



Eastern Nevada County Short Range Transit Development Plan Final

Prepared for the



NEVADA COUNTY TRANSPORTATION COMMISSION



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**Eastern Nevada County
Short Range Transit Development Plan
FINAL**

Prepared for the

Nevada County Transportation Commission
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March, 2018

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As populations expand, environmental concerns grow, and development occurs, public transit and transportation in general becomes increasingly more important to maintaining quality of life for a community. The resort communities of Eastern Nevada County see additional transportation challenges from periodic influxes of seasonal residents and visitors. Access to social and medical services, employment opportunities, educational resources and basic necessities are issues of universal concern, which continue to be important transportation needs.

The Nevada County Transportation Commission (NCTC), aware of the importance of transportation issues, has retained LSC Transportation Consultants, Inc., to prepare an update to the Five-Year Transit Development Plan for Eastern Nevada County. For the purposes of this study, Eastern Nevada County is defined as the area east of Yuba Pass (near the intersection of Interstate 80 (I-80) and State Route (SR) 20). This study evaluates the specific needs for transit services, as well as develops plans for improvements and service revisions. This was accomplished through the review of existing transit conditions, evaluation of operations, and extensive public outreach (via on-board surveys, community-wide surveys, and stakeholder interviews). The process included evaluation of a wide range of service alternatives and identification of stable funding sources for operations and capital improvements of transit services.

This document presents a recommended Short Range Transit Plan for Truckee TART services from FY 2018-19 through FY 2022-23 and is consistent with the Long Range Transit Plan for Truckee TART services developed previously.

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Study Area

Eastern Nevada County is located in the central Sierra Range of California. As shown in Figure 1, eastern Nevada County is bounded by Sierra County to the north, Placer County to the south, and Washoe County, Nevada to the east. Eastern Nevada County covers approximately 345 square miles of mountains, rivers, and valleys, ranging in elevation from roughly 5,300 feet near Emigrant Gap to over 9,100 feet at Castle Peak. Eastern Nevada County is traversed by three main highways: I-80 running east-west, SR 89 running north-south, and SR 267 running northwest-southeast from the junction of I-80 in Truckee to the Placer County line.

The main economic and population center in eastern Nevada County is the Town of Truckee. Situated in a broad valley at an elevation of 5,850 feet, Truckee serves as the lodging, tourist, and commercial center of the region, as well as a center for medical services and higher education. Other communities include Kingvale, Soda Springs, and Floriston. Although winter and summer recreational opportunities abound in eastern Nevada County, Truckee also acts as a gateway community for the Tahoe Basin to the south and major ski resorts in Placer County. Additionally Truckee is within a 35 minute drive of urban medical and commercial services in Reno, Nevada.

As I-80 passes through Truckee, most visitors to North Lake Tahoe must pass through Truckee to get to their final destination. As such, circulation in eastern Nevada County is closely tied to developments and activity centers in eastern Placer County such as the Northstar/Martis Valley and Squaw Valley/Alpine Meadows. The Donner Summit ski resorts of Boreal (Nevada County), Sugar Bowl and Royal Gorge/Serene Lakes (located just over the county border in Placer County) also impact transportation conditions in the Donner Summit portion of Eastern Nevada County.

The primary objective of this study is to review public transit services located within Eastern Nevada County. However, transit issues in portions of Placer County are considered in this study, to the degree necessary to address regional transit issues. Other long-range planning efforts for the Truckee Tahoe Area Regional Transit (TART) service address public transit on a more regional level.

Population Characteristics

Countywide Population

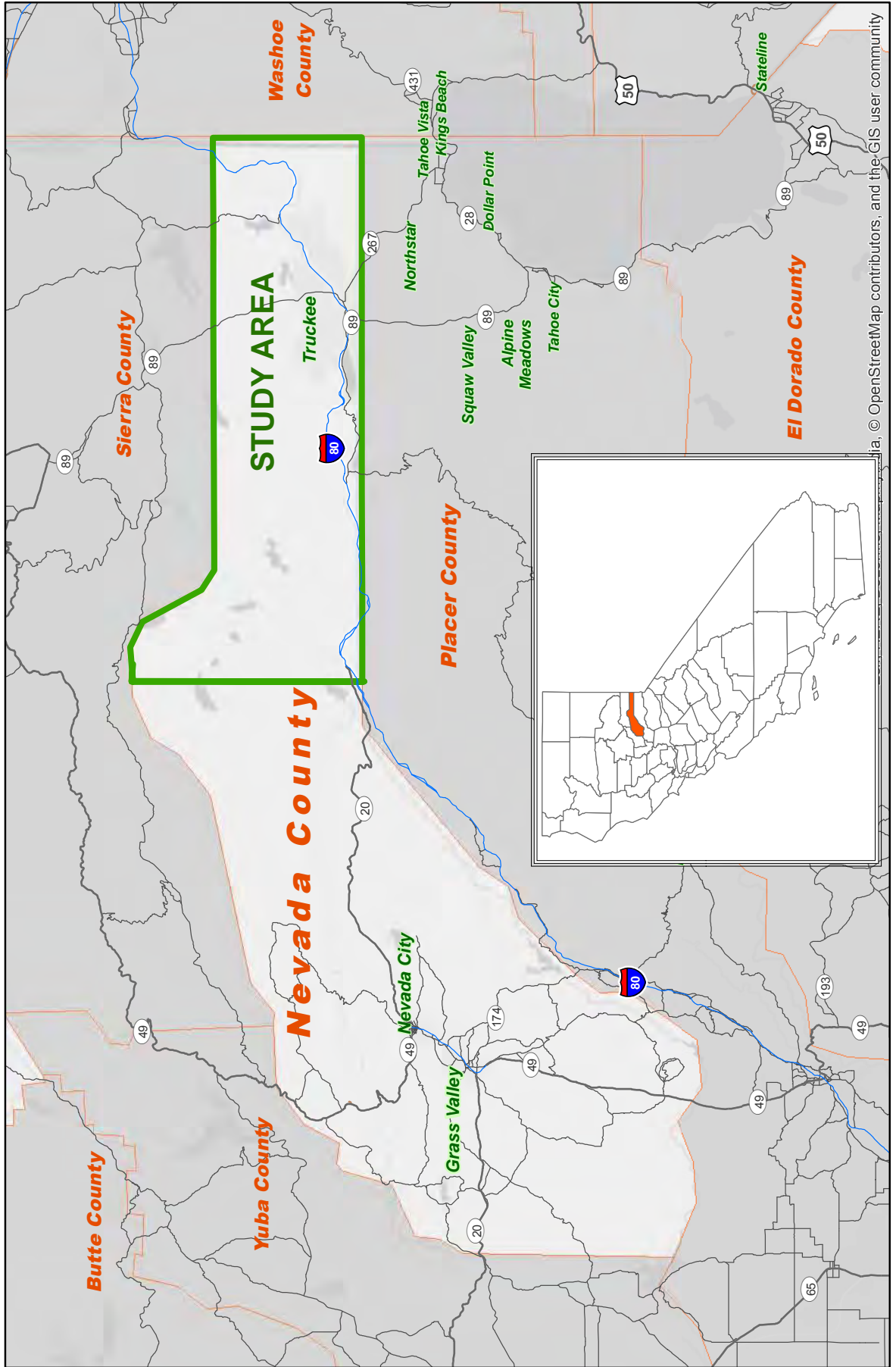
Table 1 illustrates the population and projected population in Nevada County as a whole (both eastern and western portions) from 1970 through 2040. As shown, Nevada County's population increased from 26,500 residents in 1970 to 98,764 in 2010. Per Table 1, between 1970 and 2000, there was substantial population growth in Nevada County (growing by 249 percent),



10 5 0 10 Miles



Figure 1
Eastern Nevada County Site and Location Map



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TABLE 1: Historical Population for Nevada County

	Total Population							
	\$1,970.00	\$1,980.00	\$1,990.00	\$2,000.00	\$2,010.00	\$2,020.00	\$2,030.00	\$2,040.00
Nevada County	26,500	52,500	79,000	92,385	98,764	99,962	105,732	111,421
% Change	--	98%	50%	17%	7%	1%	6%	5%
State of California	19,971,068	23,667,836	29,758,213	33,873,086	37,333,583	40,719,999	44,019,846	46,884,801
% Change	--	19%	26%	14%	10%	9%	8%	7%

Source: CA Dept of Finance

far exceeding that of California overall (which had 70 percent growth over the same period). Population growth has slowed down since 2000, and will continue to do so, with an expected growth rate of 13 percent between 2010 and 2040. This is significantly less than the statewide population growth of 26 percent during the same time period. In more recent times (between 2010 and 2020), the Nevada County population is only expected to grow by 1 percent over a ten year period. In the coming decades from 2020 to 2040, the CA Department of Finance projects that the Nevada County population will increase by 11.5 percent.

Transit Dependent Population

Nationwide, transit system ridership is drawn largely from various groups of persons who make up what is often referred to as the “transit dependent” population. This category includes youth, elderly persons, persons with disabilities, low income persons, and members of households with no available vehicles. There is considerable overlap among these groups. Table 2 and Figures 2 through 6 present key demographic data for Eastern Nevada County at the US Census block group level. Note that Census Tract 9 only contains one block group in Eastern Nevada County. A review of this data indicates the following:

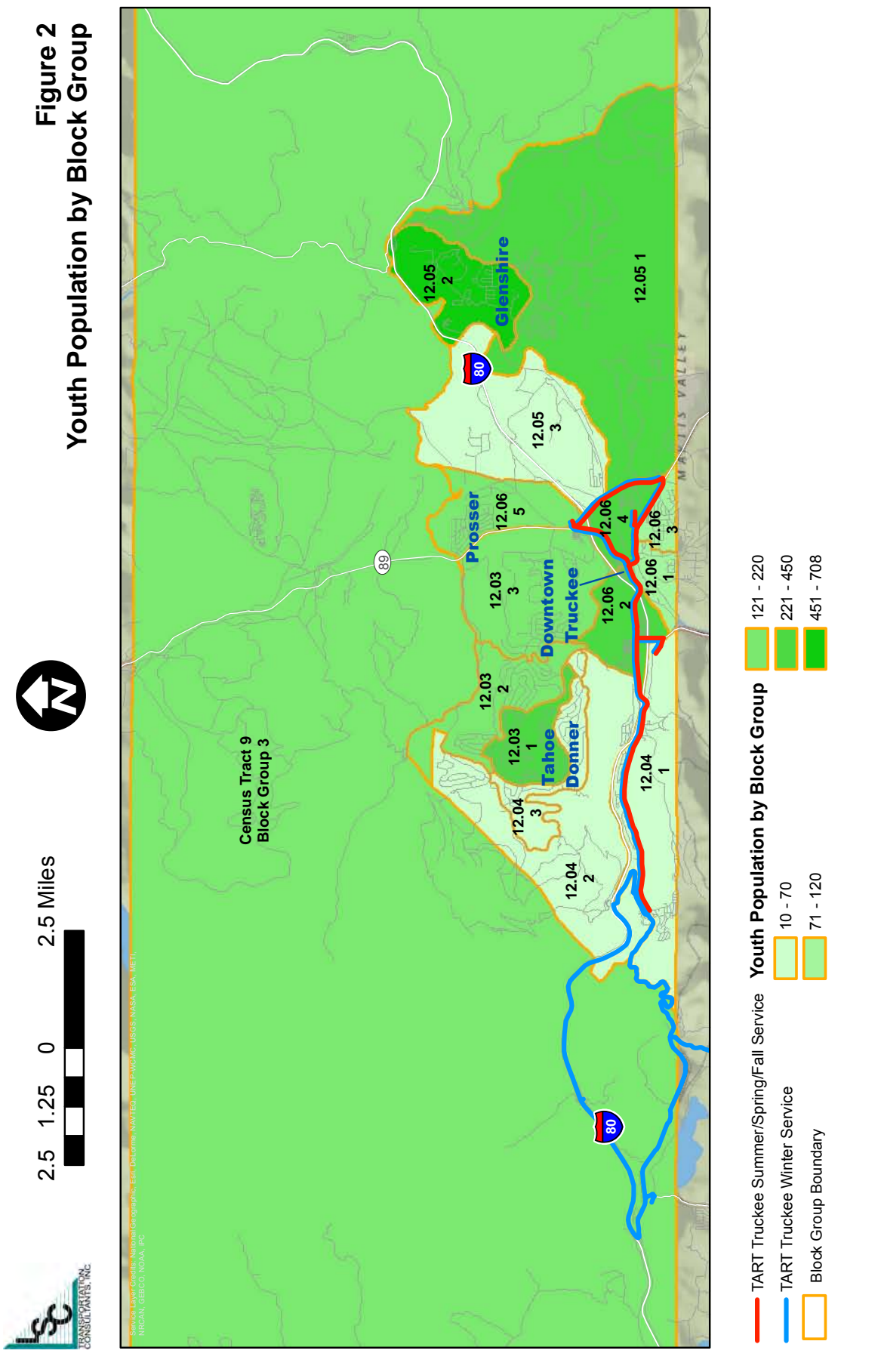
- **Total estimated population** of Eastern Nevada County is 16,892, per the most recent Census data. Areas with the highest population include Central Glenshire (2,502 residents), the Airport/South Polaris/South Glenshire (2,079 residents), Gateway (1,529 residents), and Lower Sierra Meadows (1,412 residents).
- **Youth** (persons ages 5 to 17) total 2,910, or 17.2 percent of total population. The Glenshire neighborhood is the most popular neighborhood for families as evidenced in the high concentration of youth. The combined census tract block groups of 12.05. 1 and 2 represent 1,134 youth. Tahoe Donner also has a relatively high number of youth (742 in 12.03.1 and 2). The North Polaris area between Truckee and Glenshire has, by far, the lowest proportion of youth, with only 10 or 1.9 percent youths. The youth population in Eastern Nevada County is shown in Figure 2.

TABLE 2: Eastern Nevada County 2015 Transit Dependent Population

Census Tract	Block Group	Area Description	Total Population	# of Households	Youth (5-17)		Elderly (65+)		Below Poverty Level ¹		Zero Vehicle Households		Individuals with a Disability ²	
					#	% of Area	#	% of Area	#	% of Area	#	% of Area	#	% of Area
\$9.00	\$3.00	Eastern Nevada County outside of Truckee ³	579	256	53	9.2%	47	8.1%	67	11.6%	27	10.5%	87	15.0%
	\$1.00	Tahoe Donner Golf Course Area	1,094	414	281	25.7%	125	11.4%	\$45.00	4.1%	10	2.4%	12	1.1%
\$12.03	\$2.00	Northeast Tahoe Donner	938	328	141	15.0%	164	17.5%	\$282.00	30.1%	9	2.7%	99	10.6%
	\$3.00	Prosser Lake Heights / Alder Hill	1,117	467	167	15.0%	135	12.1%	\$43.00	3.8%	29	6.2%	58	5.2%
\$12.04	\$1.00	N Donner Lake	611	359	34	5.6%	80	13.1%	\$128.00	20.9%	12	3.3%	45	7.4%
	\$2.00	Armstrong Tract	996	487	67	6.7%	125	12.6%	\$61.00	6.1%	60	12.3%	150	15.1%
\$12.05	\$3.00	West Tahoe Donner	578	306	60	10.4%	108	18.7%	\$92.00	15.9%	0	0.0%	38	6.6%
	\$1.00	Airport / S Polaris / S Glenshire	2,079	779	426	20.5%	130	6.3%	\$0.00	0.0%	0	0.0%	118	5.7%
\$12.06	\$2.00	Central Glenshire	2,502	788	708	28.3%	116	4.6%	\$187.00	7.5%	0	0.0%	80	3.2%
	\$3.00	N Polaris / Between Truckee and Glenshire	523	252	10	1.9%	30	5.7%	\$0.00	0.0%	0	0.0%	8	1.5%
\$12.06	\$1.00	Ponderosa Palisades	732	235	112	15.3%	18	2.5%	\$0.00	0.0%	0	0.0%	18	2.5%
	\$2.00	Gateway	1,529	568	263	17.2%	2	0.1%	\$25.00	1.6%	55	9.7%	5	0.3%
\$12.06	\$3.00	Lower Sierra Meadows	1,412	623	95	6.7%	145	10.3%	\$115.00	8.1%	49	7.9%	111	7.9%
	\$4.00	Southern Downtown Truckee	838	282	274	32.7%	78	9.3%	\$80.00	9.5%	39	13.8%	36	4.3%
\$12.06	\$5.00	Prosser Lakeview/Gray's Crossing	1,364	535	219	16.1%	0	0.0%	\$0.00	0.0%	0	0.0%	88	6.5%
	Estimated Population of Study Area			16,892	6,679	2,910	17.2%	1,303	7.7%	1,125	6.7%	290	4.3%	953

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, 2017
 Note 1: ACS reports a very high level of relative margin of error for many block groups. Use with caution.
 Note 2: Individuals 18 and over with a disability. No disability data is available for individuals under 18.
 Note 3: Floriston and Donner Summit communities

Figure 2
Youth Population by Block Group



- **Older Adults** over age 65 total 1,303 (7.7 percent of the Eastern Nevada County population). The areas with the highest number of older adults are between Alder Hill and Tahoe Donner Golf Course (164 persons) and Lower Sierra Meadows (145 persons). According to the American Community Survey, there are no residents in Prosser Lakeview/Gray's Crossing over the age of 65. This figure may not capture all the older adult seasonal residents. The number of older adults living in each block group is shown in Figure 3.
- There are a total of 1,125 persons living in households below the federal **poverty** level (6.7 percent of total population). The areas of Eastern Nevada County with the highest concentrations of poverty include the region between Alder Hill and Tahoe Donner Golf Course (282 persons) and Central Glenshire (187 residents). This is shown in Figure 4.
- There are 290 **households without vehicles**, accounting for 4.3 percent of the total households. The number of zero-vehicle households in each census tract block group is shown in Figure 5. The area with the highest number of zero-vehicle households is Armstrong Tract (60 households), followed by the Gateway area (55 households). Both of these areas are relatively close to the commercial core and public transit services.
- Persons over the age of 18 who have a **disability** total 953, or 5.6 percent of Eastern Nevada County's population. This is shown in Table 2 and Figure 6. As indicated in the table and figure, Armstrong Tract (150 residents) and Lower Sierra Meadows have the highest number of disabled residents over the age of 18.

Projections of Population by Age

Table 3 presents population projections by age group between the years of 2010 and 2030, as estimated by the California Department of Finance Demographic Research. This data grants insight into the future population trends of transit-dependent youth and older adult groups.

Per Table 3, the older adult population over age 62 is expected to significantly increase beginning in 2010. Specifically, from 2010 to 2030, the population of young retirees (ages 62 through 74) is expected to rise by 14 percent, and the population of mature retirees (ages 75 through 84) is expected to rise by 151 percent. During this period, the population of seniors (ages 85 or more) is projected to grow by 106 percent. These substantial growth rates suggest an increased need for public transit options in the coming decades.

Table 3 indicates that the School Age (ages 5-17) population will actually decrease by 18 percent in the years from 2010 to 2030.

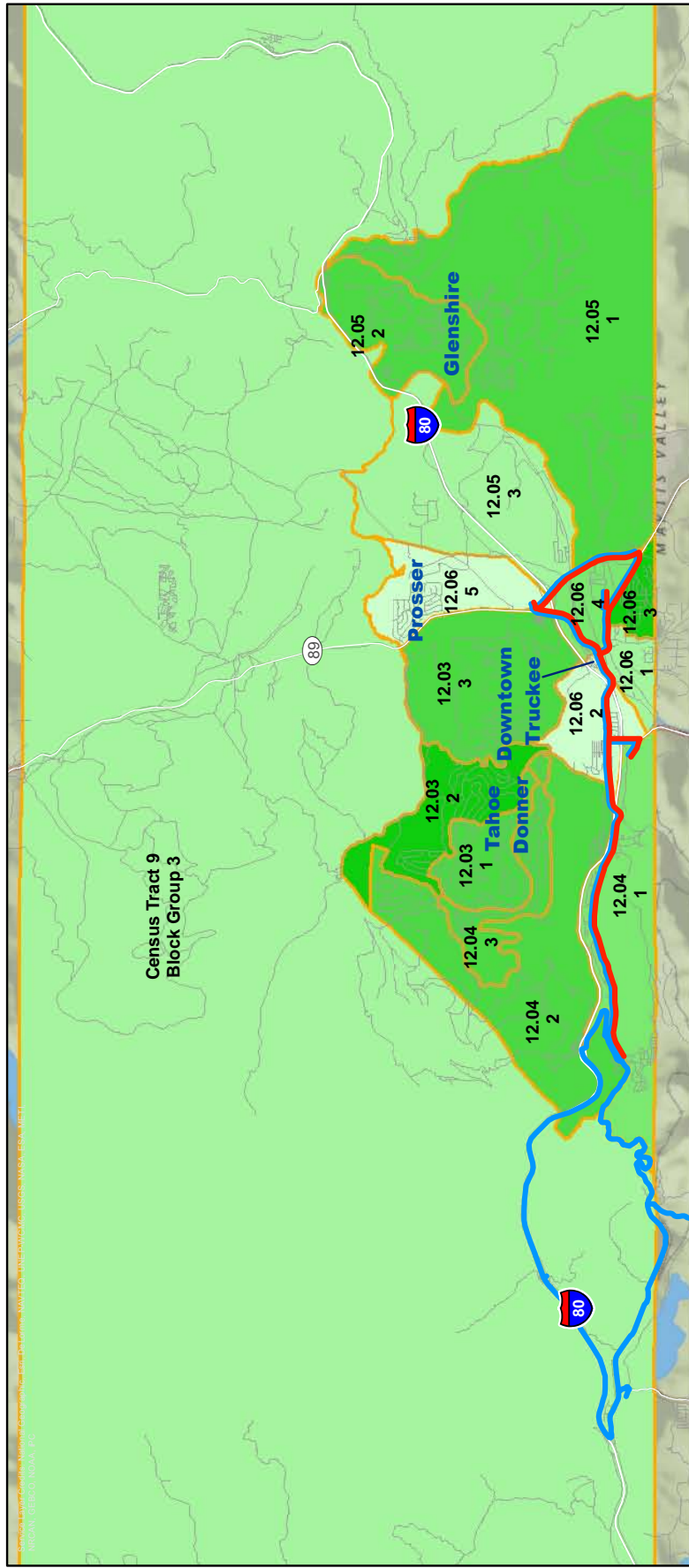
Visitor Population

The Town of Truckee and is a year-round resort community. The majority of visitors travel by auto from the San Francisco Bay Area. A smaller proportion of visitors arrive from more distant

**Figure 3
Older Adult Population by Block Group**



2.5 1.25 0 2.5 Miles



- TART Truckee Summer/Spring/Fall Service
- TART Truckee Winter Service
- 0 - 2
- 3 - 40
- 41 - 80
- 81 - 135
- 136 - 164
- Block Group Boundary



2 1 0 2 Miles



Figure 4
Persons Living Below the Poverty Level by Block Group

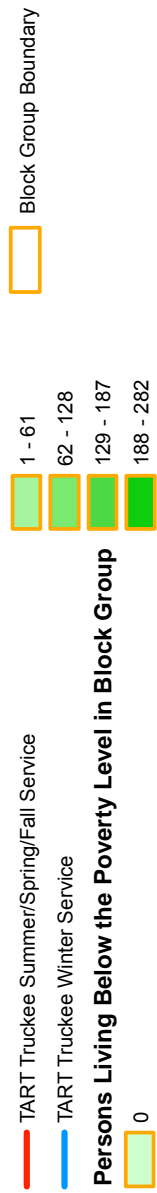
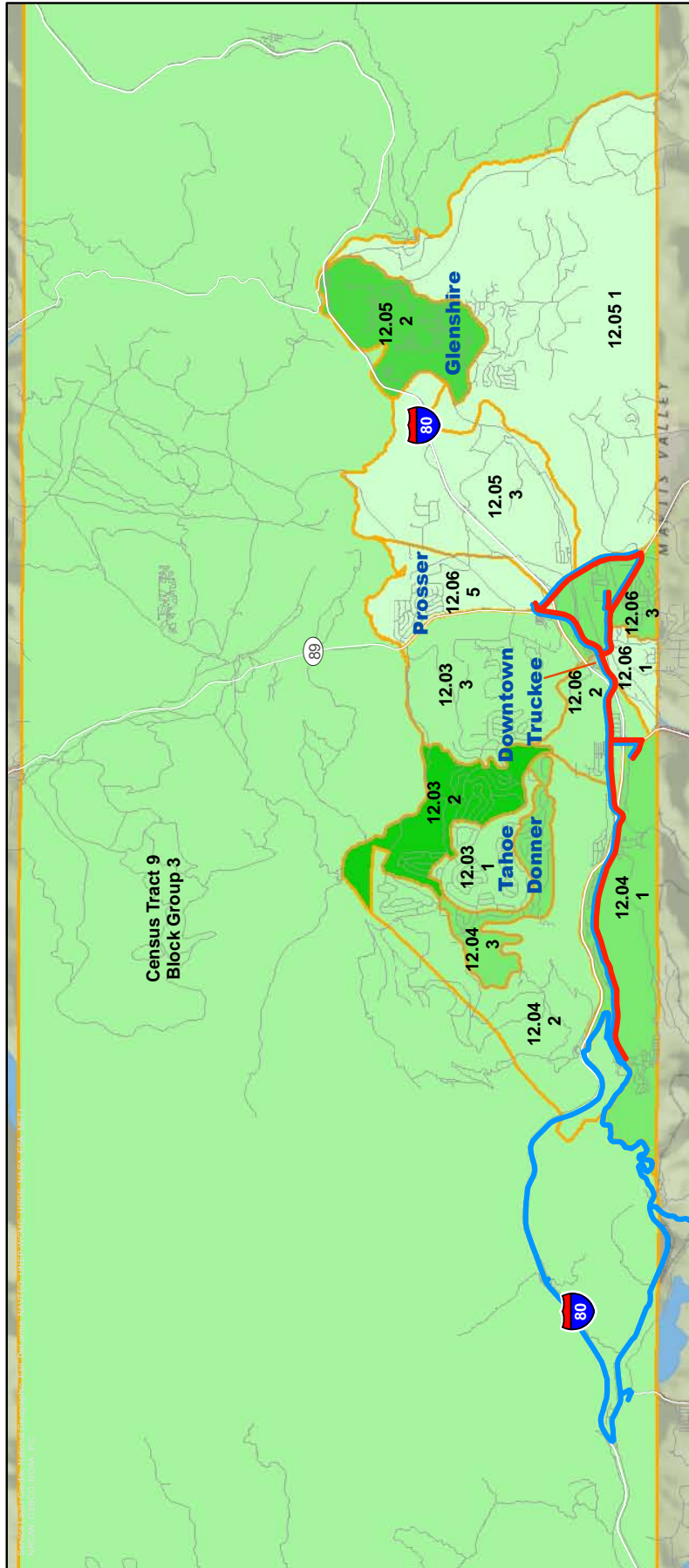
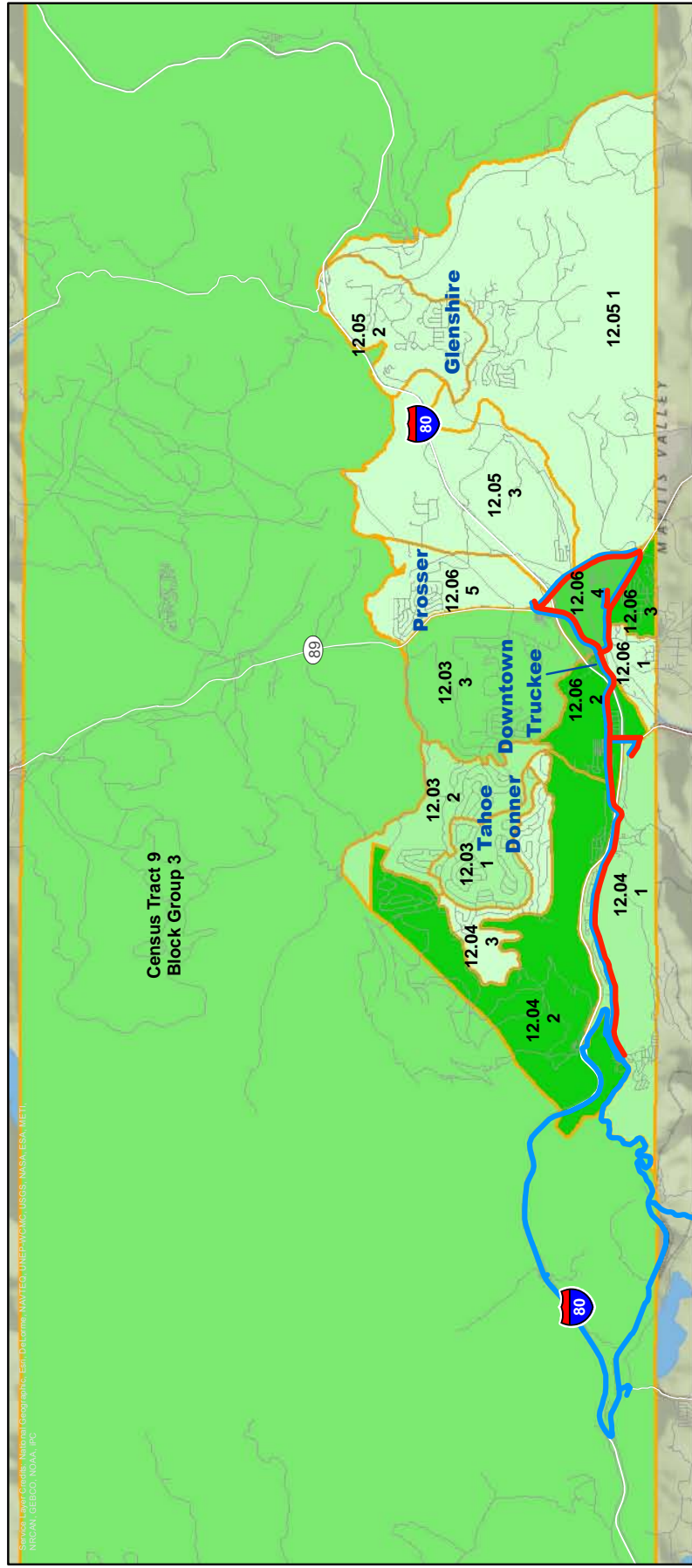


Figure 5
Zero Vehicle Households by Block Group



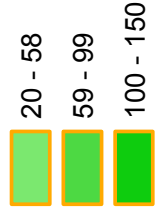
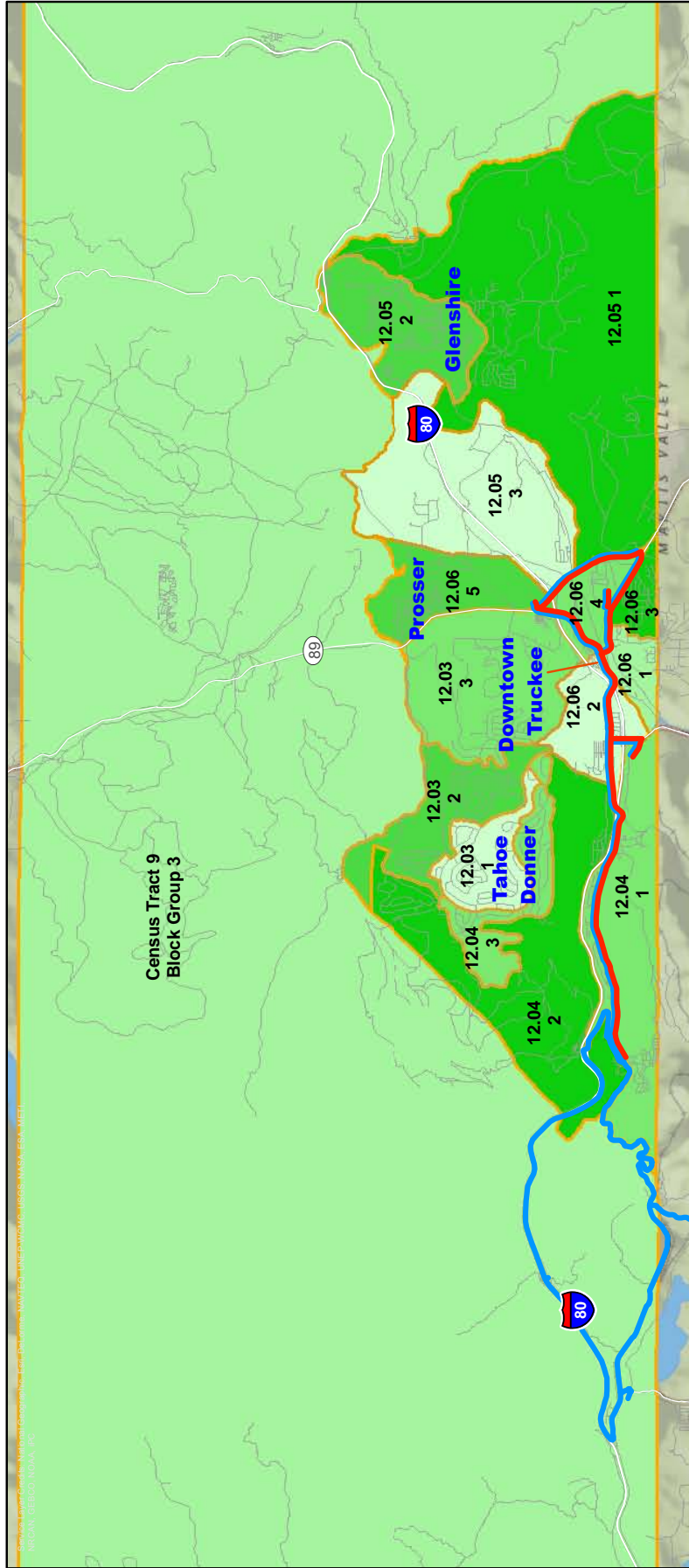
2.5 1.25 0 2.5 Miles



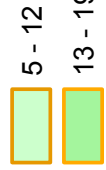
**Figure 6
Persons with Disabilities by Block Group**



2 1 0 2 Miles



Persons with Disabilities by Block Group



TART Truckee Summer/Spring/Fall Service
 TART Truckee Winter Service
 Block Group Boundary

TABLE 3: Population Projections by Age Groups for Nevada County

Year	Total (All ages)	Preschool Age (0-4 years)	School Age (5-17 years)	College Age (18-24 years)	Working Age (25-61 years)	Young Retirees (62-74 years)	Mature Retirees (75-84 years)	Seniors (85 or more)
\$2,010.00	98,517	4,346	14,570	6,633	48,467	15,897	5,826	2,778
\$2,020.00	99,962	4,144	11,674	8,370	41,761	21,836	8,753	3,424
\$2,030.00	105,732	4,793	11,961	7,244	43,350	18,044	14,617	5,723
<u>2010-20 Change</u>								
#	1,445	-202	-2,896	1,737	-6,706	5,939	2,927	646
%	1%	-5%	-20%	26%	-14%	37%	50%	23%
<u>2010-30 Change</u>								
#	7,215	447	-2,609	611	-5,117	2,147	8,791	2,945
%	7%	10%	-18%	9%	-11%	14%	151%	106%
Source: California Department of Finance Demographic Research Unit								

locations via airline and shuttle. As demonstrated with the recent holiday shuttle services operated by the Town of Truckee, the visitor population is willing to use public transit as a mode of travel with in the Truckee/Tahoe area if parking is limited, such as during holidays or special events. However, the private vehicle remains the preferred mode of travel for visitors on a more regular basis.

Economy and Employment

Originally established as a transportation and logging center, modern Eastern Nevada County and Truckee has an economy based largely on tourism. This is due to the area’s many recreational attractions, including Donner Memorial State Park, historic downtown Truckee, the many ski areas, and the access to Lake Tahoe via I-80 and SR 89 and SR 267. The economy in Eastern Nevada County is rather seasonal. According to the 2015 American Community Survey, roughly half of the Town of Truckee’s housing units are occupied seasonally.

Table 4 shows the major employers for the study area, including areas in adjacent Placer County. Not surprisingly, employers associated with the tourism industry represent the majority of jobs in the area. Northstar-At-Tahoe and Squaw Valley ski resorts (located in Placer County) are the largest regional employer, with 1,000-4,999 employees. Tahoe Forest Hospital District, Boreal Mountain Resort, Clear Capital, Lodge at Tahoe Donner, and Safeway are the largest employers located within Eastern Nevada County.

TABLE 4: Eastern Nevada County Major Employers	
Employer	Number of Employees
Tahoe Forest Hospital District	500-999
Boreal Mountain Resort	500-999
Clear Capital	250-499
Lodge at Tahoe Donner	250-499
Safeway	100-249
Other Nearby Major Employers in Eastern Placer County	
<i>Northstar-At-Tahoe Resort</i>	<i>1,000-4,999</i>
<i>Squaw Valley Ski Corp</i>	<i>1,000 - 4,999</i>
<i>Village Lodge - Sugar Bowl</i>	<i>500-999</i>
<i>Alpine Meadows</i>	<i>500-999</i>
<i>Resort At Squaw Creek</i>	<i>500-999</i>
<i>Ritz-Carlton Lake Tahoe</i>	<i>250-499</i>
<i>Source: Employment Development Department, Labor Market Information, 2017</i>	

Labor Force

The California Employment Development Department, provides data on the number of individuals in the labor force and unemployment rates. According to the data, there are around 10,000 individuals in the labor force in 2016/17 in the Town of Truckee and the unemployment rate is around 4.5 to 5 percent. This is similar to the statewide unemployment rate.

Means of Transportation to Work

According to the ACS 2015 five-year estimates, 44 out of the total 8,498 workers in Eastern Nevada County take public transportation to work. This represents a low transit commute mode split of 0.5 percent (Table 5). A substantial 96.4 percent travel to work in a private vehicle (83.1 percent drive alone and 13.4 percent carpool). Other modes of travel to work include travel by bicycle (1.6 percent), walking (2.0 percent), and other means, including taxi and motorcycle (1.2 percent). An estimated 10.6 percent of Eastern Nevada County employees work from home.

