of public transit options for the work-place. 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, 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) in Erie, Pennsylvania conducts a transit awareness program called "Get On Board." EMTA 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 CTP. 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 include:

- *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 the elderly and disabled, 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 transit system in the local newspaper twice per year will 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 will 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 will provide an incentive for riders and will 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 CTP's needs. The goal of marketing is to increase awareness, support, and ultimately, ridership for the system. A key element of these marketing strategies is that the new transit service will need additional marketing strategies. This means a branding of the new transit service that is different from the existing service.

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 FTA and the Transportation Research Board. Much of what is documented in this section is taken from the TCRP Report 51, as well as LSC's varied experience across the country. The TCRP Report 51states 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 CTP. It is then up to CTP to respond to those business needs, such as getting employees to and from work. For example, subscription employee routes can provide a needed service to businesses.

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 country 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:

- Direct Mailings – inform businesses of existing service and benefits.
- Site-Based Sales – informal visits with employers and employees to determine needs and possible solutions.
- Chamber of Commerce – an excellent means to communicate with businesses in the community. CTP may wish to join the Chamber and have senior management get involved in Chamber activities.
- Telemarketing – businesses can be contacted during business hours and be "pitched" information.
- Word of Mouth – it is possible an existing employee uses transit and can spread the benefits of transportation to fellow employees and employers.
- 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 and 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.

CTP 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. CTP must maintain a customer orientation in every part of the plan. Promotional activities have been identified that can enhance the overall implementation and marketing efforts. The following represent realistic efforts that can be done under a limited budget.

Human Interest Stories

CTP 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 will 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 CTP and the social service agencies.

CTP 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. CTP should use the media in the beginning to talk about the new transit service changes.

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 bus wrap cost can be offset by advertising a local business or college. Additionally, a "Design a Bus Wrap" contest can be sponsored throughout the region. A high school student in Tempe, Arizona won the 2004 Valley Metro "Design a Bus Wrap" contest.

CTP 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

One main element of passenger information appropriate for CTP 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, telephone 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 or service area.

Another element of passenger information should include posters and signs. Posters and signs should be prepared which may be displayed at businesses, 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 advertising 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. The following communication strategies should be considered if they are not already being used: yellow pages, directories, classified ads, newspapers, event flyers, referral flyers, and promotional flyers. Following are brief guidelines for preparing news advertisements or releases.

- 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, go overboard, use empty useless statements, or forget to be accurate.

Public Relations and Service Announcements

Public relations and service announcements are activities by which CTP can be "sold" without having to incur paid advertisement costs. Public relations is vitally important to any company, but especially to transit systems because of the system's dependence upon the public to sustain it financially. The fact that the transit 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. CTP should develop service announcements describing the new transit service changes. This is a cost-effective way of spreading the word over the airwaves.

PERFORMANCE MONITORING PROGRAM

MDTs in use

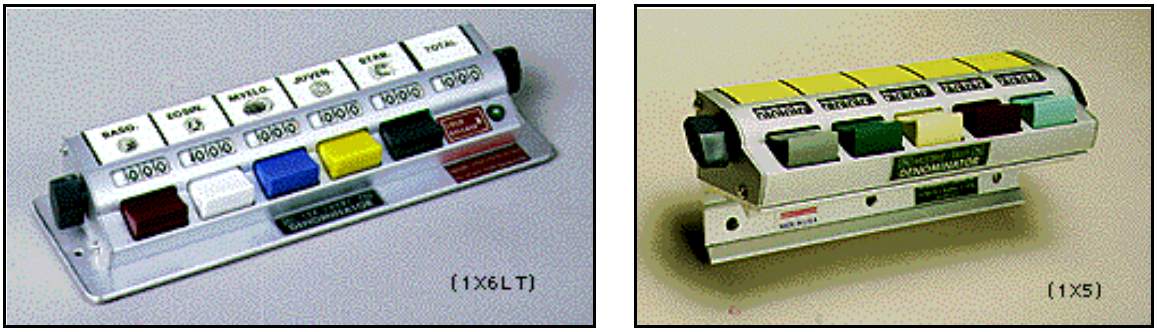
Monitoring of service should begin immediately. Data collection is essential to evaluate the service performance and to determine if changes should be made in the service delivery. While CTP currently collects some of this information, detailed information such as passenger boardings and alightings by bus stop will greatly enhance the amount of analysis which can be performed for future service changes. Passenger boardings should be recorded daily by route, fare category, and trip. 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.

One goal all transit agencies should strive for is the implementation of Intelligent Transportation Systems (ITS), such as Mobile Data Terminals (MDTs). MDTs 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. MDTs 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 country implementing MDTs include Central Ohio Transit Authority, Colorado Springs Mountain Metropolitan 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-10. 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-10

Manual Passenger Boarding Counters



Twice each year, a full boarding and alighting count should be completed. If passenger boardings are counted using the MDT 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 each 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 will 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 shown on the following page. Similar sheets should be prepared in advance for the boarding and alighting data collection.

Time: _____ am / pm

Breckenridge 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

Provide Comment Cards and Boxes

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

RECOMMENDED ADDITIONAL PLANS AND STUDIES

LSC has developed a short list of additional studies and plans that CTP will need to conduct over the next few years:

- Onboard survey and analysis to analyze the new deviated-route service and identify possible adjustments to the transit service.
- Bus stop location analysis to identify the location of bus stops in terms of connectivity, access, and safety.
- Route operational analysis to determine route effectiveness after the system and fare structure changes.
- Transit Development Plan 2013-2018 – to update this planning document in five years.
- Regional Transit Authority Funding Study – to study the possibility of creating a funding tax for CTP.

Appendix A: Driver/Public Input

TRANSPORTATION
CONSULTANTS, INC.

Cheyenne Transit Bus Drivers Meeting
August 29, 2007

LSC staff met with the Cheyenne Transit bus drivers to obtain input on some of the issues with the existing transit service. Listed below are comments presented by the drivers concerning the transit service.

Comments About the Buses, Facilities, Logistics

- Outside mirrors interfere with the driver's vision especially while turning.
- Buses break down once in awhile. Minor maintenance issues exist.
- In bus no. 19, the mirror is convex, making it difficult for drivers to see passengers in the bus.
- Communication problems between buses exist.
- Radio frequencies interfere with the Big Box security radio system (should look into NEXTEL radios).
- Location of the bus stop at Kmart needs to change because it is in the way of the crosswalk and the cart pushers.
- Drivers felt that there was not enough time to go through the checklist before they started the route in the morning.

Fixed-Route Comments

- South route is too long, FLAGGING is slowing it down. Feeling like they are 'running hot' to get back on time. No time to relax before next pulse.
- Flagging is problem on all routes—especially on the south, east, and northeast routes, and sometimes on the west route, too.
- There is call for permanent stops by drivers as well as customers; they feel it is safer for the traffic following; flagging causes sudden stops and there have been many close calls for rear-ending; would help stay on schedule.
- Too confusing for the public to not have stops (some are not sure which direction the bus is going on major arterials.
- Loop routes need changing as there are some problems with them, mainly it takes too long to go to some destinations. However, they presently work given the budget constraints.

Curb-to-Curb Service Comments

- Customers like it a lot; however, there is acknowledgment that some are abusing it.
- The curb-to-curb service does not have any eligibility requirements.
- Schedules are too tight because there are so many callers.
- It does allow some people to get to work on time which the fixed route cannot provide (times of day).
- Will go on AF base where the fixed route cannot.
- Need better description of the place, house, or neighborhood the drivers are going in addition to the address, especially during late hours.

Other Comments

- Need more routes; split South route and maybe the Northeast route.
- Institute a 'drop bus' to alleviate pressure on some routes.
- Too many wheelchairs on the South route making it difficult to be on schedule.
- Both North routes are 'running hot' (running late); a shuttle service along Dell Range to serve the Mall, Big Boxes and business along Stillwater, Bluegrass, etc. would help.
- New Senior Center is generating more riders on the East and NE routes.
- Lowes and Kohls are destinations that are asked for a lot by riders.
- Should have a bus that goes to Wal-Mart which then heads to downtown.
- At the intersection of South Greeley and College, a lot of passengers get off and walk west. There are a lot of apartments there that need to be served.
- The drivers feel that with the present system, passengers spend too much time on the bus. Bidirectional routes would help passengers reduce the time spent on buses.
- On Saturday – going to the Business Center and highway department, especially when no one is up there, does not make sense. However, the theater is there and probably that is the reason for it being on the Saturday schedule.
- Bikes racks on buses are used a lot.
- One of the driver pointed out that there should be a safety zone for bus stops to make it easier to pull out of traffic and then back in.
- There are sight line issues in quite a few places. In downtown, one such place is the intersection of O'Neil and 7th Street.
- Would like to see more rules and have them enforced for bus patrons (cell phones, unruly patrons, too much flagging, and stop request abuse).
- How far will bus stops be apart? 1500 ft. to 2000 ft. in suburbs and large block areas, 400 ft. to 800 ft. in central grid areas.
- Make transfer slip simpler.
- Buses in the morning going from downtown to end of route are empty.

Riders' Comments

- Spend too much time on the bus.
- Seem to want designated stops.
- Want the bus to run earlier (5:00 a.m.) to COMEA to the Labor Ready store.
- Want routes to be bidirectional.
- Want the bus system to go more places.
- Want service later on Saturday.

Best Things About CTP as it Exists

- The best things about Cheyenne Transit System are: low fares and you can get almost anywhere in the city; transit reaches all groceries, schools (senior high and junior high), and supermarkets in town.

Appendix B: Fixed-Route Questionnaire

TRANSPORTATION
CONSULTANTS, INC.

Guest of Cheyenne Transit:

Please take a few minutes to complete this survey during your bus ride today. Your answers and suggestions will help us improve service. You may receive more than one survey form today. Thank you!

Cheyenne Transit

1. Where did you come from before you got on this bus? (*check only one*)

Home | School/College | Shopping/Errands
Work | Doctor/Dentist | Social Visit/Recreation
Other (please specify) _____

2. Where did you board the bus?

(Address or main cross streets, i.e., Central Ave. & 20th St.)

_____

3. How did you get to this bus? (*check only one*)

Walking ___ blocks | Having someone drive me | Bicycle
Driving myself | Transfer from _____ Route
Other _____ (please specify)

3a. How long did you wait for this bus? _____ (# of minutes)

4. Where are you going to now? (*check only one*)

Home | School/College | Shopping/Errands
Work | Doctor/Dentist | Social Visit/Recreation
Other (please specify) _____

5. What is the address of your final destination? (Address or main cross streets)

_____

6. How will you get from this bus to the place that you are going? (*check only one*)

Walking ___ blocks | Having someone drive me | Bicycle
Driving myself | Transfer to _____ Route
Other _____ (please specify)

7. What is the average amount of time you spend on the bus for this part of your trip?

_____ (# of minutes)

8. Was a vehicle available to use on this trip instead of taking the bus?

Yes No

9. Have you filled out this survey previously this week?

Yes No

If Yes, please stop here. If No, please continue and complete all questions.

10. I usually ride the bus ___?___ days a week. (*check only one*)

One Day | Four Days | Less than once a month
Two Days | Five Days | One -Three Days/Month
Three Days | Six/Seven Days | This is my first time

11. What is the single MOST IMPORTANT reason you ride the bus? *(CHECK ONLY ONE)*

Family doesn't have a car | Someone else uses car | Traffic is bad
Parking is a problem | Car trouble/no insurance | I don't drive
Bus is economical | Bus is convenient
Other (please specify) _____

12. Are you a licensed driver and able to drive? Yes No

13. How many vehicles in operating condition does your household have?

None One Two Three or more

14. Gender: Female Male

15. Age in Years: _____

16. How do you RATE your present bus service? (*check answers below for each part*)

	Excellent	*Good*	*Fair*	*Poor*
Cleanliness				
Comfort				
Service Frequency				
Condition of Buses				
Transfer Connections				
Schedule Readability				
Driver Courtesy				
Area Served				
Safety				
Convenience				
Fares				
On-time Performance				
Transfer Station				
Website				
Overall Service Quality				

Please Continue on Other Side

17. For what one purpose do you MOST OFTEN ride the bus? *(CHECK ONE)*

Work
Recreation
School/College
Shopping
Personal Business/Errands
Other (please specify) _____

18. The combined Total Annual Income of all members of my household is:

Less than $15,000 per year
$15,000 - $24,999 per year
$25,000 - $39,999 per year
$40,000 - $44,999 per year
$45,000 - $54,999 per year
More than $55,000 per year

19. What is your occupation?

Homemaker
Laborer
Managerial/Professional
Production/Craft/Repair/Machine Operator
Retired
Sales
Service Worker
College Student
Secondary Student
Technical/Administration
Unemployed
Other (please specify) _____

20. What is your ethnicity?

American Indian
Asian
Black/African American
Hispanic
White
Other (please specify) _____

21. How do you get information about Cheyenne Transit? *(check all that apply)*

From the driver
Bus guide
Someone told me
Shopping center/store
Transfer station
Newspaper/magazine
Bus stop sign/bench/shelter/carousel
Schedules
Internet
Other _____

22. Does the existing service operate late enough?

Yes No

23. What number of blocks are you are willing to walk to a bus stop?

_____ (# of blocks)

24. Please share any other comments:

THANK YOU!!

Appendix C: Fixed-Route Responses

TRANSPORTATION
CONSULTANTS, INC.

Guest of Cheyenne Transit:

Please take a few minutes to complete this survey during your bus ride today. Your answers and suggestions will help us improve service. You may receive more than one survey form today. Thank you!

Cheyenne Transit

1. Where did you come from before you got on this bus? (*check only one*)

Home (61.8%) School/College(5.6%) Shopping/Errands (9.4%)
Work (12.2%) Doctor/Dentist (1.5%) Social Visit/Recreation (3.4%)
Other (please specify) (5.8%)_____

2. Where did you board the bus?

(Address or main cross streets, i.e., Central Ave. & 20th St.)