Commute Patterns

The US Census maintains the “Longitudinal Employer Household Dataset (LEHD),” which provides insight on commute patterns. Unfortunately some of the LEHD data can be misleading

TABLE 5: Eastern Nevada County Residents Commute Mode Split

Census Tract	Block Group	Area Description	Travel Mode to Work												Total		
			Drive Alone		Carpool		Taxi, Motorcycle or Other Means		Public Transit		Bicycle		Walk			Work at Home	
			#	%	#	%	#	%	#	%	#	%	#	%		#	%
\$9.00	\$1.00	Eastern Nevada County outside of Truckee	408	57.1%	46	6.5%	24	3.3%	0	0.0%	52	7.3%	12	1.7%	172	24.1%	715
	\$1.00	Tahoe Donner Golf Course Area	436	66.8%	134	20.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	83	12.7%	653
\$12.03	\$2.00	Northeast Tahoe Donner	336	77.5%	0	0.0%	0	0.0%	0	0.0%	27	6.2%	0	0.0%	71	16.3%	433
	\$3.00	Prosser Lake Heights / Alder Hill	421	65.1%	88	13.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	137	21.3%	646
\$12.04	\$1.00	N Donner Lake	276	76.9%	47	13.2%	16	4.5%	11	3.0%	0	0.0%	0	0.0%	9	2.4%	359
	\$2.00	Donner Ridge	485	70.3%	75	10.8%	61	8.8%	0	0.0%	18	2.7%	0	0.0%	51	7.3%	690
\$12.05	\$3.00	West Tahoe Donner	277	75.6%	24	6.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	65	17.8%	366
	\$1.00	Airport / S Polaris / S Glenshire	924	77.4%	68	5.7%	0	0.0%	0	0.0%	17	1.5%	0	0.0%	185	15.5%	1,194
\$12.06	\$2.00	Central Glenshire	945	83.0%	60	5.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	133	11.7%	1,138
	\$3.00	N Polaris / Between Truckee and Glenshire	337	79.4%	13	3.2%	0	0.0%	0	0.0%	52	12.3%	0	0.0%	22	5.2%	425
\$12.06	\$1.00	Ponderosa Palisades	154	53.5%	134	46.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	288
	\$2.00	Gateway	734	63.0%	278	23.9%	0	0.0%	0	0.0%	0	0.0%	119	10.2%	35	3.0%	1,166
\$12.06	\$3.00	Lower Sierra Meadows	329	77.3%	24	5.5%	0	0.0%	33	7.7%	0	0.0%	0	0.0%	40	9.4%	425
	\$4.00	Downtown Truckee	285	59.7%	80	16.7%	0	0.0%	0	0.0%	25	5.2%	48	10.1%	40	8.4%	478
\$5.00		Prosser Lakeview	778	84.4%	100	10.9%	14	1.6%	0	0.0%	0	0.0%	0	0.0%	29	3.1%	922
Total Study Area			7,125	83.8%	1,171	13.8%	115	1.4%	44	0.5%	192	2.3%	180	2.1%	1,071	12.6%	9,898

Source: 2011 - 2015 American Community Survey 5-Year Estimates, US Census Bureau, 2015

as the actual location of the company for an employee who telecommutes is presented. However, this is the best known source of data and provides a good overview of commute patterns. Table 6 presents commute pattern data for 2014 at the county and city/town level. The top portion of the table presents information about where residents of Eastern Nevada County work, while the lower portion shows where people live who commute into Eastern Nevada County for work.

TABLE 6: Eastern Nevada County Commute Pattern Data, 2014

Location of Employment for Eastern Nevada County Residents					
<u>Job Counts in Counties</u>	<u># Persons</u>	<u>% of Total</u>	<u>Job Counts in Cities/Towns</u>	<u># Persons</u>	<u>% of Total</u>
Nevada County, CA	2,983	43.3%	Truckee, CA	2,613	37.1%
Placer County, CA	1,406	20.4%	Reno, NV	477	6.8%
Washoe County, NV	642	9.3%	Sacramento, CA	173	2.5%
Sacramento County, CA	340	4.9%	Sunnyside - Tahoe City, CA	132	1.9%
Alameda County, CA	127	1.8%	San Francisco, CA	108	1.5%
Santa Clara County, CA	117	1.7%	Roseville, CA	72	1.0%
San Francisco County, CA	108	1.6%	Incline Village, NV	67	1.0%
El Dorado County, CA	89	1.3%	Sparks, NV	63	0.9%
Butte County, CA	83	1.2%	San Jose, CA	51	0.7%
Contra Costa County, CA	59	0.9%	Chico, CA	46	0.7%
All Other Locations	936	13.6%	All Other Locations	3,247	46.1%
<i>Total Number of Jobs</i>	<i>6,890</i>	<i>100.0%</i>	<i>Total Number of Jobs</i>	<i>7,049</i>	<i>100.0%</i>
Location of Residence for Eastern Nevada County Workers					
<u>County of Residence for Workers</u>	<u># Workers</u>	<u>% of Total</u>	<u>City/Town of Residence for Workers</u>	<u># Workers</u>	<u>% of Total</u>
Nevada County, CA	3,128	45.1%	Truckee, CA	2,806	40.4%
Washoe County, NV	1,085	15.6%	Reno, NV	702	10.1%
Placer County, CA	784	11.3%	Sparks, NV	132	1.9%
Sierra County, CA	231	3.3%	Kings Beach, CA	98	1.4%
El Dorado County, CA	205	3.0%	South Lake Tahoe, CA	81	1.2%
Sacramento County, CA	150	2.2%	Incline Village, NV	58	0.8%
Plumas County, CA	72	1.0%	Sunnyside - Tahoe City, CA	51	0.7%
Clark County, NV	69	1.0%	Lincoln, CA	50	0.7%
Douglas County, NV	61	0.9%	Loyalton, CA	50	0.7%
Alameda County, CA	59	0.9%	Carson City, NV	44	0.6%
All Other Locations	1,094	15.8%	All Other Locations	2,866	41.3%
<i>Total Number of Workers</i>	<i>6,938</i>	<i>100.0%</i>	<i>Total Number of Workers</i>	<i>6,938</i>	<i>100.0%</i>
<i>Source: US Census Bureau LEHD Database, 2014</i>					

Where Eastern Nevada County Residents Work

Results indicate that 43.3 percent of study area residents work within Nevada County, with approximately 37.1 percent of all residents working within the Town of Truckee. Another 20.4 percent work in Placer County, which includes about 1.9 percent of residents commuting to the Sunnyside-Tahoe City CDP (Squaw Valley, Alpine Meadows). Approximately 9.3 percent of

residents commute to Washoe County, including 6.98 percent to Reno, 1.0 percent to Incline Village, and just under 1 percent to Sparks. Roughly 4.9 percent of residents commute to Sacramento County, including the 2.5 percent who work in the City of Sacramento.

Where Eastern Nevada County Workers Live

Less than half (45.1 percent) of persons that work in Eastern Nevada County live within Nevada County. Of the persons that work in the study area, 40.4 percent live in the Town of Truckee. Approximately 15.6 percent of area workers commute from Washoe County, including Reno, Sparks, and Incline Village. Another 11.3 percent commute from Placer County.

Truckee Traffic Model Data

A good source of information regarding overall travel patterns is the Town of Truckee's traffic demand model. Table 7 presents travel data for the Town of Truckee, as obtained from the 2015 Truckee Traffic Model, summarized into the key areas in the Truckee/Martis Valley area as well as for the key external roadways entering/exiting the area. As shown in the table, the largest number of summer PM peak-hour vehicle trips are those which either end or begin in the Gateway area (1,521 trips and 1,363 trips, respectively). The traffic model estimates that the origin/destination pattern with the most number of trips is from I-80 East to I-80 West (375 trips). Gateway to/from Tahoe Donner is another common pattern (224 trips Gateway to Tahoe Donner, 222 trips Tahoe Donner to Gateway). There were 220 trips completely internal to the Gateway area, meaning that trips began and ended within this designated area.

In addition to the Gateway area, a substantial number of trips ended in the Crossroads, Brockway Road, and Downtown Truckee areas (1,140 trips, 1,055 trips, and 1,047 trips, respectively). The Crossroads and Downtown Truckee areas are also common trip origins, with 1,108 trips beginning in Downtown Truckee and 1,008 beginning in the Crossroads area.

The Gateway, Crossroads, Brockway Road, and Downtown Truckee all include commercial centers which have the potential to generate a high amount of transit demand. Within these areas are major activity centers such as Sierra College, Truckee High School, Safeway, RiteAid, SaveMart, Ace Hardware, Senior Services, Tahoe Forest Hospital (and associated medical offices), and the Truckee DMV, as well as miscellaneous other commercial areas with shopping and restaurants and high-density residential neighborhoods.

In general, the Gateway, Brockway Road, and downtown Truckee areas are served by both the Truckee TART fixed route and Dial-A-Ride services. The Placer County TART SR 89 route serves the Crossroads area. Table 7 highlights trip pairs that are currently served by Truckee TART summer fixed route and/or by Placer TART. Summing the total summer peak hour vehicle-trips for the origin/destination pairs currently served by TART and dividing by the total summer PM peak-hour vehicle-trips estimated by the traffic model (for travel within the model area), current services are available for only 52 percent of the total trips, as evidenced by current

TABLE 7: Truckee Traffic Model Data

Summer PM Peak-Hour Vehicle-Trips

Origin	Destination														Total			
	Down- town	Gateway	Martis Valley	Donner Lake	Tahoe Donner	Glen- shire	Northstar	Cross- roads	Brockway Rd. Area	Prosser Lakeview	I-80 West	Donner Pass Rd West	89 North	Hirsch- dale		I-80 East	89 South	267 South
Downtown	121	145	48	39	61	121	29	126	162	88	65	8	10	1	57	28	48	1,108
Gateway	115	220	39	89	224	105	27	172	117	81	79	18	6	1	53	19	137	1,363
Martis Valley	49	46	61	17	32	57	36	44	110	47	13	4	5	1	36	58	14	617
Donner Lake	27	88	10	89	40	23	5	52	21	18	33	49	1	0	18	7	9	483
Tahoe Donner	39	222	12	27	119	15	4	115	16	22	28	18	8	1	91	35	26	773
Glenshire	96	68	25	10	7	112	9	71	32	43	9	6	2	3	151	23	6	666
Northstar	29	28	39	7	9	20	184	28	36	17	3	1	0	0	11	68	1	482
Crossroads	112	193	39	57	118	89	25	111	113	66	39	4	3	0	27	10	151	1,008
Brockway Rd. Area	135	80	66	14	21	40	21	93	155	52	17	10	9	1	87	88	37	889
Prosser Lakeview	78	70	34	19	33	70	14	61	78	82	23	7	25	1	59	25	24	680
I-80 West	84	100	17	40	26	8	4	49	18	29	0							376
Donner Pass Rd West	8	17	5	40	14	4	1	4	8	7	0							109
89 North	12	7	6	2	7	2	0	4	9	22	16							87
Hirschdale	1	1	1	0	1	3	0	1	1	1	5							14
I-80 East	55	51	37	17	64	112	10	26	68	52	375							867
267 South	28	18	70	6	26	16	67	10	73	24	75							412
89 South	57	164	19	11	21	5	1	172	36	28	75							589
Total	1,047	1,521	527	482	822	801	440	1,140	1,055	679	309	126	71	8	590	361	452	10,524

Internal Trips Served by Existing TART Fixed Routes (Summer)

Total Served = 4,313

Total Internal Trips = 8,224

Percent of Total Served = 52%

Source: Truckee Model, 2015

traffic patterns. The greatest number of trips that cannot be served by public transit are generated by the following outlying residential areas:

- Tahoe Donner – 1,594 daily trips
- Glenshire – 1,468 daily trips
- Prosser Lakeview – 1,359 daily trips

The total travel demand generated in these three un-served areas are remarkably similar.

MAJOR ACTIVITY CENTERS

The identification of major activity centers which may be frequented by transit passengers is useful in determining where transportation services might be needed. These types of centers include educational centers, retail centers, medical facilities, human service organizations, Senior Apartments, and recreational centers. The region's major activity centers are situated in and around Truckee, with a few scattered on the outskirts of town. Major activity centers in eastern Nevada County are presented, by category, in Figure 7. As can be seen in the figure, the majority of medical, retail, and government activity centers are located in central Truckee. The larger residential developments are located on the outskirts of Town and not served by fixed route transit.

PLANNED DEVELOPMENT

Public transit and land use planning are closely linked. The following recent developments have been constructed in the Truckee area. A new town Corp yard was built on Donner Pass Road between downtown Truckee and SR 267. This facility houses many government offices including US Forest Service, the Animal Shelter, Town maintenance/storage yard, and others. In addition, the Tahoe Forest Hospital has recently undergone extensive modernization and expansion in its current location.

Potential future major developments proposed in the Eastern Nevada County region include the following:

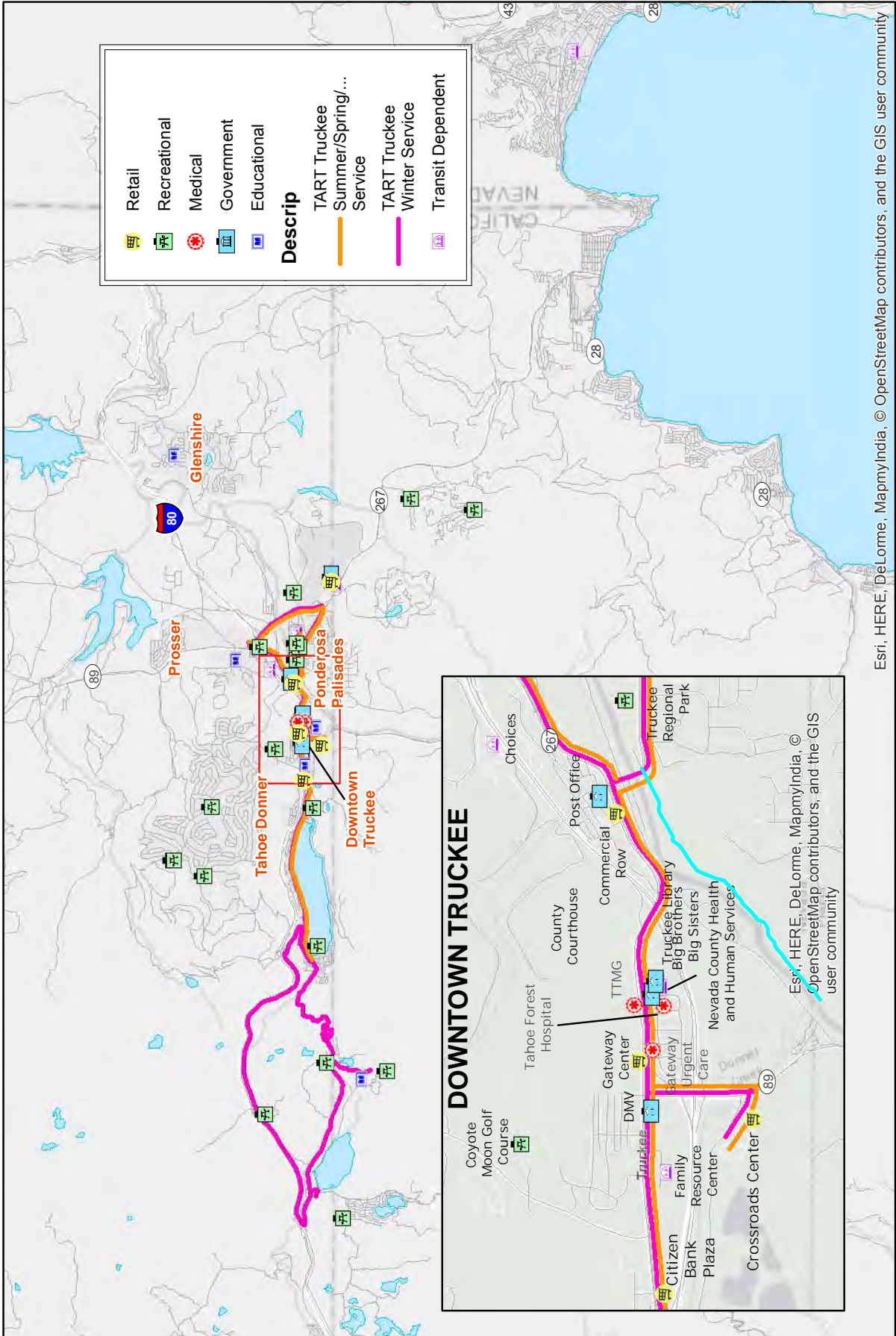
- **Canyon Springs** – This project is a housing development in the far eastern section of Truckee in the Glenshire neighborhood. The current version for this project proposes 117 single family homes and 26 affordable housing units, though a schedule for approval and construction is currently unknown.
- **Coldstream (Planned Community 1)** – This development has recently been approved for the gravel quarry area south of Deerfield Drive and north of the Union Pacific Railroad line, with access provided off of Coldstream Road just south of Donner Pass Road in the western portion of Truckee. The project could ultimately include 200 single-family units and 80 multi-family housing units, as well as 30,000 square feet of commercial development.

**Figure 7
Major Activity Centers**



3 Miles

3 1.5 0



Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

It is planned to include 48 affordable housing units. The area is not currently directly served by transit, though the Truckee TART fixed-route passes near the entrance off of Donner Pass Road. A bus stop internal to the site is included in the initial phase of the project.

- **Joerger Ranch (Planned Community 3)** – This planning area within the Town of Truckee is located between Brockway Road and the northwest corner of the Tahoe Truckee Airport. A major supermarket and up to 24,000 square feet of additional retail space is planned for the initial development phase, planned for completion by 2018. Future phases may include office and industrial uses, 80 multifamily units, and a gas station. The project is currently located along the Placer TART SR 267 route and close to the Truckee TART route, and would represent a significant transit generator in the future after development.
- **Coburn Crossing (Barsell Property)** – This development would consist of a hotel with up to 114 rooms along with up to 138 multifamily dwelling units, located just northeast of downtown Truckee west of Donner Pass Road and south of I-80. It is located along the existing Truckee TART route.
- **Truckee Railyard Development** – The Railyard Master Plan Area is located east of downtown Truckee and is bounded by Glenshire Drive to the north, Union Pacific Railroad right of way and East River Street to the south, Donner Pass Road and Bridge Street to the west and undeveloped land to the east. The Railyard Draft Master Plan has set forth a maximum level of development which can occur on the 20 parcels composing the Railyard Master Plan area: 570 residential units, 60 room hotel, 1,000 seat movie theater, 70,000 square feet of retail space, 15,000 square feet of office space, a 20,000 square foot grocery store, and 25,000 square feet of civic use. The intent is to create an attractive and pedestrian oriented development that extends from existing downtown Truckee. The Railyard development area could easily be served by the Truckee TART fixed routes. As of the date of this report, the project had not begun construction due to funding issues. Full development of the area is envisioned to occur over several decades.

RECENT TRANSIT PLANNING PROCESSES

The following presents a review of relevant existing planning documents that have helped guide the transit program in Eastern Nevada County.

Eastern Nevada County 2013 TDP

In 2013, LSC Transportation Consultants conducted a Transit Development Plan for Eastern Nevada County. Through the planning process, the following objectives were identified as part of the short range operating and management plan:

- Provide consistent year-round fixed route service and streamlined winter service with one bus (operating on hourly headways between 7 AM and 6 PM)

- Rename the Winter Shuttle to be called the “Donner Summer Route” and only operate it using one bus
- Reduce Dial-A-Ride hours while maintaining existing level of service
- Schedule DAR service for the Senior Apartments around three general times per day
- Enter into agreements with Gold Country Telecare and (separately) Placer County to provide transit services
- Track DAR performance and set goals and standards
- Develop goals and performance standards for the fixed routes
- Improve fare handling practices (by ensuring that two staff are present during fare revenue counting)
- Improve marketing strategies

Nevada County Coordinated Public Transit – Human Services Transportation Plan (2014)

The Nevada County Coordinated Public Transit – Human Services Plan Update was conducted by LSC Transportation Consultants in 2014. The plan identified the following high priority strategies:

- Expand transportation options for Eastern Nevada County residents through:
 - Year-round Highway 267 service
 - Continued DAR service outside fixed route service corridor
 - Ridesharing service
- Expand Transportation options for residents outside of Western County’s fixed route service area and ADA corridor by providing:
 - Shuttle service outside the ADA corridor
 - Lifeline service between North San Juan, Nevada City and Grass Valley
- Seek out creative funding strategies for transportation programs
- Develop coordination mechanisms for shared resources between human service agencies
 - Mobility management activities within existing 211 program

Additionally, the plan identified the following medium priority strategies:

- Increase multimodal options in Nevada County
- Increase marketing and education to encourage further fixed route ridership

Town of Truckee Mobility Needs Assessment (2012)

The following Mobility Plan elements were recommended as part of the Town of Truckee Mobility Needs Assessment conducted by LSC Transportation Consultants in 2012:

- Implement timed stops in Glenshire for the current DAR service to provide transportation to non-ADA Glenshire residents

- Continue to prioritize DAR services despite recent declines in ridership
- Collaborate within Washoe County and work within Truckee to implement a commute carpool or rideshare program
- Implement transportation reimbursement (volunteer driver) program
- Encourage Sierra College students to participate in ridesharing among themselves (through parking incentives) or with other regional ridesharing providers
- Develop a mobility management center
- Allocate CTS funding to the Town of Truckee
- Establish a social service mobility subcommittee of the TNT/TMA

FY 2013-15 Triennial Performance Audit of Town of Truckee TART

The FY 2013-15 Town of Truckee TPA was conducted by Michael Baker International and published in 2016. The report contains the following recommendations:

- Implement a formal process for contractor fare handling and counting to ensure this adequate oversight
- Include on-time performance reports in contractor reports and establish on-time standards
- In monthly reports, provide breakdown of cost and revenue data separately for fixed route and DAR services

Placer TART Systems Plan Update

Through the regional Transit Vision efforts, an updated TART Systems Plan Update was produced by LSC Transportation Consultants in 2016. The plan contains system changes for “financially constrained” and “financially unconstrained” scenarios.

The financially constrained service plan includes:

- Increase peak season frequency by:
 - Providing half-hourly service between Tahoe City and Crystal Bay during the winter (starting in FY 2016-17)
 - Providing half-hourly service between Truckee and Squaw Valley, Crystal Bay and Northstar, and the West Shore Route during the winter and summer (beginning winter of FY 2017-18)
 - Providing half-hourly service from Squaw Valley to Truckee and Northstar to Truckee in winter and summer (starting in the winter of FY 2018-19)
- Increase North Shore service frequency to half-hourly year-round (starting fall of 2017)
- Expand the summer peak season to run 93 days (June 15 through September 15) instead of the current 68 days (beginning summer of 2017)
- Provide off-season evening service (to run until 9 PM) in areas south of Squaw Valley and Northstar (beginning in the fall of 2017)

- Eliminate gap between daytime and evening service (starting winter of 2017-18)
- Begin 267 northbound service at 6:00 AM
- Provide wheelchair-accessible paratransit service through the Paratransit Services

The financially constrained service plan consists of the following changes:

- Provide free transit boardings throughout the TART system
- Implement aforementioned evening service improvements in Truckee

Within the TART Systems Plan Update, the following management changes were recommended:

- Expand management and dispatch capacity through the attainment of one additional Administrative Dispatcher and a Senior Transportation Systems Supervisor
- Expand maintenance capacity by adding 12 maintenance hours per week
- Expand marketing budget by \$50,000 per year

Truckee Area TART Long-Range Systems Plan

Similar to the Placer TART Systems Plan Update, LSC Transportation Consultants conducted a Long-Range Systems Plan for Truckee TART in 2016. Within this document, the following long-range transit goals were identified:

- Establish new neighborhood routes with fixed and on-demand stops in the following areas:
 - Glenshire
 - Prosser Lakeview
 - Sierra Meadows
 - Tahoe Donner
- Increase service frequency to run half-hourly along the Donner Pass Road Corridor
- Expand Placer TART regional service to Truckee providing evening service until 9:30 PM in the off-season and 2:00 AM in the peak season
- In non-winter months, start daily service at 7:00 AM instead of 9:00 AM and end at 6:00 PM instead of 5:00 PM.
- Provide service 7 days per week on both fixed route and DAR service in non-winter
- Improve Donner Summit service by providing consistent hourly service over a 12-hour period
- Extend the winter operating season to run through the first week of April (instead of the current mid-March end) to be consistent with Placer County TART service.
- Eliminate fares on fixed routes and for ADA-eligible passengers on DAR
- Expand DAR service to match other service expansions (which would result in an 88 percent increase in current levels)
- Expand Truckee Mainline hours to operate 6:00 PM to 11:00 PM.

BACKGROUND

Public transit service has been provided in eastern Nevada County since December 1991. Initially, public transit service was only provided to/from ski areas on the SR 89 corridor between Truckee and Tahoe City on a limited schedule. Prior to 1993, High Sierra Senior Services in conjunction with Tahoe Forest Hospital operated a local deviated fixed-route service for seniors and disabled residents. The Town of Truckee began operating transit services after its incorporation in March 1993, at which time it began contracting with a private firm for transit management, supervision, vehicle maintenance, and operations.

Today, a variety of services are operated in and around Truckee, to Donner Summit (winter only), and to the North Shore of Lake Tahoe. Through a contractor, the Town of Truckee provides Dial-A-Ride (DAR) and fixed-route services on a year-round basis within the Town limits, and fixed-route service on a winter seasonal basis to Donner Summit to the west. Placer County operates year-round public transit service between Truckee, Squaw Valley and Tahoe City to the south via SR 89, as well as between Truckee, Northstar, Kings Beach, and Crystal Bay via SR 267, with partial support provided by the Town of Truckee. Both the Town and Placer County services are branded as Tahoe Truckee Area Regional Transit (TART), although they are separate public transit services. For purposes of this document, public transit services operated by the Town of Truckee are referred to as “Truckee TART” while public transit services operated by Placer County are referred to as “Placer County TART”. Other transportation service providers also serve the area, including Greyhound, Amtrak, and human service agencies. These services are described in detail at the end of the chapter.

TRUCKEE TART (SERVICES OPERATED BY THE TOWN OF TRUCKEE)

Donner Summit Winter Shuttle

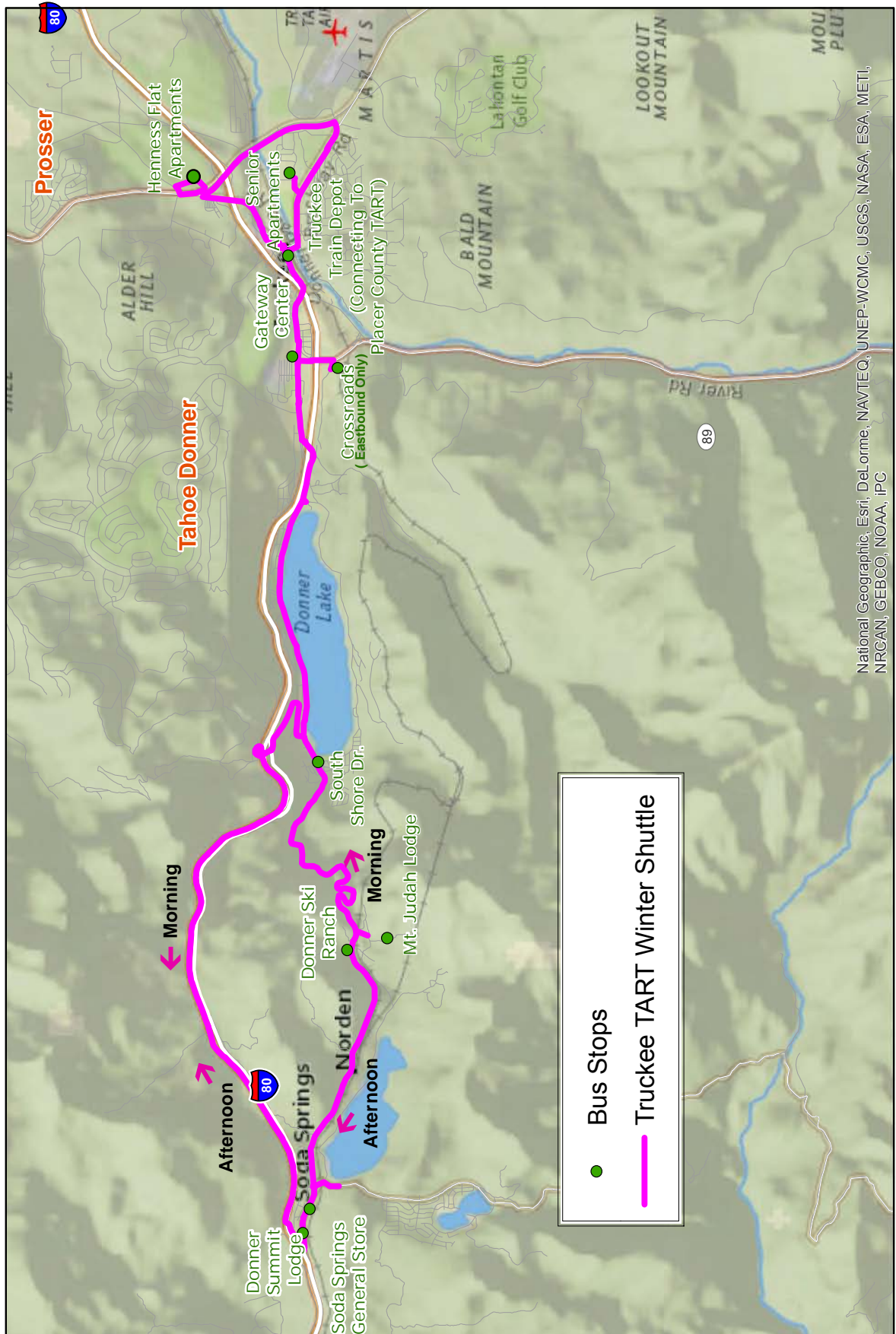
In partnership with Placer County, Sugar Bowl Ski Resort and Boreal Ridge Ski Resort, Truckee TART operates a skier shuttle route daily from approximately December 15 to March 12 (2016/17 schedule) from the employee housing facility at Henness Flat in the Gray’s Crossing development to the ski resorts on Donner Summit. Figure 8 displays the Donner Summit Winter Shuttle route. Major bus stops in Truckee are located at the Train Depot (where connections are possible with Placer TART), Tahoe Forest Hospital, Gateway Shopping Center, Tri-Counties Bank Plaza, and Senior Apartments. For the Donner Summit section major bus stops include hotel/apartments on the west end of Donner Lake, Donner Ski Ranch, Sugar Bowl Ski Resort, Donner Summit Lodge, Soda Springs General Store and Boreal Ridge Ski Resort.

Transit service is provided seven days a week, with service beginning at 6:00 AM and ending at roughly 6:15 PM. The Winter Shuttle is operated using two buses. Bus 1 travels back and forth

Figure 8
Truckee TART Donner Summit Winter Shuttle



1.5 0.75 0 1.5 Miles



- Bus Stops
- Truckee TART Winter Shuttle

National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI,
 NRCAN, GEBCO, NOAA, IPC

between Henness Flats and South Shore Drive at the West End of Donner Lake. Bus 2 operates the loop from South Shore Drive to the ski resorts on Donner Summit. Bus 2 makes three loops to Donner Summit in the morning, one in the mid-day and two in the afternoon. For the morning trips, Bus 2 travels westbound on I-80 between the West End of Donner Lake and Boreal then the return trip travels eastbound on Old Highway 40. The mid-day and afternoon trips travel in the opposite direction.

Fares

Fare structure for the Donner Summit Winter Shuttle is as follows:

- General Public One-way - \$2.50
- Child Under 12 - \$1.50
- Senior/Disabled - \$1.00

Day passes and 10 day punch passes are available. Sugar Bowl and Boreal employees ride the bus for free as part of the financial arrangement with the Town of Truckee.

Spring/Summer/Fall Fixed-Route

During the non-winter months (approximately mid-March through mid-December), the Town of Truckee's contractor operates a fixed-route between Henness Flat and West End Beach at Donner Lake (Figure 9). Major stops include Tahoe Forest Hospital, Truckee Train Depot, Crossroads Center, Community Recreation Center, Senior Apartments and Gateway Center. The route operates one bus on hourly headways Monday through Saturday between 9:05 AM and 5:05 PM.

Fares

Fare structure for the non-winter route is as follows:

- General Public One-way - \$2.50
- Child Under 3 - 12 - \$1.50
- Senior/Disabled - \$1.00
- Child Under 3 – free
- Adult Day Pass - \$5.00

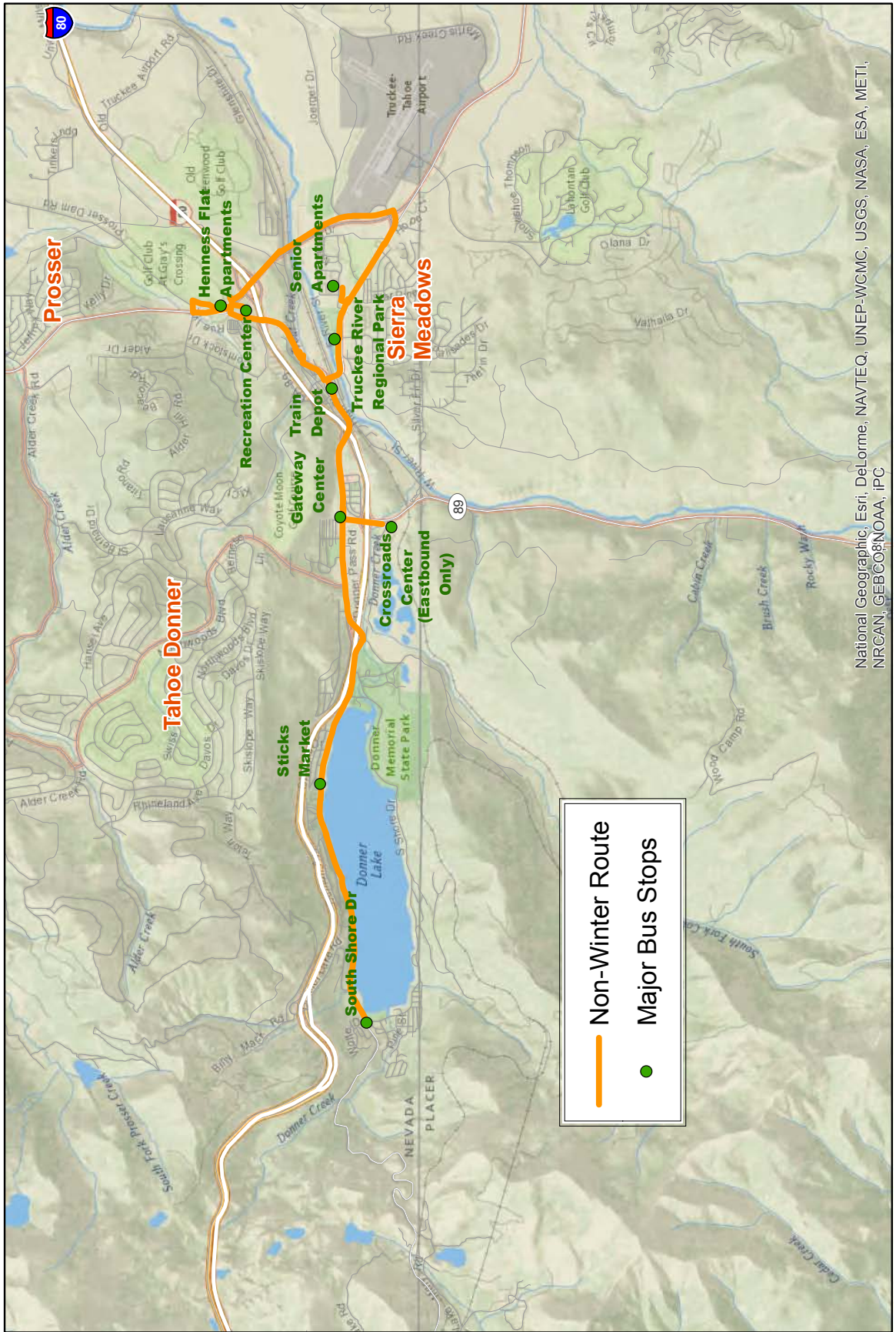
Truckee Dial-A-Ride (DAR)

Demand response curb-to-curb DAR service is provided within the Town limits in order to provide complementary paratransit service, as well as to serve outlying neighborhoods not served by the fixed-routes (Figure 10). The service area includes all Truckee residential neighborhoods and commercial districts such as Tahoe Donner, Prosser, Glenshire, Sierra

Figure 9
Truckee TART Non-Winter Route



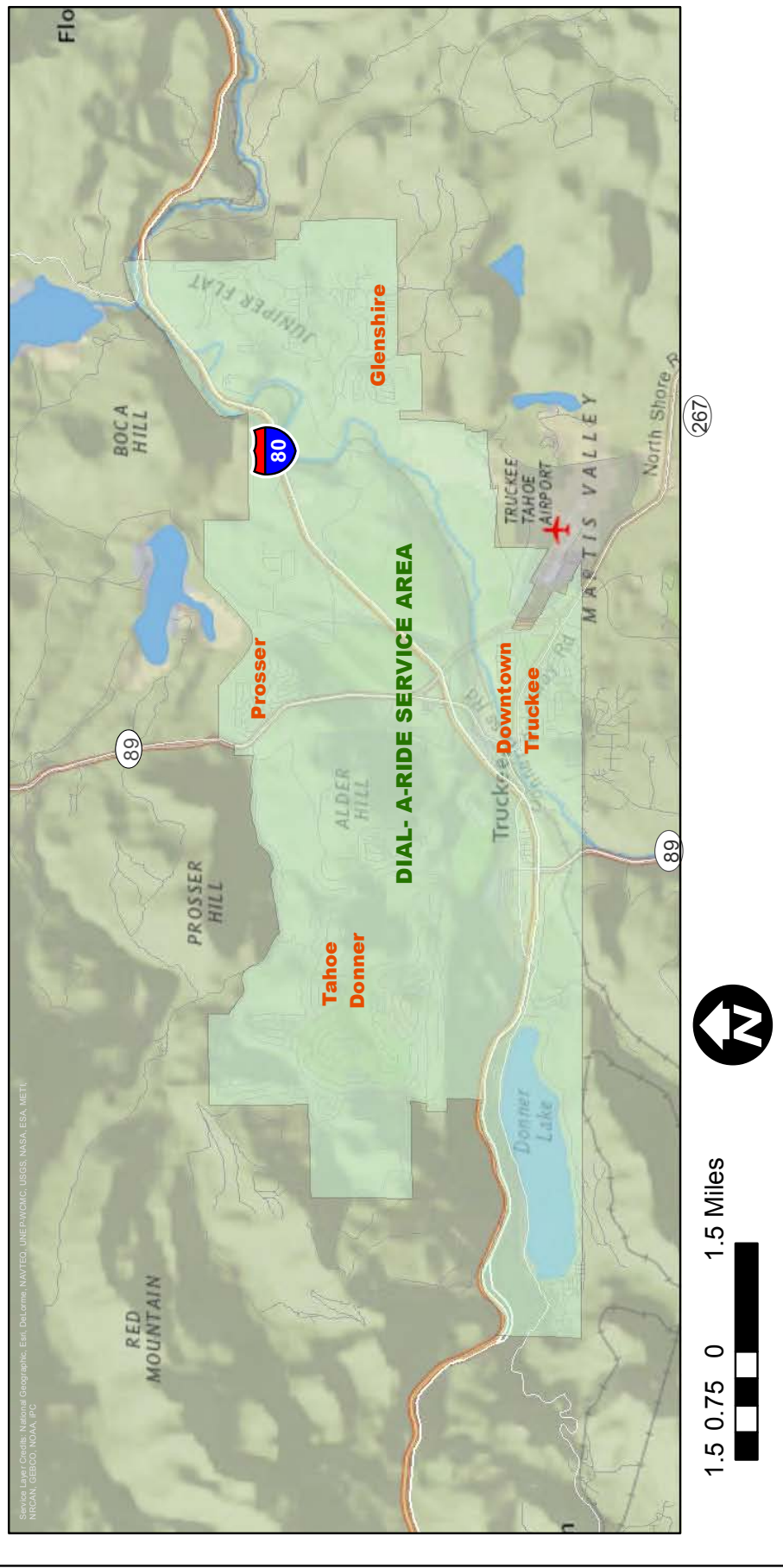
1.5 0.75 0 1.5 Miles



- Non-Winter Route
- Major Bus Stops

National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO/NOAA, IPC

Figure 10
Truckee TART Dial-A-Ride Service Area



Meadows, and downtown Truckee. DAR service is available for both the general public and ADA-eligible individuals with priority service for seniors and persons with disabilities. Service is available the same hours and days as the fixed route. For all trips, a twenty-four hour advance notice is requested.

Fare structure for DAR is as follows:

- General Public One-way - \$6.00
- Senior/Disabled - \$2.00
- Child Under 12 - \$2.00

Subscription Service

Truckee DAR currently provides subscription (standing order) transportation services to Choices and the Alta California Regional Center. A sampling of the month of August, 2016 showed that subscription services accounted for 59 percent of total DAR trips. Roughly 176 Choices trips and 139 Alta trips were made in August.

Tahoe Truckee Unified School District

A relatively large portion of Truckee DAR trips are provided to children within the Tahoe Truckee Unified School District (TTUSD), though this is not considered a subscription service. An analysis of TTUSD ridership throughout the months of January through September of 2016 shows that TTUSD riders made up roughly 9 percent of total DAR ridership during this period.

North Tahoe Truckee Transport Program (NTTT)

The North Tahoe/Truckee Transport (NTTT) Program is the result of a partnership between the Town of Truckee and the Tahoe Transportation District (TTD) to provide out of area transportation for older adults in the North Lake Tahoe/ Truckee region. The program began as a one-year pilot program in July of 2014 funded with an Area 4 Agency on Aging grant. The service offers ADA-accessible transportation on a monthly basis to Nevada City, Grass Valley, Reno, Quincy, Auburn, Roseville, Sacramento, North Lake Tahoe, and South Lake Tahoe for seniors over the age of 60 years residing in the North Lake Tahoe and Truckee region. Residents under the age of 60 years old can use the service for a set price if there is seating available. The Town/TTD contracts with Paratransit Services to operate this service. In FY 2015-16, NTTT carried 247 one-way passenger trips. A new three-year Area 4 Agency on Aging grant was awarded to the program allowing for service into the year 2020. Additionally, the Town of Truckee partnered with Tahoe Forest Hospital to update this service beginning July, 2017. The new NTTT service will include three monthly trips to Tahoe Forest Hospital and wellness centers but NTTT will no longer travel to Quincy and South Lake Tahoe.

Holiday Shuttles

Beginning in 2016, the Town of Truckee operated additional public transportation service during peak holiday periods. As parking is limited and congestion occurs over the Christmas to New Year's holiday week, four different holiday shuttle routes were designed to pick up passengers in the various neighborhoods and transport them to downtown Truckee (Figure 11). Two additional routes transported passengers between Downtown Truckee and Northstar or Squaw Valley. Holiday Shuttles operated a total of six days from December 26 – 31. Funding for the holiday shuttles was provided from Town of Truckee General Funds as well as contributions from the resorts, Truckee Tourism Business Improvement District (TTBID), neighborhood home owners associations, the Airport District, the Chamber of Commerce and downtown merchants.

For the Neighborhood Routes, one bus served each of the following neighborhoods from noon until 3:00 AM on roughly one hour headways: Sierra Meadows, Prosser, Glenshire, Tahoe Donner, and Donner Lake. The Resort Routes operated between 6:00 PM and 3:00 AM on 30 minute headways. Two buses were used to serve the Northstar Route and three buses for the Squaw Valley Route. The Holiday Shuttles stopped at all intersections along the routes. The Holiday Shuttles are fare-free. The Town of Truckee contracts to provide this service.

Table 8 presents daily ridership by route on the Holiday Shuttles for December 2015. New Year's Eve was overwhelmingly the most popular day for riding the Holiday Shuttles, with over 65 percent of ridership (1,156 one-way passenger-trips) occurring on that day. In 2015, the weekend fell on December 26th and 27th and New Year's Eve was on a Thursday. Ridership was actually lowest on the weekend (92 and 85 daily passenger-trips) and steadily increased over the days leading up to New Year's Eve (1,156).

On a per route basis, the Northstar Route carried that greatest number of one-way passenger-trips (608 or 34.5 percent), followed by the Tahoe Donner Route (356 or 20.2 percent) and Squaw Valley (286 or 16.3 percent). The Donner Lake Route carried the fewest number of passengers (94 or 5.3 percent).

Special Events Shuttles

Truckee Thursdays Shuttles

For ten years the Truckee Downtown Merchants Association has been promoting "Truckee Thursdays" during the summer months. The event includes a food court, artisan vendors, merchant and community displays, children's activities, live music and a beer garden. Over the years, the event has grown in popularity, resulting in traffic congestion and limited parking. In 2016, the Town funded a Truckee Thursdays Shuttle service on Thursdays from around 4:30 PM to 10:00 PM between June 9th and August 18th. The Town operated the following Truckee Thursday Shuttle Routes (Figure 12):

Figure 11
Town of Truckee Holiday Shuttle Routes

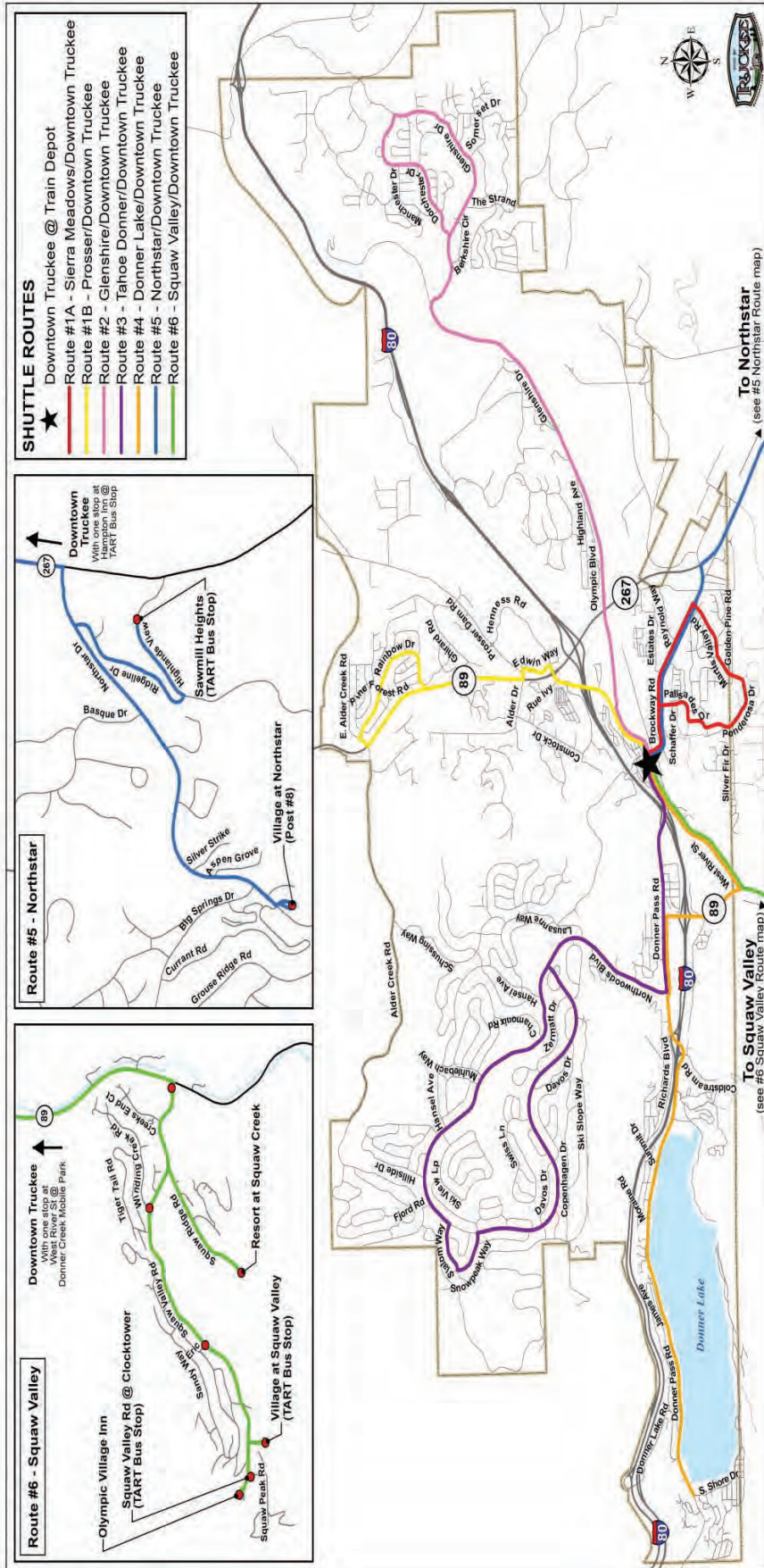


Table 8: Town of Truckee Holiday Shuttle Daily Ridership by Route

FY 2015-16

Route	Day						Total	
	12/26	12/27	12/28	12/29	12/30	New Year's Eve	#	%
1A Sierra Meadows	\$9.00	\$2.00	\$26.00	\$12.00	\$6.00	\$78.00	\$133.00	7.6%
1B Prosser	\$0.00	\$8.00	\$10.00	\$2.00	\$6.00	\$99.00	\$125.00	7.1%
2 Glenshire	\$5.00	\$2.00	\$7.00	\$10.00	\$23.00	\$111.00	\$158.00	9.0%
3 Tahoe Donner	\$25.00	\$12.00	\$13.00	\$46.00	\$31.00	\$229.00	\$356.00	20.2%
4 Donner Lake	\$0.00	\$11.00	\$2.00	\$6.00	\$10.00	\$65.00	\$94.00	5.3%
5 Northstar	\$38.00	\$32.00	\$37.00	\$31.00	\$36.00	\$434.00	\$608.00	34.5%
6 Squaw Valley	\$15.00	\$18.00	\$33.00	\$47.00	\$33.00	\$140.00	\$286.00	16.3%
Total	\$92.00	\$85.00	\$128.00	\$154.00	\$145.00	1,156	1,760	100.0%
% of Total by Day	5.2%	4.8%	7.3%	8.8%	8.2%	65.7%	100.0%	

Source: Town of Truckee

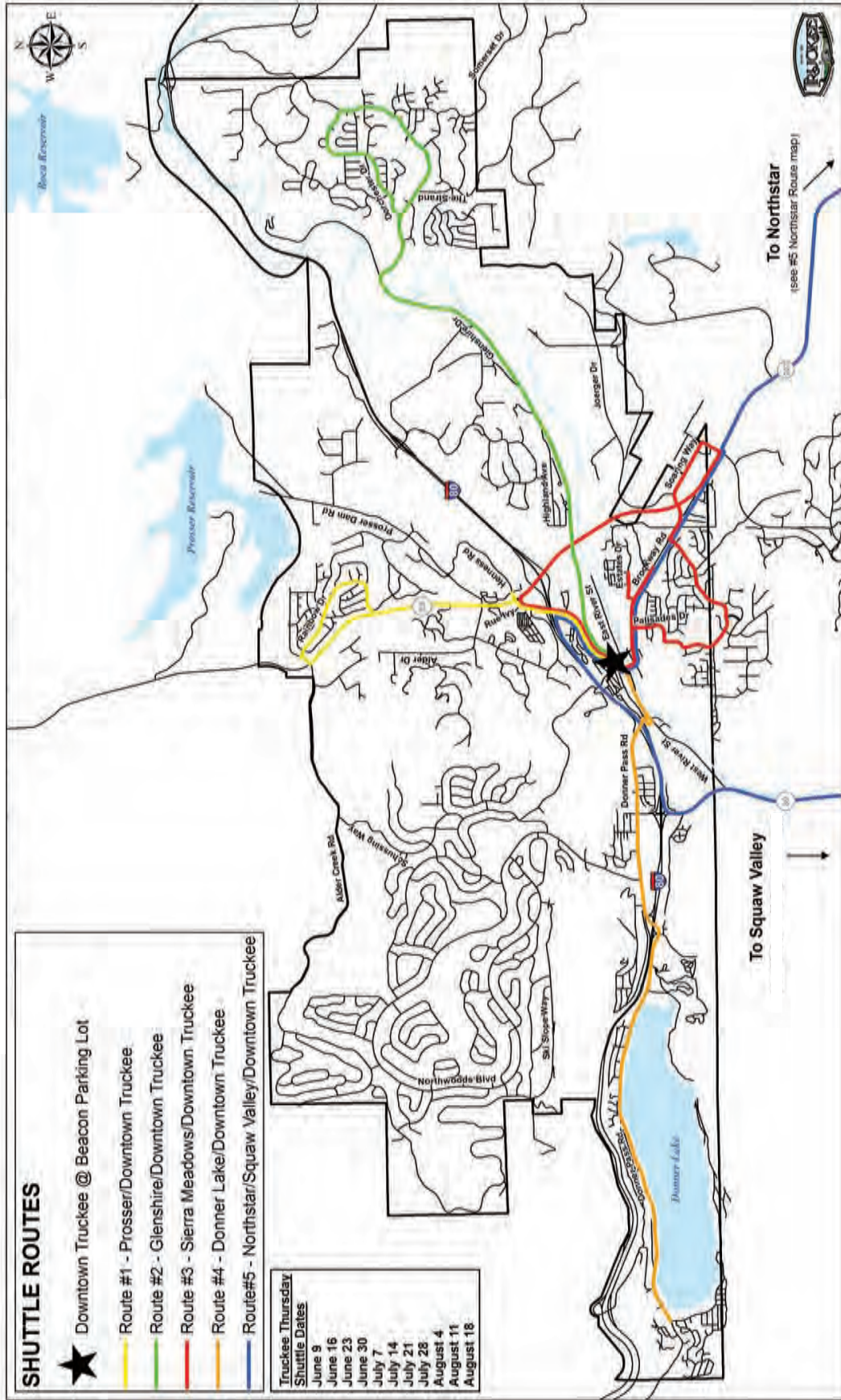
- Prosser - Downtown Truckee
- Glenshire – Downtown Truckee
- Sierra Meadows – Downtown Truckee
- Donner Lake – Downtown Truckee
- Northstar/Squaw Valley – Downtown Truckee

Depending on the route, one to four trips to/from downtown Truckee were offered roughly every 30 to 50 minutes. All routes have several pick up locations in the neighborhoods and drop off at the Beacon Parking Lot in downtown. Passengers could also “flag” the bus down in safe locations along each route. No fare is charged for this service. Town of Truckee contracts to provide this service.

The Tahoe Donner Association separately funded and operated a shuttle to/from the Trout Creek Recreation Center and the Beacon Parking Lot in downtown. Shuttles picked up passengers every 15 minutes between 4:30 PM and 9:30 PM.

Table 9 presents ridership on the Special Event Shuttles. A total of 8,909 one way passenger-trips were carried on the Town Funded Truckee Thursdays Shuttles while another 8,254 passenger-trips were carried on the more frequent Tahoe Donner Association funded Truckee Thursdays Shuttles. After Tahoe Donner, Glenshire and Sierra Meadows were the neighborhoods generating the greatest ridership (2,909 and 1,400 respectively). The routes carrying the fewest number of passengers were the Town funded Tahoe Donner route which carried only 912 passenger-trips, and the Northstar/Squaw route which carried 1,100 trips.

**Figure 12
Truckee Thursdays Shuttles**



The Truckee Thursday Shuttles continue to be popular as ridership for 2017 (11,428) was 28 percent greater than 2016 (8,909).

Table 9: Town of Truckee Special Events Shuttle Ridership				
2016				
	<u>Truckee Thursdays</u>		<u>July 4th</u>	
	#	%	#	%
<u>Town Funded Shuttle Routes</u>				
Route 1 - Prosser	1,379	8%	\$166.00	16%
Route 2 - Glenshire	2,902	17%	\$297.00	28%
Route 3 - Sierra Meadows	1,400	8%	\$223.00	21%
Route 4 - Donner Lake	1,216	7%	\$100.00	10%
Route 5 - Northstar/Squaw Valley	1,100	6%	--	--
Route 6 - Tahoe Donner	912	5%	\$266.00	25%
<i>Subtotal: Town Funded Shuttle Ridership</i>	<u>8,909</u>	52%	<u>1,052</u>	100%
Tahoe Donner Association Funded Shuttle Ridership	<u>8,254</u>	48%	<u>--</u>	--
Total Ridership	17,163	100%	1,052	100%
Source: Town of Truckee				

4th of July Shuttles

For the 4th of July holiday, the Town operated the following free neighborhood shuttles:

- Prosser - Downtown Truckee
- Glenshire – Downtown Truckee
- Sierra Meadows – Downtown Truckee
- Donner Lake – Downtown Truckee
- Tahoe Donner – Downtown Truckee

The service was provided for the day of the fourth, with anywhere from three to six morning runs and two to three afternoon runs, depending on the route. The routes specifically provided transportation to the 4th of July Parade in downtown Truckee. 4th of July Shuttles operated between the hours of 8:00 AM and 1:43 PM. As shown in Table 9, a total of 1,052 one-way passenger trips were carried in 2016. As with the Truckee Thursday Shuttles, Glenshire and Sierra Meadows were the most popular routes (297 and 223 passenger-trips respectively). The Town of Truckee contracts to provide this service.

Vehicles and Facilities

As shown in Table 10, the Town currently owns six vehicles. Two of the larger 30 passenger vehicles are primarily used for the fixed route and two of the smaller 15 passenger vehicles are used primarily for DAR. One 22 passenger vehicle is used for both the DAR and fixed route. The Town maintains two older vehicles as backup.

The average age of the fleet is about three years old and the average mileage for the fleet is 62,463. As the Town recently replaced several vehicles, much of the fleet is not due for replacement until 2021. The one backup vehicle is due for replacement in 2018. The remaining vehicles are due for replacement in 2022 and 2024.

The Town of Truckee TART system includes 10 bus shelter locations:

- Hampton Inn (not Town maintained)
- Henness Flat Apartments
- Martis on Brockway Road near roundabout (eastbound)
- Regional Park (westbound)
- Bank of America (eastbound across from Safeway)
- Gateway Center (westbound)
- Crossroads Center on SR 89
- Just south of the Mousehole (Union Pacific RR) on SR 89
- West End of Donner Lake

The Truckee Train Depot offers a waiting area for transit passengers that is heated and has restrooms available. There are also four stops with bus benches:

- Outlet Mall (eastbound)
- Northwoods and Donner Pass Road (westbound)
- Tahoe Forest Hospital
- Recreation Center

During the winter season it can be a challenge to clear bus shelters and bus signs of snow. This poses a particular challenge to passengers with disabilities.

The Truckee TART fixed route and DAR programs as well as the NTTT program are operated under contract by Paratransit Services. The contractor reports to the Town's Administrative Analyst II, who in turn reports to the Director of Public Works. For Truckee TART services, Paratransit Services has a dedicated staff consisting of a General Manager, Operational Supervisor, dispatchers and drivers. Town transit vehicles are stored at the old Town of Truckee Corporation Yard located at 10720 Riverview Drive. Recently, operations staff were moved to this location. Town Public Works staff performs all vehicle maintenance.

TABLE 10: Town of Truckee Vehicle Fleet and Replacement Schedule

Fleet No.	Legal Owner	Make/Model	Vehicle Length	No. Pax/ Wheelchair	Total Capacity	Year	Purchase Price	Use	Fuel Type	Original Funding Source	Mileage as of 10/25/17	Useful Life Miles	Useful Life Years	In Service Date	Estimated Replacement Date
924	Town of Truckee	Chevy Aero Elite	22 ft	11 seats, 3 flip up to accommodate 2 WC tie downs	12	2009	\$65,541	Backup	Diesel	\$5,311.00	172,704	150,000	5	2/18/09	2018
925	Town of Truckee	Chevy Starcraft	22 ft	12 + 2 WC or 6 + 4 WC	15	2016	\$93,401	DAR	Diesel	\$5,310.00	27,163	150,000	5	8/23/16	2022
926	Town of Truckee	Chevy Starcraft	22ft	12 + 2 WC or 6 + 4 WC	15	2016	\$93,401	DAR	Diesel	\$5,310.00	26,680	150,000	5	8/23/16	2022
927	Town of Truckee	Ford El Dorado Aero Elite 320	27.5 ft	24 + 2 WC or 30	31	2016	\$114,811	Fixed Route	Diesel	PTMISEA	34,301	250,000	7	6/30/16	2024
928	Town of Truckee	Ford El Dorado Aero Elite 320	27.5 ft	24 + 2 WC or 30	31	2016	\$114,811	Fixed Route	Diesel	PTMISEA	32,999	250,000	7	7/14/16	2024
929	Town of Truckee	Ford El Dorado Aero Elite 270	27 ft	16 + 2 WC or 21	22	2017	\$128,277	Fixed Route and DAR	Diesel	\$5,339.00	22,333	250,000	7	2/27/17	2024

Source: Town of Truckee

PLACER TAHOE AREA REGIONAL TRANSIT

Public transit services in the North Tahoe region (in both California and Nevada) are provided by the Placer Tahoe Area Regional Transit (Placer TART) services operated by the Placer County Department of Public Works. This program also connects the North Lake Tahoe area to Truckee via SR 89 and SR 267 (Figure 13).

Placer TART operates hourly route service between Tahoe City, Squaw Valley and Truckee along State Route (SR) 89 with additional runs during the winter and summer months for peak commute periods. Service is offered generally between 6:30 AM and 6:30 PM year round between Tahoe City and Truckee. Bus service is offered on SR 267 between Crystal Bay and Truckee year-round providing hourly service to Northstar Ski Resort between 6:00 AM and 6:00 PM.

Both the Placer County TART Highway 89 and 267 services terminate at the Truckee Train Depot where connections to Truckee TART services can be made. Generally, the Highway 89 route departs the Truckee Depot at 30 minutes past the hour and the Highway 267 route departs the Truckee Depot at the top of the hour. Truckee TART services generally arrive at the Truckee Depot (from Henness Flat) at 16 minutes past the hour and (from Donner Lake/Summit) just before the top of the hour. Therefore passengers transferring from Truckee TART to Placer County TART services need wait anywhere from a few minutes to 30 minutes to transfer (if both services are on schedule).

TART is operated by the Placer County Department of Public Works. The Placer TART operations and maintenance facility is located at 970 Cabin Creek Road, approximately two miles south of Truckee along the SR 89 corridor. As a first step in providing a unified regional brand for public transit services in the Tahoe region the Placer County and Truckee TART services were recently branded the same “Tahoe Truckee Area Regional Transit (TART)”. Buses are wrapped similarly and the Truckee North Tahoe Transportation Management Association markets the services together with joint materials. Other than this, the services are independent, including the fare structure.

Placer County TART’s fare structure is as follows:

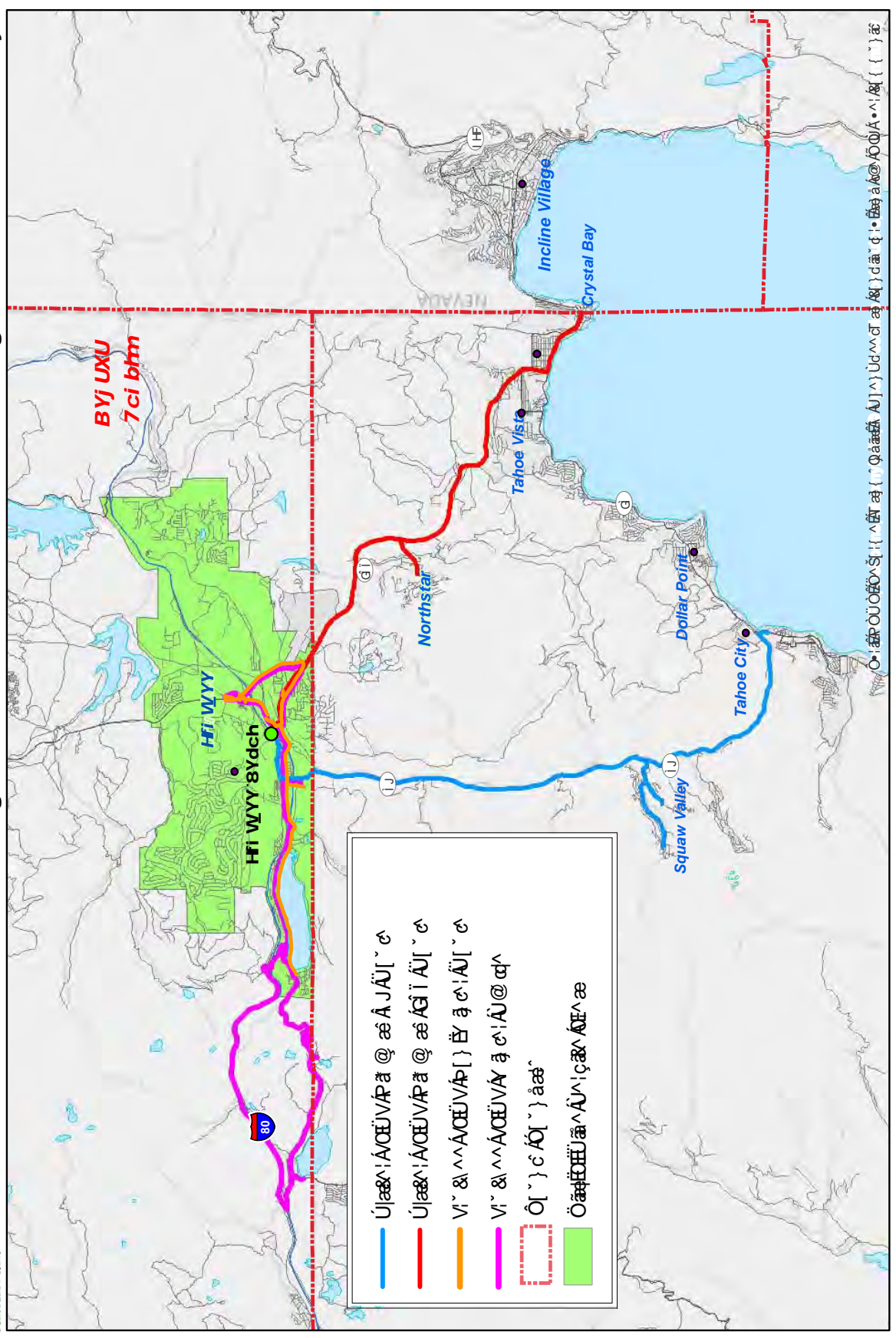
- ◆ One-way General Public - \$1.75
- ◆ One-way Senior/Youth/Disabled - \$0.85
- ◆ 24 Hour General Public pass - \$3.50
- ◆ 10 Ride General Pubic -- \$14.00
- ◆ 10 Ride Senior/Youth/Disabled -- \$7.00
- ◆ 14-Day Pass General Public -- \$30.00
- ◆ 14-Day Pass Senior/Youth/Disabled -- \$15.00
- ◆ 30-Day Pass General Public -- \$53.00
- ◆ 30-Day Pass Senior/Youth/Disabled -- \$26.50



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Figure 13
Regional Public Transit Services Serving Eastern Nevada County



Placer County Complementary Paratransit Service

At present, all complementary paratransit trips required under the Americans with Disabilities Act for TART service are provided with a Placer County Transit van using TART drivers or supervisors. Ultimately, TART intends to create an interjurisdictional agreement with the Town to provide ADA trips in eastern Placer County through Paratransit Services.

RIDERSHIP ON REGIONAL EASTERN NEVADA COUNTY PUBLIC TRANSIT SERVICES

Historical Region wide Ridership

Ridership for transit services in eastern Nevada County over the last three full fiscal years is presented in Table 11. As shown, ridership on Truckee TART services systemwide have increased slightly (1.5 percent or 332 passenger trips) over the three year period. In FY 2014-15 DAR services saw a dip in ridership of around 880 passenger-trips but regained ridership the following year. On the other hand, fixed route services had a 4,000 passenger trip increase in FY 2014-15 only to lose the increase the following year. Table 11 also illustrates ridership on the North Tahoe Truckee Transport since its July 2014 inception. As shown, ridership slightly increased (by 4.5 percent) between FY 2014-15 and FY 2015-16, growing from 236 to 247 passenger-trips.

Total ridership figures (including boardings in Placer County) for Placer TART's Highway 89 and 267 Routes are also displayed in the table. As shown, in FY 2013-14, ridership on the Highway 267 route was 37,431 passenger-trips. In the following year, it dropped by 15.2 percent, but increased substantially (to 45,482 passenger-trips) by FY 2015-16. The Highway 89 Route followed an opposite trend, rising from its 86,126 passenger-trips in FY 2013-14 to 90,716 in FY 2014-15. In FY 2015-16, ridership fell by 33.4 percent to 67,978 annual passenger-trips.

Truckee TART Ridership by Month

Ridership data by month and service for Fiscal Year 2015-16 is presented in Table 12, while Figure 14 below presents this information graphically. As shown, ridership varies dramatically by season, particularly on the Truckee TART Fixed Route. The Winter Shuttle carries the most passenger-trips with January being the busiest month in FY 15-16 (2,935 trips or 16 percent of annual ridership), followed by February (2,819 trips or 15 percent of annual ridership). Recent data for winter 2016-17 shows that the busiest month was December, with 2,218 passenger trips, followed by January, with 1,368 passenger-trips. Ridership during the winter months represents nearly half of annual ridership on Truckee TART. Fixed route ridership has a smaller peak in the months of July and August with (1,265 and 1,269 trips, respectively). The Dial-A-Ride service has relatively consistent levels of ridership throughout the year, as shown in Table 12. Unlike the fixed-route services, the winter season months do not generate the greatest ridership. Conversely, the months with the highest passenger-trips are scattered throughout the year, with October producing the most trips (778), followed by August (737), and September (691).

TABLE 11: Eastern Nevada County Historical Ridership

Fiscal Years 2013 - 2014 through 2015 - 2016

Fiscal Year	Fixed Route		Truckee TART		Systemwide		North Tahoe Truckee Transport		Placer County TART (1)	
	#	% Change	#	% Change	#	% Change	#	% Change	267 Route	89 Route
2013-14	14,381	--	7,488	--	21,869	--	--	--	37,431	86,126
2014-15	18,444	28.3%	6,607	-13.3%	25,051	12.7%	236	--	32,505	90,716
2015-16	14,613	-20.8%	7,588	12.9%	22,201	-12.8%	247	4.5%	45,483	67,978
Total Change 2013-14 to 2015-16	232	1.6%	100	1.3%	332	1.5%	247	100.0%	8,052	-18,148
									21.5%	-21.1%

Note: Includes entire Placer County TART routes, not just the portion located in Eastern Nevada County.

Source: Town of Truckee and TART, 2017

Truckee TART Ridership by Day of Week

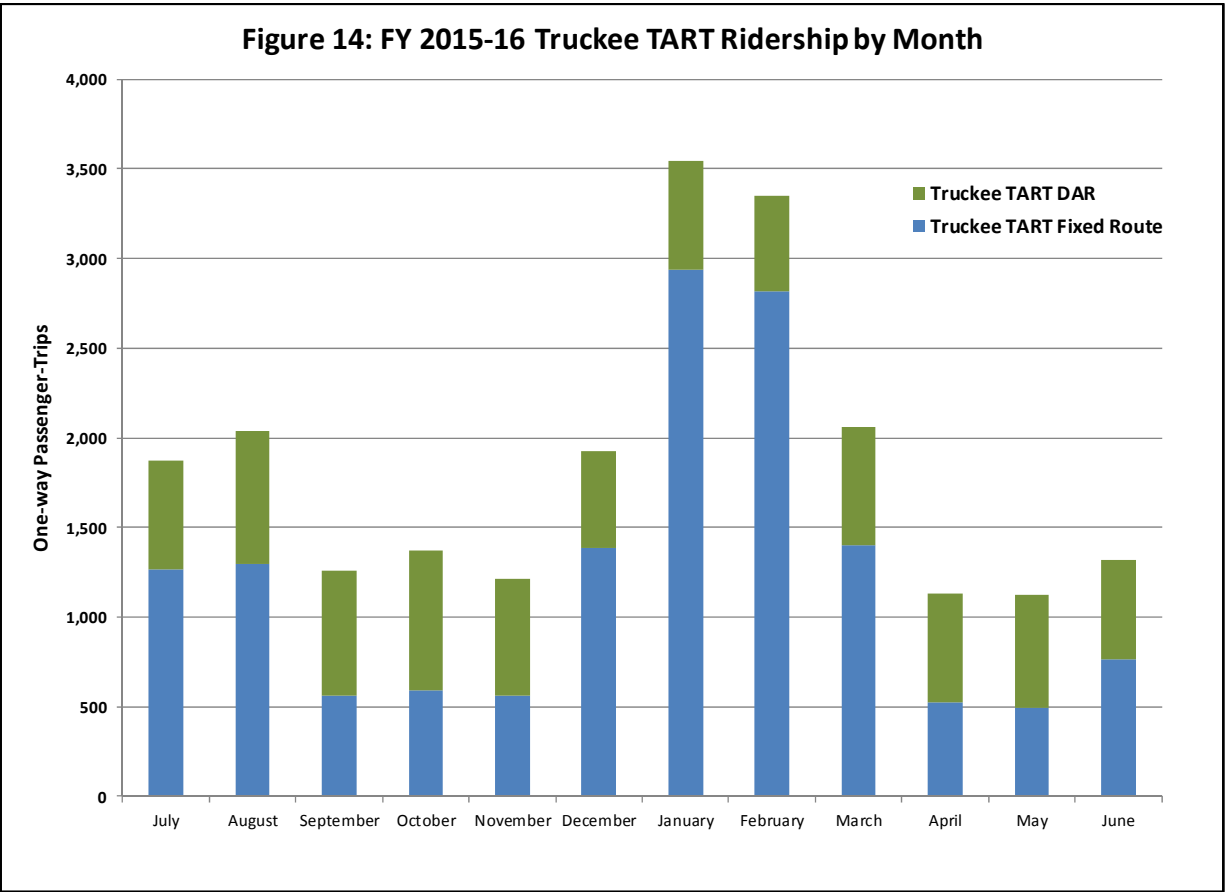
Ridership by day of the week for Truckee TART is presented in Tables 13, 14 and 15, for winter, summer and shoulder seasons respectively. As shown in Table 13, summer average daily ridership is 69.3 one-way passenger trips systemwide, with Wednesday representing the day of the week with the highest proportion of ridership. An average of about 128.9 one-way passenger trips were carried on a busy winter day, with Friday being the peak day (Table 14). During the spring shoulder season, average daily ridership is roughly 47.5 one-way passenger trips. During this particular week in May, Wednesday had the highest ridership (Table 15). DAR ridership appears to be greatest during the off-season but fixed-route ridership is significantly greater during the winter season.

TABLE 12: Truckee TART Passenger-Trips by Month

Fiscal Year 2015-2016

Month	Truckee TART		Total	Percent of Total
	Truckee TART Fixed Route	Truckee TART DAR		
July	1,265	608	1,873	8.4%
August	1,299	737	2,036	9.2%
September	565	691	1,256	5.7%
October	593	778	1,371	6.2%
November	565	650	1,215	5.5%
December	1,385	544	1,929	8.7%
January	2,935	610	3,545	16.0%
February	2,819	528	3,347	15.1%
March	1,404	654	2,058	9.3%
April	523	605	1,128	5.1%
May	494	629	1,123	5.1%
June	766	554	1,320	5.9%
Total	14,613	7,588	22,201	
% Winter (December - March)	49%	10,879		
% Summer (June - August)	24%	5,229		
% Shoulder (April - May, Sept - Nov)	28%	6,093		

Source: Town of Truckee, 2017



Truckee TART Ridership by Passenger-Type

Table 16 presents ridership on Truckee TART’s fixed-routes and DAR for Fiscal Year 2015-16 by passenger-type. On the fixed-route, almost half (roughly 41 percent) of passengers are ski resort employees, followed by general public riders (25 percent). Senior and disabled riders account for 24 percent of ridership, and children and free riders are roughly 11 percent of ridership. Conversely, on DAR ridership is largely senior or disabled (totaling 78 percent), with general riders making up 17 percent of ridership, and child passengers accounting for the remaining 6 percent of annual ridership. Overall, senior/disabled passengers total 42 percent of ridership, followed by ski resort employees (27 percent), general public (22 percent) and child/free riders (9 percent).