_____

3. How did you get to this bus? *(check only one*)

Walking ___ blocks (81.6%) Having someone drive me (2.1%) Bicycle (1.3%)
Driving myself (2.6%) Transfer from (10.7%)_____ Route
Other (4.1%)_____ (please specify)

3a. How long did you wait for this bus? _____ (# of minutes)

4. Where are you going to now? (*check only one*)

Home (24.9%) School/College (8.6%) Shopping/Errands (18.1%)
Work (25.4%) Doctor/Dentist (6.8%) Social Visit/Recreation (9.3%)
Other (please specify) (6.8%)_____

5. What is the address of your final destination? (Address or main cross streets)

_____

6. How will you get from this bus to the place that you are going?
***(check only one*)**

Walking ___ blocks (78%) Having someone drive me (1.3%) Bicycle (1.3%)
Driving myself (0.5%) Transfer to (15.9%)_____ Route
Other (3.1%)_____ (please specify)

7. What is the average amount of time you spend on the bus for this part of your trip?

_____ (# of minutes) - Average = 30 minutes

8. Was a vehicle available to use on this trip instead of taking the bus?

Yes (13%) No (87%)

---

9. Have you filled out this survey previously this week?

Yes No

10. I usually ride the bus ___?___ days a week. (*check only one*)

One Day (2.2%)	Four Days (11.6%)	Less than once a month (0.4%)
Two Days (6.2%)	Five Days (36.9%)	One -Three Days/Month (1.3%)
Three Days (13.3%)	Six/Seven Days (24.9%)	This is my first time (3.1%)

11. What is the single MOST IMPORTANT reason you ride the bus?
(CHECK ONLY ONE)

Family doesn't have a car (31%)	Someone else uses car (4.8%)	Traffic is bad (0%)
Parking is a problem (0.4%)	Car trouble/no insurance (7%)	I don't drive (31%)
Bus is economical (10%)	Bus is convenient (11.8%)	

Other (please specify) (3.9%)_____

---

12. Are you a licensed driver and able to drive? Yes (52%) No (48%)

---

13. How many vehicles in operating condition does your household have?

None (66.5%) One (26%) Two (4%) Three or more (3.5%)

---

14. Gender: Female (48%) Male (52%)

---

15. Age in Years: _____ - Average = 46

16. How do you RATE your present bus service? (*check answers below for each part*)

	Excellent (4)	*Good* (3)	*Fair* (2)	*Poor* (1)	***Average Score***
Cleanliness	(46%)	(44%)	(9%)	(1%)	**3.35**
Comfort	(33%)	(46%)	(16%)	(6%)	**3.06**
Service Frequency	(40%)	(39%)	(17%)	(4%)	**3.16**
Condition of Buses	(37%)	(46%)	(15%)	(2%)	**3.18**
Transfer Connections	(46%)	(42%)	(8%)	(4%)	**3.31**
Schedule Readability	(44%)	(46%)	(9%)	(2%)	**3.31**
Driver Courtesy	(60%)	(33%)	(6%)	(1%)	**3.53**
Area Served	(40%)	(43%)	(13%)	(4%)	**3.19**

Safety	(49%)	(44%)	(6%)	(1%)	**3.40**
Convenience	(47%)	(37%)	(14%)	(1%)	**3.31**
Fares	(56%)	(37%)	(7%)	(0%)	**3.47**
On-time Performance	(47%)	(42%)	(11%)	(0%)	**3.34**
Transfer Station	(51%)	(42%)	(5%)	(1%)	**3.44**
Website	(44%)	(39%)	(15%)	(3%)	**3.23**
Overall Service Quality	(48%)	(43%)	(7%)	(2%)	**3.37**

17. For what one purpose do you MOST OFTEN ride the bus? *(CHECK ONE)*

Work (36.2%)
Recreation (4%)
School/College (12%)
Shopping (21.6%)
Personal Business/Errands (21.1%)
Other (please specify) (5%) _____

18. The combined Total Annual Income of all members of my household is:

Less than $15,000 per year (55.7%)
$15,000 - $24,999 per year (25.5%)
$25,000 - $39,999 per year (16%)
$40,000 - $44,999 per year (4.7%)
$45,000 - $54,999 per year (2.1%)
More than $55,000 per year (3.6%)

19. What is your occupation?

Homemaker (6.4%)
Laborer (8.7%)
Managerial/Professional (5.1%)
Production/Craft/Repair/Machine Operator (1.4%)
Retired (22%)
Sales (7.3%)
Other (please specify) (12.8%)_____
Service Worker (16.5%)
College Student (6%)
Secondary Student (3.2%)
Technical/Administration (1.8%)
Unemployed (8.7%)

20. What is your ethnicity?

American Indian (4.3%)
Asian (1.9%)
Black/African American (10.6%)
Hispanic (14.9%)
White (65.9%)
Other (please specify) (2.4%)_____

21. How do you get information about Cheyenne Transit? *(check all that apply)*

From the driver (9%)
Bus guide (21%)
Someone told me (15%)
Shopping center/store (2%)
Transfer station (10%)
Other (3%) _____

Newspaper/magazine (4%)
Bus stop sign/bench/shelter/carousel (6%)
Schedules (12%)
Internet (3%)

---

22. Does the existing service operate late enough?

Yes (27%) No (73%)

---

23. What number of blocks are you are willing to walk to a bus stop?

_____ (# of blocks) - Average = 4.65

THANK YOU!!

Appendix D: Fixed-Route Comments

TRANSPORTATION
CONSULTANTS, INC.

CHEYENNE ONBOARD SURVEY COMMENTS

- Bus should run at least until 10:00 pm.
- Glad that we have it.
- The streets in Cheyenne are terrible. The air conditioning doesn't work.
- Molton Road is in very bad shape. I call it "Kidney Stone Road."
- Some of the drivers drive TOO FAST. Safety and comfort should be more important than schedule. The windows clatter annoyingly.
- I would like to see the transit system expand.
- If the bus would run later than 6 pm, then that would be sweet.
- Extended Weekends? Set stops No!! stopping just anywhere. Buses for stop passengers only!
- Improve Melton Street.
- You need to run later every day. And run on Sundays and earlier on Saturday.
- Need to get bigger buses with more seats in them.
- The bus system needs to run 24/7 with runs covering 30 minute intervals instead of 1 hour. It should cover more of Cheyenne.
- I've never had any problems
- I have to leave my house 2 hours before I have to be at work and on the bus 45 minutes, to transfer.
- Love the bus to run on Sundays
- I would like to say if you could run at night. Cheyenne is starting to grow
- I think you need longer running times on weekdays and Saturday and you need to run on Sunday too. And maybe add to or widen your routes.
- I am extremely appreciative of the CTS. It is the main reason I moved to Cheyenne from NY I am impressed by the customer service of the drivers (90%). They treat me with good care. It would be great to have a bus that runs only from one end of Dell Range to the other so passengers can go from King super to the mall vs. having to go downtown. Please ban cell phone use by passengers except in emergencies.
- Bus needs to operate later
- West bus needs to go west not east and north
- Thank God for the bus system. (My employment depends on it). Drivers are never rude, always courteous and friendly
- Your buses are rattle traps. The drivers (with a couple exceptions) are rude, uncaring, dangerous drivers. Every day is an adventure, wondering if I'll get picked up or not. I have to get in the street, wave my arm like a crazed women, and even then sometimes the driver

nearly passes me. And of course when he does, he doesn't apologize or even hint at remorse. The hours of operation are horrible, not enough buses. Buses are filthy and disgusting.

- Bus should run Sundays. Curb to curb.
- It is important to me that the bus run later. I would like service until 10pm.
- The bus drivers are very helpful.
- You guys have pretty good service.
- Henry #1 driver. Kim is the best and friendliest driver.
- Bus does not run late enough for classes at the school.
- Please stay open later. Thank you.
- Would like a bus that goes to Capital Green Apartments on college.
- Bus does not run early enough.
- The bus should run until 8:00 pm. I need the bus to run on Sundays.
- I have/will help the drivers when needed with wheelchairs: tying and untying them
- Need CTP improvement.
- I love the workers. They are always pleasant to be around and really brighten up my day.
- The bus only comes once an hour, even if you only have a ten minute errand. It may take me 30 minutes one way the same distance, the other way is an hour and a half!
- Need to run more often.
- I appreciate everything with Mr. Bus.
- Need bus route on West College. East bus needs to be replaced, rides rough and has bad brakes.
- Fix air conditioning please. Frances is the best, a careful and caring driver.
- Need to start running later in the evening.
- Francis is a good driver.
- Please get buses for the LATE evening classes at LCCC. These are the classes that really get people jobs. Preferably with a PASS.
- They need to run on Sundays and every 30 minutes, not every hour. They also should run until 8pm, not 6 pm.
- Need a bus to go farther southwest for others who can't walk to the bus stop.
- Good service. Done me well when I had to use it.
- There should be later routes not everyone works 6am-6pm. Sometimes it only takes 30 minutes to get some place (depending on destination) to 2 hours, more frequency in routes would be better.

- They should have an all night bus and one that will take you to the Love, Rionard and Flying restaurant and Park area.
- Would like a bus that goes to Orchard Valley near the new houses and apartments.
- I love CTS!
- Sunday service would be great.
- Late night and Sunday service would be nice to have.
- Everything is A-OK.
- Drivers should keep cell phones turned off while driving until their designated break time.
- Twice when entering the bus and telling the driver that I am a senior, I have been verbally assaulted by male passengers for "being a free-loading senior" and being "a bum who rides for free." this is unacceptable, uncivilized behavior.
- Bus needs to run late! Website needs to be more informative.
- Operate the buses at a later hour. 9:00pm would be great, more than great! Other than that, awesome service! Thanks
- It would be nice if the bus went down West College so my mom and I wouldn't have to walk so far.

Appendix E: Curb-to-Curb Survey/Responses

TRANSPORTATION
CONSULTANTS, INC.

Guest of Cheyenne Transit Curb-to-Curb Service:

Please take a few minutes to complete this survey during your bus ride today. Your answers and suggestions will help us improve service.

Thank you!

Cheyenne Transit

1. Where did you come from before you got on this bus: (*check only one*)

Home | School/College | Shopping/Errands
Work | Doctor/Dentist | Social Visit/Recreation
Other (please specify)_____

2. Where are you going to now? (*check only one*)

Home | School/College | Shopping/Errands
Work | Doctor/Dentist | Social Visit/Recreation
Other (please specify)_____

3. Was a vehicle available for you to use on this trip instead of taking the bus?

Yes No

4. Have you filled out this survey earlier today?

Yes No

If Yes, please stop here. If No, please continue and complete all questions.

5. I usually ride the bus ____?_____ days a week. (*check only one*)

One Day | Four Days | Less than Once a Month
Two Days | Five Days | One -Three Days/Month
Three Days | Six / Seven Days | This is my first time

6. What is the single MOST IMPORTANT reason you ride the bus? *(CHECK ONLY ONE)*

Family doesn't have a car | Someone else uses car | Traffic is bad
Parking is a problem | Car trouble/no insurance | I don't drive
Bus is economical | Bus is convenient
Weather conditions
Other (please specify) _____

7. Are you a licensed driver and able to drive? Yes No

8. How do you rate your present bus service? (*check answers below for each part*)

	Excellent	Good	Fair	Poor	Don't Know
Cleanliness					
Comfort					
Service Frequency					
Condition of Buses					
Transfer Connections					
Schedule Readability					
Driver Courtesy					
Area Served					
Convenience					
Fares					
On-time Performance					
Bus Routes					
Bus stop Safety					

9. Gender: Female Male

10. Age in Years _____

11. The combined Total Annual Income of all members of my household is:

Less than $15,000 per year | $40,000 - $44,999 per year
$15,000 - $24,999 per year | $45,000 - $54,999 per year
$25,000 - $39,999 per year | More than $55,000 per year

12. For what one purpose do you MOST OFTEN ride the bus? *(CHECK ONE)*

Work | Shopping
Recreation | Personal Business/Errands
School/College
Other (please specify) _____

Please Continue on Other Side

13. What is your occupation?

Homemaker	Service Worker
Laborer	College Student
Managerial/Professional	Secondary Student
Production/Craft/Repair/Machine Operator	Technical/Administration
Retired	Unemployed
Sales	

Other (please specify) _____

---

14. What is your ethnicity?

American Indian	Asian
Black/African American	Hispanic
White	

Other (please specify) _____

---

15. How long have you been riding Cheyenne Curb-to-Curb Service?

First time	One year
One week	Two years
One month	More than two years

---

16. How did you first learn about Cheyenne Curb-to-Curb Service?

Bus stop sign	Saw bus
Advertisement	Friend/coworker
Saw bus guide	Internet

Other _____

---

17. Are you able to use the Cheyenne Transit fixed-routes for any of your transportation needs? Yes No

---

18. If so, how often each week do you use Cheyenne Transit fixed-routes?
(*check only one*)

One Day	Four Days	Less than Once a Month
Two Days	Five Days	One -Three Days/Month
Three Days	Six / Seven Days	This is my first time

---

19. What are your suggestions to improve Cheyenne Transit service?

20. Please share any other comments:

THANK YOU!!

Guest of Cheyenne Transit Curb-to-Curb Service:

Please take a few minutes to complete this survey during your bus ride today. Your answers and suggestions will help us improve service.

Thank you!

Cheyenne Transit

1. Where did you come from before you got on this bus: (*check only one*)

Home (73%) School/College (9%) Shopping/Errands (5%)
Work (9%) Doctor/Dentist (5%) Social Visit/Recreation (0%)
Other (please specify)(0%)_____

2. Where are you going to now? (*check only one*)

Home (36%) School/College (14%) Shopping/Errands (0%)
Work (18%) Doctor/Dentist (18%) Social Visit/Recreation (14%)
Other (please specify) (0%)_____

3. Was a vehicle available for you to use on this trip instead of taking the bus?

Yes (9%) No (91%)

4. Have you filled out this survey earlier today?

Yes No

If Yes, please stop here. If No, please continue and complete all questions.

5. I usually ride the bus ____?_____ days a week. (*check only one*)

One Day (5%) Four Days (11%) Less than Once a Month (0%)
Two Days (11%) Five Days (42%) One -Three Days/Month (0%)
Three Days (21%) Six / Seven Days (11%) This is my first time (0%)

6. What is the single MOST IMPORTANT reason you ride the bus? ***(CHECK ONLY ONE)***

Family doesn't have a car (11%) Someone else uses car (5%) Traffic is bad (0%)
Parking is a problem (0%) Car trouble/no insurance (5%) I don't drive (58%)
Bus is economical (5%) Bus is convenient (11%)
Weather conditions (5%)
Other (please specify) (0%)_____

7. Are you a licensed driver and able to drive? Yes (26%) No (74%)

8. How do you rate your present bus service? (*check answers below for each part*)

	Excellent	Good	Fair	Poor	Don't Know	Average Score
Cleanliness						**3.58**
Comfort						**3.26**
Service Frequency						**3.35**
Condition of Buses						**3.33**
Transfer Connections						**3.67**
Schedule Readability						**3.53**
Driver Courtesy						**3.83**
Area Served						**3.56**
Convenience						**3.59**
Fares						**3.64**
On-time Performance						**3.44**
Bus Routes						**3.45**
Bus stop Safety						**3.47**

9. Gender: Female (68%) Male (32%)

10. Age in Years _____ - Average = 62

11. The combined Total Annual Income of all members of my household is:

Less than $15,000 per year (50%)
$15,000 - $24,999 per year (22%)
$25,000 - $39,999 per year (22%)
$40,000 - $44,999 per year (0%)
$45,000 - $54,999 per year (6%)
More than $55,000 per year (0%)

12. For what one purpose do you MOST OFTEN ride the bus? *(CHECK ONE)*

Work (53%)
Recreation (22%)
School/College (22%)
Shopping (0%)
Personal Business/Errands (32%)
Other (please specify) (0%)_____

13. What is your occupation?

Homemaker (26%)
Laborer (0%)
Managerial/Professional (5%)
Production/Craft/Repair/Machine Operator (0%)
Retired (37%)
Sales (5%)
Service Worker (16%)
College Student (0%)
Secondary Student (0%)
Technical/Administration (0%)
Unemployed (0%)
Other (please specify) (10%) _____

---

14. What is your ethnicity?

American Indian (0%)
Black/African American (0%)
White (89%)
Asian (0%)
Hispanic (5%)
Other (please specify) (5%)_____

---

15. How long have you been riding Cheyenne Curb-to-Curb Service?

First time (0%)
One week (5%)
One month (5%)
One year (21%)
Two years (0%)
More than two years (68%)

---

16. How did you first learn about Cheyenne Curb-to-Curb Service?

Bus stop sign (0%)
Advertisement (26%)
Saw bus guide (5%)
Saw bus (11%)
Friend/coworker (37%)
Internet (5%)
Other (16%)_____

---

17. Are you able to use the Cheyenne Transit fixed-routes for any of your transportation needs? Yes (47%) No (53%)

---

18. If so, how often each week do you use Cheyenne Transit fixed-routes?
(*check only one*)

One Day (22%)
Two Days (0%)
Three Days (33%)
Four Days (0%)
Five Days (33%)
Six / Seven Days (0%)
Less than Once a Month (0%)
One -Three Days/Month (11%)
This is my first time (0%)

---

19. What are your suggestions to improve Cheyenne Transit service?

20. Please share any other comments:

THANK YOU!!

Appendix F: Curb-to-Curb Comments

TRANSPORTATION
CONSULTANTS, INC.