As part of this transit planning effort, LSC Transportation Consultants, Inc. performed boarding and alighting surveys of the Truckee TART winter fixed-route on March 9th and 10th, 2017. The surveys accounted for one entire day of runs, with the exception of the Donner Summit stops between 7:47 AM and 8:37 AM. Table 17 presents passenger boarding activity by stop. It should be noted that ridership on March 9th and 10th (days of the surveys) was 87 and 80 respectively. Average daily ridership on the Donner Summit Shuttle for the 2015-16 season was 91 passenger-trips per day.

TABLE 13: Truckee TART Passengers by Day of Week - Summer

Week of August 8 - 14, 2016

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Monday	22	\$21.00	\$43.00	10.3%
Tuesday	21	\$65.00	\$86.00	20.7%
Wednesday	31	\$114.00	\$145.00	34.9%
Thursday	23	\$28.00	\$51.00	12.3%
Friday	18	\$34.00	\$52.00	12.5%
Saturday	4	\$35.00	\$39.00	9.4%
Total Weekly Ridership	\$119.00	\$297.00	\$416.00	
Average	19.8	49.5	69.3	

Source: Town of Truckee, 2013

TABLE 14: Truckee TART Passengers by Day of Week - Winter

Week of February 5 - 11, 2016

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Sunday	18	126	\$144.00	16.0%
Monday	5	120	\$125.00	13.9%
Tuesday	1	91	\$92.00	10.2%
Wednesday	35	111	\$146.00	16.2%
Thursday	25	95	\$120.00	13.3%
Friday	37	138	\$175.00	19.4%
Saturday	27	73	\$100.00	11.1%
Total Weekly Ridership	148	754	902	
Average	21.1	107.7	128.9	

Source: Town of Truckee, 2017

TABLE 15: Truckee TART Passengers by Day of Week - Offseason

Week of May 9 - 14, 2016

Day of Week	DAR	Fixed Route	Total Daily Ridership	Proportion of Weekly Total
Monday	29	20	\$49.00	17.2%
Tuesday	37	14	\$51.00	17.9%
Wednesday	41	25	\$66.00	23.2%
Thursday	39	16	\$55.00	19.3%
Friday	24	15	\$39.00	13.7%
Saturday	3	22	\$25.00	8.8%
Total Weekly Ridership	\$173.00	\$112.00	\$285.00	
Average	28.8	18.7	\$47.50	

Source: Town of Truckee.

TABLE 16: Truckee TART Ridership by Passenger Type

Fiscal Year 2015-2016

Fare Type	Fixed Route		Dial-A-Ride		Total	
	#	%	#	%	#	%
General Public	3,693	42.5%	1,285	16.9%	4,978	30.6%
Senior / Disabled	3,472	39.9%	5,877	77.5%	9,349	57.4%
Child / Free	1,530	17.6%	426	5.6%	1,956	12.0%
Ski Resort Employee	5,918	68.1%	--	--	5,918	36.3%
Total	8,695	53.4%	7,588	46.6%	16,283	100.0%

Note: Children over the age of 3 are included in the General Public category.
Source: Truckee Transit, 2017

TABLE 17: Truckee Transit Fixed Route Winter Passenger Activity By Stop

March 9th and 10th, 2017

Stop	Westbound				Eastbound				Combined Westbound and Eastbound			
	On	Off	Total	% Total Passenger Activity	On	Off	Total	% Total Passenger Activity	On	Off	Total	% Total Passenger Activity
Hennes Flat Apartments	2	0	2	2.4%	0	2	2	\$0.04	2	2	4	3.0%
Truckee Community Recreation Center	--	--	--	--	0	0	0	\$0.00	0	0	0	0.0%
The Rock/Fifty-Fifty	0	1	1	1.2%	--	--	--	--	0	1	1	0.8%
Brockway Rd @ Reynold Way	0	0	0	0.0%	--	--	--	--	0	0	0	0.0%
Estates Dr @ Senior Apartments	10	1	11	13.4%	--	--	--	--	10	1	11	8.3%
Regional Park	0	0	0	0.0%	--	--	--	--	0	0	0	0.0%
Truckee Depot (Amtrak)	2	1	3	3.7%	0	8	8	\$0.16	2	9	11	8.3%
Tahoe Forest Medical Offices	0	1	1	1.2%	0	2	2	\$0.04	0	3	3	2.3%
Crossroads Center/Post Office	--	--	--	--	0	4	4	\$0.08	0	4	4	3.0%
Gateway Center/Safeway	5	6	11	13.4%	4	1	5	\$0.10	9	7	16	12.1%
Donner Center/7-11	2	1	3	3.7%	0	0	0	\$0.00	2	1	3	2.3%
Donner Pass Rd @ Northwoods	0	0	0	0.0%	0	1	1	\$0.02	0	1	1	0.8%
Donner Pass Rd @ Highway Rd	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Donner Pass Rd @ Cold Stream Rd	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Donner Memorial State Park	0	0	0	0.0%	1	0	1	\$0.02	1	0	1	0.8%
Sticks Market	4	0	4	4.9%	1	0	1	\$0.02	5	0	5	3.8%
South Shore Dr. (Includes transfers)	21	6	27	32.9%	10	6	16	\$0.32	31	12	43	32.6%
Donner Pass Rd @ Sugar Bowl Rd	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Mt. Judah Day Lodge	5	3	8	9.8%	2	0	2	\$0.04	7	3	10	7.6%
Sugar Bowl Gondola	2	0	2	2.4%	0	2	2	\$0.04	2	2	4	3.0%
Ski Inn	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Tri Lodges	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Donner Pass Rd. @ Soda Springs Rd	0	1	1	1.2%	0	0	0	\$0.00	0	1	1	0.8%
Soda Springs Ski Resort	0	0	0	0.0%	1	1	2	\$0.04	1	1	2	1.5%
Soda Springs Rd @ Donner Pass Rd	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Soda Springs General Store	0	0	0	0.0%	0	0	0	\$0.00	0	0	0	0.0%
Donner Summit Lodge	0	2	2	2.4%	0	0	0	\$0.00	0	2	2	1.5%
Boreal Ridge Ski Resort	3	3	6	7.3%	2	2	4	\$0.08	5	5	10	7.6%
Total	56	26	82	100.0%	21	29	50	100%	77	55	132	100.0%

Source: LSC Transportation Consultants Winter On-Board Surveys

DETAILED PASSENGER ACTIVITY

Truckee TART Fixed-Route

Survey – Boarding and Alighting Activity by Stop

According to the survey:

- Stops with the greatest number of boardings and alightings (data includes the same stop in both directions) were:
 - South Shore Drive (43 boardings and alightings, 32% of total) – Passengers wishing to travel between local Town of Truckee points and Donner Summit Ski Resorts or lodging must transfer between Bus 1 and Bus 2 at South Shore Drive. Therefore this figure reflects the number of passengers transferring between buses at South Shore Drive, although passengers are remaining on the same route.
 - Gateway Center (16 boardings and alightings, 12.1 percent of total) and Truckee Depot (11 boardings and alightings, 8.3 percent of total) – The relatively high activity at these stops suggests that a good portion of passengers are using the bus for shopping or other errands, or to transfer to Placer County TART or another transportation service.
 - Estates Drive at Senior Apartments (11 boardings and alightings, 8.3 percent of total) – This activity suggests that, while many seniors may primarily rely on Dial-A-Ride services, there is still senior demand for fixed route services, which is also supported by the fact that 39.9 percent of fixed route ridership is made up of senior and disabled riders (Table 16).

Passenger Survey – Boarding Activity by Time of Day

The boarding and alighting sampling data also provides insight into the fixed route boarding by time of day. As shown in Table 18 and Figure 15, the busiest time of day (in terms of total boarding and alightings) was the 9 AM hour (18 percent), followed by 12 PM and 1 PM (15 percent each), and 4 PM (12 percent). Conversely, there were no boardings or alightings in the 10 AM or 6 PM hours.

Truckee TART Dial-A-Ride Passenger Activity

Truckee TART daily DAR data was reviewed for the following periods in order to determine common origins and destinations on DAR:

- January 24 – 30, 2016
- April 18 – 23, 2016
- July 18 – 23, 2016
- October 17 – 22, 2016

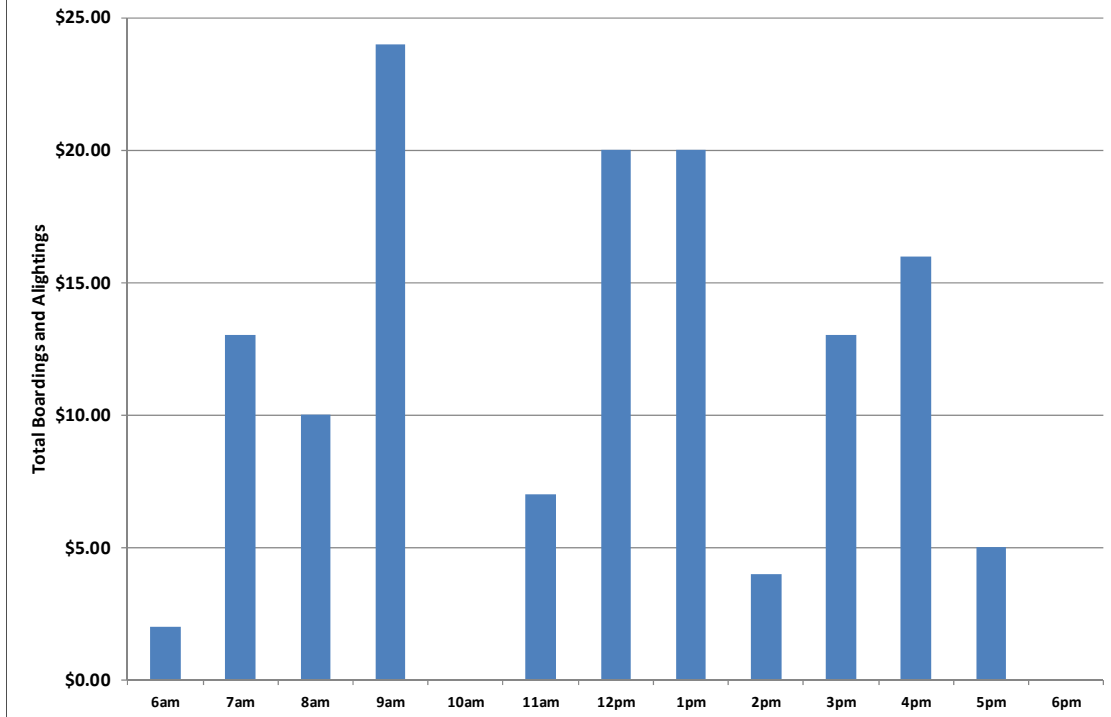
TABLE 18: Truckee Fixed Route Winter Stop Activity by Time of Day

March 9th and 10th, 2017

Hour	On	Off	Total	% Total
6am	\$2.00	\$0.00	\$2.00	1%
7am	\$5.00	\$8.00	\$13.00	10%
8am	\$6.00	\$4.00	\$10.00	7%
9am	\$18.00	\$6.00	\$24.00	18%
10am	\$0.00	\$0.00	\$0.00	0%
11am	\$3.00	\$4.00	\$7.00	5%
12pm	\$12.00	\$8.00	\$20.00	15%
1pm	\$12.00	\$8.00	\$20.00	15%
2pm	\$1.00	\$3.00	\$4.00	3%
3pm	\$9.00	\$4.00	\$13.00	10%
4pm	\$9.00	\$7.00	\$16.00	12%
5pm	\$0.00	\$5.00	\$5.00	4%
6pm	\$0.00	\$0.00	\$0.00	0%
Daily Total	\$77.00	\$57.00	\$134.00	100.0%

Source: LSC Transportation Consultants Winter On-Board Surveys

Figure 15: Truckee TART Fixed Route Winter Boarding and Alighting by Time of Day



While many of the popular origins were residential addresses, the following non-residential origins had a relatively high number of boardings for the 25 day period:

- Choices – 96 boardings
- Truckee Senior Apartments – 43 boardings
- Sierra Expeditionary Learning School – 23 boardings
- Hampton Inn – 20 boardings
- Health & Sport Performance Center – 17 boardings
- Donner Creek Mobile Home Park – 15 boardings

There were several popular non-residential destinations, including:

- Choices – 88 alightings
- Health & Sport Performance Center – 22 alightings
- Truckee Senior Apartments – 22 alightings
- Alder Creek Middle School – 22 alightings
- Extended Care Center – 20 alightings
- Hampton Inn – 19 alightings
- Safeway – 19 alightings
- Truckee High School – 17 alightings
- Truckee Recreation Center – 15 alightings

Dial-A-Ride Boarding by Time of Day

Data from the same DAR sampling periods defined above were also used to analyze boardings by time of day on DAR. As shown in Table 19 and Figure 16, the largest portion of boardings (25 percent) took place in the 2 PM hour, followed by 8 AM (20 percent). The lowest percentage of boardings (1 percent or less) took place during the 7 AM and 4 PM hours.

Placer TART Passenger Activity within Eastern Nevada County

As shown in Figure 13, the Placer TART services connect eastern Nevada County to eastern Placer County. Only a portion of the SR 89 and SR 267 routes lie within the eastern Nevada County study area. Table 20 presents a sampling of boarding and alighting data by time of day for the six-month period from January to June 2016 at Placer County TART stops located within Truckee. In addition to the Truckee Depot (where passengers can transfer to other services), the Crossroads and Safeway shopping centers are popular stops on the SR 89 route. The 6:30 AM southbound run to Tahoe City has by far the greatest number of boardings (1,004) during the survey period. This likely represents workers commuting to Squaw Valley, Alpine Meadows or Tahoe City.

The SR 267 route does not carry as many passengers as the SR 89 route. Again the Truckee Depot is the stop with the greatest number of boardings (within Truckee), followed by Brockway and Palisades Drive. On a per run basis, the greatest number of boardings occurs at the Truckee Depot on the 6:30 AM run to Northstar (319 boardings). The 3:30 PM southbound

run to Northstar also sees a fair amount of activity (308 boardings). The northbound return trip to Truckee at 2:30 PM and 3:30 PM have a relatively high number of alightings at the Truckee Depot (253 and 274).

TABLE 19: 2016 Truckee DAR Boarding by Time of Day
January 24 – 30, April 18 – 23, July 18 – 23, October 17 – 22

	Total Boardings	Average Daily Boardings	% Total
7:00 AM	\$8.00	\$0.32	1%
8:00 AM	\$107.00	\$4.28	20%
9:00 AM	\$78.00	\$3.12	14%
10:00 AM	\$54.00	\$2.16	10%
11:00 AM	\$41.00	\$1.64	8%
12:00 PM	\$39.00	\$1.56	7%
1:00 PM	\$47.00	\$1.88	9%
2:00 PM	\$134.00	\$5.36	25%
3:00 PM	\$32.00	\$1.28	6%
4:00 PM	\$5.00	\$0.20	1%
Total	\$545.00	\$21.80	100%

Source: Town of Truckee DAR Logs

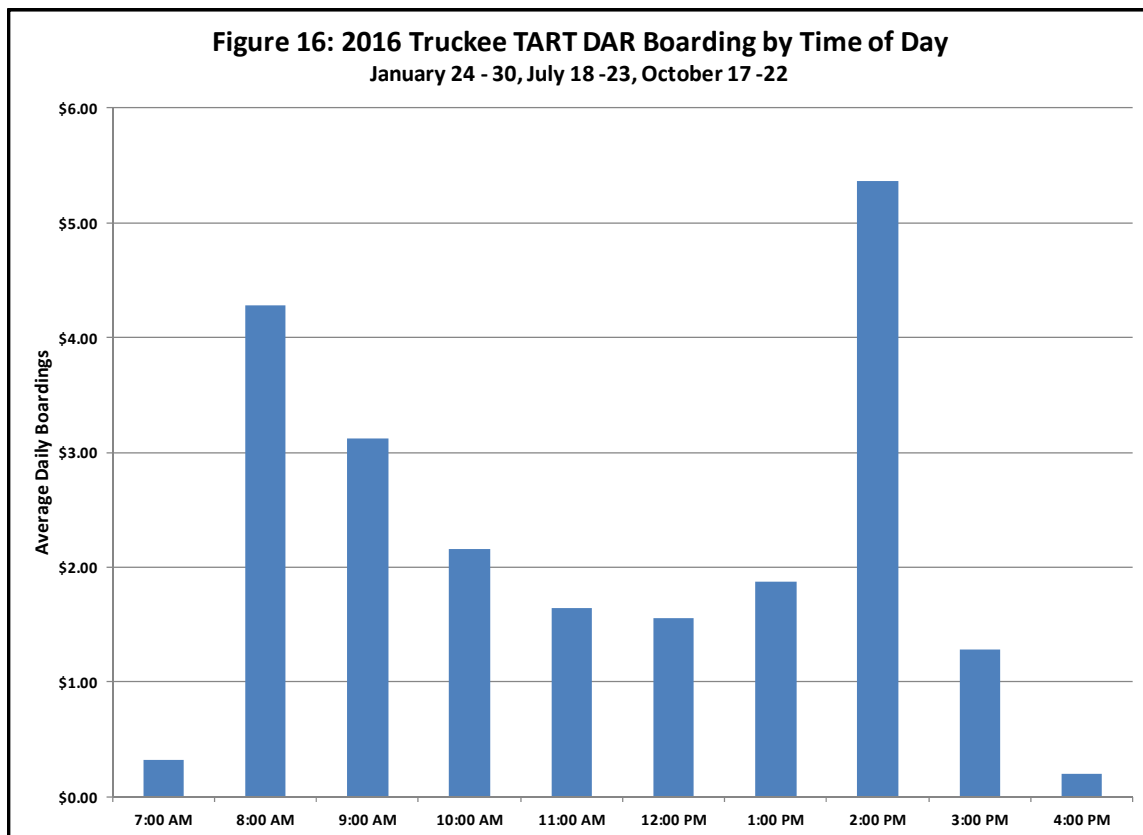


Table 21: Truckee TART Winter Fixed Route On-Time Performance Summary by Run Direction

March 9th and 10th, 2017

	Westbound	Eastbound
Average Time Between Stops	0:02	0:02
Maximum Deviation from Schedule	0:13	0:08
Percentage of "Late" Runs (10 or minutes behind schedule)	27%	9%
Average Deviation from Schedule	0:03	0:01
85th percentile Deviation from Schedule	0:04	0:03

Source: 2017 On-Board Surveys

TRUCKEE TART ON-TIME PERFORMANCE

Study Team Survey Data of Winter Fixed Route On-Time Performance

As part of the on-board survey process, the surveyors tracked on-time performance of the winter fixed-route. Table 21 displays the summarized results for each direction. As shown, the maximum minutes that the bus ran behind schedule on any westbound run was 13 minutes while the latest eastbound run was 15 minutes late. Runs that were more than ten minutes behind schedule are considered "late." As shown in the table, 27 percent of westbound runs were late, and 9 percent of eastbound runs were late. On average, westbound runs operated three minutes behind schedule, and eastbound runs were two minutes late. The 85th percentile for tardiness was four minutes on both the westbound and eastbound runs. It should be noted that operating a few minutes behind schedule is beneficial, as passengers typically find it better to arrive a few minutes late rather than missing the bus and needing to wait a full hour.

Truckee TART On-time Performance Data

In addition to the Study Team survey effort, Truckee TART staff tracked information on actual run start time versus scheduled start time for several months in 2016 and 2017. A review of this data for a period during the winter schedule (December 15, 2016 through January 5, 2017) and non-winter schedule (September 1 through October 31, 2016) can help grant insight into overall route on-time performance, as well as any seasonal discrepancies in on-time performance. Per this data, twelve percent of the December runs began "late" (at least ten minutes behind schedule), and 21 percent of the early January runs were late. While twelve percent of September runs were also late, only three percent of October runs were late, suggesting (unsurprisingly) a lesser proportion of non-winter runs are late. On average, December runs began four minutes late and January runs began seven minutes late. September runs began five minutes late (on average) and October runs began three

minutes late. In total, while a larger proportion of winter runs are late and (on average) they start later than in the non-winter, the seasonal divergence is not as stark as might be expected.

EASTERN NEVADA COUNTY TRANSIT SERVICE LEVELS

Table 22 presents operating and performance data, including service levels operated by Truckee TART and Placer County TART in Fiscal Year 2015-16. In Fiscal Year 2015-16, Truckee TART fixed routes operated a total of 3,463 vehicle service hours and 64,680 vehicle service miles. The Truckee TART DAR service operated 3,402 vehicle service hours and 45,618 vehicle service miles. The NTTT program which is run by the Town of Truckee in partnership with TTD, operated 224 vehicle service hours and 4,878 vehicle service miles.

In the same year, Placer County TART operated 8,015 hours on the entire SR 89 route (not just within eastern Nevada County) and 3,118 hours on the entire SR 267 route.

EASTERN NEVADA COUNTY TRANSIT FINANCIAL ANALYSIS

Revenues

Table 23 presents actual Truckee TART operating revenues by source for Fiscal Year 2015-16. As indicated in the table, transit operating sources in Fiscal Year 2015-16 are composed of state funds (41.0 percent), followed by local funds (29.4 percent), and federal funds (29.6 percent). Overall, Transportation Development Act (TDA) Local Transportation Funds (LTF) account for \$330,680 or 34 percent of operating revenues. This is typically the largest funding source for public transit operators in California.

The total of Federal Transit Administration (FTA) grants equal a significant portion of the operating budget (29.6 percent). The FTA 5310 grant pays for DAR service beyond the ADA corridor. As shown, contributions from private entities for the Donner Summit Route represent \$82,024 or 6.5 percent of total revenue. As allowed per TDA rules, Donner Summit Shuttle contributions are considered “special transit” fare revenue for farebox ratio calculations, as the contribution is paying for specific riders along a specific route, ski resort employees. Other significant revenue sources for the Town of Truckee TART budget are mitigation fees from the Gray’s Crossing development (\$59,505) and Local Air Quality Mitigation Funds (\$79,360).

Table 22 also presents the Town of Truckee TART capital revenues by source for Fiscal Year 2015-16. Funds available for capital purposes such as vehicle replacement are State Proposition 1B Funds (65.1 percent) and Federal Funds (34.9 percent).

Expenses

Actual Truckee TART operating expenses for FY 2015-16 are presented in Table 24. The table does not include operating assistance the Town gives to Placer County for the portion of the Placer TART routes within Truckee. Total operating expenses for the fiscal year totaled the Truckee TART cost model service factors represent vehicle *revenue service* hours but *total*

TABLE 22: Eastern Nevada County Operating Data and Performance Indicators

Fiscal Year 2015-2016

	Truckee TART				NTTT	Placer County TART ⁽¹⁾			
	Winter Fixed Route		Non-Winter Fixed Route			Total Town of Truckee Operated Services	SR 89	SR 267	Area-wide
	Dial-A-Ride	Route	Route	Route					
Operating Data									
One-Way Passenger Trips	7,588	7,907	6,706	14,613	247	67,978	45,483	135,909	
Vehicle Revenue Hours	3,402	1,529	1,934	3,463	224	8,030	7,909	23,028	
Vehicle Revenue Miles	45,618	24,700	39,980	64,680	4,878	156,585	148,957	420,718	
Vehicle Total Miles	51,588	28,558	42,316	70,874	5,186	--	--	--	
Annual Costs									
Marginal Operating Costs	\$196,681	\$94,258	\$126,009	\$220,267	\$14,896	\$706,640	\$690,279	\$1,828,763	
Allocated Fixed Costs	\$196,966	\$88,510	\$111,978	\$200,489	\$12,956	\$220,745	\$217,409	\$848,564	
Total Annual Operating Costs	\$393,647	\$182,768	\$237,987	\$420,756	\$27,852	\$927,385	\$907,688	\$2,677,327	
Farebox Revenues	\$19,710	\$86,037	\$11,301	\$97,337	\$28,568	\$99,672	\$95,915	\$341,202	
Subsidy Required	\$373,937	\$96,732	\$226,687	\$323,419	-\$716	\$827,713	\$811,773	\$2,336,125	
Performance Indicators									
Average Fare	\$2.60	\$10.88	\$1.69	\$6.66	\$115.66	\$1.47	\$2.11	\$2.51	
Operating Cost Per Passenger Trip	\$51.88	\$23.11	\$35.49	\$28.79	\$112.76	\$13.64	\$19.96	\$19.70	
Subsidy Per Trip	\$49.28	\$12.23	\$33.80	\$22.13	-\$2.90	\$12.18	\$17.85	\$17.19	
Farebox Recovery Ratio	5.0%	47.1%	4.7%	23.1%	102.6%	10.7%	10.6%	12.7%	
Trips Per Vehicle Revenue-Hour	2.2	5.2	3.5	4.2	1.1	8.5	5.8	5.9	
Trips Per Vehicle Revenue-Mile	0.2	0.3	0.2	0.2	0.1	0.4	0.3	0.3	
Trips per Vehicle Total Miles	0.1	0.3	0.2	0.2	0.0	--	--	--	

Note 1: These figures represent the entire Highway 89 and Highway 267 routes, and therefore are not solely reflective of the portion that lies within Eastern Nevada County.

TABLE 23: Town of Truckee Transit Revenues

Fiscal Year 2015-2016

Source		Percent of Total
<u>Operating Revenue</u>		
Local Funds		
Transit Fares	\$35,023	3.6%
Donner Summit Shuttle	\$82,024	8.5%
Grays Crossing Contributions	\$59,505	6.2%
A4AA - NTTT Senior Shuttle	\$28,568	3.0%
Air Quality Mitigation Funds	\$79,360	8.2%
<i>Subtotal</i>	\$284,480	29.4%
State Funds		
Local Transportation Funds	\$330,680	34.2%
State Transit Assistance	\$64,895	6.7%
<i>Subtotal</i>	\$395,575	40.9%
Federal Funds		
FTA 5311	\$136,157	14.1%
FTA 5310 - Operations	\$150,000	15.5%
<i>Subtotal</i>	\$286,157	29.6%
Total Operating Revenue	\$966,212	100.0%
<u>Capital Revenue</u>		
Prop 1B PTIMSEA	\$233,500	58.6%
Prop 1B Cal OES	\$25,888	6.5%
FTA 5339	\$138,800	34.9%
Total Capital Revenue	\$398,188	100.0%
Total Revenue	\$1,364,400	--
<small>Source: Town of Truckee 2015/16 Estimated Actual Revenue Budget, 2017</small>		

\$842,254. The primary operating expense is the operating contract for DAR and fixed-route services (\$247,708) followed by the fixed route expenses (\$247,824).

Cost Allocation Model

When developing and evaluating service alternatives, it is useful to develop a “cost model,” which can easily show the financial impact of any proposed changes. Table 23 also presents the FY 2015-16 cost allocation model for Truckee TART and NTTT operations. It should be noted that the cost model shows the *total operating cost* rather than the *total subsidy*, which is total

operating cost minus passenger fare revenues. Each cost item is allocated to that quantity on which it is most dependent. Maintenance costs, for example are allocated to vehicle service miles. This provides a more accurate estimate of costs than a simple total-cost-per-vehicle-hour factor, which does not vary with the differing mileage associated with an hour of service on DAR versus the fixed-route.

Paratransit Services, the operating contractor, is paid a fixed monthly fee and per *revenue* vehicle hour (the time which vehicles are in service) for services provided. Fuel and vehicle maintenance (which represents per mile costs) are provided by the Town of Truckee. As such,

vehicle miles (includes both revenue and deadhead miles), as an increase in deadhead travel would increase the Town's per mile cost but not per hour costs. For FY 2015-16, the Truckee TART equation is:

$$\begin{aligned} \text{Operating Cost} &= \$1.09 \times \text{total vehicle miles} \\ &+ \$41.24 \text{ per vehicle service hour} \\ &+ \$410,410 \text{ annually for fixed costs} \end{aligned}$$

TABLE 24: Truckee Transit Fiscal Year 2015-16 Operating Expenses and Cost Allocation

Line Item	Allocation			Total Expense
	Fixed	Per Hour	Per Mile	
Town Personnel Expenses				
Salaries and Benefits	\$140,201	\$0	\$0	\$140,201
<i>Subtotal: Personnel</i>	\$140,201	\$0	\$0	\$140,201
Fixed Route Expenses				
Professional Services - Non-Winter	\$78,156	\$74,647	\$0	\$152,803
Professional Services - Winter Shuttle	\$31,741	\$59,003	\$0	\$90,744
Vehicles - Fuel	\$0	\$0	\$15,553	\$15,553
Fleet Maintenance Allocation	\$0	\$0	\$54,634	\$54,634
CalTIP Insurance	\$0	\$18,761	\$0	\$18,761
<i>Subtotal</i>	\$109,897	\$152,411	\$70,187	\$332,495
Dial-A-Ride Expenses				
Professional Services	\$112,046	\$139,938	\$0	\$251,985
Vehicles - Fuel	\$0	\$0	\$14,673	\$14,673
Fleet Maintenance Allocation	\$0	\$0	\$54,634	\$54,634
<i>Subtotal</i>	\$112,046	\$139,938	\$69,307	\$321,292
General Transit				
Education and Training	\$1,500	\$0	\$0	\$1,500
Advertising	\$500	\$0	\$0	\$500
General Supplies	\$525	\$0	\$0	\$525
Postage, Freight & Delivery, Printing	\$200	\$0	\$0	\$200
Membership & Dues	\$435	\$0	\$0	\$435
Professional Services	\$27,500	\$0	\$0	\$27,500
Professional Services - Audit	\$850	\$0	\$0	\$850
Telephone	\$2,856	\$0	\$0	\$2,856
Repair and Maintenance - Buildings & Office Equip.	\$12,550	\$0	\$0	\$12,550
Supplies - Shelters, Buses & Signs	\$1,000	\$0	\$0	\$1,000
Vehicles - Mileage	\$350	\$0	\$0	\$350
<i>Subtotal</i>	\$48,266	\$0	\$0	\$48,266
Total Operating Costs	\$410,410	\$292,350	\$139,494	\$842,254
Service Factors for FY 2015-2016		Vehicle Service Hours	Vehicle Total Miles	
		7,090	127,648	
Vehicle Revenue Hour Cost Factor	\$41.24			
Vehicle Total Mile Cost Factor	\$1.09			
Annual Fixed Cost	\$410,410			

Source: Town of Truckee Fy 2016/17 Expenditures Budget - FY 2015/16 Estimated Actual

This equation can be used to estimate the cost of any changes in service, such as the operation of additional routes or changes in service span. It is used as part of this study to evaluate performance of each service in Table 21 as well as the cost impacts of service alternatives later on in the study. It should be noted that the cost model does not include depreciation or capital items (such as vehicle purchases) made during the fiscal year. This cost model is intended to represent costs for Truckee TART fixed-route and DAR services (including NTTT) only. Therefore, it does not include costs associated with subsidy paid to TART for the operation of the SR 89 and SR 267 routes. A similar cost model for Placer TART was provided by Placer County.

EASTERN NEVADA COUNTY TRANSIT SERVICES PERFORMANCE EVALUATION

To gain further insight into the efficiency and effectiveness of transit services in eastern Nevada County, it is useful to conduct a detailed analysis of a variety of performance measures on a route or service type level.

Operating Characteristics by Service

Table 21 presents operating and performance data for all services operated by the Town of Truckee and Placer TART routes serving Truckee in FY 2015-16. As presented in the table, annual ridership by service ranges from a low of 247 on the NTTT service to a high of 67,978 on the TART SR 89 service. During the winter months, 7,522 one-way passenger-trips were provided on the Truckee fixed-route, representing 52 percent of annual Truckee fixed-route ridership.

Truckee TART annual operating costs were allocated between the various services based on the cost model presented in Table 23. Placer TART operating costs were based on data provided by Placer County. As noted in the table, the Placer TART services are representative of the entire SR 89 and SR 267 routes, not solely service provided within the Town of Truckee. Combined, the operating cost of the Town of Truckee's transit services totaled \$842,254. Out of Town of Truckee services, the DAR service costs were the greatest (\$393,647), followed by the non-winter fixed-route (\$237,987) and winter fixed route (\$182,768). As the Placer TART's SR 89 and SR 267 services cover a larger area with more frequent service levels, they are significantly more expensive (\$927,385 and \$907,688).

The total farebox revenues collected on the Truckee TART routes and contributed by other organizations was \$145,615. Services which receive private contributions or specific grant funding for specific passengers such as the winter fixed route and the NTTT service have much higher farebox revenues. As an example, the non-winter fixed route only receives \$11,301 in fare revenues while the winter fixed route receives \$86,037.

Operating subsidy is defined as operating cost minus fare revenues. The TART SR 89 service required the highest annual subsidy (\$827,713), followed by SR 267 service (\$811,773), and the Truckee DAR service (\$373,937). The NTTT service requires no operating subsidy as the Agency on Aging Area 4 grant pays for the total cost of the service. Table 21 shows a negative subsidy for the NTTT service. This is a result of the fact costs in Table 21 were allocated based on the

cost model in Table 23 and may differ from estimated costs of the NTTT service for grant purposes. The winter Truckee TART route has a much lower operating subsidy of \$96,732 than the non-winter route at \$226,687.

Operating Performance by Service

The financial efficiency of a transit system can be measured by the **operating cost per passenger-trip**, as presented in the bottom portion of Table 21. Systemwide, the operating cost per passenger-trip for transit services operated by the Town of Truckee was \$37.52. The winter service was the most cost efficient (\$23.11 per trip), while the NTTT was the least cost efficient at \$112.76 per trip, followed by DAR (\$51.88 per trip). Placer TART SR 89 service had a cost of \$13.64 per passenger-trip, while the SR 267 cost \$19.96 per passenger-trip.

When fare revenue is subtracted from the total operating cost and divided by the number of one-way passenger-trips, the **subsidy required per passenger-trip** is calculated. This performance measure is particularly important, as it directly compares the most significant public “input” (public subsidy funding) with the most significant “output” (passenger-trips). As shown in the table, the Placer TART 89 required a relatively low subsidy of \$12.18 per passenger-trip. The SR 267 route operating subsidy was \$17.85. Combined, the subsidy per passenger-trip of the Town of Truckee’s transit services was \$31.03 per trip with DAR requiring the greatest subsidy of \$49.28 and NTTT requiring no subsidy.

A measure of the portion of operating cost which is covered by passenger fares is the **farebox recovery ratio**, defined as the total fare revenues (whether provided by the passenger in the farebox or by a private organization) divided by operating costs. This information is presented in the Table 21. The farebox recovery ratio is particularly important for determining the level of eligibility for TDA funds. The farebox recovery ratio for Truckee TART services (not including NTTT) was 14.4 percent which meets the TDA minimum requirement of 10.0 percent for full eligibility of LTF funds. Of the services which are not 100 funded by grants, the Truckee TART winter fixed-route had the highest farebox recovery ratio (47.1 percent). The non-winter fixed-route and DAR both had relatively poor farebox recovery ratios (5.0 percent and 4.7 percent respectively). For comparison, the TART 267 route had a farebox ratio of 10.6 percent and the SR 89 route was about the same, at 10.7 percent.

An important measure of service effectiveness is productivity, defined as the number of one-way **passenger-trips provided per vehicle revenue hour**. As shown in the table, the area as a whole achieved a productivity of 5.9 one-way passenger-trips per vehicle service hour. Combined, all services operated by the Town of Truckee carried 3.2 one-way passenger-trips per vehicle revenue hour. Not surprisingly, the TART SR 267 and SR 89 services boasted the highest productivity figures (5.8 and 8.5, respectively), followed by the Truckee Winter Shuttle service (5.2). The services with the lowest average passenger-trips per hour were the demand-response services: NTTT (1.1) and DAR (2.2).

Another measure of service effectiveness is the number of one-way **passenger-trips provided per vehicle service mile**. As shown in the table, the TART SR 89 service had the highest trips per

vehicle service mile (0.4), followed by the Placer TART SR 267 and Truckee TART winter fixed-route (each with 0.3). As the NTTT service travels the greatest distance, it recorded the lowest passenger-trips per mile (0.1).

Operating Performance Evaluation of Truckee Special Events Shuttles

Table 25 presents operating data and performance indicators for the Special Event Shuttles funded by Town of Truckee General Funds and private entity contributions. As shown in Table 25, the Truckee Thursday Shuttles were the most cost efficient as it cost only \$4.91 per passenger-trip. For comparison purposes the most efficient Truckee TART service was the Winter Route with a cost of \$23.11 per trip. The 4th of July Shuttles were also rather cost efficient with a cost per passenger of \$5.83. The Holiday Shuttles recorded a higher cost per trip of \$33.16.

Similarly, productivity, measured in terms of passenger-trips per hour is rather significant on the 4th of July Shuttles (37.6) and the Truckee Thursday’s Shuttle (27.6) passenger trips carried per vehicle service hour. Productivity on the Holiday Shuttles was more similar to the Truckee TART DAR, 2.5 passenger-trips per hour.

TABLE 25: Holiday and Special Event Shuttles Operating Data and Performance Indicators				
<i>\$2,016.00</i>				
	Truckee Thursday⁽¹⁾	July 4th	Holiday Shuttle⁽²⁾	Total
Operating Data				
One-Way Passenger Trips	8,909	1,052	1,760	11,721
Vehicle Revenue Hours	323	28	692	1,043
Costs				
Total Annual Operating Costs	\$43,784	\$6,129	\$58,365	\$108,278
Performance Indicators				
Operating Cost Per Passenger Trip	\$4.91	\$5.83	\$33.16	\$9.24
Trips Per Vehicle Revenue Hour	27.6	37.6	2.5	11.2
Note 1: Town funded shuttles only				
Note 2: Holiday Shuttle operated 12/26-12/31				
Source: Truckee Transit				

HUMAN SERVICE ORGANIZATIONS AND TRANSPORTATION PROVIDERS

In addition to the local general public systems discussed above, the following services also serve the eastern Nevada County region:

- **Tahoe Forest Hospital** - The Extended Care Center (ECC) of Tahoe Forest Hospital in Truckee provides limited transportation for their 36 residents. The hospital acquired one van

through a Community Foundation Grant that can accommodate four seated passengers plus two passengers in wheelchairs. The van is used to transport residents to scheduled activities (generally in Reno) and a scheduled scenic drive (once per month). In addition, transportation is provided for out-of-area medical appointments when family members are unable to assist with the trip. Only one or two passengers are typically transported at a time for medical appointments. ECC staff coordinates with Choices, a local therapy/learning center for developmentally disabled individuals, to arrange DAR trips between the hospital and Choices on Pioneer Trail. Approximately two ECC residents take Truckee DAR to Choices anywhere from two to three times per week.

- **Nevada County Health and Human Services Agency** – This County agency provides the Truckee community with many vital resources for assistance including adult protective services, in-home support services, public conservatorship, and senior nursing programs. The Truckee offices are located at The Joseph Center on Levon Avenue. The agency does not provide transportation for clients, but may assess the transportation needs of disabled clients. The Nevada County Health and Human Services department administers a volunteer driver program for veterans. The Veteran’s Service Office (VSO) in Nevada County provides transportation to the Reno Veterans Administration (VA) Medical Center on Tuesdays and Wednesdays through local volunteer drivers. Transportation is also available to medical appointments in other locations (such as Auburn and Sacramento) on a case-by-case basis.
- **Sierra Senior Services** – Sierra Senior Services is a non-profit advocacy organization for seniors in the Truckee region. The agency offers a donation-based senior nutrition program (which includes both Meals-on-Wheels and a congregate senior lunch program), wellness clinics and programs, resources and referrals, and a plethora of community activities. Sierra Senior Services prepares and serves congregate meals at the Truckee Donner Senior Apartments on Estates Drive, although Sierra Senior Services does not operate the Senior Apartments themselves. The Senior Apartments are also available to both seniors and disabled persons. Both Truckee fixed route and the DAR service serve the Senior Apartments multiple times per day.
- **Alta California Regional Center (ACRC)** – provides assistance and services to people of all ages with specific developmental disabilities (including Intellectual Disability, Cerebral Palsy, Epilepsy, and Autism) and their families. ACRC’s mission is to *“create partnerships to support all eligible individuals with developmental disabilities, children at risk, and their families in choosing services and supports through individual lifelong planning as a means to achieve healthy and productive lives in their own communities.”* Eligible persons are assigned a Service Coordinator, who helps identify and coordinate needed services through either pre-existing resources in the community or through services purchased for the consumer by ACRC. With respect to transit service in Truckee, ACRC pays for consumers to ride DAR to and from life skills programs such as Choices (discussed below). For consumers in the North Lake Tahoe area, ACRC reimburses family members to transport clients to the Truckee programs. All of ACRC’s Truckee consumers (this includes Choices consumers) are considered ADA-eligible and utilize public transit including DAR, Truckee TART fixed-routes, and Placer TART.

- Truckee Choices Person Centered Services** – promotes independence and personal development to the people they serve. In order to be eligible for Choices, an individual must be 18 years of age and either developmentally or mentally disabled (among other qualifiers). Choices provides Supported Living Services, Independent Living Services, and Adult Day Program Services. Programs foster skills such as community integration, academics, cooking, cleaning, art and culture, money management, safety, and more. All of the Truckee Choices consumers (which currently amount to ten individuals) are transit dependent. Alta covers the cost of their Truckee DAR transportation to and from the consumer’s residences and volunteer destinations (such as the Truckee Humane Society, Donner State Park, and the Hospice Thrift Store, and the School of Music). Programs begin around 9:00 AM and end around 2:00 PM. Recently, Choices staffers have often used private vehicles to transport consumers to different activities, but there are plans to transfer most of the transportation services to Truckee DAR.
- Tahoe-Truckee Unified School District-Special Education** – Several teachers at the local school district coordinate with DAR to arrange trips for students. Common TTUSD origins and destinations include: Alder Creek Middle School, Truckee High School, Sierra Expeditionary Learning School, Hampton Inn Truckee, and In His Care. DAR analysis shows that, during the school calendar months, TTUSD passengers make up about twelve percent of total DAR ridership.

OTHER TRANSIT PROVIDERS

North Lake Tahoe Express

The North Lake Tahoe Express is an airport shuttle service, first initiated in 2006, operating between the Reno Tahoe International Airport and the North Lake Tahoe, Truckee, and Incline Village regions. The Green Route provides service between Truckee (including a stop at the Train Station), Northstar, and the Reno-Tahoe International Airport. Truckee pickup locations include the Truckee Airport and Truckee Train Depot. The Green Route departs the Reno-Tahoe International Airport for Truckee at 3:15 PM and 12:00 AM, and departs the Truckee/Northstar area for the airport at 6:00 AM and 9:15 AM. Reservations are required 24 hours in advance, and the service is operated year round. One-way fares range from \$32 to \$49.

Private Ridesharing

SnowPals - Beginning in 1999, SnowPals.org provides a free online tool for visitors to coordinate carpool trips to and within ski resort towns. The SnowPals Tahoe Rideshare program specifically provides connections for San Francisco/Bay Area residents. It is up to carpoolers to determine the cost of the ride and facilitate the transfer of money.

Uber/Lyft – In 2015, Uber announced that it would begin serving North Lake Tahoe and Truckee. Lyft followed suit in 2016, and the two companies are now present in the North and South Lake Tahoe regions.

Private Taxicab Companies

There are a variety of taxicab companies available in the Tahoe-Truckee area. Until recently, Tahoe Blue Taxi operated complementary paratransit service for Placer TART.

Private Regional Shuttle Companies

Several private shuttle companies (including Bay Area Ski Bus, Rally Travel Bus, and North American Charter) offer individual and group transportation between the Bay Area and Tahoe. Trips are available in the winter and are generally provided on Saturdays and Sundays.

Greyhound Lines, Incorporated

Greyhound operates service along the I-80 corridor between Reno and Sacramento (and beyond). There are a total of five runs per day along I-80 in each direction, of which three serve the Truckee Train Depot in the eastbound direction and two in the westbound direction. Eastbound departures from Sacramento are at 9:25 AM, 1:15 PM, and 6:35 PM, serving Truckee at 12:05 PM, 3:50 PM, and 8:45 PM, respectively and then arriving in Reno 50 minutes later. Westbound buses traveling to Sacramento depart Reno at 6:25 AM and 2:50 PM, stop in Truckee at 7:15 AM and 3:40 PM, arriving in Sacramento at 9:50 AM and 6:15 PM. Fares between Truckee and Reno are \$9 to \$19, while fares between Truckee and Sacramento are \$25 to \$44. It is possible to make a day return trip from Truckee to both Reno and Sacramento.

Amtrak

Truckee is served by Amtrak's *California Zephyr* route which travels from the San Francisco Bay Area to Chicago. The train departs Emeryville (Bay Area) daily at 9:10 AM and arrives in Truckee at 2:38 PM; the return train leaves at 9:37 AM and arrives in Emeryville at 4:10 PM. Traveling to Chicago, the train departs Truckee at 2:38 PM and arrives in Chicago at 2:50 PM two days later. Traveling to Truckee, the train departs Chicago at 2:00 PM and arrives at the Truckee Train Depot at 9:37 AM two days later. Fares for a one-way trip between Truckee and Sacramento start at \$44.

In addition to train service, Amtrak Thruway Bus Service is also offered from Sacramento. Passengers arriving into Sacramento through the Coast Starlight (originating in Los Angeles and Seattle), Capital Corridor (originating in San Jose) or the San Joaquin (originating in Bakersfield) routes can connect with a bus to the Truckee Train Depot. Buses depart Sacramento at 10:15 AM, 12:30 PM and 4:20 PM daily, while buses depart Truckee at 8:40 AM, 12:05 PM and 3:25 PM. Passengers using the bus service must be booked on a trip that also includes a rail leg.

TRUCKEE TART ON-BOARD PASSENGER SURVEY

Fixed Route On-Board Passenger Opinion Surveys

On-board surveys of passenger travel patterns and opinions were conducted over a two-day period on all of the fixed route runs (with the exception of the Donner Summit stops between 7:47 AM and 8:37 AM) to better understand passenger activity, ridership patterns, and overall perception of the system. The surveys were distributed by a surveyor between the dates of March 9th and March 10th, 2017. A total of 22 surveys were completed. Copies of the survey form and specific passenger comments are listed in Appendix A. Key findings of this survey are as follows:

- With respect to how passengers got to the bus, 73 percent of respondents walked, followed by 14 percent who transferred from another bus. Other modes of travel included getting dropped off, skateboarding, and the Sugar Bowl Gondola.
- The majority of respondents (61 percent) stated they were only traveling one-way. As many of these surveys occurred on the afternoon runs, it is likely that this was the return trip for them and the question was misinterpreted. Among those who stated they will be making a return trip, 43 percent planned to hitchhike, and another 43 percent planned to get a ride with someone.
- The majority of respondents were traveling for work (45 percent), recreational/social purposes (32 percent), and shopping (14 percent).
- 50 percent of the respondents ride Truckee TART 4-5 days per week, 27 percent ride 2-3 days per week, and the rest ride less frequently.
- When asked how long they've been using Truckee TART, the most common answer (for 64 percent of the respondents) was less than 6 months. 27 percent of respondents have been riding Truckee TART for more than a year, and another 9 percent were riding for the first time. This indicates that most of the winter passengers are seasonal employees.
- Many respondents (39 percent) referred to the Truckee TART printed or posted bus schedule in order to plan their trip. Another 22 percent planned their trip by calling Truckee TART. This is followed by 21 percent who asked friends, coworkers, or the bus driver for trip information, and 17 percent plan trips utilized the internet.
- Out of 22 respondents, 41 percent classified themselves as full-time residents, 41 percent as seasonal residents, and 18 percent as visitors to the area.

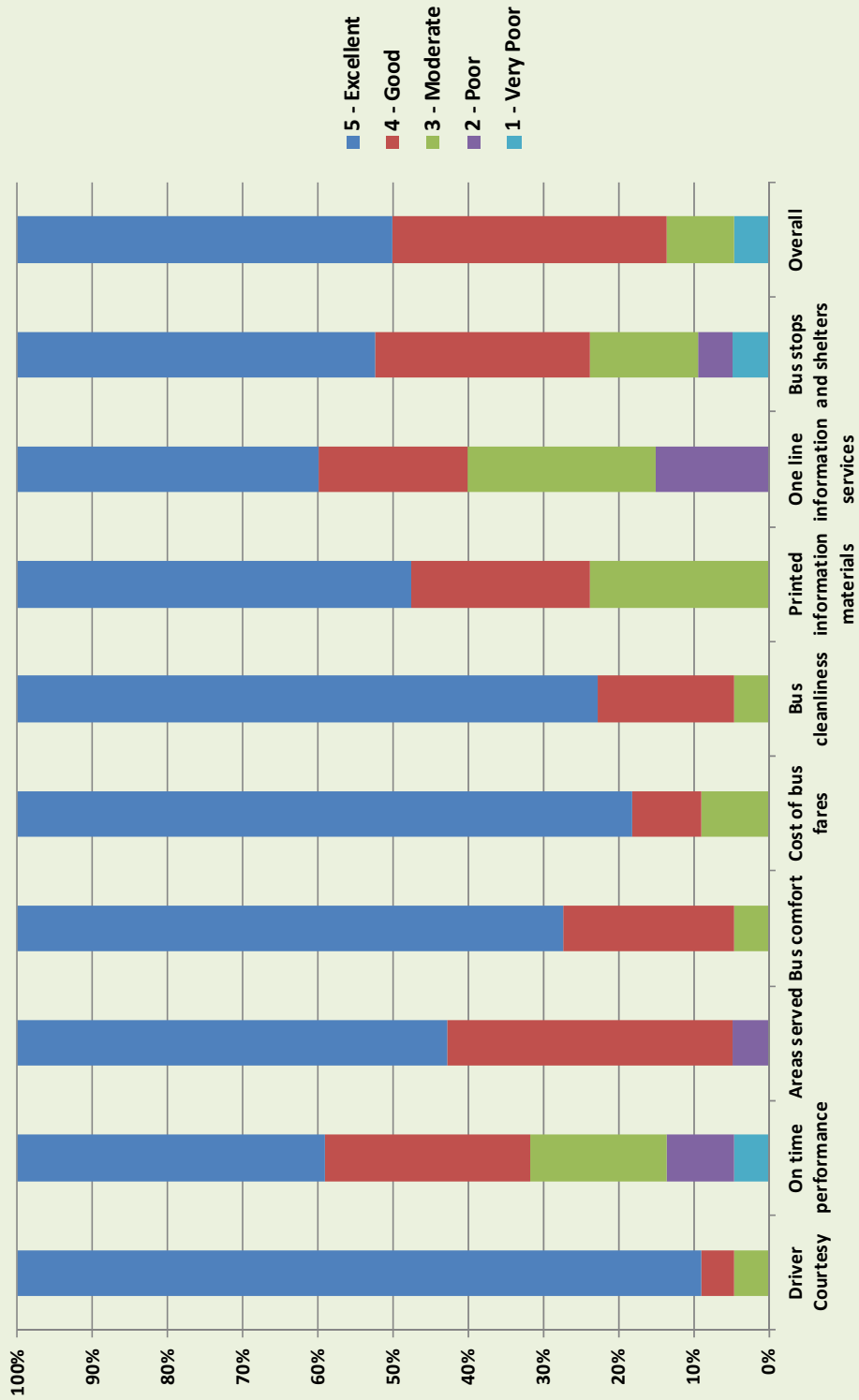
- Only one respondent required a wheelchair to board and exit the bus, and two had a disability that limits driving.
- Although 41 percent of the respondents possessed a driver's license, a car was not available for the trip for 82 percent of respondents.
- More respondents were male than female (55 versus 45 percent).
- 21 out of the 22 respondents were ages 18-59, and 1 respondent was over the age of 75.
- Most of the respondents were employed full-time (73 percent) or part time (18 percent). One respondent was a student, and another was retired.
- Passengers were asked to rank transit service characteristics of Truckee TART on a scale of "Very Poor" to "Excellent." The results are shown in Figure 17. As illustrated, "Driver Courtesy" received the highest rating, with 96 percent of the riders rating it at "Good" to "Excellent." "Cost of Bus Fares," "Bus Cleanliness," and "Bus Comfort" also received relatively high ratings. "Online Information Services" and "On Time Performance" received the lowest ratings. Fully 87 percent indicated that their opinion of the overall service was either "Excellent" or "Good".
- Respondents were also asked to mark all service improvements that they would like to see on Truckee TART. The most common requests were for more frequent service (73 percent of respondents), new or extended routes (36 percent of respondents), later weekday service (23 percent of respondents), and Sunday service (18 percent of respondents). Very few respondents were concerned with adding increased hours on Saturday.

Dial-A-Ride Surveys

Similarly, LSC Transportation Consultants conducted on-board surveys on the Dial-A-Ride bus on March 10, 2017. Drivers distributed surveys to passengers the following week. A total of ten surveys were completed. Key findings of this survey are as follows:

- On average, passengers were picked up within 9 minutes of their scheduled pick-up time. One passenger was picked up 16 minutes before the scheduled pick up time, just one minute outside of the 15 minute window.
- Three of the respondents scheduled their ride more than 7 days in advance, another 2 scheduled their ride 4 to 7 days in advance, 3 respondents scheduled their ride 1 to 3 days in advance, and 2 passengers were on a subscription trip.

Figure 17: Fixed Route Passenger Perception of Truckee Transit Attributes
On a Scale from 1-Poor to 5-Excellent



- As for DAR trip purposes: 3 respondents were going shopping, 3 were going to Choices, 2 were traveling for school or work, 1 was traveling to Spring Break Camp, and 1 was traveling for Hospice.
- Out of the 10 respondents, 2 had a vehicle available that they could have used to make the trip.
- If DAR services weren't available, 40 percent would not have made the trip, and the remaining passengers would have gotten a ride.
- Six passengers used DAR because they "enjoy using door-to-door service" and the others have a "disability that makes use of the fixed route bus difficult" or have difficulty bringing grocery bags on the bus.
- 86 percent of the respondents were female.
- Most of the respondents (50 percent) were ages 25-59, 20 percent of the respondents were ages 19-24, and 30 percent of the respondents were ages 60-74.
- Two of the ten passengers required a wheelchair lift to access the bus.
- In terms of frequency of use, 30 percent of the respondents use DAR daily, 40 percent use the service 2-4 days per week, 20 percent use it 1 day per week, and 1 of the respondents was using it for the first time.
- Only two of the ten respondents had a driver's license.
- When asked what other regional services they use, eight of the ten used Truckee TART, one respondent uses Amtrak, and another respondent uses Placer TART to North Lake Tahoe.
- The most common service improvements requested among respondents was: "improved on-time performance," "better dispatch communication," and "improved adherence to scheduled trips".
- Three of the respondents stated they live at the Senior Apartments, one in the Extended Care Unit of Tahoe Forest Hospital, two live in Glenshire, and the others did not specify a location in Truckee.
- Passengers were asked to rank transit service characteristics of Truckee TART on a scale of "Very Poor" to "Excellent." DAR characteristics with the highest overall ratings (ratings of "Excellent" among all eight respondents) were "System Safety," "Driver Courtesy," "Bus Cleanliness," "Bus Comfort," and "Printed Information Materials." "On-time Performance" and "Overall Service" received the lowest average ratings.

COMMUNITY SURVEY

During the month of March, 2017, a Community Survey was available on www.SurveyMonkey.com in order to gather input from community members (including those who are not regular public transit riders) regarding local public transit. Surveys were available in English and Spanish. Survey ads and links were distributed the following ways:

- Truckee/Tahoe People Facebook Group (10,945 current members)
- Sierra Sun
- Truckee Donner Chamber of Commerce
- Truckee North Tahoe Transportation Management Association

A copy of the survey questions and more detailed results are presented in Appendix A. A total of 145 Community Surveys were completed. The results are as follows:

- Out of 143 respondents, 86 percent classified themselves as full-time residents, 8 percent as seasonal residents, and 6 percent as visitors.
- The greatest proportion of respondents stated they live in Glenshire/Olympic Heights (21.9 percent), followed by Tahoe Donner (13.9 percent), Sierra Meadows/Ponderosa Palisades (12.4 percent), and Prosser (8.0 percent). Roughly 19 percent of respondents stated that they live outside of the study area with some living as far away as Quincy or Reno. Some of these respondents may work in the Truckee area and therefore are still potential users of eastern Nevada County public transit.
- A majority of the respondents (88 percent) have a car, and almost all of them (96 percent) have a driver's license.
- Over half of the respondents (57 percent) have ridden some form of TART service (either Truckee TART or Placer County TART).
- Only 58 people provided information pertaining to the frequency of their Truckee TART use. Of these, 71 percent use the service one time per month, 17 percent use it one time per week, and 12 percent ride Truckee TART services 5 or more times per week.
- Respondents who have ridden TART services before were asked to identify which public transit routes they have used in the past. TART Highway 89 service was the most common response demonstrating the need to connect Truckee to the ski resorts along the 89 corridor and Tahoe City. The free services operated by both the Town of Truckee and Placer TART were also popular. Specifically responses were:
 - Truckee TART bus between Truckee and Donner Summit – 9.3 percent
 - Truckee TART bus between Truckee and Donner Lake – 10.6 percent
 - TART Mainline between Incline Village and West Shore – 32 percent
 - TART Hwy 267 – 32 percent
 - Holiday and/or New Year's Eve Shuttle – 34.7 percent

- Truckee Thursday Shuttle – 33.3 percent
- TART Hwy 89 – 56 percent
- Free Night Service – 36.0 percent
- The most requested improvements to public transit for those respondents who have used public transit services were:
 - More frequent service – 76.8 percent
 - Expand service into the neighborhoods – 63.7 percent
 - Later service – 49.3 percent
 - Earlier service – 20.3 percent
- Respondents’ reasons for not using public transit services in the region included:
 - Doesn’t pick up near my house – 70.5 percent
 - Operates too infrequently – 54.5 percent
 - Does not serve where I need to go – 54.5 percent
 - Does not operate early enough – 6.8 percent
 - Too expensive – 2.3 percent
 - Several others commented that they have no need to ride TART because they drive, ride bikes or it is difficult to travel with infants.
- In line with reasoning for not using public transit, respondents who do not ride public transit feel that serving the outlying neighborhoods is the most important improvement to public transit. Specifically they stated:
 - Expand service into neighborhoods – 84.6 percent
 - More frequent service – 46.2 percent
 - Later service – 20.5 percent
 - Earlier service – 15.4 percent

An extensive list of written comments was received in response to reasons for not using public transit and potential public transit improvements. It should be noted that many of the comments apply to both Placer and Truckee TART services. All comments are presented in Appendix A. One of the most common responses was to improve on-time performance. Many respondents felt they could not rely on public transit for work or other travel purposes. Other requests included: more direct service between popular origins and destinations, service to the neighborhoods particularly Glenshire and Tahoe Donner (though some respondents did not approve of this idea), more bus pass options, greater access to regional connections (Reno and North Lake Tahoe), free transit service, free late night service and better service to the ski areas. Despite good marketing efforts by the Transportation Management Association (TMA), there appears to be many residents who are unaware of services.

PUBLIC WORKSHOP

A public workshop was held on September 11, 2017 at the Truckee Donner Senior Apartments to discuss the service alternatives with the general public and stakeholders. Appendix B displays comment received along with advertising materials.

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UNMET TRANSIT NEEDS

The California Transportation Development Act (TDA) is the primary source of funding for public transit in Nevada County. TDA requires annual unmet transit needs hearings if a jurisdiction proposes to spend some TDA funds on streets and roads. In recent years, Nevada County has not allocated TDA funds for streets and roads purposes. Therefore, an official unmet needs report is not prepared. NCTC does, however, hold a public meeting each year to receive public input on transit needs in the region.

Unmet Needs Meeting FY 2016-2017

NCTC, Tahoe Regional Planning Agency (TRPA), and the Placer County Transportation Planning Agency (PCTPA) held a joint unmet transit needs meeting on October 26, 2016. This meeting generated the following comments regarding unmet transit needs in Truckee and the greater Tahoe/Truckee region:

- There is limited parking at Tahoe Forest Hospital, and this could be alleviated by having employees park at the Recreation Center and using transit to shuttle them to-and-from the Hospital
- The TART SR 89 and SR 267 routes should operate every 15 minutes
- Free bus rides or passes should be provided for low-income persons and families
- Everyone should be able to ride the bus for free
- The number of pickup and drop-off locations should be increased
- SR 89 and 267 TART buses should not drive up the access roads at the resorts
- Routes should operate more frequently
- TART should operate year-round on half-hourly headways
- Efforts should be made to educate the public (both in English and Spanish) about how to use the bus
- All bus stops should have seating and weather-friendly coverings
- Transit should partner with Uber or Lyft to connect remote riders to stops

Unmet Needs Meeting FY 2015-16

On October 28, 2015 the NCTC, TRPA and the PCTPA held a joint public workshop to discuss unmet transit needs. The following comments were made at this meeting with respect to transit in Truckee:

- Soda Springs and Serene Lakes residents need transit opportunities
- County-specific transportation programs to service underserved community members should collaborate and expand to serve Tahoe Truckee area regardless of county boundary

- Explore transportation options for youth, senior and other community members to access difficult to reach places, support programs, educational opportunities, and other extracurricular programs
- Regional and out-of-area programs should be supported and enhanced to give the Truckee community greater access to resources not available locally
- An express bus from Tahoe City to Truckee could benefit employees
- An additional Nevada County bus is desired
- Later service is needed to and from the ski resorts, medical appointments, public meetings, Sierra College, and between residential and commercial areas
- Tahoe transit should be free
- More frequent buses are desired in the Tahoe area
- The Senior Apartments bus stop needs a shelter
- Tahoe Truckee TART should have better representation at regional transportation meetings
- There should be comprehensive regional transit outreach
- There should be better transportation for seniors getting to and from medical appointments
- Collaborate with local organizations to coordinate, streamline, and expand transit efforts

Unmet Needs Meeting FY 2014-2015

The NCTC, TRPA and the PCPTA held a joint workshop on October 22, 2014 to discuss unmet transit needs in Truckee and North Tahoe. The following comments were made regarding the Truckee area:

- Soda Springs residents need year-round transit
- North Lake Tahoe residents needs out-of-area medical transportation
- There should be year-round SR 267 service
- The need for out-of-area transportation to Auburn, Nevada City, Reno and Sacramento for medical and/or county services.

TRANSIT DEMAND AND TRANSIT NEEDS SUMMARY

A key step in developing and evaluating transit plans is a careful analysis of the transit demand and needs of various segments of the population and the potential ridership of transit services. The discussion below summarizes relevant data collected in the previous chapters and reviews the potential transit demand.

Transit Dependent Demand

Older Adult Transit Demand

In rural areas, the majority of transit passengers are typically “transit dependent,” which includes the older adult population. Looking more closely at the Census data discussed earlier shows that West Tahoe Donner (Census Tract 12.04, Block Group 3) and the area between Alder Hill and Tahoe Donner Golf Course (Census Tract 12.03, Block Group 2) include a high concentration of elderly residents. Block Group 3, the Lower Sierra Meadows area within Census Tract 12.06, also has a high senior population, largely due to the Tahoe Donner Senior Apartments located on Estates Drive. This apartment complex is served by both fixed route and Dial-A-Ride services. DAR data for the months of July through March of 2016 shows that seniors account for roughly 15 percent of ridership on the service.

Also important to consider is the aging of the population. According to the California Department of Finance, the Nevada County population age 62 and older will increase by 39 percent between 2010 and 2020. While this figure is countywide, one can assume that Truckee will experience a similar increase in the older adult population, particularly as Truckee is a popular area for retirees.

Disabled Persons Transit Demand

In addition to seniors, disabled persons generally comprise a significant portion of public transit demand, particularly in rural areas. According to DAR data for the months of July through March, 2016, roughly 88 percent of ridership on the Dial-A-Ride service was from disabled passengers (including those that require wheelchairs). Neighborhoods with higher proportions of disabled residents include Armstrong Tract (Census Tract 12.04, Block Group 2) and eastern Nevada County outside of Truckee (Census Tract 9, Block Group 3).

The *ADA Paratransit Handbook*, 1991, states that roughly 1.5 percent of the nation’s population is ADA paratransit eligible due to:

- Being unable to board, ride or disembark from a vehicle even if they are able to get to the bus stop and even if the vehicle is wheelchair-accessible, or
- Having a specific impairment-related condition and cannot travel to a boarding location or from a disembarking location to their final destination.

Applying this 1.5 percent figure to the Study Area population in 2015 (16,892 persons), we can estimate that approximately 253 persons may be eligible for ADA paratransit service. The *ADA Paratransit Handbook* references low and high trip rates for ADA eligible individuals of 1.2 and 4.4 trips per person per month in rural areas. By applying this rate, Truckee would have a potential low ridership demand of 3,600 ADA annual one-way passenger-trips per year and a potential high ridership demand of 13,300 annual one-way passenger-trips per year. The average of these two figures is 8,500 annual one-way passenger-trips per year. Actual ridership

in Fiscal Year 2015-16 for senior and disabled persons on Truckee Dial-A-Ride was 5,877 passenger-trips. This is at the lower-end of the ridership potential from the ADA demand estimation discussed above.

Given the general characteristics of eastern Nevada County, including steep terrain, inclement weather and relatively few services, it is unlikely that the disabled population will grow substantially to generate an increased demand of 8,500 passenger-trips or more. However, there is potentially unserved ADA transit demand.

Youth Transit Demand

Youths (age 5 to 17) typically utilize transit for social purposes as well as for school trips. As such, it is important to consider the demand and needs associated with this population group. A review of the US Census data discussed earlier shows that the greatest concentrations of youths reside in the Downtown Truckee area (Census Tract 12.06, Block Group 4) and Central Glenshire (Census Tract 12.05, Block Group 2). While downtown Truckee is well-served on the current route, Glenshire does not have regular fixed route service. Truckee TART fixed route does provide service to the high school year round, as well as a number of other school locations. However, this is not beneficial to students who live outside of the commercial core, such as those in the Glenshire neighborhood, for example.

Zero Vehicle Households

Transit Cooperative Research Program (TCRP) *Report 161, Methods for Forecasting Demand and Quantifying Need for Rural Transportation* defines transit need as the number of people in a geographic area likely to require public transit service. The mobility gap methodology is one way to quantify transit need. The mobility gap for an area is defined as the difference between the number of trips made by persons who reside in households owning one personal vehicle and the number of trips made by zero vehicle household members that would likely be made by those persons if they had access to a personal vehicle. The greater the difference between the two indicates a greater transit need.

Data pertaining to trip rates per household is available through the 2009 National Household Travel Survey (NHTS). The mobility gap is calculated by subtracting the daily trip rate of zero-vehicle households from the daily trip rate of households with one vehicle. According to the *2012 Transit Cooperative Research Program (TCRP) Document 58*, which relies on the 2009 NHTS data, the mobility gap for rural California is 1.1 trips per day.

To calculate transit need for each block group of the study area, the number of zero-vehicle households was multiplied by the mobility gap number (1.1). Table 26 shows this information for the block groups in the study area.

In general, this approach establishes a level of transit need. Research shows that in the testing of these suggested methodologies with a number of rural transit agencies, it was found that at best only about 20% of the Mobility Gap trip-based need was met. In eastern Nevada County,

Table 26: Mobility Gap Analysis

Census Tract	Block Group	Description	Zero Vehicle Households	Mobility Gap	% Total Mobility Gap
\$9.00	\$3.00	Eastern Nevada County outside of Truckee ¹	27	30	9%
	\$1.00	Tahoe Donner Golf Course Area	10	11	3%
\$12.03	\$2.00	Northeast Tahoe Donner	9	10	3%
	\$3.00	Prosser Lake Heights / Alder Hill	29	32	10%
\$12.04	\$1.00	N Donner Lake	12	13	4%
	\$2.00	Armstrong Tract	60	66	21%
	\$3.00	West Tahoe Donner	0	0	0%
\$12.05	\$1.00	Airport / S Polaris / S Glenshire	0	0	0%
	\$2.00	Central Glenshire	0	0	0%
	\$3.00	N Polaris / Between Truckee and Glenshire	0	0	0%
	\$1.00	Ponderosa Palisades	0	0	0%
\$12.06	\$2.00	Gateway	55	61	19%
	\$3.00	Lower Sierra Meadows	49	54	17%
	\$4.00	Southern Downtown Truckee	39	43	13%
	\$5.00	Prosser Lakeview/Gray's Crossing	0	0	0%
Total Study Area			290	319	100%

Note 1: Floriston and Donner Summit communities

to make up for the gap in mobility, 319 daily one-way transit trips would need to be provided in eastern Nevada County. Assuming roughly 300 days per year of service, the annual mobility gap is 95,700 for the study area. This high number of transit trips reflects the need if an unlimited level of transit service were provided, which in reality is not feasible. Nonetheless, providing a relative level of need is instructive in determining where the greatest shortcomings may exist.

As shown in the table, the Armstrong Tract block group area's trip need of 66 daily-trips accounts for 21 percent of the total study area trip need. The Gateway Area has the next highest trip need, at 142 daily-trips. Both of these areas are relatively close to transit services.

Employee / Commuter Transit Demand

According to Table 5, eastern Nevada County has an extremely low transit commute mode split. The only Truckee neighborhood residents who commute via public transit live in Lower Sierra Meadows (3.0 percent mode split) and near Donner Lake (7.7 percent mode split). Both of these areas are relatively close to the Truckee TART fixed routes and Lower Sierra Meadows residents can access the Hwy 267 route. According to the Census, zero residents in the remainder of the study area ride public transit to work, resulting in an average transit mode split of 0.5 percent.

Other ski resort communities with higher levels of transit service have much higher transit mode splits:

- Mammoth Lakes, California – 18.8 percent
- Park City, Utah – 6.8 percent
- Aspen, Colorado – 19.4 percent

Therefore, it is reasonable to assume that if eastern Nevada County could serve more of the residential areas with a high and reliable level of service, the study area could achieve at least an average mode split of 5.0 percent. This would result in employee/commuter transit demand of around 5,000 trips.

Human Service Agency Demand

Human service agency programs account for a large portion of ridership on the DAR service. As noted earlier, roughly 59 percent of DAR trips can be attributed to subscription trips booked in advance for human service agency clients. The review of DAR trip logs showed that the Choices Center alone generates on average about 3 - 4 boardings per day. This includes trips taken by Extended Care Center residents. Tahoe Truckee Unified School District also generates steady DAR ridership: an average of 50 trips per month (during the school year) or 1 to 2 trips per weekday. As there are limited programs and only a small social network for persons with disabilities, it is not likely that transit demand generated from these programs will increase significantly over the next five years.

Visitor Demand

Eastern Nevada County is a resort community. Visitors travel mostly by car from the San Francisco Bay area to ski, boat, hike, mountain bike or just enjoy mountain living in the Truckee/Tahoe region. Visitors who stay at lodging properties such as at the ski resorts or larger hotels near the commercial core have decent access to public transit service. However, it is likely that most visitors stay at a second home or a vacation rental in one of the outlying neighborhoods (which are not served regularly by public transit). As such, a large proportion of housing units in Eastern Nevada County are only occupied seasonally. As shown in Table 27, nearly three-quarters of the housing units in block groups located in Tahoe Donner, Donner Lake and Donner Summit are occupied only seasonally, according to the 2015 American Community Survey. Block groups with a higher number of full-time residents are found in Glenshire and Prosser Lakeview (15 – 18 percent seasonal homes).

It is a challenge to effectively serve visitors or second-home owners staying in the outlying neighborhoods. Recently, the Town of Truckee made strides in this direction by implementing the Holiday Shuttle Program. As shown in Table 8, the Northstar and Tahoe Donner Routes were the most popular routes on the Holiday Shuttle Program, carrying an average of 25 -30 passenger trips per day (excluding New Year's Eve) and 200 to 400 passenger trips per day on New Year's Eve. It is likely that the Christmas – New Year's week would generate the greatest transit demand from visitors, as the roads are snowy and traffic is expected. However, the level of ridership on the Holiday Shuttles demonstrates that there is a level of visitor demand for public transit during peak periods (somewhere on the order of 20 trips per day), particularly in Tahoe Donner.

Table 27: Seasonal Homes in Eastern Nevada County

Census Tract	Block Group	Description	Total Housing Units	Seasonally Occupied Housing Units		Permanently Occupied Housing Units
				#	%	
\$9.00	\$3.00	Eastern Nevada County outside of Truckee ¹	1,091	785	72.0%	306
	\$1.00	Tahoe Donner Golf Course Area	1,720	1,256	73.0%	464
\$12.03	\$2.00	Northeast Tahoe Donner	1,286	958	74.5%	328
	\$3.00	Prosser Lake Heights / Alder Hill	1,131	630	55.7%	501
\$12.04	\$1.00	N Donner Lake	1,638	1,181	72.1%	457
	\$2.00	Armstrong Tract	1,195	658	55.1%	537
	\$3.00	West Tahoe Donner	1,326	950	71.6%	376
\$12.05	\$1.00	Airport / S Polaris / S Glenshire	952	173	18.2%	779
	\$2.00	Central Glenshire	986	184	18.7%	802
	\$3.00	N Polaris / Between Truckee and Glenshire	313	61	19.5%	252
\$12.06	\$1.00	Ponderosa Palisades	320	85	26.6%	235
	\$2.00	Gateway	755	187	24.8%	568
	\$3.00	Lower Sierra Meadows	891	224	25.1%	667
\$12.06	\$4.00	Southern Downtown Truckee	524	182	34.7%	342
	\$5.00	Prosser Lakeview/Gray's Crossing	631	96	15.2%	535
Total			14,759	7,610	51.6%	7,149
Source: 2011-2015 American Community Survey 5 Year Estimates			Note 1: Floriston and Donner Summit communities			

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A key step in the development of a transit plan is the analysis and evaluation of alternatives for the operation of public transit in the study area. Such an analysis requires consideration of a number of factors, including service, capital (vehicles, facilities, and other equipment), institutional and management, and financial alternatives.

The service and financial alternatives presented in this chapter are a means to improve overall performance as well as best meet the transit needs of Eastern Nevada County residents and visitors. As a Long-Range Transit Plan was recently prepared for the Town of Truckee, the alternatives in this document will provide a “first step” to achieving long-term goals and objectives. The Long-Range Transit Plan service improvements prioritization tables for regional and Truckee local service can be reviewed in Appendix C.

Table 28 presents cost and ridership impacts of the various service alternatives.

FIXED ROUTE SERVICE ALTERNATIVES

Modifications to Non-Winter Route

Begin Route at Senior Apartments

The non-winter Truckee TART fixed route currently begins revenue service at the Henness Flat Apartments just east of the SR 89 North/Donner Pass Road intersection at 9:05 AM. This is a logical beginning of the route as it is the point farthest northeast and serves a multi-family affordable housing development with a bus shelter. The Truckee TART Operations Facility is currently located at 10720 Riverview Drive, roughly 3.5 miles and 10 minutes away (one-way). Starting service closer to the Operations Facility, specifically at 9:11 AM at the Senior Apartments would reduce deadhead travel costs by \$900 per year, and reduce the in-service costs by \$1,100 per year, for an overall cost savings of \$2,000 per year. Based on the observed ridership by stop and run, the elimination of service prior to 9:11 AM would reduce ridership by an estimated 110 passenger boardings per year. Considering the roughly \$200 per year in fare revenues that would be lost, this option would reduce subsidy needs by \$1,800 per year. Given this modest subsidy savings and the fact that this option would mean that the first service to the Henness Flat housing would not be until 10:05 AM, this option is not considered further. As a side note, it is possible that the Truckee TART Operations Facility will move to the new Corporation Yard at Stevens Lane by the end of the five year planning period.