CHEYENNE CURB-TO-CURB SURVEY COMMENTS

SUGGESTIONS:

- Better scheduling for more timely pickups
- Be on time
- More frequency of trading out buses - new buses.
- Get new buses
- Nothing
- Keep the flag down program! Add service to both sides of the street.

COMMENTS:

- Some drivers could be more courteous.
- I was told I would only be charged one punch and most drivers punch it twice.
- I think it's great!
- It's good to me right now.
- My doctor has filled out paperwork for my handicap and I am still paying $3 instead of $2.
- I get off work at 11pm and would like the bus to run later.
- Buses need A/C in summer. -more frequent hourly: every 15-20 min. - run later hours. - bus employees are all very nice.
- Would like consistency in driver training. New drivers won't stop on Dell Range to pick up/drop off at assisted living. For example, one driver may drop off in bad weather and driver on the next shift may not stop to pick up because they are told not to stop on Dell Range.
- They do a great job!
- Bus driver is really friendly.
- I would like to see a stop at the new library.

Appendix G: Model Results

TRANSPORTATION
CONSULTANTS, INC.

Table G-1

Alternative I Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	50%	32	213	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.6	11.5	20
2	2	515	54	461	100%	54	461	0.2	0.03	500	1.25	1.2	30	1.4	1.5	14.7	24.9	40
2	3	678	61	618	80%	48	494	0.2	0.03	500	1.25	1.2	30	1.4	1.5	13.1	26.7	40
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.9	20
3	2	648	25	623	40%	10	249	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.2	12.3	15
4.01	1	307	18	289	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
4.01	2	1,007	8	999	10%	1	100	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.1	4.0	4
4.01	3	296	50	246	50%	25	123	0.2	0.03	1,000	1	1.1	30	1.4	1.5	5.4	6.1	12
4.02	1	431	37	394	50%	18	197	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.0	10.6	16
4.02	2	722	29	693	60%	18	416	0.2	0.03	1,000	1	1.1	30	1.4	1.5	3.8	20.6	24
4.02	3	723	31	692	60%	19	415	0.2	0.03	1,000	1	1.1	30	1.4	1.5	4.1	20.5	25
5	1	923	45	879	40%	18	351	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.9	19.0	24
5	2	452	16	436	90%	14	393	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.8	21.2	25
5	3	1,162	35	1,127	80%	28	902	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.7	48.7	56
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	34.7	41
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	30.7	33
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.3	43.4	53
6	4	658	75	583	100%	75	583	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	31.5	52
7	1	695	189	506	80%	151	405	0.2	0.03	500	1.25	1.2	30	1.4	1.5	41.0	21.9	63
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	41.6	57
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	40.9	61
8	1	223	0	223	90%	0	201	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	10.9	11
8	3	280	11	268	100%	11	268	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.5	13.3	16
8	4	337	18	319	100%	18	319	0.2	0.03	900	1.25	1.2	30	1.4	1.5	4.8	17.2	22
9	1	355	20	335	60%	12	201	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.2	10.9	14
9	2	309	17	292	100%	17	292	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.8	20
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	16.5	22
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.7	23.0	29
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.2	9.9	20
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	22.4	24
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	16.6	22
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	12.9	21
10	5	385	26	359	35%	9	126	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.0	6.2	8
11	9	667	13	654	5%	1	33	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.1	1.6	2
12	1	490	0	490	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	2	235	0	235	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	3	268	0	268	10%	0	27	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	1.3	1
12	4	1,089	42	1,048	40%	17	419	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	22.6	27
13	1	728	19	710	40%	8	284	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.0	15.3	17
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	47.5	65
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	24.0	29
13	4	610	10	600	10%	1	60	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.3	3.2	4
14	1	438	8	430	90%	8	387	0.2	0.03	1,000	1	1.1	30	1.4	1.5	1.6	19.2	21
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.8	27.6	38
14	3	1,219	152	1,066	60%	91	640	0.2	0.03	500	1.25	1.2	30	1.4	1.5	24.8	34.6	59
14	4	275	0	275	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
15.01	1	894	62	833	90%	55	749	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	40.5	55
15.01	2	706	26	680	5%	1	34	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.3	1.7	2
15.02	1	421	20	401	5%	1	20	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	0.2	0.8	1
15.02	2	887	66	821	100%	66	821	0.2	0.03	1,000	1	1.1	30	1.4	1.5	14.3	40.6	55
15.02	3	502	63	439	40%	25	176	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	3.8	7.1	11
19	1	374	0	374	2%	0	7	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.3	0
19	2	835	7	827	2%	0	17	0.2	0.03	9,000	0.7	0.9	30	1.4	1.5	0.0	0.7	1
19	3	1,060	30	1,030	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
20	1	728	6	722	2%	0	14	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.6	1
Subtotal		**32,040**	**1,822**	**30,218**		1,322	17,943							Estimated Weekday Ridership				1,298

Source: LSC, 2005.

Table G-2

2006 Estimated Paratransit Demand - Cheyenne

Census Tract	Census Block Group	Total 2006 Population	% of Mobility-Limited Population 2006 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
2	1	1,079	9.7%	104	60.0%	63	25%	26	2.0	4.4	1,503	3,306	626	1,377
2	2	1,254	4.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
2	3	1,642	3.2%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
3	1	927	3.2%	29	60.0%	18	25%	7	2.0	4.4	421	926	175	386
3	2	1,881	4.9%	93	60.0%	56	25%	23	2.0	4.4	1,337	2,942	557	1,226
4.01	1	790	4.8%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
4.01	2	2,825	5.4%	151	60.0%	91	25%	38	2.0	4.4	2,179	4,793	908	1,997
4.01	3	729	2.6%	19	60.0%	11	25%	5	2.0	4.4	270	595	113	248
4.02	1	1,167	4.3%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
4.02	2	1,730	8.0%	139	60.0%	83	25%	35	2.0	4.4	1,998	4,396	833	1,832
4.02	3	1,981	0.8%	17	60.0%	10	25%	4	2.0	4.4	240	529	100	220
5	1	2,770	6.4%	177	60.0%	106	25%	44	2.0	4.4	2,554	5,620	1,064	2,341
5	2	1,133	6.3%	71	60.0%	43	25%	18	2.0	4.4	1,022	2,248	426	937
5	3	2,738	3.6%	99	60.0%	59	25%	25	2.0	4.4	1,427	3,140	595	1,308
6	1	1,737	4.2%	73	60.0%	44	25%	18	2.0	4.4	1,052	2,314	438	964
6	2	1,264	13.1%	166	60.0%	100	25%	41	2.0	4.4	2,389	5,256	995	2,190
6	3	1,665	3.8%	64	60.0%	38	25%	16	2.0	4.4	917	2,016	382	840
6	4	1,438	8.6%	123	60.0%	74	25%	31	2.0	4.4	1,773	3,901	739	1,625
7	1	1,409	8.7%	122	60.0%	73	25%	31	2.0	4.4	1,758	3,868	732	1,611
7	2	1,547	5.9%	92	60.0%	55	25%	23	2.0	4.4	1,322	2,909	551	1,212
7	3	1,601	5.6%	90	60.0%	54	25%	22	2.0	4.4	1,292	2,843	538	1,185
8	1	510	4.7%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
8	3	676	5.1%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
8	4	759	7.0%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	1	699	7.5%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
9	2	620	9.6%	59	60.0%	36	25%	15	2.0	4.4	856	1,884	357	785
9	3	796	6.7%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	4	883	1.4%	13	60.0%	8	25%	3	2.0	4.4	180	397	75	165
10	1	384	9.5%	37	60.0%	22	25%	9	2.0	4.4	526	1,157	219	482
10	2	923	1.7%	16	60.0%	9	25%	4	2.0	4.4	225	496	94	207
10	3	844	6.7%	56	60.0%	34	25%	14	2.0	4.4	811	1,785	338	744
10	4	526	4.4%	23	60.0%	14	25%	6	2.0	4.4	331	727	138	303
10	5	772	4.5%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
11	9	4,633	1.0%	48	60.0%	29	25%	12	2.0	4.4	691	1,521	288	634
12	1	1,376	2.0%	28	60.0%	17	25%	7	2.0	4.4	406	893	169	372
12	2	640	3.8%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
12	3	687	6.7%	46	60.0%	28	25%	11	2.0	4.4	661	1,454	275	606
12	4	2,299	4.4%	101	60.0%	61	25%	25	2.0	4.4	1,457	3,206	607	1,336
13	1	1,941	0.8%	15	60.0%	9	25%	4	2.0	4.4	210	463	88	193
13	2	1,878	8.2%	154	60.0%	93	25%	39	2.0	4.4	2,224	4,892	927	2,038
13	3	1,180	1.0%	11	60.0%	7	25%	3	2.0	4.4	165	364	69	152
13	4	1,683	3.0%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
14	1	1,249	3.0%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
14	2	1,415	4.3%	61	60.0%	36	25%	15	2.0	4.4	871	1,917	363	799
14	3	3,298	4.0%	130	60.0%	78	25%	33	2.0	4.4	1,878	4,132	783	1,722
14	4	753	3.2%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
15.01	1	2,384	4.6%	109	60.0%	65	25%	27	2.0	4.4	1,563	3,438	651	1,432
15.01	2	1,968	1.4%	27	60.0%	16	25%	7	2.0	4.4	391	859	163	358
15.02	1	1,239	4.5%	55	60.0%	33	25%	14	2.0	4.4	796	1,752	332	730
15.02	2	2,033	9.8%	198	60.0%	119	25%	50	2.0	4.4	2,855	6,281	1,190	2,617
15.02	3	1,057	10.2%	107	60.0%	64	25%	27	2.0	4.4	1,548	3,405	645	1,419
19	1	1,036	2.0%	21	60.0%	13	25%	5	2.0	4.4	301	661	125	275
19	2	2,314	1.4%	33	60.0%	20	25%	8	2.0	4.4	481	1,058	200	441
19	3	2,981	4.0%	120	0.0%	0	0%	0	2.0	4.4	0	0	0	0
20	1	2,120	2.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
Total		***81,864***	***5%***	***3,748***		***2,177***		***907***			**52,244**	**114,937**	**21,768**	**47,890**

(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.

Table G-3

Alternative II Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	50%	32	213	0.2	0.03	1,000	1	1.1	30	1.4	1.5	6.9	10.6	17
2	2	515	54	461	75%	41	346	0.2	0.03	500	1.25	1.2	30	1.4	1.5	11.0	18.7	30
2	3	678	61	618	80%	48	494	0.2	0.03	500	1.25	1.2	30	1.4	1.5	13.1	26.7	40
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.9	20
3	2	648	25	623	40%	10	249	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.2	12.3	15
4.01	1	307	18	289	60%	11	173	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	1.6	7.0	9
4.01	2	1,007	8	999	10%	1	100	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.1	4.0	4
4.01	3	296	50	246	50%	25	123	0.2	0.03	1,000	1	1.1	30	1.4	1.5	5.4	6.1	12
4.02	1	431	37	394	10%	4	39	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.0	2.1	3
4.02	2	722	29	693	60%	18	416	0.2	0.03	1,000	1	1.1	30	1.4	1.5	3.8	20.6	24
4.02	3	723	31	692	100%	31	692	0.2	0.03	1,000	1	1.1	30	1.4	1.5	6.8	34.2	41
5	1	923	45	879	40%	18	351	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.9	19.0	24
5	2	452	16	436	90%	14	393	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.8	21.2	25
5	3	1,162	35	1,127	80%	28	902	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.7	48.7	56
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	34.7	41
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	30.7	33
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.3	43.4	53
6	4	658	75	583	100%	75	583	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	31.5	52
7	1	695	189	506	80%	151	405	0.2	0.03	500	1.25	1.2	30	1.4	1.5	41.0	21.9	63
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	41.6	57
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	40.9	61
8	1	223	0	223	90%	0	201	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	0.0	8.1	8
8	3	280	11	268	100%	11	268	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.5	13.3	16
8	4	337	18	319	100%	18	319	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.8	17.2	22
9	1	355	20	335	60%	12	201	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.6	9.9	13
9	2	309	17	292	100%	17	292	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.8	20
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	16.5	22
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.7	23.0	29
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.2	9.9	20
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	22.4	24
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	16.6	22
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	12.9	21
10	5	385	26	359	35%	9	126	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	1.4	5.1	6
11	9	667	13	654	0%	0	0	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	0.0	0
12	1	490	0	490	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	2	235	0	235	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	3	268	0	268	0%	0	0	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	0.0	0
12	4	1,089	42	1,048	40%	17	419	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	2.5	17.0	20
13	1	728	19	710	50%	9	355	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.5	19.2	22
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	47.5	65
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	24.0	29
13	4	610	10	600	10%	1	60	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.3	3.2	4
14	1	438	8	430	90%	8	387	0.2	0.03	1,000	1	1.1	30	1.4	1.5	1.6	19.2	21
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.8	27.6	38
14	3	1,219	152	1,066	60%	91	640	0.2	0.03	500	1.25	1.2	30	1.4	1.5	24.8	34.6	59
14	4	275	0	275	0%	0	0	0.2	0.03	5,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
15.01	1	894	62	833	90%	55	749	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	40.5	55
15.01	2	706	26	680	5%	1	34	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.3	1.7	2
15.02	1	421	20	401	0%	0	0	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
15.02	2	887	66	821	100%	66	821	0.2	0.03	1,000	1	1.1	30	1.4	1.5	14.3	40.6	55
15.02	3	502	63	439	40%	25	176	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	3.8	7.1	11
19	1	374	0	374	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
19	2	835	7	827	0%	0	0	0.2	0.03	9,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
19	3	1,060	30	1,030	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
20	1	728	6	722	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
Subtotal		**32,040**	**1,822**	**30,218**		1,317	18,073								Estimated Weekday Ridership			1,283

Source: LSC, 2005.

Table G-4

2006 Estimated Paratransit Demand - Cheyenne

Census Tract	Census Block Group	Total 2006 Population	% of Mobility-Limited Population 2006 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
2	1	1,079	9.7%	104	60.0%	63	25%	26	2.0	4.4	1,503	3,306	626	1,377
2	2	1,254	4.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
2	3	1,642	3.2%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
3	1	927	3.2%	29	60.0%	18	25%	7	2.0	4.4	421	926	175	386
3	2	1,881	4.9%	93	60.0%	56	25%	23	2.0	4.4	1,337	2,942	557	1,226
4.01	1	790	4.8%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
4.01	2	2,825	5.4%	151	60.0%	91	25%	38	2.0	4.4	2,179	4,793	908	1,997
4.01	3	729	2.6%	19	60.0%	11	25%	5	2.0	4.4	270	595	113	248
4.02	1	1,167	4.3%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
4.02	2	1,730	8.0%	139	60.0%	83	25%	35	2.0	4.4	1,998	4,396	833	1,832
4.02	3	1,981	0.8%	17	60.0%	10	25%	4	2.0	4.4	240	529	100	220
5	1	2,770	6.4%	177	60.0%	106	25%	44	2.0	4.4	2,554	5,620	1,064	2,341
5	2	1,133	6.3%	71	60.0%	43	25%	18	2.0	4.4	1,022	2,248	426	937
5	3	2,738	3.6%	99	60.0%	59	25%	25	2.0	4.4	1,427	3,140	595	1,308
6	1	1,737	4.2%	73	60.0%	44	25%	18	2.0	4.4	1,052	2,314	438	964
6	2	1,264	13.1%	166	60.0%	100	25%	41	2.0	4.4	2,389	5,256	995	2,190
6	3	1,665	3.8%	64	60.0%	38	25%	16	2.0	4.4	917	2,016	382	840
6	4	1,438	8.6%	123	60.0%	74	25%	31	2.0	4.4	1,773	3,901	739	1,625
7	1	1,409	8.7%	122	60.0%	73	25%	31	2.0	4.4	1,758	3,868	732	1,611
7	2	1,547	5.9%	92	60.0%	55	25%	23	2.0	4.4	1,322	2,909	551	1,212
7	3	1,601	5.6%	90	60.0%	54	25%	22	2.0	4.4	1,292	2,843	538	1,185
8	1	510	4.7%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
8	3	676	5.1%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
8	4	759	7.0%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	1	699	7.5%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
9	2	620	9.6%	59	60.0%	36	25%	15	2.0	4.4	856	1,884	357	785
9	3	796	6.7%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	4	883	1.4%	13	60.0%	8	25%	3	2.0	4.4	180	397	75	165
10	1	384	9.5%	37	60.0%	22	25%	9	2.0	4.4	526	1,157	219	482
10	2	923	1.7%	16	60.0%	9	25%	4	2.0	4.4	225	496	94	207
10	3	844	6.7%	56	60.0%	34	25%	14	2.0	4.4	811	1,785	338	744
10	4	526	4.4%	23	60.0%	14	25%	6	2.0	4.4	331	727	138	303
10	5	772	4.5%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
11	9	4,633	1.0%	48	60.0%	29	25%	12	2.0	4.4	691	1,521	288	634
12	1	1,376	2.0%	28	60.0%	17	25%	7	2.0	4.4	406	893	169	372
12	2	640	3.8%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
12	3	687	6.7%	46	60.0%	28	25%	11	2.0	4.4	661	1,454	275	606
12	4	2,299	4.4%	101	60.0%	61	25%	25	2.0	4.4	1,457	3,206	607	1,336
13	1	1,941	0.8%	15	60.0%	9	25%	4	2.0	4.4	210	463	88	193
13	2	1,878	8.2%	154	60.0%	93	25%	39	2.0	4.4	2,224	4,892	927	2,038
13	3	1,180	1.0%	11	60.0%	7	25%	3	2.0	4.4	165	364	69	152
13	4	1,683	3.0%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
14	1	1,249	3.0%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
14	2	1,415	4.3%	61	60.0%	36	25%	15	2.0	4.4	871	1,917	363	799
14	3	3,298	4.0%	130	60.0%	78	25%	33	2.0	4.4	1,878	4,132	783	1,722
14	4	753	3.2%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
15.01	1	2,384	4.6%	109	60.0%	65	25%	27	2.0	4.4	1,563	3,438	651	1,432
15.01	2	1,968	1.4%	27	60.0%	16	25%	7	2.0	4.4	391	859	163	358
15.02	1	1,239	4.5%	55	60.0%	33	25%	14	2.0	4.4	796	1,752	332	730
15.02	2	2,033	9.8%	198	60.0%	119	25%	50	2.0	4.4	2,855	6,281	1,190	2,617
15.02	3	1,057	10.2%	107	60.0%	64	25%	27	2.0	4.4	1,548	3,405	645	1,419
19	1	1,036	2.0%	21	0.0%	0	25%	5	2.0	4.4	0	0	125	275
19	2	2,314	1.4%	33	0.0%	0	25%	8	2.0	4.4	0	0	200	441
19	3	2,981	4.0%	120	0.0%	0	0%	0	2.0	4.4	0	0	0	0
20	1	2,120	2.9%	62	0.0%	0	25%	15	2.0	4.4	0	0	369	813
Total		***81,864***	***5%***	***3,748***		***2,107***		***907***			**50,576**	**111,268**	**21,768**	**47,890**

(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.

Table G-5

Alternative III Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	50%	32	213	0.2	0.03	1,000	1	1.1	30	1.4	1.5	6.9	10.6	17
2	2	515	54	461	100%	54	461	0.2	0.03	500	1.25	1.2	30	1.4	1.5	14.7	24.9	40
2	3	678	61	618	80%	48	494	0.2	0.03	500	1.25	1.2	30	1.4	1.5	13.1	26.7	40
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.9	20
3	2	648	25	623	40%	10	249	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.2	12.3	15
4.01	1	307	18	289	25%	4	72	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.7	2.9	4
4.01	2	1,007	8	999	40%	3	399	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	0.5	16.2	17
4.01	3	296	50	246	50%	25	123	0.2	0.03	1,000	1	1.1	30	1.4	1.5	5.4	6.1	12
4.02	1	431	37	394	5%	2	20	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.3	0.8	1
4.02	2	722	29	693	90%	26	624	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.1	33.7	41
4.02	3	723	31	692	90%	28	623	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.6	33.6	41
5	1	923	45	879	40%	18	351	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.9	19.0	24
5	2	452	16	436	90%	14	393	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.8	21.2	25
5	3	1,162	35	1,127	80%	28	902	0.2	0.03	1,000	1	1.1	30	1.4	1.5	6.2	44.6	51
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	34.7	41
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	30.7	33
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.3	43.4	53
6	4	658	75	583	90%	68	525	0.2	0.03	500	1.25	1.2	30	1.4	1.5	18.3	28.3	47
7	1	695	189	506	100%	189	506	0.2	0.03	500	1.25	1.2	30	1.4	1.5	51.2	27.3	79
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	41.6	57
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	40.9	61
8	1	223	0	223	5%	0	11	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.0	0.5	0
8	3	280	11	268	0%	0	0	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	0.0	0
8	4	337	18	319	50%	9	160	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.4	8.6	11
9	1	355	20	335	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
9	2	309	17	292	20%	3	58	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.7	2.9	4
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	16.5	22
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.7	23.0	29
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.2	9.9	20
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	22.4	24
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	16.6	22
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	12.9	21
10	5	385	26	359	0%	0	0	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
11	9	667	13	654	0%	0	0	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
12	1	490	0	490	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	2	235	0	235	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	3	268	0	268	0%	0	0	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	0.0	0
12	4	1,089	42	1,048	10%	4	105	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.9	5.2	6
13	1	728	19	710	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	47.5	65
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	24.0	29
13	4	610	10	600	5%	1	30	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.1	1.6	2
14	1	438	8	430	100%	8	430	0.2	0.03	1,000	1	1.1	30	1.4	1.5	1.8	21.3	23
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.8	27.6	38
14	3	1,219	152	1,066	60%	91	640	0.2	0.03	500	1.25	1.2	30	1.4	1.5	24.8	34.6	59
14	4	275	0	275	0%	0	0	0.2	0.03	5,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
15.01	1	894	62	833	90%	55	749	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	40.5	55
15.01	2	706	26	680	5%	1	34	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.3	1.7	2
15.02	1	421	20	401	5%	1	20	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.2	0.8	1
15.02	2	887	66	821	100%	66	821	0.2	0.03	1,000	1	1.1	30	1.4	1.5	14.3	40.6	55
15.02	3	502	63	439	40%	25	176	0.2	0.03	1,000	1	1.1	30	1.4	1.5	5.4	8.7	14
19	1	374	0	374	10%	0	37	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	1.5	2
19	2	835	7	827	0%	0	0	0.2	0.03	9,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
19	3	1,060	30	1,030	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
20	1	728	6	722	40%	3	289	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.4	11.7	12
Subtotal		**32,040**	**1,822**	**30,218**		1,288	17,061							Estimated Weekday Ridership				1,233

Source: LSC, 2005.

Table G-6

2006 Estimated Paratransit Demand - Cheyenne

Census Tract	Census Block Group	Total 2006 Population	% of Mobility-Limited Population 2006 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
2	1	1,079	9.7%	104	60.0%	63	25%	26	2.0	4.4	1,503	3,306	626	1,377
2	2	1,254	4.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
2	3	1,642	3.2%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
3	1	927	3.2%	29	60.0%	18	25%	7	2.0	4.4	421	926	175	386
3	2	1,881	4.9%	93	60.0%	56	25%	23	2.0	4.4	1,337	2,942	557	1,226
4.01	1	790	4.8%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
4.01	2	2,825	5.4%	151	60.0%	91	25%	38	2.0	4.4	2,179	4,793	908	1,997
4.01	3	729	2.6%	19	60.0%	11	25%	5	2.0	4.4	270	595	113	248
4.02	1	1,167	4.3%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
4.02	2	1,730	8.0%	139	60.0%	83	25%	35	2.0	4.4	1,998	4,396	833	1,832
4.02	3	1,981	0.8%	17	60.0%	10	25%	4	2.0	4.4	240	529	100	220
5	1	2,770	6.4%	177	60.0%	106	25%	44	2.0	4.4	2,554	5,620	1,064	2,341
5	2	1,133	6.3%	71	60.0%	43	25%	18	2.0	4.4	1,022	2,248	426	937
5	3	2,738	3.6%	99	60.0%	59	25%	25	2.0	4.4	1,427	3,140	595	1,308
6	1	1,737	4.2%	73	60.0%	44	25%	18	2.0	4.4	1,052	2,314	438	964
6	2	1,264	13.1%	166	60.0%	100	25%	41	2.0	4.4	2,389	5,256	995	2,190
6	3	1,665	3.8%	64	60.0%	38	25%	16	2.0	4.4	917	2,016	382	840
6	4	1,438	8.6%	123	60.0%	74	25%	31	2.0	4.4	1,773	3,901	739	1,625
7	1	1,409	8.7%	122	60.0%	73	25%	31	2.0	4.4	1,758	3,868	732	1,611
7	2	1,547	5.9%	92	60.0%	55	25%	23	2.0	4.4	1,322	2,909	551	1,212
7	3	1,601	5.6%	90	60.0%	54	25%	22	2.0	4.4	1,292	2,843	538	1,185
8	1	510	4.7%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
8	3	676	5.1%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
8	4	759	7.0%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	1	699	7.5%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
9	2	620	9.6%	59	60.0%	36	25%	15	2.0	4.4	856	1,884	357	785
9	3	796	6.7%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	4	883	1.4%	13	60.0%	8	25%	3	2.0	4.4	180	397	75	165
10	1	384	9.5%	37	60.0%	22	25%	9	2.0	4.4	526	1,157	219	482
10	2	923	1.7%	16	60.0%	9	25%	4	2.0	4.4	225	496	94	207
10	3	844	6.7%	56	60.0%	34	25%	14	2.0	4.4	811	1,785	338	744
10	4	526	4.4%	23	60.0%	14	25%	6	2.0	4.4	331	727	138	303
10	5	772	4.5%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
11	9	4,633	1.0%	48	60.0%	29	25%	12	2.0	4.4	691	1,521	288	634
12	1	1,376	2.0%	28	60.0%	17	25%	7	2.0	4.4	406	893	169	372
12	2	640	3.8%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
12	3	687	6.7%	46	60.0%	28	25%	11	2.0	4.4	661	1,454	275	606
12	4	2,299	4.4%	101	60.0%	61	25%	25	2.0	4.4	1,457	3,206	607	1,336
13	1	1,941	0.8%	15	60.0%	9	25%	4	2.0	4.4	210	463	88	193
13	2	1,878	8.2%	154	60.0%	93	25%	39	2.0	4.4	2,224	4,892	927	2,038
13	3	1,180	1.0%	11	60.0%	7	25%	3	2.0	4.4	165	364	69	152
13	4	1,683	3.0%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
14	1	1,249	3.0%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
14	2	1,415	4.3%	61	60.0%	36	25%	15	2.0	4.4	871	1,917	363	799
14	3	3,298	4.0%	130	60.0%	78	25%	33	2.0	4.4	1,878	4,132	783	1,722
14	4	753	3.2%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
15.01	1	2,384	4.6%	109	60.0%	65	25%	27	2.0	4.4	1,563	3,438	651	1,432
15.01	2	1,968	1.4%	27	60.0%	16	25%	7	2.0	4.4	391	859	163	358
15.02	1	1,239	4.5%	55	60.0%	33	25%	14	2.0	4.4	796	1,752	332	730
15.02	2	2,033	9.8%	198	60.0%	119	25%	50	2.0	4.4	2,855	6,281	1,190	2,617
15.02	3	1,057	10.2%	107	60.0%	64	25%	27	2.0	4.4	1,548	3,405	645	1,419
19	1	1,036	2.0%	21	60.0%	13	25%	5	2.0	4.4	301	661	125	275
19	2	2,314	1.4%	33	60.0%	20	25%	8	2.0	4.4	481	1,058	200	441
19	3	2,981	4.0%	120	0.0%	0	0%	0	2.0	4.4	0	0	0	0
20	1	2,120	2.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
Total		***81,864***	***5%***	***3,748***		***2,177***		***907***			**52,244**	**114,937**	**21,768**	**47,890**

(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.

Table G-7

Alternative I Fixed-Route Demand Model

Census Tract	Block Group	Total # of Hhlds 2006	# 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
2	1	490	64	427	50%	32	213	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.6	11.5	20
2	2	515	54	461	100%	54	461	0.2	0.03	500	1.25	1.2	30	1.4	1.5	14.7	24.9	40
2	3	678	61	618	80%	48	494	0.2	0.03	500	1.25	1.2	30	1.4	1.5	13.1	26.7	40
3	1	311	17	294	100%	17	294	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.9	20
3	2	648	25	623	40%	10	249	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.2	12.3	15
4.01	1	307	18	289	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
4.01	2	1,007	8	999	10%	1	100	0.2	0.03	2,000	0.7	0.9	30	1.4	1.5	0.1	4.0	4
4.01	3	296	50	246	50%	25	123	0.2	0.03	1,000	1	1.1	30	1.4	1.5	5.4	6.1	12
4.02	1	431	37	394	50%	18	197	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.0	10.6	16
4.02	2	722	29	693	60%	18	416	0.2	0.03	1,000	1	1.1	30	1.4	1.5	3.8	20.6	24
4.02	3	723	31	692	60%	19	415	0.2	0.03	1,000	1	1.1	30	1.4	1.5	4.1	20.5	25
5	1	923	45	879	40%	18	351	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.9	19.0	24
5	2	452	16	436	90%	14	393	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.8	21.2	25
5	3	1,162	35	1,127	80%	28	902	0.2	0.03	500	1.25	1.2	30	1.4	1.5	7.7	48.7	56
6	1	665	22	643	100%	22	643	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	34.7	41
6	2	576	8	568	100%	8	568	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.3	30.7	33
6	3	838	34	803	100%	34	803	0.2	0.03	500	1.25	1.2	30	1.4	1.5	9.3	43.4	53
6	4	658	75	583	100%	75	583	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	31.5	52
7	1	695	189	506	80%	151	405	0.2	0.03	500	1.25	1.2	30	1.4	1.5	41.0	21.9	63
7	2	825	55	770	100%	55	770	0.2	0.03	500	1.25	1.2	30	1.4	1.5	15.0	41.6	57
7	3	832	75	756	100%	75	756	0.2	0.03	500	1.25	1.2	30	1.4	1.5	20.4	40.9	61
8	1	223	0	223	90%	0	201	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	10.9	11
8	3	280	11	268	100%	11	268	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.5	13.3	16
8	4	337	18	319	100%	18	319	0.2	0.03	900	1.25	1.2	30	1.4	1.5	4.8	17.2	22
9	1	355	20	335	60%	12	201	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.2	10.9	14
9	2	309	17	292	100%	17	292	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	15.8	20
9	3	328	22	306	100%	22	306	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.9	16.5	22
9	4	448	21	427	100%	21	427	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.7	23.0	29
10	1	221	38	184	100%	38	184	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.2	9.9	20
10	2	421	6	414	100%	6	414	0.2	0.03	500	1.25	1.2	30	1.4	1.5	1.7	22.4	24
10	3	326	19	307	100%	19	307	0.2	0.03	500	1.25	1.2	30	1.4	1.5	5.1	16.6	22
10	4	269	30	239	100%	30	239	0.2	0.03	500	1.25	1.2	30	1.4	1.5	8.2	12.9	21
10	5	385	26	359	35%	9	126	0.2	0.03	1,000	1	1.1	30	1.4	1.5	2.0	6.2	8
11	9	667	13	654	5%	1	33	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.1	1.6	2
12	1	490	0	490	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	2	235	0	235	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
12	3	268	0	268	10%	0	27	0.2	0.03	1,000	1	1.1	30	1.4	1.5	0.0	1.3	1
12	4	1,089	42	1,048	30%	13	314	0.2	0.03	500	1.25	1.2	30	1.4	1.5	3.4	17.0	20
13	1	728	19	710	40%	8	284	0.2	0.03	500	1.25	1.2	30	1.4	1.5	2.0	15.3	17
13	2	945	66	880	100%	66	880	0.2	0.03	500	1.25	1.2	30	1.4	1.5	17.8	47.5	65
13	3	461	17	445	100%	17	445	0.2	0.03	500	1.25	1.2	30	1.4	1.5	4.5	24.0	29
13	4	610	10	600	10%	1	60	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.3	3.2	4
14	1	438	8	430	90%	8	387	0.2	0.03	1,000	1	1.1	30	1.4	1.5	1.6	19.2	21
14	2	550	40	510	100%	40	510	0.2	0.03	500	1.25	1.2	30	1.4	1.5	10.8	27.6	38
14	3	1,219	152	1,066	60%	91	640	0.2	0.03	500	1.25	1.2	30	1.4	1.5	24.8	34.6	59
14	4	275	0	275	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
15.01	1	894	62	833	100%	62	833	0.2	0.03	500	1.25	1.2	30	1.4	1.5	16.7	45.0	62
15.01	2	706	26	680	30%	8	204	0.2	0.03	1,000	1	1.1	30	1.4	1.5	1.7	10.1	12
15.02	1	421	20	401	5%	1	20	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	0.2	0.8	1
15.02	2	887	66	821	100%	66	821	0.2	0.03	1,000	1	1.1	30	1.4	1.5	14.3	40.6	55
15.02	3	502	63	439	50%	31	220	0.2	0.03	1,500	0.7	0.9	30	1.4	1.5	4.8	8.9	14
19	1	374	0	374	0%	0	0	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
19	2	835	7	827	0%	0	0	0.2	0.03	9,000	0.7	0.9	30	1.4	1.5	0.0	0.0	0
19	3	1,060	30	1,030	0%	0	0	0.2	0.03	500	1.25	1.2	30	1.4	1.5	0.0	0.0	0
20	1	728	6	722	2%	0	14	0.2	0.03	3,000	0.7	0.9	30	1.4	1.5	0.0	0.6	1
Subtotal		**32,040**	**1,822**	**30,218**		1,336	18,111							Estimated Weekday Ridership				1,308