Expand Hours of Service

The current span of service in the non-winter season (9:05 AM to 5:13 PM) of the Truckee TART fixed route significantly limits the ridership potential. In addition to precluding use by full-time

TABLE 28: Truckee TART Service Alternatives

Alternative	Operating Days	Vehicles Required	Vehicle Miles	Vehicle Hours	Total Annual				Cost with Metro Transit	Ridership Impact (One-Way Trips)		Annual Subsidy Required	
					Town Operating Cost	Contractor Operating Cost	Addl Dispatch Costs	Total Operating Costs		Daily	Annual		Farebox Revenue
Fixed Route Alternatives													
Expanded Hours of Non-Winter Service	Fixed	238	0	14,756	952	\$17,100	\$43,900	\$61,000	\$9,600	16.8	4,000	\$9,600	
	Dial-A-Ride	238	0	2,380	238	\$2,800	\$11,000	\$13,800	\$800	1.7	400	\$800	
	Total			17,136	1,190			\$74,800	\$10,400	4,400		\$64,400	
Mainline Summer/Winter, 6:00 PM - 11:00 PM	Fixed	181	0	17,500	905	\$20,300	\$41,700	\$93,675	\$75,000	5.150		\$75,000	
Sunday Service in Non-Winter Seasons	Fixed	40	0	5,022	324	\$5,800	\$14,900	\$20,700	\$18,500	22.5	900	\$18,500	
- Existing Span of Service	Dial-A-Ride ⁽²⁾	40	0	2,400	240	\$0	\$0	\$0	\$1,200	14.0	600	\$1,200	
	Total			7,422	564			\$20,700	\$3,400	1,500		\$17,300	
- Expanded Span of Service	Fixed	40	0	7,502	484	\$8,700	\$22,300	\$31,000	\$27,600	35.0	1,400	\$27,600	
	Dial-A-Ride ⁽²⁾	40	0	3,200	320	\$0	\$0	\$0	\$1,400	16.3	700	\$1,400	
	Total			10,702	804			\$31,000	\$4,800	2,100		\$26,200	
Half-Hourly Service - Existing Route	Winter	88		9,900	616	\$11,500	\$28,400	\$39,900	--	--		--	
	Non-Winter	238		41,531	2,618	\$48,200	\$120,700	\$168,900	--	--		--	
	Total			51,431	3,234	\$59,700	\$149,100	\$208,800		14.4	4,700	\$11,300	
Eliminate Crossroads Stop	Winter	88		-352	0	-\$400	\$0	-\$400					
	Non-Winter	238		-1,904	0	-\$2,200	\$0	-\$2,200					
	Total			-2,256	0	-\$2,600	\$0	-\$2,600		0.9	280	-\$3,300	
2-Route Service	Winter	88		16,037	1,065	\$18,600	\$49,100	\$67,700					
- East Route	Non-Winter	238		29,664	1,928	\$34,400	\$88,900	\$123,300					
	Winter	88		16,042	1,065	\$18,600	\$49,100	\$67,700					
	Non-Winter	238		29,200	1,928	\$33,900	\$88,900	\$122,800					
	Total			90,943	5,985	\$105,500	\$276,000	\$381,500					
- Existing 1 Route, Year-Round	Total			42,233	2,641	\$49,000	\$121,800	\$170,800					
Net Change				48,710	3,345	\$56,500	\$154,200	\$210,700					
Neighborhood Shuttles - Summer Service 5:30 - 11:00 PM		\$93.00		20,970	1,535	\$24,300	\$70,700	\$112,900	\$127,200	50	4,640	\$127,200	
Neighborhood Shuttles - Peak Summer Saturday Evenings		\$10.00	\$3.00	2,250	165	\$2,600	\$7,600	\$12,100	\$13,700	80	\$800.00	\$13,700	
Neighborhood Shuttles - Winter Service 5:30 PM - 11:00 PM		\$88.00	\$3.00	19,850	1,452	\$23,000	\$66,900	\$106,800	\$120,400	161	14,200	\$120,400	
Neighborhood Shuttles - Peak Winter 5:30 PM - 11:00 PM		\$38.00		8,570	627	\$9,900	\$28,900	\$46,100	\$52,000	174	6,600	\$52,000	
Neighborhood Shuttles - Peak Winter Days 7:00 AM - 5:30 PM		\$38.00		16,370	1,197	\$19,000	\$55,200	\$74,200	\$99,300	471	17,900	\$99,300	
Transit Connections to Reno													
Commuter Bus Year Round 7-Days-A-Week (1)		365	\$2.00	97,620	2,604			\$215,900		28	10,100	\$32,800	
Commuter Bus Weekdays Year-Round, Weekends		313	\$2.00	83,884	2,233			\$185,100		31	9,550	\$31,000	
Commuter Bus Weekdays Year-Round, Weekends		286	\$2.00	76,648	2,040			\$169,200		32	9,200	\$29,900	
Winter Only (1)		52	\$0.00	3,484	93			\$7,700		10	500	\$6,200	
Mid-day Non-Commuter Run (1)		--	\$0.00	--	--			\$48,000		95	21,000	\$48,000	
Vanpool Subsidy		255		\$5,100.00	\$510.00	\$5,900	\$23,500	\$47,300	\$600.00	14	300	\$600.00	
Extend DAR Service Until 7 PM		326					\$17,300	\$17,300	\$0.00	21	6,900	\$17,300	
Eliminate Fixed Route Fares													

Note 1: Operating costs at current Metro Transit rate.

Note 2: FTA 5310 grant funding available for Sunday DAR for a three year period.

employees, the fact that the first arrival time at an individual stop is as late as 10:00 AM and the last departure time is as early as 4:16 PM means that many educational and social service program times are not served, and that many medical appointments cannot be accessed by the fixed route. Fixed route services in communities similar to Truckee typically operate at least 11 hours per day (such as 7 AM to 6 PM). Given the benefits of providing connecting service to the Placer County TART routes, a reasonable strategy for Truckee would be to operate the winter span of service (6:05 AM to 6:13 PM) during the non-winter seasons. This would greatly increase the usefulness of the transit service to Truckee residents and visitors. This alternative is also consistent with and expands on the Long Range Plan which calls for Additional Hours, Non-Winter, 6 Days/Week 7:00 AM to 9:00 AM & 5:00 PM to 6:00 PM.

Ridership generated by this improvement in service is best evaluated by reviewing the hourly variation in ridership on other transit systems already operating longer hours. Data was reviewed for these systems: the Eastern Sierra Transit Authority services in Mammoth Lakes, the Placer County TART program, Gold Country Stage in Western Nevada County and the City of Aspen (Colorado) local routes. As shown in Table 29, much of the total daily ridership in these other systems occurs beyond Truckee's existing hours of operation (particularly on the Aspen system that operates as late as 2 AM in summer). The key factor identified from this data is the ratio of ridership in the potential expanded Truckee hours to that in the current Truckee hours. As shown, this factor is relatively high for the Placer County TART service (1.48, reflecting a high level of commuting) and relatively low for the Gold Country Stage program in western Nevada County. For the two services for which summer and off-season data was available (Placer TART and Aspen), the ratio was roughly consistent between the two seasons.

Considering this data and the characteristics of Truckee, a factor of 140 percent is appropriate for Truckee.¹ In addition, ridership generated in the additional hours of service will also increase ridership during the current span of service. For instance, an employee with a work shift ending in the mid-afternoon that could now commute by transit in the morning would also generate an afternoon return transit trip. At least 50 percent of the trips in the new service hours would also generate a trip in the existing service hours, indicating an overall increase in ridership of 60 percent.

The overall increase in ridership would be 4,000 boardings per year. The additional four hours of daily service would increase annual operating costs by \$61,000. Additional DAR service would also be necessary to address ADA requirements. DAR service is currently provided between 7:30 AM and 4:30 PM. Given the relatively low ridership in the early morning and late afternoon hours and the fact that the ADA allows service times to vary up to 1 hour from the ADA times, one additional hour of service would be required. This would incur an additional \$13,800 per year in costs, yielding a total increase of \$74,800 per year. Subtracting the additional fare revenues, the net increase in operating subsidy would be \$64,400 per year.

¹ The net effect of expanded hours of service may well be greater than 40 percent, as the new passengers served in the additional hours could generate additional trips during the existing hours of service.

TABLE 29: Summary of Peer Transit Systems Ridership by Time of Day, Summer and Offseason

Hour Beginning	Average Daily Ridership						Percent of Daily Ridership by Hour					
	Summer			Offseason			Summer			Offseason		
	Mammoth Lakes ¹	TART ²	Aspen ³	Western Nevada County ⁴	TART	Aspen	Mammoth Lakes	TART	Aspen	Western Nevada County	TART	Aspen
\$0.25		44	30	12	29	3		6%	2%	2%	6%	0.4%
\$0.29	41	71	87	49	61	56	10%	9%	4%	7%	12%	7%
\$0.33	49	71	107	60	42	71	12%	9%	5%	9%	8%	8%
\$0.38	25	53	123	58	27	57	6%	7%	6%	8%	5%	7%
\$0.42	25	57	87	47	33	31	6%	7%	4%	7%	6%	4%
\$0.46	37	52	99	57	29	37	9%	7%	5%	8%	5%	4%
\$0.50	36	50	109	60	33	32	9%	6%	6%	9%	6%	4%
\$0.54	40	56	124	65	42	77	10%	7%	6%	9%	8%	9%
\$0.58	35	75	127	79	70	61	9%	10%	6%	12%	13%	7%
\$0.63	40	85	158	66	58	66	10%	11%	8%	10%	11%	8%
\$0.67	50	85	126	57	56	86	12%	11%	6%	8%	11%	10%
\$0.71	34	60	189	38	37	85	8%	8%	10%	6%	7%	10%
\$0.75		26	116	27	6	56		3%	6%	4%	1%	7%
\$0.79		2	47	10		24		0%	2%	1%		3%
\$0.83			104	0		22			5%	0%		3%
\$0.88			110			27			6%			3%
\$0.92			108			26			5%			3%
\$0.96			75			23			4%			3%
\$1.00			41			0			2%			0%
Totals	413	786	1,965	683	522	840	100%	100%	100%	100%	100%	100%
Total Daily Boardings between 9 AM and 5 PM	288	513	953	487	347	447						
% of Daily Ridership outside of 9-5 window							30%	27%	52%	29%	34%	47%
Total Boardings between 6 AM and 6 PM	413	759	1364	646	516	663						
Ratio of 6AM-6PM Ridership to 9AM-5PM Ridership	143%	148%	143%	133%	149%	148%						
1) Source: ESTA 2013-14 Driver Logs, July 8-14, 2014. Purple and Gray Routes only 2) Source: TART GFI farebox data for 2 week periods July 27-August 9, 2015; October 1-14, 2015 3) Source: RFTA, data from July 10-16, 2016, and May 7-13, 2017. Omits Crosstown Route, which operates for fewer hours than the other services. 4) Source: Western Nevada County Hourly Passenger Report March 2015												

Mainline-Summer/Winter, 6:00 PM to 11:00 PM

The number four priority in the Long Range Plan is to provide evening service on the mainline route in the summer and winter seasons. This will complement evening Neighborhood Shuttle Service (discussed below). The Long Range Plan estimated that extending service into the evening for 181 days would require an additional 905 vehicle hours and 17,500 vehicle miles each year. Table 28 presents cost estimates for this alternative if operated by both the Town of Truckee and Metro Transit. The Metro Transit estimated annual operating cost of \$75,000 is the more cost effective option. The Long Range Plan estimates that this alternative will carry 5,150 annual one-way passenger-trips. In order to be consistent with other top priority alternatives in the Long Range Plan and evening services provided in Placer County. It was assumed for this option that no fare would be charged.

Sunday Service in the Non-Winter Seasons

Unlike other mountain resort communities, Sunday service on Truckee TART is limited to the winter season only. Experience in other resort transit programs indicates that Sunday ridership is only modestly lower than ridership on the remainder of the days of the week, particularly in summer and winter. Reflecting the seven-day-a-week nature of a resort economy, Sunday service allows the many employees that work on Sundays to access jobs by transit. There is also a substantial benefit in providing a consistent service plan year-round, allowing passengers to more easily understand the transit service and become reliant on its availability.

Two scenarios were evaluated for Sunday service: assuming the existing span of service, and assuming the expanded span of service. In addition to the fixed-route service, the ADA requires that parallel paratransit service be provided. Based on current services provided in winter and the fact that the ADA allows up to one hour variation on paratransit service times, 6 daily hours of paratransit time are assumed for the existing span of service, and 8 hours for the expanded span of service. The Town of Truckee was recently awarded an FTA 5310 grant which would subsidize 50 percent of the operating costs for expanded DAR service. Grant money will be available for three years, after which the Town must reapply.

Assuming the existing daily span of service, providing Sunday service between mid-March and mid-December would increase annual operating costs by \$27,650 (with the assistance of the FTA grant). The additional ridership was estimated based upon the observed variation by day of week in the Placer County TART system to be 1,500 boardings per year. Subtracting the additional fare revenues yields a net increase in operating costs of \$24,250 annually.

If this service is provided over a longer 12-hour span, annual costs would be \$40,250 per year, while the ridership increase would total 2,100 boardings per year. Subtracting the additional fare revenue, net increase in subsidy would be \$35,450 annually.

Half-Hourly Service on Existing Route Configuration

A second bus could be operated on the existing fixed route (excluding the Donner Summit service). Assuming no change in the hours or days of operation, this additional bus would operate 30 minutes off of the existing schedule, making 7 round-trips per day in the non-winter seasons and 11 in the winter season. This additional service would increase operating costs by \$208,800 per year. An elasticity analysis on the ridership data for the non-Donner Summit route indicates that ridership would be increased by 4,700 boarding per year. Subtracting the increase in fare revenues of \$11,300, overall operating subsidy would be increased by \$197,500 per year.

It should be noted that this option would not address the current on-time performance issues, or provide running time needed to serve new stops.

Revisions to Existing Route to Improve On-time Performance or to Serve New Stops

As discussed above, the Truckee Transit fixed route often operates behind schedule, with 18 percent of runs more than 10 minutes late in August. While the spring/fall on-time performance is better (only 4 percent of one-way runs arriving more than 10 minutes late), the dependability of the transit service could be improved by reducing running time to allow more recovery time in each hour-long round-trip cycle. In addition, the Coldstream (PC-1), Joerger Ranch (PC-3) and Railyard projects could well warrant extensions to the existing route at some time in the five-year TDP planning period.

As ridership at both ends of the route is relatively strong, the only potentially feasible means of reducing running time (short of the expensive expansion to two routes, discussed above) would be to eliminate the route segment along State Route 89 South between Donner Pass Road and the Crossroads Center. This route segment adds 6 minutes to the overall running time. With service only in one direction, riders must either ride around the entire hour-long route to complete a trip, or walk to or from Donner Pass Road. Reflecting this, ridership is poor: over a 15 day period in peak winter, only 36 passengers boarded or deboarded at the Crossroads Center stop, or 2.4 per day. Over the 330 trips made down and back on SR 89, passengers were served only on 20 runs, indicating that 94 percent of the time this stop was served for no purpose.

Eliminating service to this stop would conservatively eliminate the estimated 330 passengers boarding or deboarding over the course of the year (assuming none choose to continue to ride to another commercial center). However, the faster travel times for passengers traveling eastbound on Donner Pass Road passing SR 89 South would increase ridership by an estimated 610 passengers per year. This would yield a net increase of 280 passengers per year, generating an increase in fare revenues of approximately \$700. By reducing the operating mileage (though not the hours of service), this option would reduce annual operating cost by \$5,600 per year, thus yielding a net reduction in subsidy of \$4,900 per year.

Another option would be to make the Crossroads Center stop an “on request” stop, similar to the previous service to the Truckee Airport. Passengers could call for a pick-up, or simply ask the driver for a drop-off. The schedule would be revised to reflect the reduction in running time, providing additional recovery time at either South Shore Drive or the Train Depot on 94 percent of the runs) and simply run the 6 minutes late on 6 percent of the runs. Note that Placer TART also serves Crossroads center but it would be cost prohibitive for a Truckee passenger to pay two separate fares.

Review of Duplication of Service on Brockway Road

Both the Truckee TART and the Placer TART systems operate along Brockway Road between SR 267 and downtown Truckee. While this could be considered a duplication of service, there are several factors that need to be considered in assessing whether one or the other service should be modified:

- As Placer TART service extends over a much longer span (6:50 AM to 5:50 PM) than does Truckee TART (9:08 AM to 5:08 AM), eliminating Placer TART service would reduce the hours that any transit service is available.
- Placer TART service operates in both directions, while Truckee TART service is provided only in the westbound direction. Without Placer TART service on this corridor, residents along this corridor traveling to Northstar or Kings Beach would need to ride around the entire Truckee TART route, and then transfer to a Placer TART bus.
- On the other hand, the stops along Brockway Road generate substantial ridership on the Truckee TART system. Including the Senior Apartments stop (the busiest stop along the entire route), the Brockway Road stops generate 28 percent of the non-winter Truckee TART boardings. Considering that many of the boardings in the remainder of the route are generated by Brockway Road residents returning home, eliminating Truckee TART service on Brockway Road would reduce Truckee TART ridership by roughly half.
- As Truckee TART buses directly serve the Senior Apartments while Placer TART buses operate only along Brockway Road, eliminating Truckee TART service would reduce the quality of service and thus ridership in this area.
- Reductions in Truckee TART fixed route ridership would increase Dial-A-Ride ridership and associated operating costs.

In summary, elimination of either service along the Brockway Road corridor would result in a substantial reduction in transit availability and ridership.

Shift Placer TART Connections in Truckee

Eastern Nevada County is served by two Placer County TART routes:

- The Highway 89 Route connecting Tahoe City, Squaw Valley and Truckee is 20 miles in length, is scheduled to take 40 minutes in each direction, and uses two buses on a two-hour cycle to provide service on an hourly frequency. The northbound bus arrives at the Truckee Train Depot at 10 minutes after the hour, and has a 20-minute period for layover and schedule recovery before departing southbound at 30 minutes after the hour. 15 minutes of recovery time is also built into the schedule at the Tahoe City end of the trip (for a total of 35 minutes of recovery time per round-trip).
- The Highway 267 Route is 18 miles in length between North Stateline, Kings Beach, Northstar and Truckee. Scheduled for 50 minute one-way runs, two buses are operated to provide hourly headway service on a two-hour cycle². 10 minutes of layover/recovery time is provided at the Truckee Train Depot (from 50 minutes after the

² Running times on the 267 Route are longer than on the 89 Route because a greater proportion of the 267 Route is along lower speed roads in Northstar and around the Truckee Airport, and because of slower speeds and delays in Kings Beach.

hour to the top of the hour), along with an additional 10 minutes of time at the North Stateline end of the trip (a total of 20 minutes of recovery time).

Both of these routes are frequently impacted by weather and traffic delays in winter and (to a lesser extent) traffic delays in summer. In addition, the running time of the Highway 267 Route may need to be increased in the future to serve additional affordable housing along Schaeffer Mill Road (in Placer County) and/or the Raley's project in Truckee. It would therefore be beneficial to shift some of the running time from the Highway 267 Route to the Highway 89 Route by moving the end of these routes from the Truckee Train Depot to the Truckee Airport area. There are, however, several disadvantages to this:

- The travel time between the Train Depot and the Airport is approximately 9 minutes. This would reduce total layover time on the Highway 89 Route to only 17 minutes (increasing layover time on the Highway 267 Route to 38 minutes), reducing on-time reliability on the Highway 89 Route.
- At present, the two routes are not scheduled to provide direct transfers in Truckee, as there is little ridership demand for it. However, if the routes were modified to both terminate at the Airport; the existing Highway 267 ridership generated along Brockway Road (such as Cedar House Sport Hotel and Best Western guests, or Village Green Mobile Home Park residents) would need to transfer between the two buses. Unless the departure times on the two routes at the Tahoe City and North Stateline ends were to change, these connection times would be poor.³ The need to transfer and the additional time to wait between buses would substantially reduce the quality of transit service for these riders.
- The layover time at the Truckee Train Depot increases the ability of the Placer TART buses to directly transfer passengers to and from the Greyhound and Amtrak services, compared to a short stop as part of a longer route.
- As the Airport is along the portion of the Truckee TART route that is a one-way loop, making connections between the Truckee TART and Placer TART services is more difficult than the current connection at the Train Depot (where Truckee TART operates in both directions).
- A trip by a Northstar employee to their resident at Henness Flat, for example, would include virtually a full tour of the Truckee TART route to travel from the Airport to Henness Flat.

For these reasons, this shift in Placer TART routes would result in a net detriment to Truckee transit options.

³ As an example, the northbound Highway 267 Route would arrive at the Airport at 41 minutes past the hour, but the Highway 89 Route would need to depart the Airport at 26 minutes past the hour.

Another potential means of Placer TART providing additional travel time along the Highway 267 corridor (without many of the disadvantages) would be to combine the 267 and 89 routes into a single long route connecting Tahoe City, Squaw Valley, Truckee, Northstar, Kings Beach and North Stateline. The four buses in operation today would each operate a four-hour round-trip, yielding the current hourly headways. This would allow some running time (such as five minutes) to be shifted from the 89 corridor to the 267 corridor. The disadvantage of this strategy would be that delays on one corridor would also impact on-time performance on the other. However, to the degree that delays often occur on both corridors at the same time (such as when both the Squaw Valley and Northstar ski areas generate traffic delays), this decreases the importance of this factor. In addition, there would be a full 60 minutes of layover/makeup time available over every 4-hour cycle. Another consideration is that this would require shifting the departure time at either Tahoe City or North Stateline by 30 minutes. As the service between North Stateline and Incline Village operates every 30 minutes (and as Placer TART plans call for an expansion to 30 minute service on other legs) this is not a significant issue.

Convert the Truckee TART Non-Winter Service to Two Routes

The Truckee TART fixed route service in the non-winter season currently consists of a single 15.5-mile-long route. This route is scheduled to operate hourly, with only a 7 minute break each hour (at the Train Depot in the eastbound direction). This provides little time for a driver break, and very little time to make up for the common traffic delays or passenger boarding delays. A sampling of on-time performance data for the non-winter fixed route shows that up to 18 percent of one-way runs during the busy tourist month of August were greater than 10 minutes late.

Some runs were more than 30 minutes behind schedule as the buses were likely stuck in summer traffic. During the off-season, on-time performance improves, with only 4 percent of one-way runs arriving more than 10 minutes late. As extending the schedule beyond an hour would substantially reduce the quality of service, this existing “one-route” plan is close to the breaking point.

There are also commercial areas of the Town which are not served by the existing fixed route, such as the Pioneer Center and the Town of Truckee offices (although service was provided to these areas in the past with low ridership). Looking forward, the Truckee community is growing. Master Plans for new developments off of Cold Stream Road (PC-1) and the SR 267 bypass (PC-3, including a proposed (not yet approved) Raley’s supermarket) have been approved would need to be served by transit. For these reasons, it is worthwhile to consider providing service with two buses instead of one so as to provide more reliable service and/or increase service area and frequency.

Operate Two Overlapping Fixed Routes

Under this alternative, the existing non-winter fixed route would be replaced by two hourly routes (an “East Route” and a “West Route”), as shown in Figure 18. These routes would overlap along the key Donner Pass Road corridor between downtown Truckee and the Factory

Outlet Stores, and would be scheduled to provide service along this corridor roughly every half-hour in both directions. The two routes would operate as follows:

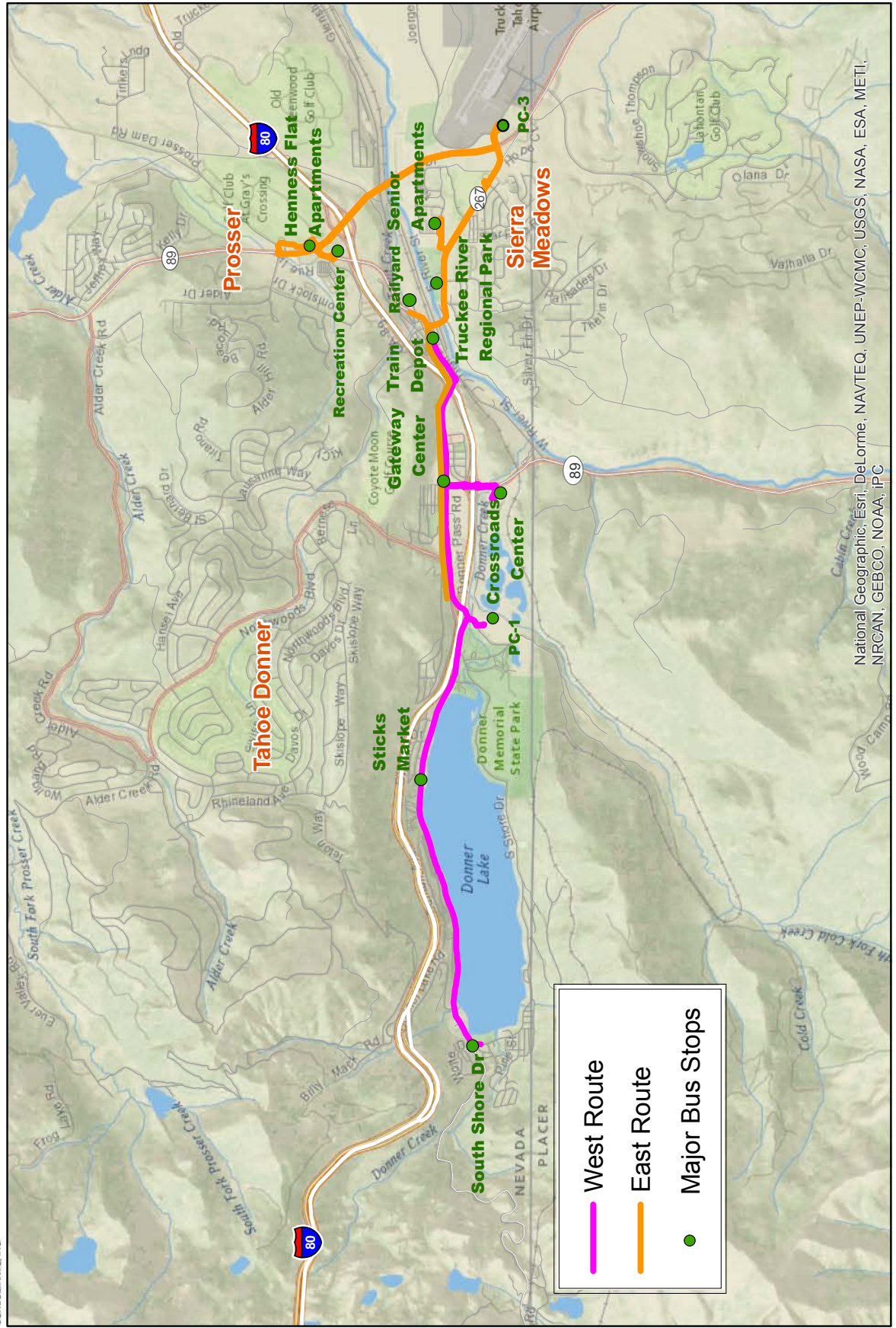
- The East Route would operate between the Factory Outlet Stores and downtown Truckee on Donner Pass Road, and then travel to the Recreation Center via Brockway Road and the 267 Bypass in both directions⁴. It would serve the Senior Apartments and the future Raley's site in both directions. With two-way service along the entire route, it would be convenient for trips to/from the new Raley's for residents both along the Brockway Road corridor and north of I-80. The primary reason for routing the East route along the 267 Bypass instead of Donner Pass Road is that after the Raley's is constructed it is assumed that the shopping center will become the focal point of transit trips for those living along Brockway Road and near Hennes Flat. If this route is implemented, the Town may need to carefully review turnaround options at the Factory Outlet stores. This route would be 14.4 miles in length for each round-trip.
- The West Route would operate between downtown and Donner Lake (South Shore Drive) via Donner Pass Road, serving the Crossroads Center on SR 89 in both directions. It would also serve the future Coldstream Mixed Use Village off of Coldstream Road. This route would be 14.9 miles, round-trip, and take approximately 50 minutes to complete.

Additional ridership would be generated by this plan as follows:

- Two-way service on Brockway Road – While the current travel time from the Senior Apartments (as an example) to downtown only takes 5 minutes, the return trip requires 14 minutes. The increased convenience of a 5 minute trip in both directions would increase ridership by an estimated 1,500.
- Half-hourly service on Donner Pass Road – Much of the commercial and institutional activity centers in Truckee are along Donner Pass Road between the Factory Outlet Stores and downtown, including the High School, Hospital and Gateway Center.
- However, evaluation of the boarding/alighting data indicates that only approximately 2,700 passengers per year make trips within this corridor. Improving service frequency would add additional 1,300 boardings.
- Two-way service to Crossroads Center – With service to Crossroads Center only in the eastbound direction, residents wishing to make a round trip from their home to this commercial center effectively must spend an hour on the bus (or walk the 0.4 miles to a

⁴ Another route option was considered that would travel between downtown and the Brockway Road corridor via Donner Pass Road to the Recreation Center and the 267, turning around at the Senior Center to return via the Bypass and Donner Pass Road. However, current ridership generated along the Brockway Road corridor is roughly 4 times that generated at the stops north of I-80, indicating that providing a more direct connection between the Brockway Road corridor and downtown is more important.

Figure 18
Truckee TART Two Route Alternative



	West Route
	East Route
	Major Bus Stops

National Geographic, Esri, DeLorme, NAVTEQ, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, IPC

stop on Donner Pass Road in one or the other directions). As a result, it is not surprising that total boardings and alightings at this stop are only 3 per day. With two-way service, the increase in ridership is estimated to be 1,900 per year.

On the other hand, several factors would reduce ridership:

- A round-trip between downtown and the areas along SR 89 north of I-80 (such as the Recreation Center) currently takes only 3 minutes in the eastbound direction but 16 minutes in the westbound direction, for a total of 19. Under this alternative, a total of 32 minutes on the bus would be required in both directions. This would reduce ridership by 400 per year.
- Passengers traveling between areas west of the Factory Outlet Stores and areas east of downtown would need to transfer between the two routes (with a long wait between buses). However, a review of current boarding and alighting by stop indicates that the number of passengers making these long trips is minimal.

Overall, this alternative would increase annual ridership by an estimated 4,300 passenger-trips (or an average of approximately 13 per day).

As shown in Table 28, this alternative would increase annual operating costs by \$210,700, assuming current span of service. Increased ridership would increase fares by \$10,300 per year, leaving a subsidy requirement of \$200,400.

Adjust Schedules to Improve Transfer Times with Placer TART

Despite the limited hours of Truckee TART service, there is a modest level of transfer activity between Truckee TART and Placer County TART buses.

Surveys conducted in the summer of 2016 indicates that 3.6 percent of Placer County TART riders transfer to or from the Truckee TART bus, equivalent to approximately 25 persons per day. With the current schedules, transfer times at the Truckee Depot for Truckee residents are as follows:

- **West Truckee – 89 Route:** Truckee residents living west of SR 89 South (such as Donner Lake) traveling to/from Squaw Valley or Tahoe City have a 33 minute wait between the arrival of the eastbound Truckee Transit bus at 57 minutes past the hour and the southbound departure of the Placer County 89 Route TART bus at 30 past the hour. In the opposite direction, there is a 13 minute wait between the arrival of the northbound 89 Route bus at 10 past the hour and the departure of the westbound TART bus at 23 past the hour. In total, a western Truckee resident making this round trip must wait 36 minutes at the Train Depot.
- **West Truckee – 267 Route:** Transit trips from western Truckee to Northstar/Kings Beach require only a 3 minute wait between the eastbound Truckee Transit bus at 57 minutes

past the hour and the departure of the 267 Route bus at the top of the hour. Returning, the 267 Route bus arrives at 50 past the hour, requiring a 33 minute wait before the westbound departure of the Truckee TART route. The total transfer time for a round trip is 36 minutes.

- **East Truckee – 89 Route:** Those Truckee residents living in the eastern portion of the transit service area (such as Henness Flat) have a 14 minute transfer wait between the arrival of the westbound Truckee TART bus at 16 past the hour and the departure of the southbound Placer County TART 89 Route bus at 30 past the hour. In the opposite direction, a long 47 minute wait is required between the arrival of the northbound 89 Route bus at 10 after and the departure of the eastbound Truckee TART bus at 57 after. A full 61 minutes of layover time is required to complete a round-trip.
- **East Truckee – 267 Route:** The westbound Truckee TART arrival at 16 minutes past the hour and the departure of the southbound 267 Route bus at the top of the hour requires a 44 minute wait. However, the connection between the arriving northbound 267 Route bus at 50 minutes past the hour and the eastbound departure of the Truckee TART bus at 57 minutes past the hour requires only 7 minutes. Total round-trip layover time is 51 minutes.

These long transfer waits in large part reflect the realities of operating a single hourly bus on the Truckee TART fixed route, along with hourly service on the Placer County TART buses that are (appropriately) timed to make convenient connections in Tahoe City and North Stateline. It is also important to consider that the variability of route running times (particularly on the long Placer County TART routes) means that some layover time should be built into the schedules to reduce the potential for missed connections. Options were considered to move the Truckee TART schedule, but no significant overall reductions in transfer times were found.

One operational item that could improve the overall “transfer experience” for passengers would be for Truckee TART and Placer TART drivers to have radio contact. This would help provide accurate information for passengers as well as allow for drivers to coordinate if one system was running a few minutes late.

One item of note is that under the current schedules the westbound Truckee TART bus is only 4 minutes behind the southbound 267 Route bus at the Brockway/Best Western stop. Once the Raley’s is constructed, both buses would serve it at approximately the same time, providing a convenient connection for residents of northeastern Truckee to transfer to the southbound 267 Route.

Adjust Schedules to Provide Half-Hourly Service on Donner Pass Road from Downtown to SR 89 South

It would be beneficial if the Truckee TART and Placer County TART hourly schedules were to be roughly opposite each other in each hour, to provide the most convenient service along the corridors that are jointly served. Table 30 presents a combined Truckee TART / Placer County

TART schedule, per the current schedule times. This shows that the Placer County 89 Route and the Truckee TART routes operate only 7 minutes apart in the westbound direction and 8 minutes apart in the eastbound direction, between downtown and SR 89 South. An alternative schedule was developed for the Truckee TART service that starts and ends service 30 minutes earlier than the current schedule⁵, as shown in Table 31. This schedule would provide a modest benefit to passengers traveling within this corridor by reducing the maximum minutes between buses from 53 to 38. The total round-trip transfer times between Placer County TART and Truckee TART buses would be changed as follows:

- Western Truckee <> 89 Route: Increase of 10 minutes
- Western Truckee <> 267 Route: No change
- Eastern Truckee <> 89 Route: Decrease of 13 minutes
- Eastern Truckee <> 267 Route: Increase of 14 minutes

Overall transfer waits would not be significantly changed.

Service Expansion into Town of Truckee Neighborhoods

Existing fixed-route transit services in eastern Nevada County serve mostly commercial land uses with only limited residential areas along the major roadways. The neighborhoods of Tahoe Donner, Glenshire, and Prosser Lakeview were virtually unserved by fixed route service until the Town of Truckee funded holiday neighborhood shuttle service and Truckee Thursdays shuttles.

Surveys collected during the service demonstrated that residents and visitors were very satisfied with the service and the holiday shuttles encouraged new users of public transit. Expanding on the success of the holiday shuttle program to provide additional fixed-route service into the residential neighborhoods would address a significant gap in public transit service in Eastern Nevada County.

The *Truckee TART Long-Range Plan* includes “Neighborhood Summer/Winter Service from 5:30 PM to 11:30 PM” as a high priority improvement. This would include four separate neighborhood routes using three buses as shown on Figure 19. Each of these routes would consist of a fixed route, as well as “On Demand” stops off of the fixed route. The fixed route is intended to stay on the more major roads, serving signed stops every 1/8 to 1/4 mile. “On Demand” stops would be identified in other areas with lower potential demand, further than a 1/4 mile walk from the route. To request a pickup at these stops, passengers would call or text the transit dispatcher prior to the departure of the run. For a drop-off, passengers would simply inform the driver on entering the bus. In addition, if a pattern emerges of frequent requests on a specific run (such as for school trips), a standing request can be established whereby the stop is always served on the specific run.

⁵ Another option was considered that shifted service 23 minutes earlier to provide westbound departures from the Truckee Depot exactly half-hourly, but this would cause the eastbound Truckee TART bus to arrive at the Depot only 4 minutes after the departure of the southbound 89 Route bus.

TABLE 30: Example Combined Truckee and Placer TART Schedule - Non-Winter

Truckee TART Service Not Operated on Sunday

	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART		
Westbound																							
Edwin Rd. @ Henness Rd																							
Truckee Airport																							
Hampton Inn																							
Brockway Rd @ Best Western																							
Brockway Rd @ Reynolds Way																							
Estates Dr. @ Senior Apartments																							
Brockway Rd @ Regional Park																							
Truckee Depot Arrive																							
Truckee Depot Depart																							
Donner Pass Rd @ Medical Office Bldg																							
Donner Pass Rd @ Gateway Center																							
Deerfield Dr. @ Crossroads Center																							
Donner Pass Rd @ Meadow Way																							
Donner Pass Rd @ Northwoods Blvd																							
Donner Pass Rd @ Highway Rd																							
Donner Pass Rd @ Cold Stream Rd																							
Donner Pass Rd @ State Park																							
Donner Pass Rd @ Moraine Rd																							
Donner Pass Rd @ South Shore Dr																							
Eastbound																							
Donner Pass Rd @ South Shore Dr																							
Donner Pass Rd @ Moraine Rd																							
Donner Pass Rd @ State Park																							
Donner Pass Rd @ Cold Stream Rd																							
Donner Pass Rd @ Tri-Counties Bank																							
Donner Pass Rd @ Northwoods Blvd																							
Donner Pass Rd @ Westgate Center																							
Deerfield Dr. @ Crossroads Center																							
Donner Pass Rd @ Bank of America																							
Donner Pass Rd @ Hospital																							
Truckee Depot																							
Brockway/Paisades																							
Cedar House/Village Green																							
Brockway Rd @ Best Western																							
SR 267 @ Hampton Inn																							
Truckee Airport																							
Donner Pass Rd @ Rec Center																							
Edwin Rd @ Henness Rd																							

	Truckee TART Service Not Operated on Sunday														
	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART	Placer TART 267	Placer TART 89	Truckee TART
Westbound															
Edwin Rd @ Henness Rd	7:41	8:41	9:35	10:35	11:35	12:41	0:35	1:35	2:41	3:35	4:41	5:41	6:41		
Truckee Airport	7:43	8:43	9:38	10:43	11:38	12:43	0:38	1:43	2:43	3:43	4:43	5:43	6:43		
Hampton Inn	7:46	8:46	9:39	10:46	11:41	12:46	0:39	1:46	2:46	3:46	4:46	5:46	6:46		
Brockway Rd @ Best Western			9:41	10:46	11:43		0:41	1:43							
Brockway Rd @ Reynolds Way			9:41	10:46	11:41		0:41	1:41							
Estates Dr @ Senior Apartments	7:47	8:47	9:43	10:47	11:43	12:47	0:43	1:43	2:47	3:43	4:47	5:47	6:47		
Brockway Rd @ Regional Park	7:50	8:50	9:46	10:50	11:46	12:50	0:46	1:46	2:50	3:46	4:50	5:50	6:50		
Truckee Depot Arrive			9:50	10:53	11:50		0:50	1:50							
Truckee Depot Depart	7:30	8:30	9:30	10:30	11:30	12:30	0:30	1:30	2:30	3:30	4:30	5:30	6:30		
Donner Pass Rd @ Medical Office Bldg	7:32	8:32	9:32	10:32	11:32	12:32	0:32	1:32	2:32	3:32	4:32	5:32	6:32		
Donner Pass Rd @ Gateway Center	7:33	8:33	9:33	10:33	11:33	12:33	0:33	1:33	2:33	3:33	4:33	5:33	6:33		
Deerfield Dr @ Crossroads Center	7:34	8:34	9:34	10:34	11:34	12:34	0:34	1:34	2:34	3:34	4:34	5:34	6:34		
Donner Pass Rd @ Meadow Way			9:58	10:58	11:58		0:58	1:58							
Donner Pass Rd @ Northwoods Blvd			9:59	10:59	11:59		0:59	1:59							
Donner Pass Rd @ Highway Rd			10:00	11:00	12:00		1:00	2:00							
Donner Pass Rd @ Cold Stream Rd			10:01	11:01	12:01		1:01	2:01							
Donner Pass Rd @ State Park			10:02	11:02	12:02		1:02	2:02							
Donner Pass Rd @ Moraine Rd			10:04	11:04	12:04		1:04	2:04							
Donner Pass Rd @ South Shore Dr			10:07	11:07	12:07		1:07	2:07							
Eastbound															
Donner Pass Rd @ South Shore Dr															
Donner Pass Rd @ Moraine Rd															
Donner Pass Rd @ State Park															
Donner Pass Rd @ Cold Stream Rd															
Donner Pass Rd @ Tri-Counties Bank															
Donner Pass Rd @ Northwoods Blvd															
Donner Pass Rd @ Westgate Center															
Deerfield Dr @ Crossroads Center															
Donner Pass Rd @ Bank of America	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00		
Donner Pass Rd @ Hospital	7:02	8:02	9:02	10:02	11:02	12:02	1:02	2:02	3:02	4:02	5:02	6:02	7:02		
Truckee Depot	7:03	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	7:03		
Brockway/Palisades	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00		
Cedar House/Village Green	7:03	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	7:03		
Brockway Rd @ Best Western	7:04	8:04	9:04	10:04	11:04	12:04	1:04	2:04	3:04	4:04	5:04	6:04	7:04		
SR 267 @ Hampton Inn	7:07	8:07	9:07	10:07	11:07	12:07	1:07	2:07	3:07	4:07	5:07	6:07	7:07		
Truckee Airport	7:09	8:09	9:09	10:09	11:09	12:09	1:09	2:09	3:09	4:09	5:09	6:09	7:09		
Donner Pass Rd @ Rec. Center															
Edwin Rd @ Henness Rd															

TABLE 31: Combined Schedule with Truckee TART Shifted

The advantages of this strategy are that (1) a greater area can be served within a specific overall run schedule time (2) transit vehicle movements on lower volume streets only occur when a passenger is actually being served, and (3) overall transit mileage, and associated costs, are reduced.

- A **Glenshire Route** would connect downtown with Glenshire via Olympic Heights. It would travel along Donner Pass Road, Glenshire Road and Dorchester Drive. On Demand stops would be located in outlying areas, such as Devonshire. In addition, On Demand stops in Olympic Heights would allow residents to avoid the need to cross Glenshire Drive on foot. When Church Street is extended eastward to connect directly with Glenshire Road, this route could directly serve stops through the Railyard core. One bus could provide hourly service.
- A **Prosser Lakeview Route** would travel north on SR 89 and serve a loop along Rainbow Drive and Alder Creek Road. On Demand stops could offer service to the northeastern portion of this neighborhood, as well as to Gray's Crossing.
- A **Sierra Meadows Route** would travel out of downtown via Brockway Road, and serve a loop along Martis Valley Road, Ponderosa Drive and Palisades Drive. On Demand stops west of this route and within the loop would expand the overall service area. In addition, this route would directly serve the Senior Apartments. This route and the Prosser Lakeview Route could be operated on an hourly basis using a single bus. On Demand stops could also be served at the Truckee Tahoe Airport and the Hampton Inn, if Placer TART service is not considered to be sufficient.
- A **Tahoe Donner Route** would travel west out of downtown on Donner Pass Road, and follow Northwoods Boulevard through Tahoe Donner. A relatively high number of on demand stops would serve residences in the more remote areas of the neighborhood, as well as the ski base areas. Hourly service would be provided using one bus.

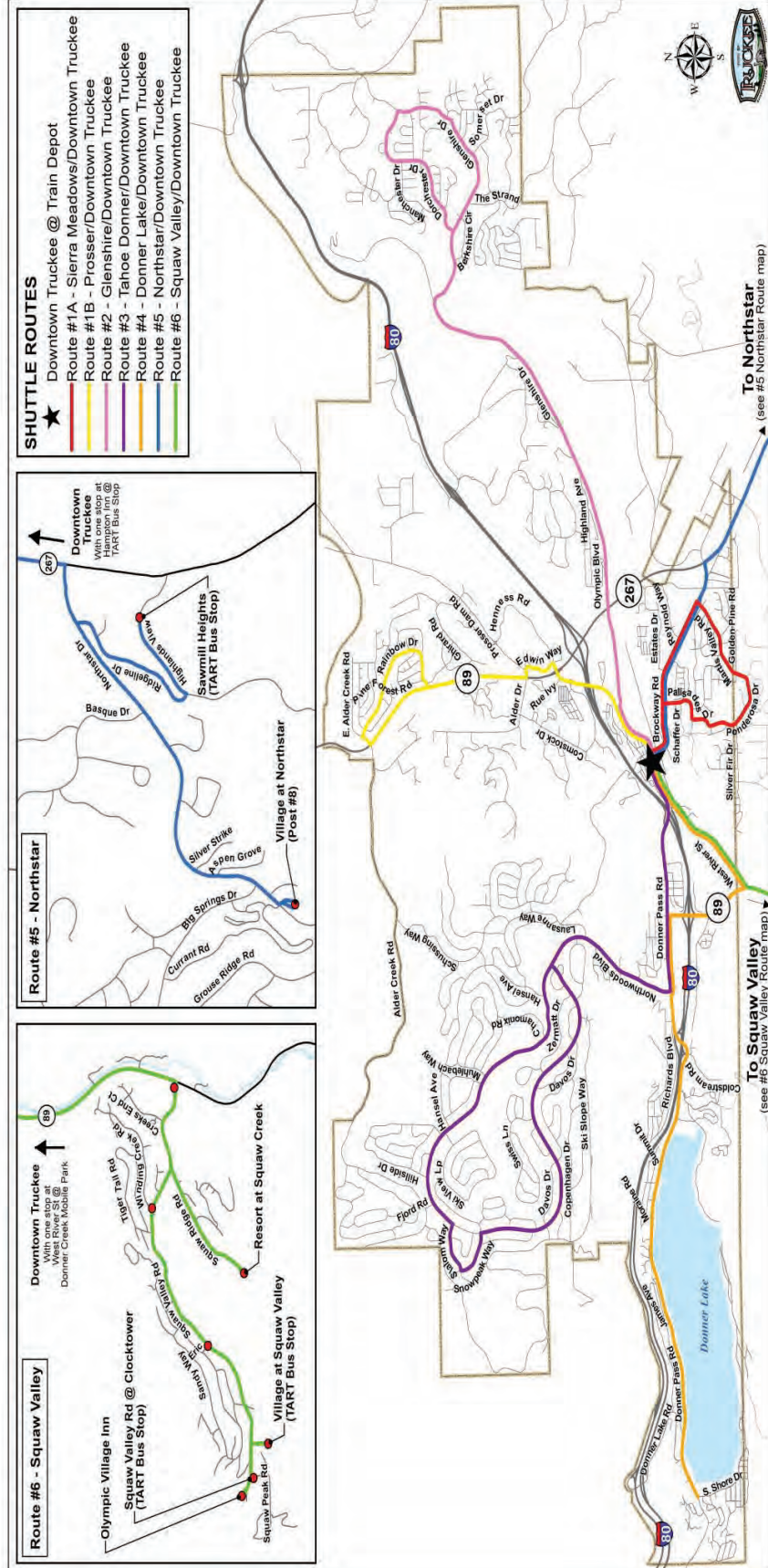
All neighborhood routes would begin and end at the Train Depot as part of a timed transfer. Neighborhood route alternatives vary by season. The objective of neighborhood shuttles will be to attract “choice” riders or visitors/residents with vehicles available to ride the bus into downtown for dinner or other activities.

Neighborhood Shuttles – Summer Evening Service 5:30 PM to 11:00 PM

The Truckee TART Long Range Plan identified Summer and Winter Evening Neighborhood Shuttle Service as the number three priority over the short-term. Consistent with the Long Range Plan, this alternative would operate fare free during the summer months (93 days) from 5:30 PM to 11:30 PM. In total this service would cost \$112,900 if operated by the Town of Truckee and \$127,200 if operated by a private contractor⁶.

⁶ Assuming the total rate per vehicle-hour of \$82.92 charged for the 2017 Truckee Thursdays shuttle program.

Figure 19
Town of Truckee Neighborhood Holiday Shuttle Routes



In order to be compliant with the Americans with Disabilities Act (ADA), the Neighborhood Shuttles should allow for three-quarter mile deviations from the fixed route for ADA qualified passengers.

The Long Range Plan developed daily transit trip rates per housing unit for each neighborhood community. This was based on observed transit ridership and land use data from the Truckee TransCAD model. Ridership estimates were then adjusted to reflect 6 hours of fare free service during the summer months. By providing evening service to the neighborhoods during the summer months, an additional 4,640 one-way passenger-trips could be expected or on average 50 trips per day.

Neighborhood Shuttles – Peak Summer Saturday Evenings

On-board surveys conducted by the Town of Truckee on the holiday neighborhood shuttles showed that 55 percent of respondents used the service between 6:00 PM and 11:00 PM. Additionally, the trip purpose for the greatest proportion of respondents was “Avoid DUI” (23 percent), followed by “free/convenient” (18 percent). The Truckee Thursday shuttles are popular mainly due to a lack of parking in downtown. Therefore a good strategy during the summer season is to expand neighborhood service to peak summer Saturday evenings only. It is assumed that peak summer Saturdays would extend from the first Saturday in July to the Saturday of Labor Day weekend, for a total of 10 days. Hourly service would be provided from 5:30 PM to 11:30 PM. A total of 165 additional annual vehicle service hours and 2,250 miles would be accumulated as part of this alternative.

Applying the Town of Truckee’s cost per hour and mile factors (adjusted for inflation), it would cost the Town \$12,100 to operate. If the Town decided to contract for the service, it is estimated that it would cost \$13,700. Placer County TART ridership demonstrates that average summer Saturday ridership is 99 percent of average daily ridership for the week. Therefore, the same average daily estimates are used for the Peak Saturday alternative as the “all summer long” alternative above. Annually, the service would carry 800 one-way passenger trips over the course of 10 peak Saturday evenings.

Neighborhood Shuttles – Winter Evening Service 5:30 PM to 11:00 PM

The Long Range Plan includes combined summer and winter evening service, as a third priority. Service span and frequency would be the same as the Summer Evening Service. The winter season would be roughly 88 days and cost on the order of \$106,800 to operate (under the current Town’s contractor arrangement for year-round service). Ridership estimates were developed through the Long Range Plan similar to the summer ridership estimates. It is anticipated that a greater number of one-way trips would occur during the winter season, 14,200 for the season or 161 per service day.

Neighborhood Shuttles – Peak Winter Evening Service 5:30 PM to 11:00 PM

The Town of Truckee could “ease in to” a new neighborhood service by providing the shuttles only during the peak winter season. Consistent with the Long Range Plan, peak winter season would include two full weeks between Christmas and New Year’s Day, every weekend from the Christmas holiday until mid-March as well as the Martin Luther King Jr. Day and Presidents Day holidays. This would be a total of 38 days, as shown in Table 1. Roughly 46 percent of Placer TART winter ridership (during the current Town winter season) occurs during these peak winter days. Therefore, it is estimated that this alternative would carry around 6,600 one-way passenger trips for a total cost of \$46,100 per year.

Neighborhood Shuttles – Peak Winter Daytime Service 7:00 AM to 5:30 PM

Another relatively modest potential neighborhood shuttle service element would be daytime service during the peak winter days. This would consist of service to the neighborhoods from 7:00 AM to 5:30 PM on the same 38 days per year shown in Table 1. Annual operating cost would be approximately \$74,200 if operated through the Town’s current year-round contractor, or \$99,000 under a separate contractor.

Ridership is estimated based on a review of ridership on the Placer County TART and Town of Mammoth Lakes transit programs, factored by the total demand for the Truckee neighborhoods as well as the proportion of ski area activity on the peak days. Once well-established with a strong marketing program, a ridership of approximately 17,900 per year would be generated. This alternative would be particularly useful if operated in combination with a program to provide transit or transit/high occupancy vehicle lanes on State Routes 89 and/or 267.

On peak ski days, these “managed lanes” could provide a travel time savings to skiers (who also would avoid the hassle of parking at the ski resorts), which in turn would encourage transit ridership on both local Truckee routes as well as connecting Placer County TART routes.

Transit Connections to Reno

As discussed in greater detail in *Chapter 2*, the current public transit options for travel between Truckee and the Reno area are limited:

- Amtrak rail service is operated once per day, is unreliable, requires an hour of travel time, and has a one-way fare of \$14. Amtrak Thruway bus service is limited to passengers connecting to rail service in Sacramento, and is thus not available for travel to and from Reno.
- Greyhound provides service three times per day in the eastbound direction and twice per day in the westbound direction. The first daily eastbound run does not get into Reno until 12:55 PM, while the last westbound departure service to Truckee leaves Reno at 2:50 PM. A day trip to Reno thus provides only roughly a 2 hour-long stay, and

has a total round-trip fare of \$14. In the opposite direction, a 6:25 AM departure from Reno arrives in Truckee at 7:15 AM (a reasonable time for typical work shifts), but the afternoon return trips depart Reno either at 3:50 PM (too early) or 8:55 PM (too late).

- The North Lake Tahoe Express is an airport shuttle service that provides connections between Truckee (Train Depot) and the Reno Tahoe International Airport, but does not serve other stops in the Reno area and requires a one-way fare starting at \$32.00.

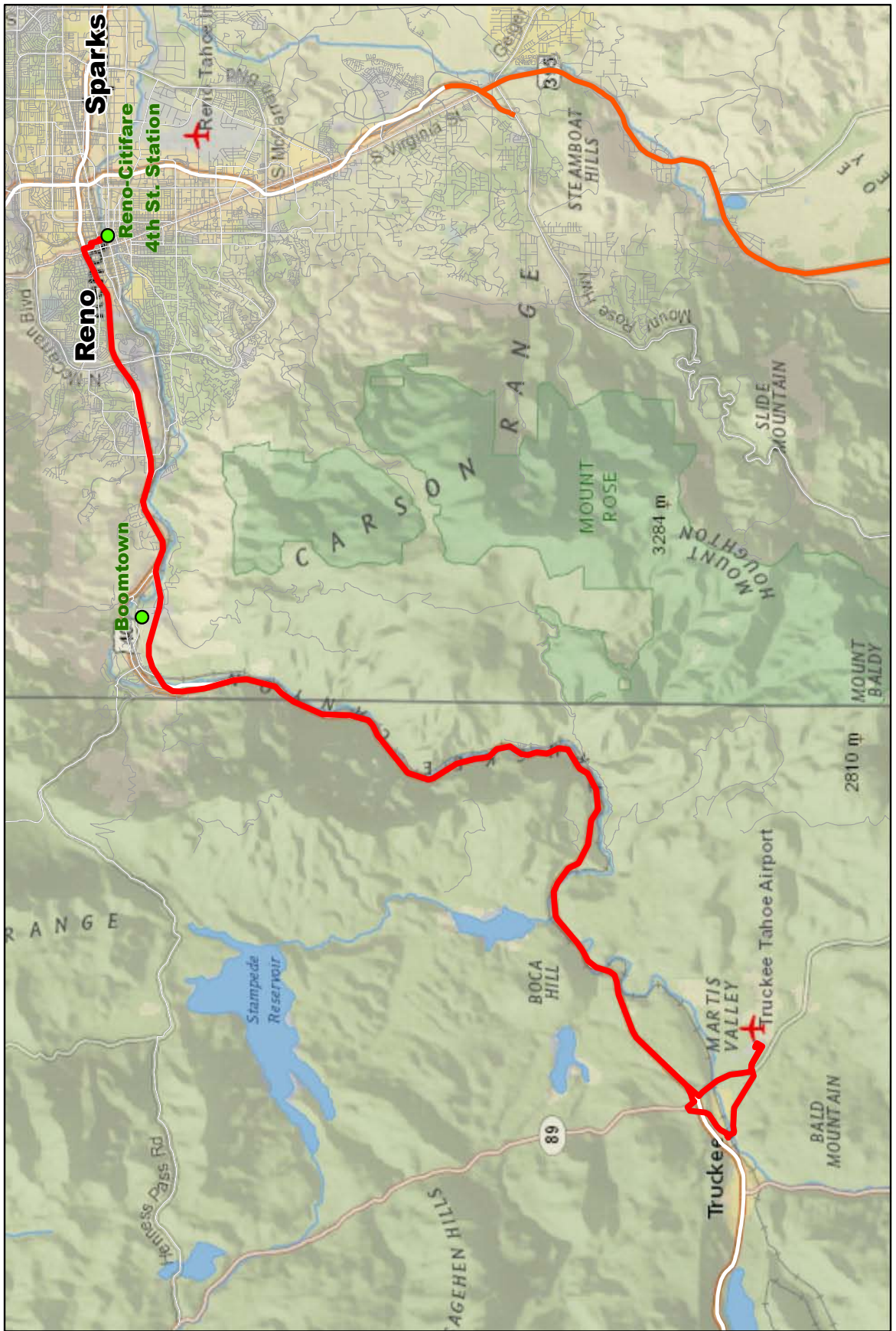
In sum, there are no viable options for commuting, shopping trips, medical trips or other “day trip” purposes for travel in either direction between Truckee and Reno. Given the level of commuting, medical, shopping and other travel between the two areas, it is worth considering options for improving transportation services.

Commute Bus Service

A basic commuter service could be operated by a single bus, based in the Reno/Sparks area. Figure 20 presents an example route, as follows:

- Service would start at the Citifare’s 4th Street Station, just east of downtown Reno (between the National Bowling Center and the Ace’s baseball park). This is the key hub of the Citifare system, with routes serving all portions of the Reno/Sparks area (including the Virginia Street BRT service).
- After traveling westbound on I-80, a stop would be served in the western Reno area to accommodate park-and-ride activity. Two options are at the Robb Drive and Mogul interchanges, although at both of these locations it would be difficult to exit and re-enter the freeway without using either private driveways or residential streets to turn the bus around, and there are no designated park-and-ride facilities. The Boomtown area would probably be the most feasible option.
- In addition, providing service between downtown Reno and this outlying area of Washoe County that is not currently served by public transit could result in partial funding for the service from the Washoe Regional Transportation Commission.
- Westbound on I-80, the route would exit at SR 267 (SR 89 North). The bus could potentially serve a stop in the Pioneer Commerce Center. Arriving at the Train Depot, transfers would be possible for the Placer TART 89 routes to Squaw Valley/Tahoe City and to Northstar/Kings Beach.
- The route would then follow Brockway Road to the Truckee Tahoe Airport, where park-and-ride spaces could be available for commuters to Reno. After a layover/recovery period, the route would proceed north on SR 267 and east on I-80 to stops in Boomtown and the 4th Street Station.

Figure 20
Potential Truckee-Reno Commuter



This route would require a total round-trip time of approximately two hours. As shown in Table 32, four example schedules were developed, assuming one versus two buses and assuming starting in Reno versus starting in Truckee. These schedules were developed to provide as good connections with Placer County TART buses as possible, though the fact that the 89 and 267 Placer County TART routes operate a half-hour apart makes this less than perfect. This schedule in particular is designed to serve the Placer TART morning departures at 7:00 AM (to Northstar) and at 7:30 AM (to Squaw Valley/Tahoe City), as well as the evening Placer TART arrivals from Squaw Valley/Tahoe City at 5:28 PM (at the Train Depot) and from Northstar/Kings Beach at 5:44 PM (at the Airport). A review of these schedules indicates the following:

- **One bus based in Reno** would provide a first AM run with useful times, though the second AM run is too late to serve substantial ridership. The first PM run also provides good connections and serves Truckee residents working in Reno as well, but the second run is too late to be effective.
- **Two buses based in Reno** would allow the runs to operate closer than two hours apart, providing good connections to the 267 Route (first run) and to the 89 Route (second run) in both the AM and PM periods. The AM schedule would be very convenient for Truckee residents working in Reno, though the afternoon schedule is somewhat earlier than optimal.
- **One bus based in Truckee** could provide good connections to the 267 route on the first run, but long waits for connections to the 89 Route. The first AM run would be too early to be effective in the eastbound direction. The second AM run would be convenient for down-the-hill commuters, but not useful for up-the-hill commuters. In the PM, the first run would be too early to be productive in the eastbound direction, though the departure time from Reno is good. The second PM run provides good connections from both the 89 Route and the 267 Route, but would not be effective returning up the hill.
- **Two buses based in Truckee** could provide good connections in the AM to 89 (1st run) and to 267 Route (2nd run), as well as good connections in the PM from the 267 Route (1st run) and from the 89 Route (2nd run). “Down-the-hill” commuters, however, would have options that are too early in the AM, and too late in the PM to be particularly attractive.

Overall, operation of two buses from a base in the Reno area would provide the best schedule for both the uphill and downhill directions. This option also has the benefit of requiring the least vehicle-hours of service per day (7.13, versus 7.57 for the 1 bus plans), as there is no need for layover time between runs. As a result, it would be slightly less expensive (assuming no additional cost for provision of the second bus). This operational strategy is assumed for the remainder of this analysis.

TABLE 32: Example Reno - Truckee Commuter Bus Schedules

		AM Schedule		PM Schedule		Additional Midday Run
<u>1 Bus Based in Reno</u>						
Depart	Reno (4th Street Station)	\$0.25	\$0.34	\$0.70	\$0.78	\$0.50
Depart	Boomtown (Park-and-Ride)	\$0.26	\$0.35	\$0.71	\$0.79	\$0.51
Depart	Truckee Rec Center	\$0.28	\$0.36	\$0.73	\$0.81	\$0.53
Depart	Truckee Train Depot	\$0.28	\$0.37	\$0.73	\$0.81	\$0.53
Arrive	Truckee-Tahoe Airport	\$0.29	\$0.37	\$0.74	\$0.82	\$0.54
Depart	Truckee-Tahoe Airport	\$0.30	\$0.38	\$0.74	\$0.83	\$0.55
Depart	Boomtown (Park-and-Ride)	\$0.32	\$0.40	\$0.76	\$0.85	\$0.57
Arrive	Reno (4th Street Station)	\$0.33	\$0.41	\$0.77	\$0.86	\$0.58
<u>2 Buses Based in Reno</u>						
Depart	Reno (4th Street Station)	\$0.25	\$0.27	\$0.66	\$0.69	\$0.46
Depart	Boomtown (Park-and-Ride)	\$0.26	\$0.28	\$0.67	\$0.70	\$0.47
Depart	Truckee Rec Center	\$0.28	\$0.30	\$0.68	\$0.72	\$0.49
Depart	Truckee Train Depot	\$0.28	\$0.31	\$0.69	\$0.73	\$0.49
Arrive	Truckee-Tahoe Airport	\$0.29	\$0.31	\$0.69	\$0.73	\$0.50
Depart	Truckee-Tahoe Airport	\$0.30	\$0.32	\$0.70	\$0.74	\$0.51
Depart	Boomtown (Park-and-Ride)	\$0.32	\$0.34	\$0.72	\$0.76	\$0.53
Arrive	Reno (4th Street Station)	\$0.33	\$0.35	\$0.73	\$0.77	\$0.54
<u>1 Bus Based in Truckee</u>						
Depart	Truckee Train Depot	\$0.22	\$0.30	\$0.65	\$0.73	\$0.47
Depart	Truckee-Tahoe Airport	\$0.22	\$0.30	\$0.66	\$0.74	\$0.47
Depart	Boomtown (Park-and-Ride)	\$0.24	\$0.32	\$0.68	\$0.76	\$0.49
Arrive	Reno (4th Street Station)	\$0.25	\$0.33	\$0.69	\$0.77	\$0.50
Depart	Reno (4th Street Station)	\$0.26	\$0.34	\$0.69	\$0.78	\$0.51
Depart	Boomtown (Park-and-Ride)	\$0.27	\$0.35	\$0.70	\$0.79	\$0.52
Depart	Truckee Rec Center	\$0.29	\$0.37	\$0.72	\$0.80	\$0.54
Arrive	Truckee Train Depot	\$0.29	\$0.37	\$0.72	\$0.81	\$0.54
<u>2 Buses Based in Truckee</u>						
Depart	Truckee Train Depot	\$0.23	\$0.25	\$0.69	\$0.73	\$0.48
Depart	Truckee-Tahoe Airport	\$0.24	\$0.26	\$0.70	\$0.74	\$0.49
Depart	Boomtown (Park-and-Ride)	\$0.25	\$0.28	\$0.72	\$0.76	\$0.50
Arrive	Reno (4th Street Station)	\$0.27	\$0.29	\$0.73	\$0.77	\$0.52
Depart	Reno (4th Street Station)	\$0.27	\$0.29	\$0.73	\$0.78	\$0.52
Depart	Boomtown (Park-and-Ride)	\$0.28	\$0.30	\$0.74	\$0.79	\$0.53
Depart	Truckee Rec Center	\$0.30	\$0.32	\$0.76	\$0.80	\$0.55
Depart	Truckee Train Depot	\$0.30	\$0.32	\$0.77	\$0.81	\$0.55
Arrive	Truckee-Tahoe Airport	\$0.31	\$0.33	\$0.77	\$0.81	\$0.56

Another consideration is the calendar of service. Three options were considered:

- Year-round daily service, including holidays. This reflects the seven-day-a-week nature of the local resort economy, though ridership would be lower on weekends particularly in the off-seasons. As shown in Table 1, this is estimated to require an operating cost of \$215,900 per year, at the rate currently charged for the Truckee Thursday shuttle program.
- Year-round weekday service, with Saturday and Sunday service during summer (June 15 through September 15) and winter (December 15 through March 15) only. No service would be operated on holidays or weekends in the spring and fall. This would cost on the order of \$185,100 annually.
- Year-round weekday service, with Saturday and Sunday service during the winter (December 15 through March 15) season only, and no service on holidays and weekends in spring, summer or fall. This would incur an estimated cost of \$169,200 per year.

Commute Ridership Background Information

In an effort to develop ridership, LSC reviewed three different data sets to understand employee commute patterns into Truckee. The first two were employer and employee surveys conducted as part of the Truckee-North Tahoe Regional Workforce Housing Needs Assessment. These surveys were administered between January and April of 2016, and were distributed to employers and employees in the North Tahoe-Truckee area. The third was a Truckee Employee Commute Survey, conducted in the spring and fall of 2017.

The Housing Needs Assessment Employer Survey provided data regarding the type and variation in overall employment useful for the evaluation of commuter service. This survey elicited responses from 327 employers in the region that employ up to 15,874 employees in peak seasons. A summary of the results is presented in Table 33, and indicates the following:

- Total region-wide employment is highest in peak winter (January), with 14 percent more employees than in peak summer (August).
- Employment in the Truckee area in peak winter is 23 percent higher than in peak summer.
- Eastern Placer County's summer employment is slightly higher than its winter employment (by 2 percent), while Donner Summit employment is almost four times greater in winter than in summer.
- Of total region-wide employment among the survey respondents, 44 percent of winter employment is in Truckee along with 41 percent of summer employment.

- The ratio of employment in Truckee that consists of full-time employees (which are more likely to make use of a commuter service) is 58 percent in winter and 57 percent in summer.
- Employers were grouped into those that tend to work a Monday-Friday work week (government, professional services, construction, education, utilities, etc.) versus those that work a 7-day-a-week schedule (resorts, restaurants, retail, etc.). In Truckee, the proportion of total employees working 7-days a week schedules ranges from 66 to 73 percent, depending on season. This is relatively low compared to the other portions of the North Tahoe / Truckee region. These factors impact the potential demand for weekend commuter service.

The Housing Needs Assessment Employee Survey drew data from 1,627 unique individuals, including 134 surveys that were completed in Spanish. As the survey was a choice survey, administered through Survey Monkey, rather than a randomized survey, it is not necessarily representative of the full employee population in the North-Tahoe Truckee area. Nevertheless, the results, when compared with other data sources, such as the US Census' Longitudinal Employer Household Dataset (LEHD), provide a good picture of the home locations of Truckee employees. As shown in Table 34, 5.6 percent of North Tahoe-Truckee (including eastern Placer and Incline Village, NV) employees live in the Reno/Sparks area. The LEHD data described in earlier chapters shows ten percent of eastern Nevada County employees live in the Reno area (702 people), and twelve percent live in the combined Reno/Sparks area (834 people).

Truckee Employee Commute Survey - As part of this Transit Development Plan Update, the Town of Truckee and the Consultant conducted an employee survey to better understand commute patterns from out of the area. A link to an on-line survey was distributed to employees of the Town of Truckee, Truckee Public Utilities District, Tahoe Forest Hospital and Clear Capital. 134 people responded to the survey. Roughly one-third of respondents (44 respondents) live near the Robb Drive exit on I-80, 16.2 percent (21 respondents) live in Sparks and 11.5 percent (15 respondents) live in the general South Reno area off of US 395. Just over half of the respondents live within a "short drive" (roughly one mile) of the McCarran, Keystone, Robb Drive or Boomtown exits of I-80. Key findings of the survey are discussed below.

Travel Characteristics

- The vast majority of respondents, 90 percent, drive to work alone, but 10 percent carpool.
- Over 90 percent of respondents work Monday through Friday, 18.5 percent work on Saturdays and 13.3 percent work on Sundays.

Table 33 : North Tahoe / Truckee Employment by Month

	Truckee Area			Eastern Placer County			Donner Summit Area			Incline Village / Crystal Bay			Total Region		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
January	3,833	2,723	6,556	4,185	2,732	6,917	654	222	876	149	316	465	8,821	5,983	14,814
February	3,723	2,607	6,330	4,189	2,730	6,919	654	222	876	149	316	465	8,715	5,875	14,590
March	3,721	2,626	6,347	4,173	2,719	6,892	653	215	868	133	170	303	8,680	5,730	14,410
April	3,709	2,210	5,919	3,701	2,510	6,211	649	211	860	133	170	303	8,192	5,101	13,293
May	2,981	2,033	5,014	2,306	925	3,231	186	26	212	133	320	453	5,606	3,304	8,910
June	2,984	2,172	5,156	3,323	1,617	4,940	190	30	220	139	323	462	6,636	4,142	10,778
July	2,739	2,110	4,849	3,323	2,849	7,031	195	32	227	147	316	463	7,263	5,307	12,570
August	3,024	2,288	5,312	4,182	2,850	7,038	190	30	220	149	316	465	7,551	5,484	13,035
September	2,980	2,182	5,162	3,629	2,338	5,967	190	30	220	133	320	453	6,932	4,870	11,802
October	3,654	2,013	5,667	2,830	1,269	4,099	194	29	223	133	170	303	6,811	3,481	10,292
November	3,727	2,381	6,108	3,564	2,376	5,940	649	211	860	133	170	303	8,073	5,138	13,211
December	3,840	2,725	6,565	4,140	2,612	6,752	654	222	876	149	316	465	8,783	5,875	14,658
Percent of Regionwide Employment															
Peak Winter	44%			47%			6%			3%			100%		
Peak Summer	41%			54%			2%			4%			100%		
Percent Full Time vs. Part Time															
Peak Winter	58%	42%		61%	39%		75%	25%		32%	68%		60%	40%	
Peak Summer	57%	43%		60%	40%		86%	14%		32%	68%		58%	42%	
Percent by Typical Work Days															
Winter															
Mon-Fri	27%			8%			1%			6%			16%		
7 Days/Week	73%			92%			99%			94%			84%		
Summer															
Mon-Fri	34%			11%			5%			6%			20%		
7 Days/Week	66%			89%			95%			94%			80%		
Offseason															
Mon-Fri	28%			16%			1%			9%			22%		
7 Days/Week	72%			84%			99%			91%			78%		

Source: Truckee North Tahoe Regional Workforce Housing Needs Assessment, Employer Survey, 2016
 Note: Excludes employers outside of region, or that did not answer location question. Eastern Placer County includes the Tahoma portion of El Dorado County.
 Note: Categories with 7-day-a-week typical workdays include resorts, recreation, retail, healthcare and restaurants.

TABLE 34: Residence vs. Work Location - Winter Employees

Residence Location	Primary Work Location																
	Area																
	North Tahoe/Truckee																
	Carmanian Bay	Crystal Bay	Donner Summit	Floriston	Homewood	Incline Village	Kings Beach	Northstar	Olympic Valley	Tahoe City	Tahoe Vista	Tahoma	Truckee	Verdi	Reno	Carson City	
	South Shore	Zephyr Cove	South Lake Tahoe	Grass Valley	Nevada City	Other											
Community	\$9,000	\$0.00	\$2.00	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Camelian Bay	\$6.00	\$0.00	\$2.00	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Crystal Bay	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Donner Summit	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Floriston	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Homewood	\$0.00	\$1.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Incline Village	\$2.00	\$0.00	\$0.00	\$27.00	\$12.00	\$5.00	\$16.00	\$31.00	\$16.00	\$31.00	\$8.00	\$1.00	\$2.00	\$2.00	\$0.00	\$0.00	\$0.00
Kings Beach	\$4.00	\$0.00	\$1.00	\$0.00	\$5.00	\$49.00	\$31.00	\$16.00	\$31.00	\$16.00	\$8.00	\$1.00	\$2.00	\$2.00	\$0.00	\$0.00	\$0.00
Northstar	\$4.00	\$1.00	\$9.00	\$1.00	\$2.00	\$16.00	\$495.00	\$76.00	\$50.00	\$3.00	\$0.00	\$0.00	\$26.00	\$8.00	\$1.00	\$0.00	\$0.00
Olympic Valley	\$0.00	\$0.00	\$0.00	\$0.00	\$2.00	\$0.00	\$7.00	\$40.00	\$8.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tahoe City	\$1.00	\$0.00	\$0.00	\$0.00	\$2.00	\$1.00	\$14.00	\$43.00	\$91.00	\$4.00	\$1.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00
Tahoe Vista	\$0.00	\$0.00	\$0.00	\$0.00	\$4.00	\$1.00	\$11.00	\$4.00	\$10.00	\$9.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tahoma	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00	\$5.00	\$6.00	\$17.00	\$1.00	\$9.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Truckee	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00	\$0.00	\$14.00	\$4.00	\$0.00	\$0.00	\$16.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reno	\$2.00	\$0.00	\$0.00	\$0.00	\$2.00	\$2.00	\$31.00	\$17.00	\$10.00	\$1.00	\$0.00	\$1.00	\$1.00	\$3.00	\$0.00	\$0.00	\$0.00
Sparks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Verdi	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4.00	\$2.00	\$2.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Carson City	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Dayton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gardnerville	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
S. Shore	\$2.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$1.00	\$1.00	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
South Lake Tahoe	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Cofax	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Auburn	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Roseville/Loomis	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Grass Valley	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Nevada City	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Loyalton	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Calpine	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sieraville	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Bay Area	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Central Valley	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2.00	\$3.00	\$0.00	\$0.00	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00
Other	\$0.00	\$0.00	\$0.00	\$0.00	\$1.00	\$1.00	\$2.00	\$5.00	\$5.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Summary: Where North Tahoe / Truckee Employees Live		
	#	%
North Tahoe/Truckee	1,295	89.7%
Reno Area	81	5.6%
Carson/Douglas	7	0.5%
South Lake Tahoe	7	0.5%
Foothill Area	19	1.3%
North	8	0.6%
Other	26	1.8%
	1,443	100.0%

Source: 2016 Regional Housing Study, Bay Area Economics.

- When work arrival times are grouped in half hour periods, the greatest number of respondents arrive at work between 7:30 AM and 8:00 AM (55, or 41 percent), followed by between 7:00 AM and 7:30 AM (48, or 38.5 percent). Work departure times were most common between 4:30 PM and 5:00 PM, (42 or 31.3 percent), followed by between 5:00 PM and 5:30 PM (39 or 29.1 percent). Around 40 percent of respondent have flexibility in work start/end times.
- Over 80 percent of respondents stated that they do not need a private vehicle at work or typically make other stops while in Truckee.

Interest In and Feasibility of Commuter Bus

Respondents were provided with the scenario of a Reno-Truckee commuter service bus service between the RTC Citifare Station, park and ride lots in West Reno, and major employers in Truckee. 57 of the respondents (42.2 percent) said that they were not interested in a commuter bus service while 26 respondents or 19.3 percent stated that they were “very” interested.

Interest in and Feasibility of Vanpool

Respondents were provided with a vanpool scenario which would not add more than 15 minutes to the commute and serve the employees’ placer of work. 63 respondents (46 percent) said that they were “very” interested in a vanpool program subsidized by Washoe County and another 55 respondents (40.7 percent) stated that they were “somewhat” interested. Only 12 respondents or 9 percent stated that they were not at all interested in a vanpool program.

Factors Important in Making Vanpool/Bus Commuter Service Work

- Must be less expensive than cost of driving private vehicle
- Must not take more time than commuting by private vehicle
- Drop off location at work
- Multiple options
- Safe location to leave private vehicle

Reno Commute Ridership Estimation

The Transit Cooperative Research Project #B-36, *Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation* identifies (based on a nationwide database) that the typical proportion of commuters traveling by transit where available for a corridor similar to the Truckee-Reno corridor is 2 percent. That percentage was applied to the different groups of people who are commuting in this corridor.