Source: LSC, 2005.

Table G-8

2006 Estimated Paratransit Demand - Cheyenne

Census Tract	Census Block Group	Total 2006 Population	% of Mobility-Limited Population 2006 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
2	1	1,079	9.7%	104	60.0%	63	25%	26	2.0	4.4	1,503	3,306	626	1,377
2	2	1,254	4.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
2	3	1,642	3.2%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
3	1	927	3.2%	29	60.0%	18	25%	7	2.0	4.4	421	926	175	386
3	2	1,881	4.9%	93	60.0%	56	25%	23	2.0	4.4	1,337	2,942	557	1,226
4.01	1	790	4.8%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
4.01	2	2,825	5.4%	151	60.0%	91	25%	38	2.0	4.4	2,179	4,793	908	1,997
4.01	3	729	2.6%	19	60.0%	11	25%	5	2.0	4.4	270	595	113	248
4.02	1	1,167	4.3%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
4.02	2	1,730	8.0%	139	60.0%	83	25%	35	2.0	4.4	1,998	4,396	833	1,832
4.02	3	1,981	0.8%	17	60.0%	10	25%	4	2.0	4.4	240	529	100	220
5	1	2,770	6.4%	177	60.0%	106	25%	44	2.0	4.4	2,554	5,620	1,064	2,341
5	2	1,133	6.3%	71	60.0%	43	25%	18	2.0	4.4	1,022	2,248	426	937
5	3	2,738	3.6%	99	60.0%	59	25%	25	2.0	4.4	1,427	3,140	595	1,308
6	1	1,737	4.2%	73	60.0%	44	25%	18	2.0	4.4	1,052	2,314	438	964
6	2	1,264	13.1%	166	60.0%	100	25%	41	2.0	4.4	2,389	5,256	995	2,190
6	3	1,665	3.8%	64	60.0%	38	25%	16	2.0	4.4	917	2,016	382	840
6	4	1,438	8.6%	123	60.0%	74	25%	31	2.0	4.4	1,773	3,901	739	1,625
7	1	1,409	8.7%	122	60.0%	73	25%	31	2.0	4.4	1,758	3,868	732	1,611
7	2	1,547	5.9%	92	60.0%	55	25%	23	2.0	4.4	1,322	2,909	551	1,212
7	3	1,601	5.6%	90	60.0%	54	25%	22	2.0	4.4	1,292	2,843	538	1,185
8	1	510	4.7%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
8	3	676	5.1%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
8	4	759	7.0%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	1	699	7.5%	52	60.0%	31	25%	13	2.0	4.4	751	1,653	313	689
9	2	620	9.6%	59	60.0%	36	25%	15	2.0	4.4	856	1,884	357	785
9	3	796	6.7%	53	60.0%	32	25%	13	2.0	4.4	766	1,686	319	702
9	4	883	1.4%	13	60.0%	8	25%	3	2.0	4.4	180	397	75	165
10	1	384	9.5%	37	60.0%	22	25%	9	2.0	4.4	526	1,157	219	482
10	2	923	1.7%	16	60.0%	9	25%	4	2.0	4.4	225	496	94	207
10	3	844	6.7%	56	60.0%	34	25%	14	2.0	4.4	811	1,785	338	744
10	4	526	4.4%	23	60.0%	14	25%	6	2.0	4.4	331	727	138	303
10	5	772	4.5%	34	60.0%	21	25%	9	2.0	4.4	496	1,091	207	455
11	9	4,633	1.0%	48	60.0%	29	25%	12	2.0	4.4	691	1,521	288	634
12	1	1,376	2.0%	28	60.0%	17	25%	7	2.0	4.4	406	893	169	372
12	2	640	3.8%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
12	3	687	6.7%	46	60.0%	28	25%	11	2.0	4.4	661	1,454	275	606
12	4	2,299	4.4%	101	60.0%	61	25%	25	2.0	4.4	1,457	3,206	607	1,336
13	1	1,941	0.8%	15	60.0%	9	25%	4	2.0	4.4	210	463	88	193
13	2	1,878	8.2%	154	60.0%	93	25%	39	2.0	4.4	2,224	4,892	927	2,038
13	3	1,180	1.0%	11	60.0%	7	25%	3	2.0	4.4	165	364	69	152
13	4	1,683	3.0%	50	60.0%	30	25%	13	2.0	4.4	721	1,587	301	661
14	1	1,249	3.0%	38	60.0%	23	25%	9	2.0	4.4	541	1,190	225	496
14	2	1,415	4.3%	61	60.0%	36	25%	15	2.0	4.4	871	1,917	363	799
14	3	3,298	4.0%	130	60.0%	78	25%	33	2.0	4.4	1,878	4,132	783	1,722
14	4	753	3.2%	24	60.0%	14	25%	6	2.0	4.4	346	760	144	317
15.01	1	2,384	4.6%	109	60.0%	65	25%	27	2.0	4.4	1,563	3,438	651	1,432
15.01	2	1,968	1.4%	27	60.0%	16	25%	7	2.0	4.4	391	859	163	358
15.02	1	1,239	4.5%	55	60.0%	33	25%	14	2.0	4.4	796	1,752	332	730
15.02	2	2,033	9.8%	198	60.0%	119	25%	50	2.0	4.4	2,855	6,281	1,190	2,617
15.02	3	1,057	10.2%	107	60.0%	64	25%	27	2.0	4.4	1,548	3,405	645	1,419
19	1	1,036	2.0%	21	60.0%	13	25%	5	2.0	4.4	301	661	125	275
19	2	2,314	1.4%	33	60.0%	20	25%	8	2.0	4.4	481	1,058	200	441
19	3	2,981	4.0%	120	0.0%	0	0%	0	2.0	4.4	0	0	0	0
20	1	2,120	2.9%	62	60.0%	37	25%	15	2.0	4.4	887	1,950	369	813
Total		***81,864***	***5%***	***3,748***		***2,177***		***907***			**52,244**	**114,937**	**21,768**	**47,890**

(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.

Appendix H: Wyoming State RTA Statute

TRANSPORTATION
CONSULTANTS, INC.

CHAPTER 14 - REGIONAL TRANSPORTATION AUTHORITY

18-14-101. Establishment; appointment; terms; officers; meetings; compensation; establishment under joint powers agreement.

(a) A regional transportation authority may be established by resolution of any board of county commissioners or by joint powers agreement entered into by any two (2) or more boards of county commissioners and governing bodies of municipalities.

(b) A regional transportation authority established by resolution of any board of county commissioners shall be comprised of not less than five (5) nor more than nine (9) residents of the county appointed by the board. Appointees shall serve a term of three (3) years and may be appointed for one (1) additional term. Terms of office shall be staggered. The board of county commissioners shall appoint a county resident to fill the unexpired term of any vacancy occurring on the authority. The authority shall elect from its membership a chairman, secretary and a treasurer and shall meet at least once every three (3) months at the call of the chairman or upon the request of a majority of the membership. Members shall serve without compensation but shall be reimbursed for necessary travel and per diem expenses in the manner and amount provided state employees.

(c) A regional transportation authority created under a joint powers agreement between two (2) or more boards of county commissioners and governing bodies of municipalities shall be established as a joint powers board in accordance with W.S. 16-1-106.

18-14-102. Powers and duties.

(a) A regional transportation authority established under W.S. 18-14-101 shall promote and develop regional air and ground transportation for residents under jurisdiction of the authority. In promoting and developing regional transportation, the authority may:

(i) Conduct studies to plan for the development of regional transportation centers providing air transportation and served by sufficient ground transportation to enable use of air services by residents within the jurisdiction of the authority;

(ii) Conduct studies to plan for the development of intracity transportation services;

(iii) Enter into contract with private air and ground transportation carriers for provision of transportation services;

(iv) Negotiate air and ground transportation fares under any contract entered into pursuant to paragraph (a)(iii) of this section;

(v) Receive grants and loans from state or federal agencies and from private sources for purposes of developing transportation within the region;

(vi) Enter into agreement with any other regional transportation authority;

(vii) Employ technical, legal and administrative assistance and engage the services of research and consulting services as necessary to carry out duties prescribed by this section.

18-14-103. Taxation; limitation; submission to voters; disposition of revenue.

(a) Upon adoption of any resolution by a regional transportation authority for any county or of any resolution by the board of county commissioners for each participating county and of any ordinance by the governing body of a municipality participating in a joint powers agreement pursuant to W.S. 18-14-101 and in accordance with an agreement on the contribution of funds by each participating county and municipality, the appropriate board of county commissioners shall submit to the qualified electors of the county or municipality, as appropriate, the question of whether the board shall annually levy not to exceed one-half (1/2) mill on the dollar of assessed valuation of the county or municipality. Revenues collected under the levy authorized by this subsection shall be used solely for planning, developing and providing regional transportation in the manner specified under W.S. 18-14-102. The question may be submitted by the county clerk at an election called, conducted, canvassed and returned in the manner provided for bond elections by the Political Subdivision Bond Election Law, W.S. 22-21-101 through 22-21-112, as specified by the board of county commissioners upon request of the regional transportation authority.

(b) If the proposition is approved, the levy shall expire four (4) years from the date of initial imposition and the same proposition shall be submitted at the general election held four (4) years from the date the proposition is approved and until the proposition is defeated. If the proposition to impose or continue the levy is defeated, it shall not again be submitted to the electors for at least twenty-three (23) months.

(c) If approved by the qualified electors, the board of county commissioners shall certify the levy authorized under subsection (a) of this section and the levy shall be imposed upon the taxable property of the county or municipality. Revenues collected under this levy shall be deposited by the county treasurer into an account certified by the board and used solely for the purpose for which the levy was imposed.

Appendix I: Meeting Sign-In Sheets

TRANSPORTATION
CONSULTANTS, INC.

LSC TRANSPORTATION CONSULTANTS, INC.

516 North Tejon Street
Colorado Springs, Colorado 80903
(719) 633-2868 FAX: (719) 633-5430

Cheyenne Transit Development and Coordination Plan
Thursday July 12, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Michael Felschow, AICP	LSC Transportation Consultants, Inc	516 North Tejon Street Colorado Springs, CO 80903	(719) 633-2868 (719) 633-5430	Mfelschow@LSCCS.com
Nancy A. Olson	MPO Cheyenne	2101 O'Neil	307-638-4366	nolson@cheyennecity.org
Shannon Monaghan	Wyoming Independent Living Rehab. Inc W.I.L.R. transportation	1616 E. 11th St. Cheyenne, WY 82001	307 637 5127	S.monaghan@wilr.org
Joe Donahue	Cheyenne Transit Program Director	3224 West Lincolnway Cheyenne WY	637-6383	jdonahue@cheyennecity.org

LSC TRANSPORTATION CONSULTANTS, INC.

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TRANSPORTATION
CONSULTANTS, INC.

Cheyenne Transit Development and Coordination Plan

August 30, 2007
Agenda

I. Introductions

II. Planning Overview and Schedule

III. Review Technical Memorandum #1

IV. Coordination Workshop

V. Alternative Transit Service Workshop

VI. Next Steps
- A. Technical Memorandum #2
- B. Alternatives
- C. Next Meeting- September / October

How to reach us:

Email:	Michael Felschow mfelschow@LSCCS.com
Phone:	(800) 677-1671
Fax:	(719) 633-5430
Website:	www.lsctrans.com

LSC TRANSPORTATION CONSULTANTS, INC.

516 North Tejon Street
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(719) 633-2868 FAX: (719) 633-5430

Public Mtg

Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Michael Felschow, AICP	LSC Transportation Consultants, Inc	516 North Tejon Street Colorado Springs, CO 80903	(719) 633-2868 (719) 633-5430	Mfelschow@LSCCS.com
Safehouse Carla Thurn	Safehouse	1813 Carey Cheyenne 82001	634-8655	help@wyomingsafehouse.org
Chris	CLAS	1805 S. 5	771-2427	
Kristina Lubner	Cheyenne Interfaith	2950 Spruce	630-7384 632-6685	Cihn@bresnan.net
Natalie Meyer	CLAS	1805	771-2427	
Joseph Moats	CLAS	4014	638-1841	
DAVID R	C.L.A.S	1805	771-2427	

Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Anne Leonard	Heritage Court Apartments	3912 Gregg Way Cheyenne 82009	514-0736	N/A
Martha VanValkenburg	" " "	" " "	635-5816	mvanval33mk@wyhirs.net
Teresa Garrido	COMEA House	1504 Stinson Ave Chey. 82001	632-3174 635-5240	tgarrido.comea@bresnan.net
Emily K Downey	COMEA House	1504 Stinson Ave 82001	637-3174	edowney.comea@bresnan.net
Amanda Kizer	NEEDS/LCCP	1913 Russell Ave 82001	632-4132	akizer.needs.lccp@gmail.com
Jason Weaver	Boys & Girls Club	1701 Snyder Ave	778-6674	jasoncweaver@gmail.com
Adrian Bosargo	Cheyenne Health & Wellness	2500 E Fox Farm		abosargo@cheyennehealth.org
Mary Rosenberg	SCP Program	Riverton, WY 106 W Adams	800-856-9312	scpmgr@wyoming.com
Emmett Smith		2500 E, unwdR	4320329	
Sandi Haley SANDI HALEY	MYSELF	4109 E PERSHING BLVD. APT. B105 CHEYENNE, WY 82001	307-638-4858	NONE

LSC TRANSPORTATION CONSULTANTS, INC.

516 North Tejon Street
Colorado Springs, Colorado 80903
(719) 633-2868 FAX: (719) 633-5430

Public Meeting

Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Michael Felschow, AICP	LSC Transportation Consultants, Inc	516 North Tejon Street Colorado Springs, CO 80903	(719) 633-2868 (719) 633-5430	Mfelschow@LSCCS.com
Tammie Kerey	People First of Wyoming	119 W 17th Street Cheyenne, WY 82001	634-5329	tkerey37@msn.com
Jonna [illegible]	PEOPL FIST	1402 TRENT Ct Cheyenne WY	632-845	
ANDY Barnard	CLAS	19 St. on Logan		
Jonathon Kendall Cox	CLAS	19 St on Logan		
POLY	CLAS	19 St [illegible]		
ELIAS	CLAS	19 ST Logan		

Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Scott Love	Clas program	1805 E 19th St		
Jeannine Stallings	Public	316 E. Pershing	778-4086	—
Merle Powell	Heritage Coat	3912 Gregg Way	634-6264	—
Richard Morrissette	My self	1607 Pinto Ln	514 2280	Duketwotwo@yahoo.com
Stacey McKenna	Needs, Inc/LCCP	900 Central Ave	6324132	smckenna.lccp.needs@gmail.com
Jessica Koons	Cheyenne Health & Wellness Center	2508 E. Fox Farm Rd		jkoons@cheyennehealth.org
Corinna Seeley	Needs Inc./LCCP	900 Central Ave.	632-4132	corinna.needs.lccp@gmail.com
Josh Hornung	MF			
Margaret Drake	CLAS Program with LCSD#1	8502 Bonita Pl.	W 771-2427	drakem@bramiel.k12.wy.us

LSC TRANSPORTATION CONSULTANTS, INC.

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Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Michael Felschow, AICP	LSC Transportation Consultants, Inc	516 North Tejon Street Colorado Springs, CO 80903	(719) 633-2868 (719) 633-5430	Mfelschow@LSCCS.com
PAT CANTRELL	Capitol City Cab	2315 REED AVE	(307) 632-8294 (307) 637-9652 (Fax)	
Tammie Kerey	people First of Wyoming	119 W 17th St	634-5329	
Dennis Marks	PEOPLE FIRST	1402 TRENT Cheyenne WY	632-8855	
Richard Lisle	Wy Epilepsy Association	119 W. 17th St Cheyenne, WY 82001	634-5329 wk 286-8637 cell 635-7540 wk	admin@wyomingepilepsy.org
KEVIN TRIMMER	Driver outreach coordinator CHEYENNE TRANSIT	322 W. LINCOLN WAY	214-3205	KTrimmer at cheyenne city.ORG
JO C Dougherty	Cheyenne Transit	322 West Lincolnway	307-637-6383	jdougherty at cheyenne city.org

Cheyenne Transit Development and Coordination Plan
Thursday August 30, 2007

Name	Representing	Address	Phone Fax	E-mail Address
Nancy Olson	Cheyenne MPO	2101 O'Neil #205 Cheyenne	307-638-4366	nolson@cheyennecity.org
Phyllis Sherard	LCC Partnership	8144 Stagecoach Rd Cheyenne, WY 82009	307-214-6357 ~~307-6~~	phyllis.sherard@crmcwy.org

LSC TRANSPORTATION CONSULTANTS, INC.

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TRANSPORTATION CONSULTANTS, INC.

Cheyenne Transit Development and Coordination Plan

October 10, 2007
Agenda

I. Introductions

II. Planning Overview and Schedule

III. Coordination Workshop

IV. Review Technical Memorandum #2
- A. Survey Results
- B. Route Analysis Results
- C. Review of Alternatives

V. Preferred Alternative Selection

VI. Next Steps
- A. Technical Memorandum #3
- B. Preferred Service Plan
- C. Next Meeting- November

How to reach us:

Email: Michael Felschow mfelschow@LSCCS.com
Phone: (800) 677-1671
Fax: (719) 633-5430
Website: www.lsctrans.com

Cheyenne Transit Development and Coordination Plan
October 10, 2007

Name / Company	Address / Phone
Amanda Krier - LCCP/Needs	307-632-4132
Corinna Seeley - LCCP/Needs, Inc.	307. 632. 4132
x DAVID ROBINSON	307-421-0578
x Merle Powell	307-654-6264
x Martha Kruger Van Valkenburg	307-635-5816
3x 3912 Gregg Way off North College Drive	
Alexander	
Alexander L. Katona	108 Calibrate Court
Rev. Elizabeth McVicker	Cheyenne Interfaith Hospitality Network 2950 Spruce Dr. 82001
Nancy Olson / Cheyenne MPO	~~CMO~~ 638-4366
Rose [illegible]	140 W College Dr #304 778-7838
Jeannie Stallings	316 E. Pershing 778-4086
Joe Dougherty CTP	307-687-6253
Lois J. Hays	433-8087
Connie Gonzales	140 W. College Dr #301 778-7838
Norie Cook	500 E. 9th St 635-6073
[illegible] Smith	[illegible]
J[illegible]	209 W. 17 St Cheyenne 634-3010

LSC TRANSPORTATION CONSULTANTS, INC.

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Cheyenne Transit Development/Coordination Plan
Public Meeting – February 5, 2008

Name	Representing	Address	Phone Fax	E-mail Address
Michael Felschow	LSC Transportation Consultants, Inc.	516 N. Tejon St. Colorado Springs, CO 80903	(719) 633-2868 Fax: (719) 633-5430	MFelschow@LSCCS.com
JoAnn August		4612 Hilltop Ave Apt A-3 Cheyenne Wy 82009	307 286 1085	
JIM PITTMAN	ADVISORY BRD FORMER DRIVE	1915 RAYOR AVE CHEYENNE WY 82001	307 638-2332	JLDITT@BRESNAN.NET
Doris Cook		500 E. 9th St 82007		
VICTOR CICCONE		5442 HILLTOP CHEYENNE, WY 82009 4501		
Margie McDonald		3221 Dillon Cir		
KEVIN TRIMMER	CHEYENNE TRANSIT			

Name	Representing	Address	Phone Fax	E-mail Address
Kristina Lubner	GUMC	2950 Spruce	634-7472	gumc@bresnan.net
Pastor Jon Laughlin	GUMC Grace United methodist church	2950 SPRUCE	634-7472	Pastorjon@bresnan.net
Merle Powell MARTHA VANVALKENBURG	HERITAGE Court Apts	3812 Gregg Way #105 Apt. #104	634-6764 635-5816	
Tammie Keney	People First of Wyoming	119 W 17th	634-5329	tkeney37@msn.com
James Moors	" "	" "	" "	—
Sheila Strong	" "	" "	" "	—
Larry Shepas	"	1509 Taft	634 6853	—
Michael Griffin	Cheyenne Workforce Center	1510 E. Pershing	777-3719	mgriff@State.wy.us
Darlene Tibbetts	Earl Walker	141 Quincy Rd	634-2827	—
David Caldeck	—	521 West 5th Street	—	—

Name	Representing	Address	Phone Fax	E-mail Address
Shane Kennedy	me	4909 E 14th St		Shakundy@Ofcmail.com
Nancy VanDamme	Cheyenne Housing Authority Seniors	2113 Thomas		
Doreen Sing	Wyo Dept. of State of Wy	6101 Yellowstone Rd Rm 259B 82001		DOREEN.SING@Health.wyo.gov
RICHARD NORRISSETTE	NC	1607 PINTO LN	514-2280	DUKETVO TWO@YAHOO.COM
MARY TAMIZER	Self	412 SEYMOUR AVE	635-7335	magrami@bresnan.net
Rita Inoway	AARP	2020 Carey Ave Mezzanine	432-5861	rinoway@aarp.org

MEETING SIGN-IN SHEET

Project: CTP TRANSIT PLAN – OPEN HOUSE	**Meeting Date:** 3-27-08
Facilitator: LSC CONSULTANTS	**Place/Room:** Council Chambers

Name	Title	Company	Phone	Fax	E-Mail
Martha VanValkenburg	3912 Gregg Way #104 Resident Rider		307-635-5816		wyhes33mk@yahoo.com
DAVID Robinson	3912 Gregg Way #115 Cheyenne, Wy 82009		307-421-9578		
Ralph T.	3912 Gregg Way #206 Cheyenne WY 82009				
Barbara Coury	Mountaineer				BCoursey@hotmail.com
Connie Sloan Cathca	Exec Director	United Way	638-8704 director		@UnitedWayofLaramieCounty.org
Vicki Nemecek	Public Works	City of Cheyenne	637-6279		
Joe Pougnet	Transit	Director	637-6383		JPougnet@cheyennecity.org
Tom Mason	MPO Director		637-6299		TMason@cheyennecity.org
Rhonda Priest	Executive Director	Cheyenne Community Clinic	638-6842		cheyclinic@lonetree.com
Mark Lyle	City of Cheyenne		970-690-7536		
Karen Lyle	City of Cheyenne	Unemployed	720 334-0650		Kelyle2001@hotmail.com
JoAnn August	City of Cheyenne	-			
SANDI HALEY	4109 E. PERSHING CHEY 82001	S.S.	638-4858		
"Tillie" Sharon	(Senior)	— o —	1-307 514-3750	1-307 514-3750	— o —
Astrid Angen	Senior	Retired	1307 778-7808		
Ruby Bowie	Senior	Retired	632 8571	—	—
Nancy Olson	MPO planner		638-4366		nolson@cheyennecity.org
Steve Reddick					

MEETING SIGN-IN SHEET

Project: CTP TRANSIT PLAN – OPEN HOUSE	**Meeting Date:** 3-27-08
Facilitator: LSC CONSULTANTS	**Place/Room:** Council Chambers

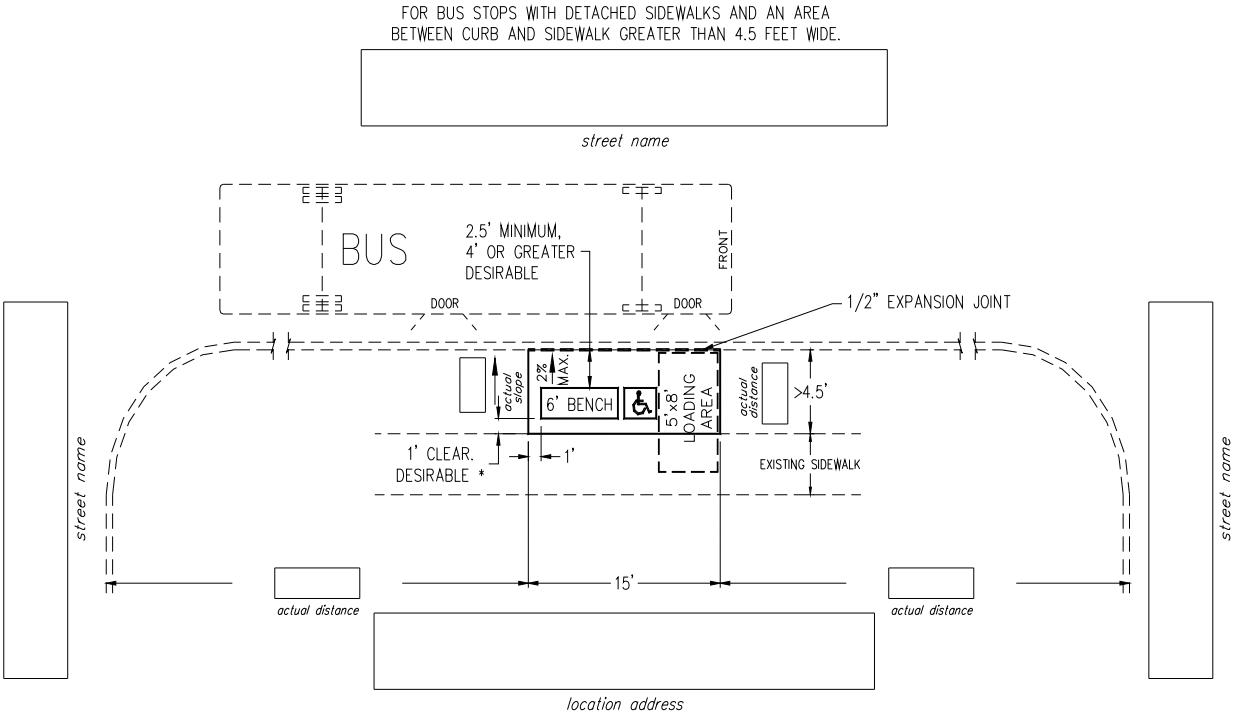
Name	Title	Company	Phone	Fax	E-Mail
Dorie Cook					
Merle Powell	3912 Gregg Way #105		634-6764	—	—
Sheila Strand					
JIM DITTMAN	ADVISORY BOARD	CTP	638-2332		
JoAnn August	Audience				

Appendix J: Transit Stop and Facility Designs

TRANSPORTATION
CONSULTANTS, INC.

Figure 1

Typical Bus Bench Placement



* 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.

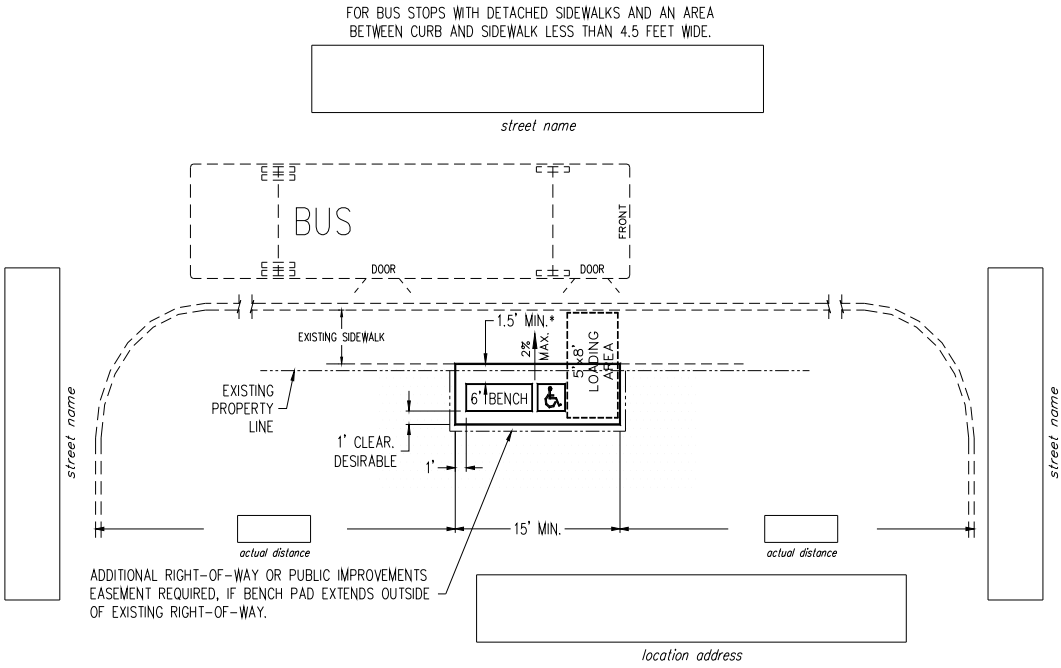
BETWEEN EDGE OF SIDEWALK AND BENCH.

ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

TRANSPORTATION CONSULTANTS, INC.

Figure 2

Typical Bus Bench Placement



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* 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.

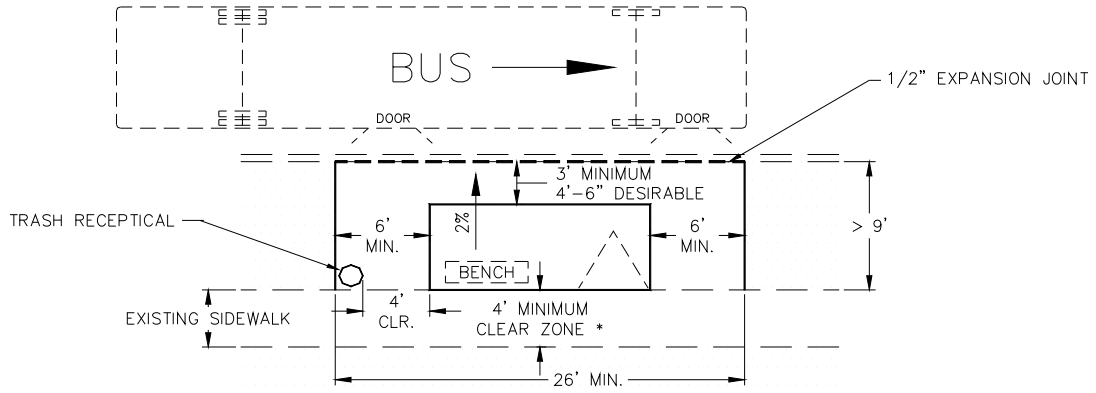
ALL NEW SIDEWALK AND BENCH PADS SHALL BE A MINIMUM OF 4" THICK, 4000psi CONCRETE.

ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

Figure 3

Typical Bus Shelter General Notes

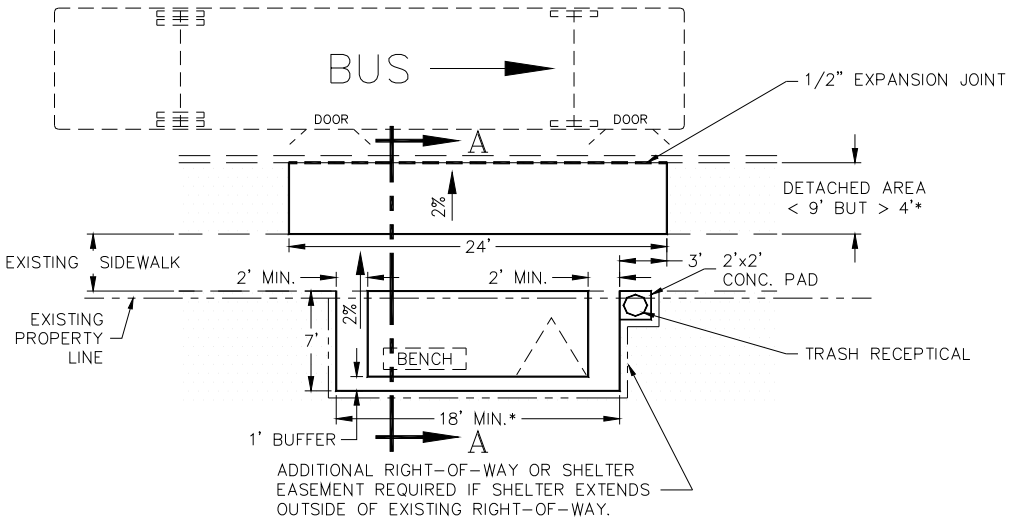
FOR BUS STOPS WITH DETACHED SIDEWALKS AND AN AREA BETWEEN CURB AND SIDEWALK GREATER THAN 9 FEET WIDE.



* 4' MINIMUM CLEAR ZONE OR MATCH EXISTING SIDEWALK WIDTH, WHICHEVER IS GREATER.

IF EXISTING SIDEWALK IS ALSO A BIKE TRAIL, THEN AN ADDITIONAL 3' CLEARANCE AREA MUST BE PROVIDED BETWEEN EDGE OF SIDEWALK AND SHELTER.

FOR BUS STOPS WITH DETACHED SIDEWALKS AND AN AREA BETWEEN CURB AND SIDEWALK LESS THAN 9 FEET WIDE BUT GREATER THAN 4 FEET WIDE.



* IF SIDEWALK IS DETACHED LESS THAN 4 FEET USE CASE III AND SHELTER PAD SHALL BE A MINIMUM OF 26' WIDE.

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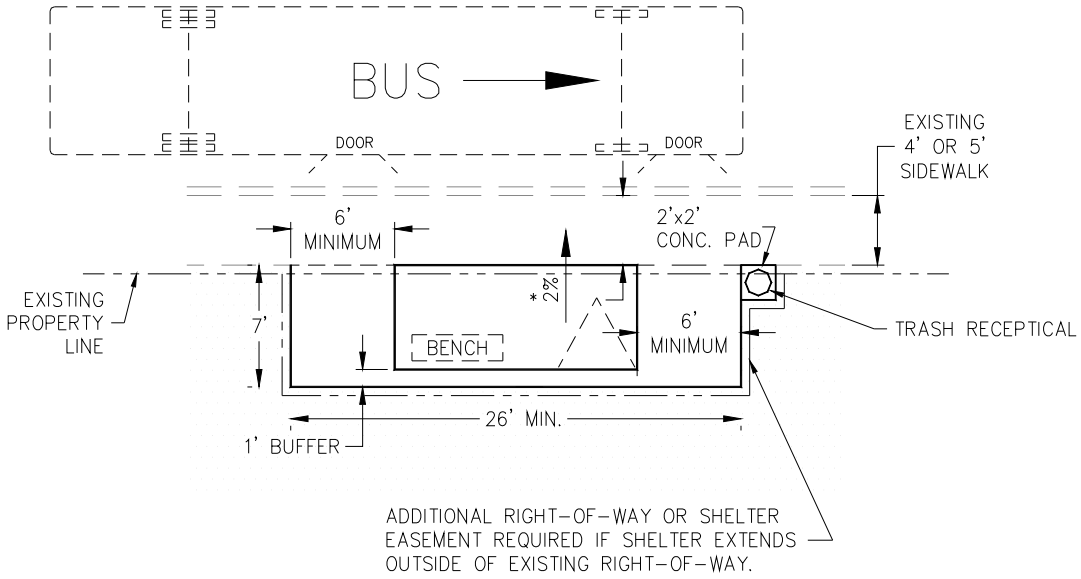
Figure 4

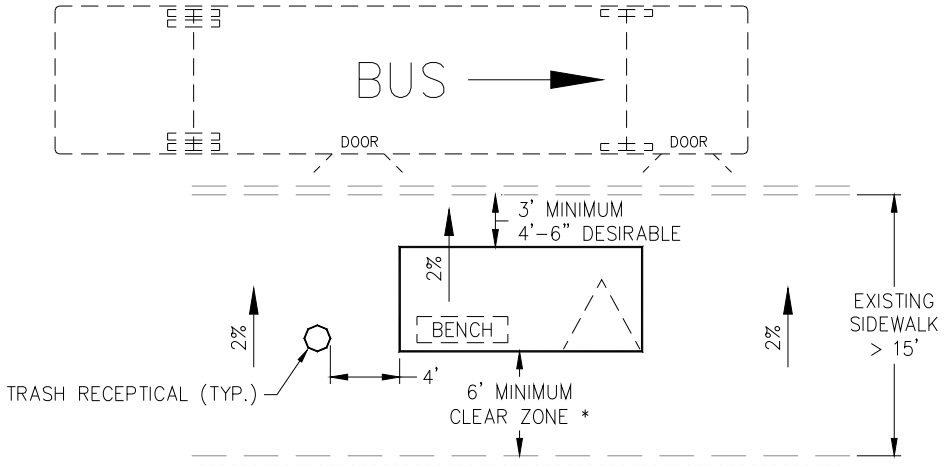
Typical Bus Shelter General Notes

FOR BUS STOPS WITH ATTACHED SIDEWALKS.



* MATCH EXISTING SIDEWALK WIDTH.

FOR BUS STOPS WITH ATTACHED SIDEWALKS MORE THAN 15 FEET WIDE



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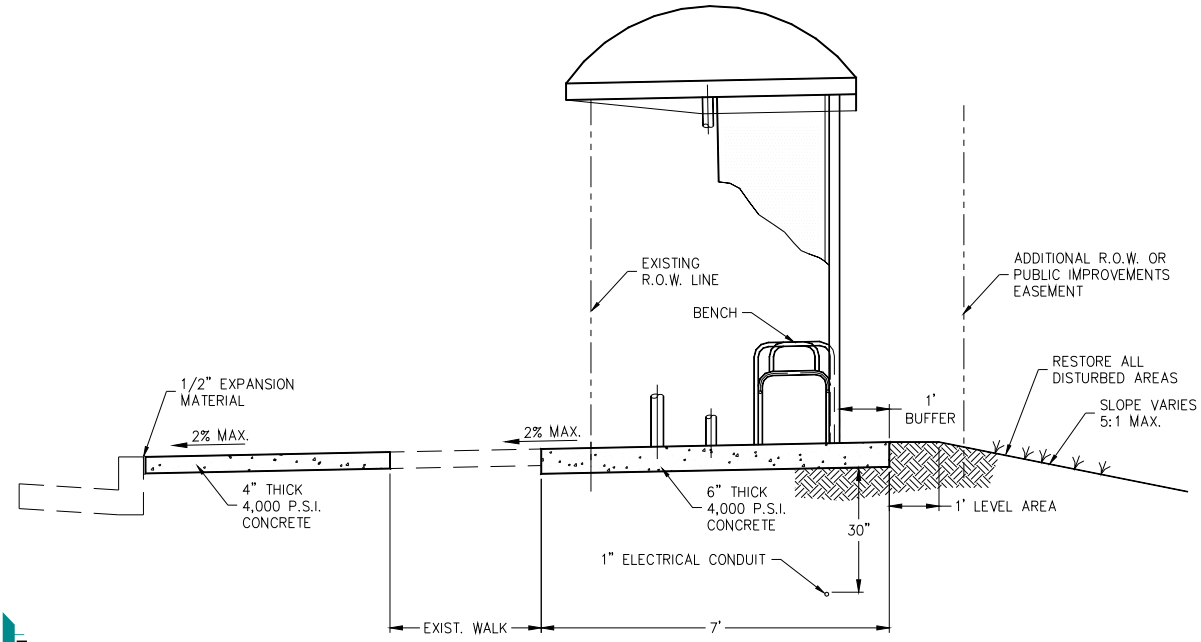
* PROVIDED THAT THE SIDEWALK IS NOT ALSO A BIKE LANE OR TRAIL, IN WHICH CASE THE SIDEWALK MAY NOT BE OBSTRUCTED AND THE SHELTER WILL NEED TO BE LOCATED BEHIND THE BACK OF SIDEWALK.

Figure 5

Typical Bus Shelter General Notes



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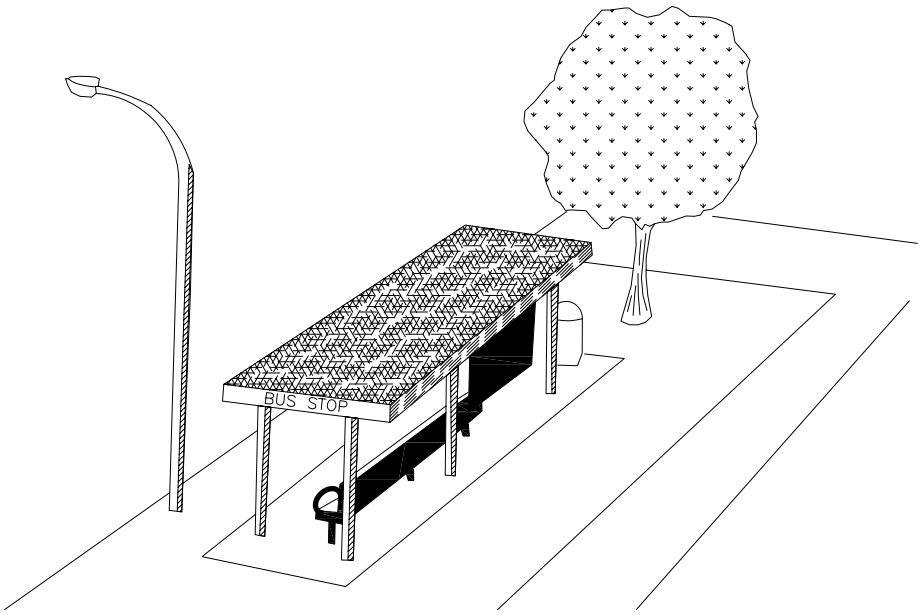
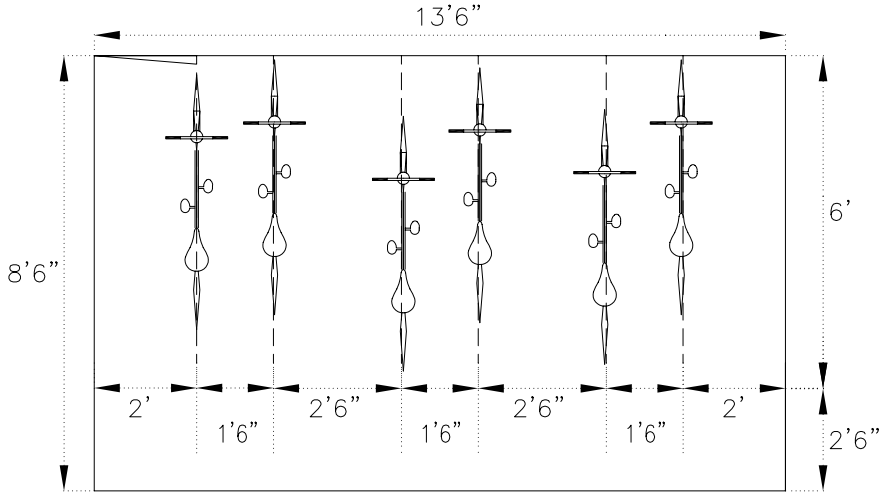


EXAMPLE OF COORDINATING BUS STOP LOCATION WITH AN EXISTING STREET LIGHT

SOURCE: TCRP REPORT 19, *GUIDELINES FOR THE LOCATION AND DESIGN OF BUS STOPS*

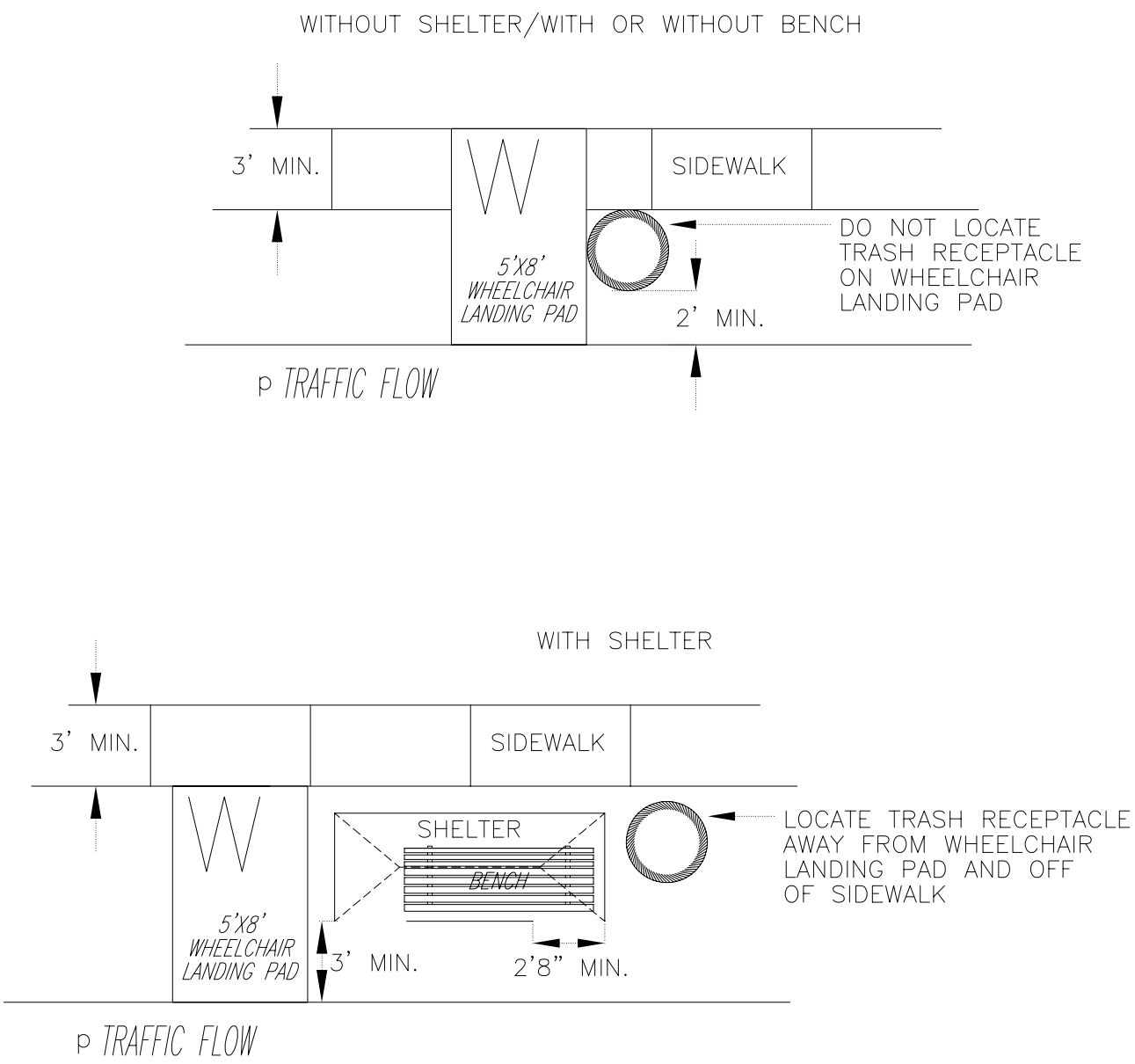


RECOMMENDED SPACE FOR PARKING SIX BICYCLES

Figure 6

BUS STOP COORDINATION WITH STREET LIGHTS & RECOMMENDED SPACE FOR BICYCLE PARKING

TRTPA TRANSIT IMPROVEMENT STANDARDS



RECOMMENDED TRASH RECEPTACLE PLACEMENT

SOURCE: TCRP REPORT 19, *GUIDELINES FOR THE LOCATION AND DESIGN OF BUS STOPS*

Figure 7

RECOMMENDED TRASH RECEPTACLE PLACEMENT

TRTPA TRANSIT IMPROVEMENT STANDARDS

Appendix K: Paratransit Eligibility

TRANSPORTATION
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ADA Paratransit Eligibility Manual

Category 1 Eligibility

The first category of eligibility includes those persons unable to use fully accessible fixed route services. Included in this category is: "Any individual with a disability who is unable, as the result of a physical or mental impairment (including a vision impairment), and without the assistance of another individual (except the operator of a wheelchair lift or other boarding assistance device), to board, tide, or disembark from any vehicle on the system which is readily accessible to and usable by individuals width disabilities. " [37.123(e)(1)]

Examples of eligibility under this category would include:

- A person with a mental disability who cannot "navigate the system". Navigating the system might involve obtaining and understanding system information, recognizing and boarding the correct vehicle, having available the correct fare and/or using the fare collection system, recognizing destinations, and understanding transfers that might have to be made;

- A person with a vision impairment who cannot "navigate the system". Entering and traveling through a busy station or transit center may not be possible. Recognizing and boarding the correct vehicle, and recognizing the appropriate destination - even though announcements are made - are also considerations;

- A person with a physical disability who cannot stand on a crowded bus or rail car when seats, including priority seats, may not be available;

- A person with a physical disability who uses a wheelchair and who cannot get on or off the lift or to or from the wheelchair securement area without assistance.

It is important to note that eligibility under this category depends on the complexity of the fixed route system. The type and extent of disability that would confer eligibility in a rural area with a one or two route bus system would be different from that in a large urban system. Transit providers should base determinations on the characteristics of their fixed route service and the abilities needed to use it. Other key issues and questions associated with this category of eligibility are summarized below.

(1) Travel training: Many persons who cannot negotiate the entire fixed route system can be travel trained for certain trips. Typically, training is provided for trips that the person makes frequently, such as to work or school. These individuals would only be ADA paratransit eligible for trips they have not been trained to make. As part of the application and determination process, it should be determined if such training has been provided.

Individuals cannot, however, be required to participate in travel training. The public entity may choose to offer training and may encourage individuals to take advantage of this service. Until the individual takes advantage of this service and is adequately trained, paratransit service must be provided.

(2) Operator assistance: Eligibility under this category is not necessarily based on a person's ability to get on and off the lift, up and down a ramp, to and from the securement area, or secure their mobility device. While the regulation states that a person is eligible for paratransit service if they cannot independently use the fixed route system, operator assistance is assumed. The regulations, in fact, specify the level of assistance that must be provided by the public entity. Section 37.165(f) of the regulations states that "the drivers or other personnel must provide assistance with the use of lifts, ramps, and securement devices." Beyond this level of required assistance, however, public entities may choose to offer additional assistance, such as assistance getting to and from the securement area, in order to enable persons to utilize the fixed route service. If the individual is able to use the fixed route system with this assistance, complementary paratransit service does not have to be provided. Local policy concerning operator assistance should be developed with full public participation, including the input of persons with disabilities;

(3) Assistance of another person: With the exception of assistance provided by the driver or other employees of the service, eligibility under this category is based on a person's ability to independent use the service. A person traveling with a friend or attendant is still eligible for paratransit service even if they would be able to use the fixed route system with this other person's help.

(4) Accommodating mobility aids: The regulations set standards for vehicle and station/stop accessibility. To be considered accessible, equipment and facilities must be able to accommodate mobility aids of a certain size and persons and mobility aids up to a certain weight. The regulations define a "common wheelchair" as a "wheelchair" which does not exceed 30 inches in width and 48 inches in length (measured two inches above the ground) and which does not weigh more than 600 pounds when occupied. A "wheelchair" is defined as any mobility aid belonging to any class of three or four-wheeled devices, usable indoors, designed for and used by individuals with mobility impairments, whether operated manually or powered.

All common wheelchairs and their users are to be accommodated on accessible fixed route and complementary paratransit systems. The regulations do not, however, require public entities to provide service to persons using mobility aids that are not "common wheelchairs". An individual would not be eligible for paratransit service under category 1 if they could not use an accessible bus because their mobility aid is too large or too heavy for the lift.

(5) Standees on lifts: The regulations require public entities to allow persons with ambulatory disabilities who do not use wheelchairs (e.g., persons who use leg braces and canes) to enter the vehicle by standing on the lift. Therefore, individuals who cannot climb the steps to get into a bus would not be eligible for paratransit service if they could enter the vehicle using the lift.

Category 2 Eligibility

The second category of eligibility includes:

"Any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device and is able, with such assistance, to board, tide, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities if the individual wants to travel on a route of the system during the hours of operation of the system at a time, or within a reasonable period of such time, when such a vehicle is not being used to provide designated public transportation on the route. " [37.123(e)(2)]

The majority of persons eligible under this category would be those with ambulatory disabilities who could not enter an inaccessible rail facility or would need to travel on a vehicle with a lift or ramp and other accessibility features. This would include persons who use wheelchairs as well as persons who use other mobility aids such as walkers, leg braces, or canes.

Eligibility under this category depends on the accessibility of vehicles and stations/stops. A person is eligible for paratransit service if the fixed route on which they want to travel is not yet accessible. Guidance on exactly what constitutes an "accessible" fixed route is provided in the regulations and explanatory appendix. For example:

- A person is eligible if the bus route on which they want to travel is not 100 percent accessible. The requested trip would be eligible if the fixed route that would otherwise be used is only partially accessible (e.g., every other bus is accessible).

- Similarly, a person is eligible if they need to travel on a rapid or light rail system that is not yet accessible - meaning that all key stations are accessible and one car per train is accessible. An individual would be eligible in this example even if accessible fixed route bus service is provided in the same area.

- An individual is eligible for paratransit if a vehicle's lift or boarding device cannot be deployed at the stop which they want to use.

- An individual who uses a "common wheelchair" but cannot be served by the fixed route system because the lift on the vehicle they need to use does not meet the equipment standards contained in Part 38 of the regulation is eligible for paratransit service.

One important issue related to category 2 eligibility is the use of on-call bus services as a way to increase the overall accessibility of the fixed route service. Basically, on-call bus programs allow an individual to call in advance and request that an accessible bus be assigned to a particular route at a time when they need to travel. Typically, an on-call bus program is implemented when a significant percent of the fixed route fleet is accessible. Successful programs have been implemented when 20-30 percent of all peak hour vehicles are accessible.

On-call bus services do not technically make the fixed route fleet fully accessible. Therefore, even if an on-call bus service is offered, individuals who are eligible under category 2 must be

certified. On-call bus service is, however, considered an acceptable form of complementary paratransit service and can be provided in lieu of a separate van service to those who are eligible under this category.

A second important issue is how this category of eligibility should be treated by transit providers whose fixed route systems are fully accessible. Clearly, individuals who could use accessible vehicles would not be Category 2 eligible in these areas and transit districts are not required to include questions that address this category of eligibility in their application materials or assessment processes if the fixed route service is 100 percent accessible. These same individuals may not, however, be able to use inaccessible vehicles if they travel to other transit districts. Therefore, transit providers are encouraged to address this category of eligibility even if it is not applicable to their local system and to note on the eligibility documentation provided that individuals are ADA paratransit eligible if accessible fixed route vehicles are not available when needed.

Category 3 Eligibility

The third category of eligibility includes:

"Any individual with a disability who has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such system." [37.123(e)(3)]

Two important qualifiers to this category are included in the regulations. First, environmental conditions and architectural barriers not under the control of the public entity do not, when considered alone, confer eligibility. If, however, travel to or from a boarding location is prevented when these factors are combined with the person's specific impairment related condition, paratransit service must be provided. Examples of architectural and environmental factors that, in combination with certain disabilities, could prevent travel include:

- a lack of curb-cuts
- the distance from the stop/station to the trip origin or destination
- steep terrain
- snow and/or ice
- extremes in temperature (hot or cold)
- major intersections or other difficult to negotiate architectural barriers
- temporary construction projects
- severe air pollution

Second, the specific impairment-related condition must prevent the person from using the fixed route system. Conditions which make getting to or from stops/stations more difficult do not confer eligibility. A determination of whether travel is difficult rather than "prevented" will need to be made. Appendix D of the regulations offers the following guidance to clarify the concepts of "prevented" travel and the relationship between architectural and environmental conditions and a person's disability:

"For anyone, going to a bus stop and waiting for a bus is more difficult and less comfortable than waiting for a vehicle at one's home. This is likely to be all the more true for an individual with a disability. But for many persons with disabilities, in many circumstances, getting to a bus stop is possible. If an impairment-related condition only makes the job of accessing transit more difficult than it might otherwise be, but does not prevent the travel, then the person is not eligible.

For example, in many areas, there are not yet curb cuts. A wheelchair user can often 'get around this problem by taking a less direct route to a destination than an ambulatory person would take. That involves more time, trouble, and effort than for someone without a mobility impairment. But the person can still get to the bus stop. On the basis of these architectural barriers, the person would not be eligible.

Entities are cautioned that, particularly in cases involving lack of curb cuts and other architectural barrier problems, assertions of eligibility should be given tight scrutiny. Only if it is apparent from the facts of a particular case that an individual cannot find a reasonable alternative path to a location should eligibility be granted.

If we add a foot of snow to the scenario, then the same person taking the same route may be unable to get to the bus stop. If it is not the snow alone that stops him; it is the interaction of the snow and the fact that the individual has a specific-impairment related condition that requires him to push a wheelchair through the snow that prevents the travel.

Inevitably, some judgment is required to distinguish between situations in which travel is prevented and situations in which it is merely made more difficult. In the Department's view, a case of "prevented travel" can be made not only where travel is literally impossible (e.g., someone cannot find the bus stop, someone cannot push a wheelchair through the foot of snow or up a steep hill) but also where the difficulties are so substantial that a reasonable person with the impairment-related condition in question would be deterred from making the trip.

The regulation makes the interaction between an impairment-related condition and the environmental barrier (whether distance, weather, terrain, or architectural barriers) the key to eligibility determinations. This is an individual determination. Depending on the specifics of their impairment-related condition, one individual may be able to get from his home to a bus stop under a given set of conditions, while his next-door neighbor may not."

Given the judgement required to determine if travel is truly prevented and the relationship between environmental conditions and an individual's disability, making eligibility determinations based on this third regulatory category is likely to be the most difficult. Figure I on the following page provides additional hypothetical examples to further define eligibility under this category. It includes situations that would result in a person being determined eligible as well as examples that would not confer eligibility.

For more, information on on-call bus programs, see Chapter 6 of the ADA Paratransit Handbook, FTA Report #MA-06-0206-91-1, September, 1991.

Appendix L: Draft Resolution

TRANSPORTATION
CONSULTANTS, INC.

RESOLUTION NO. _____ DRAFT #2

ENTITLED: "A RESOLUTION SUPPORTING THE CHEYENNE TRANSIT PROGRAM'S BOARDING TRANSITION TO SIGNED "DESIGNATED BOARDING AREAS," AMENDING THE FIXED ROUTES OF THE CHEYENNE TRANSIT BUSES AND RECOGNIZING THE FIVE-YEAR TRANSPORTATION DEVELOPMENT PLAN (DOCUMENT TITLED CTP TRANSIT DEVELOPMENT PLAN NAD COORDINATION STUDY) AS A FLEXIBLE PLANNING TOOL."

WHEREAS, the Cheyenne Transit Program has provided public transportation services since 1990; and

WHEREAS, less than 147,000 rides were provided on transit buses in 2001 and over 260,000 rides were provided in 2007 indicating a 78% rate of growth in ridership in only six years; and

WHEREAS, the Cheyenne Transit Program contracted with LSC Transportation Consultants, Inc. to assist in the development of the "Five-Year Transportation Development Plan," which made a recommendation to eliminate "flag boarding" and move to signed "designated boarding areas" and change route structures for greater efficiency; and

WHEREAS, these changes will help to insure improved efficiency and increased safety for passengers, drivers, and motorists while continuing to increase Cheyenne's bus ridership, reducing traffic congestion, better meeting the communities transportation needs; and

WHEREAS, the Cheyenne Transit Advisory Board, has reviewed and supports these recommendations, and public comments through this process have been very positive in support of proposed modifications to our current routes and recommendations to permanently signed designated boarding areas for each route; and

NOW THEREFORE BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF CHEYENNE, that the "Five-Year Transportation Development Plan," dated April, 2008, be accepted and utilized as a flexible planning tool; and

BE IT FURTHER RESOLVED that effective July 1, 2008, bus routes will be changed as specified and the Traffic Engineer be directed to approve bus parking spaces install signs, indicating each "Designated Boarding Area" with this effort being recognized as needed improvement to insure public safety while meeting the needs the public transportation system.

PRESENTED, READ AND ADOPTED THIS _____ DAY OF _____, 2008.

_____
JACK R. SPIKER, MAYOR

(Seal)

ATTEST:

_____
CAROL A. INTLEKOFER, CITY CLERK

Appendix M: TCRP Trip Rates

TRANSPORTATION
CONSULTANTS, INC.

TABLE 1

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

(From TCRP Report 3)

D= Annual One-Way Person-Trips

Program Type

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

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

(from TRCP Report 3)

Program Type	D = Annual One-Way Person-Trips
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 x $\frac{\text{Annual Vehicle-Miles Available to Elderly Market}}{\text{Area of the County}}$

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

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