According to the LEHD, an estimated 477 Truckee residents have work locations in the Reno area, while 702 Reno residents have work locations in Truckee. The analysis assumes that only

people living in Reno, not Sparks, would be willing to take a commuter bus, as transferring from Sparks would be time-consuming and potentially challenging, as there is not convenient parking located close the 4th Street Station, and by the time a resident drove from Sparks to the west Reno stop, they would be halfway to their Truckee destination.

Anecdotal data would say that most households in the Truckee area travel to Reno for shopping at least once a month. There are also significantly more medical services available in Reno and medical service can often be less expensive “down the hill”. This analysis uses the 2009 *National Household Travel Survey* finding of a 1.4 percent mode share for family or personal errands as the basis for estimating potential trips from Truckee to Reno on the reverse-commute or mid-day runs of the commuter bus. It also assumes that 97 percent of the population of eastern Nevada County resides in Truckee.

Further, as shown in Table 33 (Truckee North Tahoe Regional Workforce Housing Needs Assessment Employer Survey), in winter 27 percent of employees are working a regular Monday-Friday schedule in Truckee, while 73 percent work any 5 out of 7 days of the week. So, in the wintertime, about 190 people are commuting from Reno to Truckee Monday through Friday, while 515 are commuting on any day throughout the entire week. In the summertime, those numbers change to about 240 people on a regular Monday-Friday schedule, and 460 on the 7-day-a-week schedule. The offseason split is similar to the winter split. Finally, many commuters working the 7-day-a-week schedule are also likely to work an irregular shift, i.e., not a regular 8 AM to 5 PM schedule. For the purposes of this analysis it is assumed that only 75 percent of 7-day-a-week commuters work a regular 8-5 shift. These seasonal and day of week employment patterns were factored into the ridership analysis below for commuters travelling from Reno to Truckee for work. It was assumed that most Truckee residents commuting to Reno for work would follow a more standard 8-5/ Monday through Friday job schedule. However, these ridership estimates were reduced to reflect that some of these workers may be telecommuting.

The resulting ridership estimates are shown in Table 1, Service Alternatives:

- **Year-round daily service, including holidays** - Ridership on this option would capture commuters who work a Monday through Friday schedule, as well as those who are working throughout the week in more resort-economy based professions. It could also capture Truckee workers commuting to Reno. Ridership on this alternative is estimated at nearly 10,100 annually.
- **Year-round weekday service, with Saturday and Sunday service during summer and winter, and no service on holidays in the spring and fall** - This alternative would capture all summer and winter commuting, and weekday commuting during the spring and fall, for commutes in both directions. Ridership for this alternative is estimated at 9,550 annually.
- **Year-round weekday service, with Saturday and Sunday service during the winter season only, and no service on holidays or weekends in spring summer or fall** - This would generate around 9,200 riders annually.

Mid-Day Option

If a scheduled commuter service is operated, there is the potential to add one mid-day run, to allow half-day trips to Reno (or to Truckee from Reno) for medical appointments, shopping or personal errands that avoid the need to stay all day. It could be operated on only one day a week, with passengers planning their travel around this service schedule. The mid-day run would incur an operating cost of \$7,700 per year, and would generate just over 500 riders annually (based on the intercity demand generated using the National Household Travel Survey mode share factor noted above, and considering that many trips would require transfers to connecting local Citifare routes).

Vanpool Service

Washoe Regional Transportation Commission (Washoe RTC) operates a vanpool program and offers incentives to help make vanpooling successful. Because of this available assistance, and because of the concentrated nature of many of the employees shown in the Truckee Employee Commute Survey, LSC examined vanpool as a possible commute option for Truckee employees living in Washoe County. Vanpool benefits offered by Washoe RTC include:

- Monthly travel subsidy (\$400 for groups travelling up to 3,000 miles per month)
- RTC Trip Match, a web-based trip matching program
- Guaranteed Ride Home

Compared to driving a personal vehicle daily to work, RTC's vanpool program represents a significant savings. Vanpool participants are responsible for sharing the cost of a monthly vehicle lease, including the cost of gas. The monthly lease includes scheduled and unscheduled maintenance, 24-hour roadside service/towing, loaner (if needed), liability insurance, the Guaranteed-Ride-Home program and additional miles for non-commute use by authorized drivers of the vanpool. As shown in Table 35, for a 10-person vanpool from central Reno to the Truckee Town Hall, Washoe RTC estimates a monthly cost of \$831 for the vanpool as a whole or \$83 per individual, as compared to a monthly cost of driving alone (fuel only) of \$167. When other costs of driving are factored in, such as maintenance, insurance, and depreciation, the monthly cost of driving alone is estimated at \$835 per month. Given the financial savings compared to driving (a roughly 90 percent reduction in commuting costs), and the positive responses on the Truckee Employee Survey, there is likely to be enough interest among Reno/Sparks-Truckee commuters to support several vanpools.

Research on demand for vanpools around the country is limited, but studies show that around 2 percent of trips are made by vanpool where a vanpool program is administered by a third party, such as a transit provider, while 8 percent of trips are made by vanpool when provided through an employer program. Not everyone commutes year-round, so the lowest monthly employment percent of average, 84 percent, was applied to the total commute population of Reno/Sparks, bringing it to 700 people. Two percent of this population would be 14 people (one to two vanpools), and eight percent would be 56 (four to eleven vanpools). Given that among the 134 respondents to the Truckee Employee Survey there were 63 were "very interested" in a

vanpool, and not all employers in Truckee were surveyed, there is the potential for the higher end of this range.

TABLE 35: Reno to Truckee Vanpool and Drive- Alone Monthly Cost Comparison		
	Monthly	Annually
Mileage	1,750	21,000
Vehicle Type	10-Seat Passenger Van	7-Seat Passenger Van
Cost of lease (tax included) + gas at \$2.89/gallon ¹	\$1,231	\$14,772
Net lease after RTC subsidy is deducted	\$831	\$9,972
Individual monthly out-of pocket expenses based on 10 participants	\$83	\$997
Cost of driving alone, fuel only	\$167	\$2,004
Cost of driving alone, full vehicle costs ²	\$835	\$10,020
Source: Washoe RTC Vanpool, custom estimate		
Note 1: Washoe RTC estimated the cost for the lease at \$898.60 and the gas at \$332.50.		
Note 2: AAA's annual "cost of driving" survey for 2016 calculated total personal vehicle expenses at \$0.57 per mile or \$835 a month for an average size sedan with the monthly mileage described above (fuel, maintenance, insurance and depreciation factored in)		

Also, it should be noted that vanpool mode share increases by 70 percent when the cost of the vanpool is totally or substantially subsidized. If the Town of Truckee or other major employers were to offer an additional subsidy, the number of vanpools that form could increase to up to seven, serving up to 95 people. Under this scenario, the Town would match the subsidy offered by Washoe County for vanpools serving Truckee, lowering the cost of a vanpool lease per month to around \$43 per month for a ten-person vanpool. Assuming 10 vanpools (95 people), the annual cost to the Town of Truckee for this commute option would be \$48,000 annually.

TRUCKEE DIAL-A-RIDE MODIFICATIONS

Extend DAR Hours Until 7:00 PM

The DAR program currently operates between 8:00 AM and 5:00 PM, though much of the ridership occurs between 8:15 AM and 4:00 PM. Extending the hours of operation could provide access to additional programs and activities. As an example, the Tahoe Forest Hospital

indicates that some of their classes end at 6:00 PM, and the lack of DAR service after 5:00 PM preclude participation by some residents.

A reasonable option would be to extend weekday service until 7:00 PM. This would require two additional vehicle-hours per weekday. This would increase annual operating costs by an estimated \$47,300 per year, including the extension of the dispatcher's working day. Based upon a review of the ridership by hour for similar Dial-A-Ride programs, this option would increase ridership by an estimate 4 percent, or approximately 300 per year. Total subsidy needs would increase by \$46,700 annually.

Expanding Dial-A-Ride Service beyond Truckee

Placer County and the Town of Truckee are continuing discussions on integration of Dial-A-Ride services, with the goal of moving forward on this as soon as possible. Currently Placer County directly provides paratransit trips using their regular bus drivers. In the future Placer County would contract with the Town of Truckee to provide the service through their contractor, Paratransit Services. One obstacle to this is that Paratransit Services is facing a driver shortage, as is Placer County.

Contract with Private Transportation Network Company (TNC) for Paratransit Services

Transportation Network Companies have been successful in many areas with filling some paratransit services needs for transit agencies at a reasonable cost. One example in the Bay Area is Silver Ride. Silver Ride is a "door through door" assisted ride service for seniors for a variety of trip purposes. The company has a cashless transactions and no tips policy so seniors do not need to carry change. Drivers will come into the seniors home and assist with getting into the vehicle. TNCs provide flexibility and convenience; however Silver Ride does not have any drivers in the Truckee region. As a point of comparison, Silver Ride charges \$50 per one-way trip within the City of San Francisco. This is similar to a one-way trip on Truckee DAR. Additionally as Truckee TART is partially funded with FTA funds, TNC drivers would still be subject to drug and alcohol testing under FTA law. The only exception to this rule is in the case of a voucher program where the passenger has a choice as to which TNC or taxi company to use for the trip, as FTA feels this would be too difficult to administer drug and alcohol testing programs for multiple companies.

TRUCKEE PARTICIPATION IN PLACER TART SERVICE IMPROVEMENTS

For many years, the Town of Truckee and Placer County have had a written intergovernmental agreement regarding funding for existing Placer County TART routes that serve the Town. Put simply, this is built on the assumption that Placer County would – absent the existence of the Town of Truckee – provide service in eastern Placer County along Lake Tahoe, between Tahoe City and Squaw Valley, and between Kings Beach and Northstar. The subsidy needs for current services north of Squaw Valley and Northstar are split evenly between Placer County and the Town of Truckee (or the Town's funding partners). At present, the costs assigned to the Town total approximately \$166,100 (including the additional costs of the three-year pilot expansion

of SR 267 service). While the Town is under no current responsibility to expand funding for additional Placer County TART services, the Town of Truckee identified High, Medium, and Low priority improvements for Placer TART service. High priority improvements (5 Year time horizon) focus on winter service improvements, including evening service half-hourly peak-period service, and earlier southbound departures. This reflects the relative existing transit demand, as well as the desire to help address regional traffic congestion. These improvements will increase ridership by just under 15,000 boardings per year. Total potential Town (or Town funding partner) contributions (at current unit costs) are estimated to be \$96,200.

FARE ALTERNATIVES

Elimination of Truckee TART Fixed Route Fares

Per the Long Range Transit Plan for Truckee, the top priority improvement is the elimination of transit fares paid by the passenger (other than for non-ADA Dial-A-Ride and NTTT passengers). Instead, other funding (such as transient occupancy tax funding) could be used to “pre-pay” all existing transit fare revenues. This will bring TART in line with the transit programs of other major mountain resort communities, including Mammoth Lakes, Park City/Summit County (Utah), Vail, as well as Summit County, Breckenridge, Steamboat Springs and Aspen in Colorado. Transit services that have shifted from fare systems to free-fare have generally seen ridership increases on the order of 50 percent.

To be consistent with the Americans with Disabilities Act, passengers certified as unable to use the fixed route service due to disability would be provided with free boarding of the Dial-A-Ride service. To control costs, fares would continue to be charged on DAR service for persons not eligible under ADA.

Transit services that have shifted from fare systems to free-fare have generally seen ridership increases on the order of 50 percent:

- The Corvallis Transit System in Oregon saw a 38 percent increase in ridership in the first year after the elimination of fares in 2011.
- The Mountainline system in Missoula, Montana eliminated fares in January 2015, which generated a 43 percent increase in ridership over the first year.
- Glenwood Springs, Colorado saw a 125 percent increase in ridership after a few months.
- Asheville, North Carolina conducted a demonstration three-month fare-free program in 2006 that resulted in a 58 percent increase in ridership.

In addition, the downtown shuttle system in Santa Barbara imposed a 25-cent fare on their previously-fare-free system in the late 1990’s, which resulted in a 45 percent loss in ridership.

Given the additional convenience of free-fare service to residents and visitors in Truckee, a 50 percent ridership increase is reasonable. As free fares on DAR would be provided only to

persons eligible under the Americans with Disabilities Act, the impact on DAR ridership would be relatively small.

Applying this factor to the fixed route ridership and the non-ADA-eligible DAR ridership (and excluding the Sugar Bowl and Boreal employees riding at no fare in winter), eliminating fares would increase total ridership by an estimated 6,900 per year. Excluding the non-ADA-eligible passenger fares, approximately \$17,300 in existing fare revenue would be eliminated. This equates to an increase in subsidy of \$2.51 per new passenger-trip. Compared with the figures for the service alternatives shown in Table 36, this alternative would rank only behind the vanpool program (at \$1.94) in economically expanding Truckee Transit ridership.

ALTERNATIVES COMPARISON

Table 36 presents a summary comparison of the various Eastern Nevada County service alternatives, fare alternatives as well as the High Priority Truckee Participation in Placer TART Service Improvements. As also shown in Figure 21, the impact on annual ridership varies from a high of 21,000 new passenger-trips for a vanpool program to as little as 280 one-way trips if the Crossroads Stop is eliminated. As for Commuter options, a Vanpool program would generate the greatest ridership (21,000 trips). Modifications to the mainline route to expand service in the non-winter months, add half-hourly service and create a two route system all have a similar impact on ridership (4,300 to 4,700 passenger-trips). The Neighborhood Shuttle options have relatively high ridership estimates with 17,900 for Peak Winter Day service and 14,200 trips for Peak Winter Evening service.

Figure 22 presents annual operating subsidy requirements for the various service alternatives. The 2 Route Service and Half-Hourly Service are the most expensive, on the order of \$200,000 per year. Commuter bus services follow with operating subsidies ranging from \$183,100 to \$139,300. Eliminating the Crossroads stop would save roughly \$3,300. Subsidizing the Placer TART Earlier Southbound Departures on 89 and 267 would only cost \$2,450.

Performance Analysis

Productivity (Ridership per Vehicle-Hour)

Figure 23 graphically presents the marginal ridership per vehicle hour for each service alternative. This represents the increase/decrease in ridership from status quo divided by the increase/decrease in vehicle hours from status quo. The various alternatives can be considered in the following categories. Contribution to Placer TART alternatives is not included in Figure 24:

- The Neighborhood Shuttle alternatives have the greatest one-way passenger-trips per hour. The Peak Winter Day Neighborhood Shuttle is estimated to carry up to 15 passenger-trips per hour. The Peak Summer Saturday Evenings Neighborhood Shuttle Alternative (4.8 trips per hour) carry much fewer trips than the other Neighborhood Shuttle options.

TABLE 36: Eastern Nevada County Service Alternatives Performance Analysis

Alternative	Change in Vehicle-Hours	Marginal Operating Subsidy	Change in Annual Ridership	Marginal Ridership per Vehicle-Hour	Marginal Subsidy per Passenger
Expanded Hours of Non-Winter Service	1,190	\$64,400	4,400	3.7	\$14.64
Mainline Summer/Winter, 6:00 PM - 11:00 PM	905	\$75,000	5,150	5.7	\$14.56
Sunday Service in Non-Winter Seasons	564	\$17,300	1,500	2.7	\$11.53
Half-Hourly Service - Existing Route	3,234	\$197,500	4,700	1.5	\$42.02
Eliminate Crossroads Stop	--	-\$3,300	280	--	-\$11.79
2-Route Service	3,345	\$200,400	4,300	1.3	\$46.60
Neighborhood Shuttles - Summer Service 5:30 - 11:00 PM	1,535	\$127,200	4,640	3.0	\$27.41
Neighborhood Shuttles - Peak Summer Saturday Evenings	165	\$13,700	800	4.8	\$17.13
Neighborhood Shuttles - Winter Service 5:30 PM - 11:00 PM	1,452	\$120,400	14,200	9.8	\$8.48
Neighborhood Shuttles - Peak Winter 5:30 PM - 11:00 PM	627	\$52,000	6,600	10.5	\$7.88
Neighborhood Shuttles - Peak Winter Days 7:00 AM - 5:30 PM	1,197	\$99,300	17,900	15.0	\$5.55
Commuter Bus Year Round 7-Days-A-Week (1)	2,604	\$183,100	10,100	3.9	\$18.13
Commuter Bus Weekdays Year-Round, Weekends Summer/Winter (1)	2,233	\$154,100	9,550	4.3	\$16.14
Commuter Bus Weekdays Year-Round, Weekends Winter Only (1)	2,040	\$139,300	9,200	4.5	\$15.14
Mid-day Non-Commuter Run (1)	93	\$6,200	500	5.4	\$12.40
Vanpool Subsidy	--	\$48,000	21,000	--	\$2.29
Extend DAR Service Until 7 PM	510	\$46,700	300	0.6	\$155.67
Eliminate Fixed Route Fares	--	\$17,300	6,900	--	\$2.51
<u>Truckee Participation in Placer TART Improvements</u>					
Winter Evening Service Extension to Truckee 5:30 PM - 11:00 PM	--	\$44,900	8,925	--	\$5.03
Earlier Winter Southbound Departures on 89 and 267	--	\$2,450	1,195	--	\$2.05
Winter Half-Hourly Service Frequency Extension to Truckee	--	\$48,850	4,558	--	\$10.72

Source: LSC Transportation Consultants, Inc. Note 1: Operating costs at current metro transit rate

FIGURE 21: Impact of Alternatives on Annual Ridership

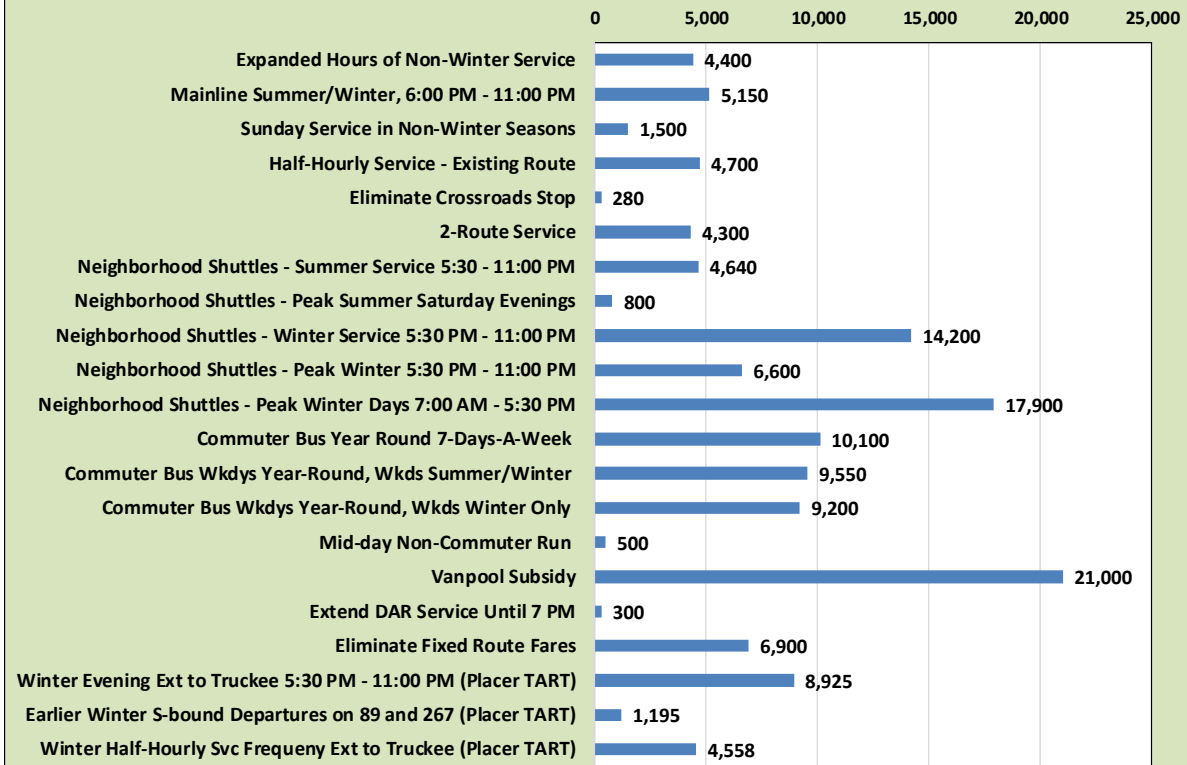


FIGURE 22: Impact of Alternatives on Annual Subsidy Requirements

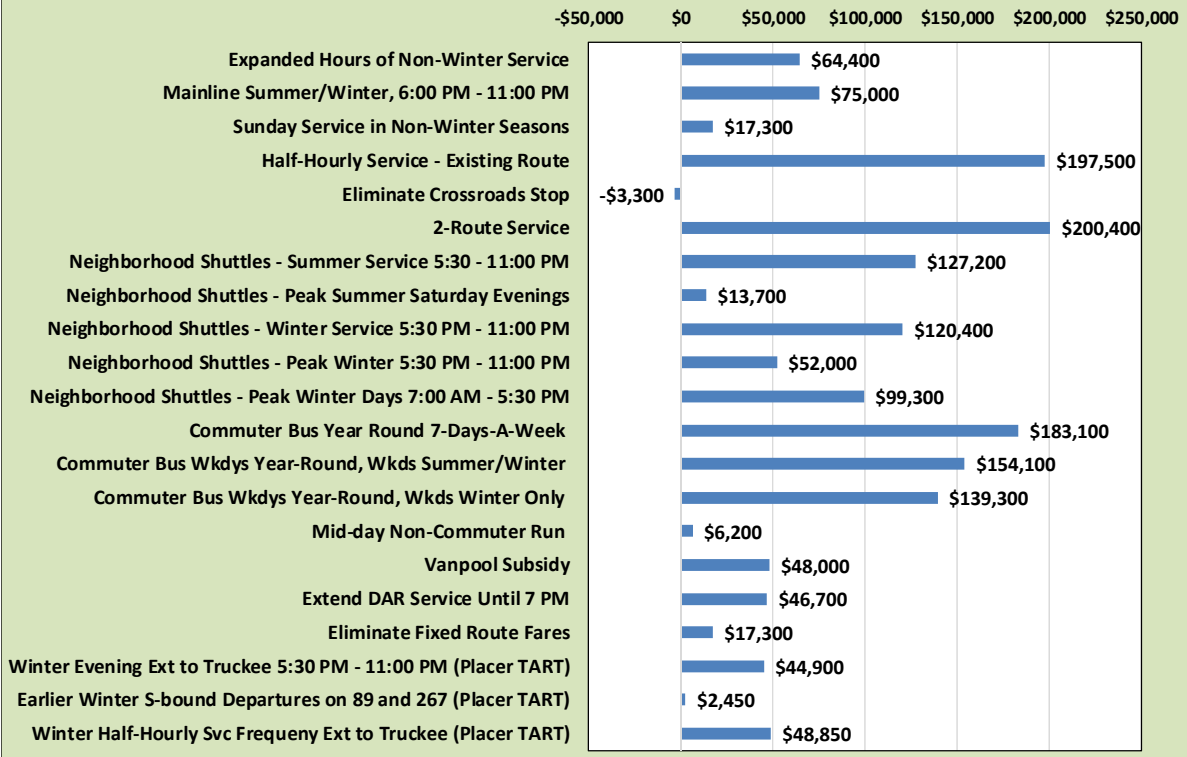
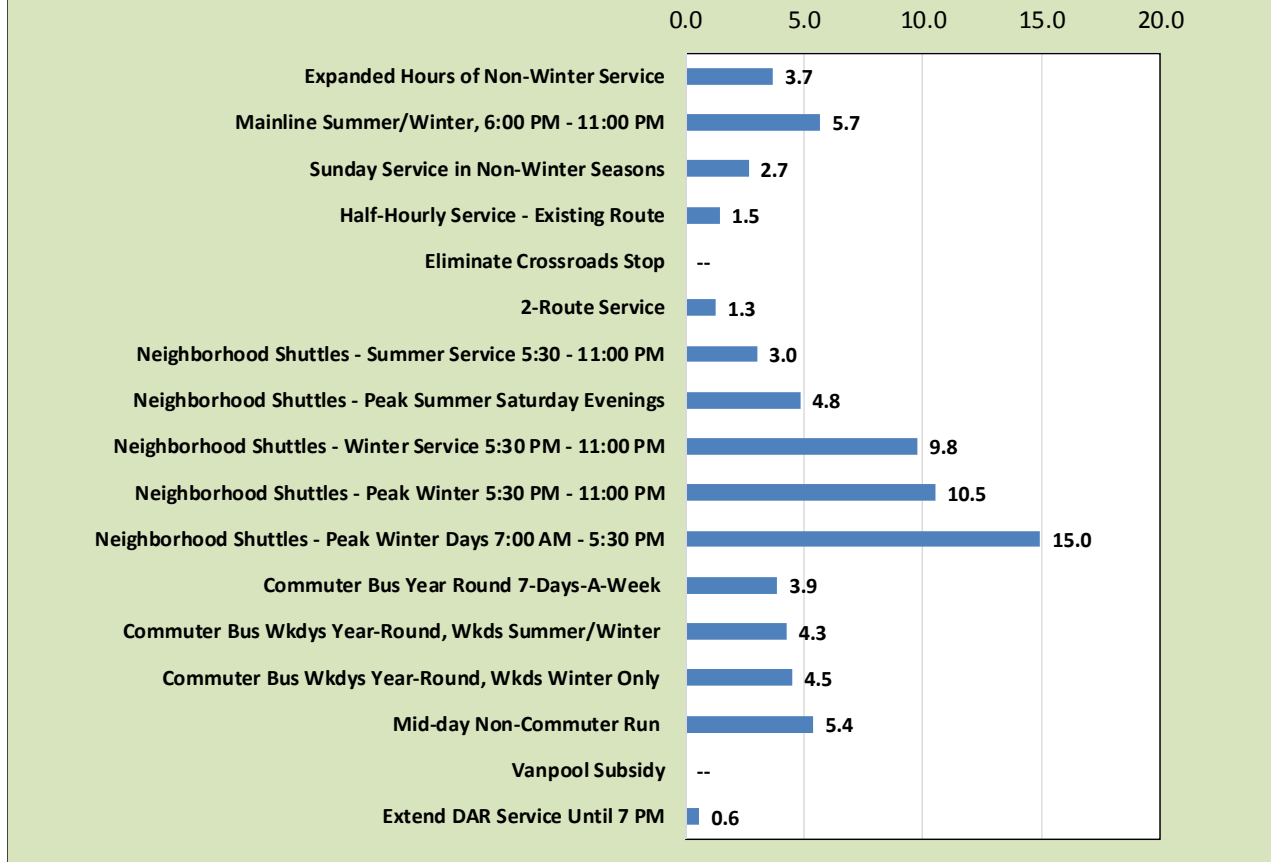


FIGURE 23: Alternatives Marginal Ridership per Vehicle-Hour



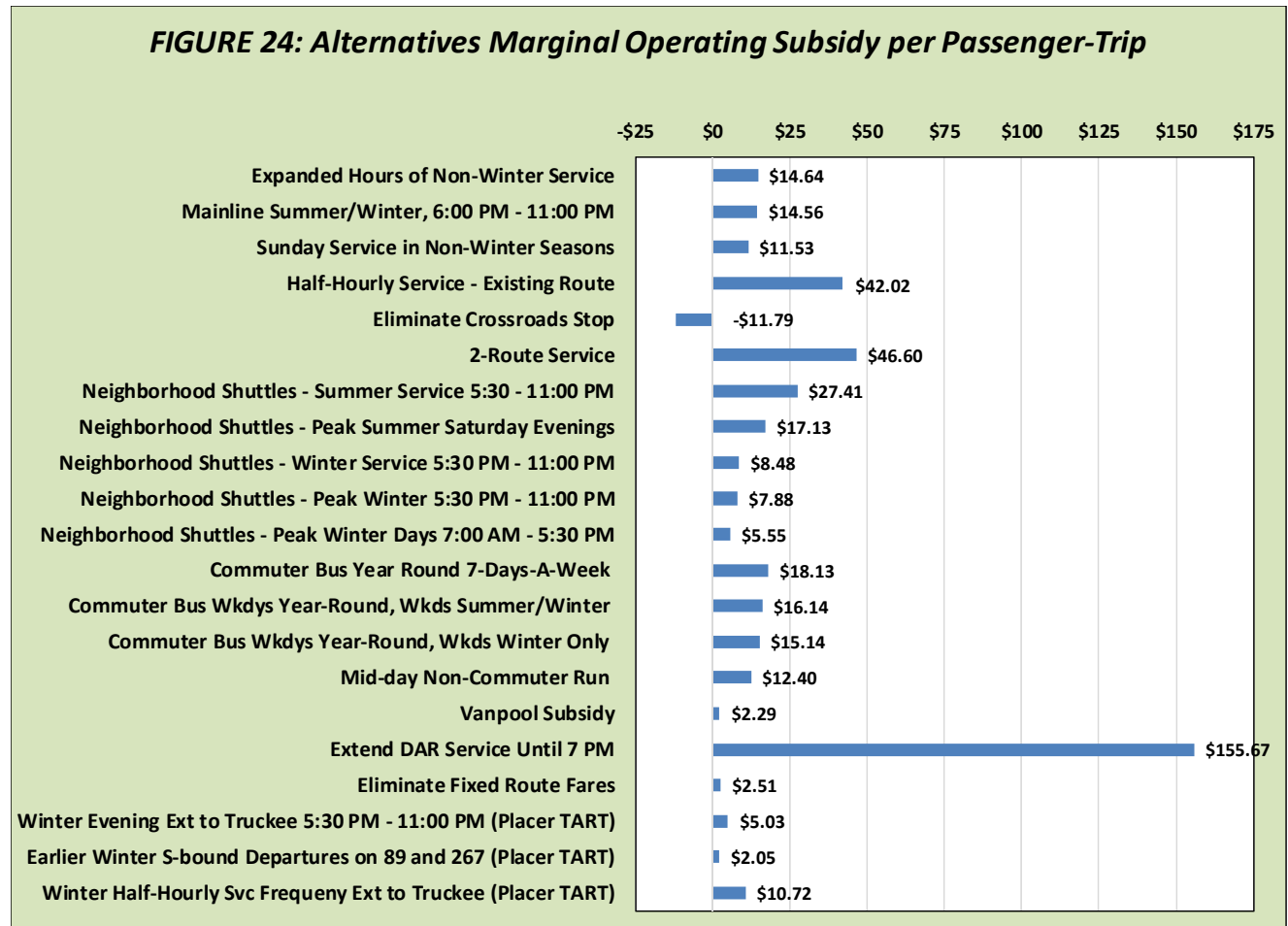
- Modifications to the Mainline Route are not as productive. The Mainline Summer/Winter 6:00 PM to 11:00 PM is the most productive of that group with 5.7 trips per hour. As eliminating the Crossroads stop has no impact on vehicle hours, it is not possible to evaluate using this measure.
- Extending DAR until 7 PM would have a very low productivity (0.6 trips per hour).

Subsidy per Passenger-Trip

This key measure reflects the desired outcome of a transit service (ridership) and the most important input (public subsidy). A lower figure is preferred, as it reflects that less public funding is required for each new passenger served. Figure 24 presents marginal operating subsidy per passenger trip.

- Extending DAR until 7 PM will by far cost the most per passenger-trip served (\$155.67). On the other hand, by subsidizing a vanpool program, the program would incur only a \$1.94 subsidy per trip. Other low cost options are to subsidize Earlier Winter Southbound Departures on Placer TART 89 and 267 routes (\$2.05) and Eliminate Fares (\$2.51).

- Eliminating the Crossroads stop actually reduces cost by \$11.79 per trip, by increasing ridership while reducing costs.
- The Mainline alternatives to implement a 2 Route Service and Half-Hourly Service to the existing route have the next highest marginal subsidy per trip (\$46.60 and \$42.02, respectively) making them less attractive. This is followed by the commuter bus route options which range from \$15.14 to \$18.13 per trip.



By category, Vanpool option (\$2.29 per trip) is the most cost effective of the commuter services followed by the Commuter Bus Weekdays Year –Round, Weekends Winter only and Commuter Bus Weekdays Year-Round, Weekends Winter and Summer are the top performers for the commuter services in terms of subsidy per trip (\$15.14 and \$16.14, respectively). For the mainline alternatives, Expanding Hours of Non-Winter Service and Mainline Summer/Winter 6:00 PM – 11:00 PM has the lowest subsidy per trip (\$14.64 and \$14.56, respectively). For the Neighborhood Shuttles, the winter options have the lowest subsidy per trip (\$5.55 to \$8.48 per trip). Subsidizing Placer TART Earlier Winter S-bound departures on 89 and 267 (\$2.05) and Eliminating Fixed Route Fares (\$2.51) are very cost effective.

Summary

Overall, this analysis indicates that the following alternatives are the better candidates to carry forward into the plan (not in order of priority), depending on many factors including funding availability:

- Neighborhood Shuttles – Peak Winter Days 7:00 AM to 5:30 PM
- Neighborhood Shuttles – Peak Winter Service 5:30 PM – 11:00 PM
- Mainline Summer/Winter – 6:00 PM – 11:00 PM
- Expand Hours of Non-Winter Service
- Vanpool Subsidy Program
- Eliminate Crossroads Center service on Truckee TART
- Eliminate Fixed Route Fares
- Early Winter Southbound Departures on Placer TART 89 and 267
- Winter Placer TART Evening Service Extension to Truckee 5:30 PM to 11:00 PM
- Sunday Service in Non-Winter Seasons (As FTA 5310 funding is available to offset the DAR cost).

The following are alternatives that are less effective, but could be potential plan elements in the short or long term:

- Neighborhood Shuttles – Peak Summer Saturday Evenings
- Neighborhood Shuttles – Summer Service 5:30 - 11:00 PM
- Neighborhood Shuttles – Winter Service 5:30 PM – 11:00 PM
- Commuter Bus Weekdays Year-round, Weekends Summer and Winter
- Commuter Bus Weekdays Year-Round Weekends Winter Only
- Mid-day Non-Commuter Run (only in conjunction with Commuter Bus Service)
- Placer TART Winter Half-Hourly Service Frequency Extension to Truckee

Finally, the following alternatives are recommended for elimination from further consideration:

- If Extended DAR service until 7:00 PM (Note that per ADA law, the Town would be required to extend DAR to match fixed route hours expand service hour options are chosen)
- Half-Hourly Service Existing Route
- 2-Route Service (unless/until required to serve new developments)
- Commuter Bus Year-Round 7 Days-a-Week

This chapter presents a range of institutional, fare and marketing alternatives.

IMPROVE INTEGRATION OF PLACER COUNTY TART AND TRUCKEE TART

While Placer County TART and Truckee TART have jointly branded the two systems through use of the same logo and bus wrapping, there are many aspects of the two systems which remain separate. This is particularly evident if you are a rider wishing to transfer from one system to another. Currently the number of riders who transfer between the two systems is quite low, as highlighted by onboard surveys conducted on the Placer County TART routes in 2016. Out of a total of 265 winter passengers completing the survey, only 0.7 percent (a total of 2) indicated that they were transferring between Placer County TART and Truckee TART routes. Factored by winter daily ridership, this indicates an estimated 10 daily passenger-trips that included transferring between the systems. A similar survey of 223 summer Placer County TART passengers identified none that transferred between the two systems.

Since travel in general between Truckee and the Lake Tahoe portion of Placer County is common, the barriers to making the trip by transit must be high. Streamlining disparate functions could reduce confusion for riders, leading to a more seamless transit experience, which can increase ridership.

Fare Integration

Currently, Truckee TART and Placer County TART charge different fares, and passes are not transferrable between the two systems. Table 37 shows the two different fare structures. Although the branding of the two systems suggests to riders that they are, indeed, on one system, the need to purchase a new fare when transferring between Truckee and Placer County belies that concept. Currently, the cost to travel round-trip between the two systems is \$8.50, compared to \$3.50 for a round-trip that uses only the Placer TART system and \$5.00 for a trip using only Truckee TART. Many other areas, such as Sacramento, San Luis Obispo and King County, Washington have developed universal passes and fare revenue-sharing agreements so that riders can transfer between one system and another without having to pay a second fare. In the San Luis Obispo area multiple transit agencies have coordinated to offer a universal pass to riders. The San Luis Obispo Regional Transit Authority (RTA) coordinates with South County Transit, Paso Express, and San Luis Obispo Transit. Each system has different fare pricing; however, riders may purchase a one-day pass for \$5.00 which can be used on any of the four different systems. Likewise, there is a regional 31-day pass valid for rides on any of the four transit systems. Internally, the agencies share revenues by calculating a fare-weighted ridership percentage for each system, and distribute collected pass revenues to each agency based on the percentage of fare-weighted ridership.

TABLE 37: Truckee TART and Placer County TART Fare Structures

	Truckee TART	Placer County TART
One-Way Fares		
General Public	\$2.50	\$1.75
Senior/Disabled	\$1.00	\$0.85
Youth ¹	\$1.50	\$0.85
Passes		
24-Hour Pass General Public	\$5.00	\$3.50
24-Hour Pass Senior/Youth/Disabled	\$2.00	\$1.75
10 Ride Pass General Public	\$25.00	\$14.00
10 Ride Senior/Disabled	\$10.00	\$7.00
10 Ride Youth	\$15.00	\$7.00
14 Day Pass General Public	--	\$30.00
14 Day Pass Senior/Youth/Disabled	--	\$15.00
30 Day Pass General Public	--	\$53.00
30 Day Pass Senior/Youth/Disabled	--	\$26.50
Dial-A-Ride		
One-Way General Public	\$6.00	--
One-Way Senior/Disabled/Youth	\$2.00	--
10-Ride Pass General Public	\$60.00	--
10-Ride Pass Senior/Disabled/Youth	\$20.00	--
ADA Taxi Program (per ride)	--	\$3.50
Current Cost One-Way Adult: Tahoe City - Truckee - Donner	\$4.25	
Current Cost One-Way Adult: Homewood - Truckee - Donner	\$6.00	
Current Cost Round-Trip Adult: Tahoe City - Truckee - Donner	\$8.50	
Current Cost Round-Trip Adult: Homewood - Truckee - Donner	\$8.50	
Note 1: Truckee TART defines Youth as aged 3-12, Placer TART defines it as 6-12. Under 3 or under 6 rides free with fare-paying adult.		

Fare-weighted ridership is calculated by multiplying the number of pass-holding trips on each transit system by the average fare for that system (presumably the weighted average of adult, senior, and youth single-ride fares collected). In this case, as the RTA sells the most passes it typically reimburses the other entities. Table 38 shows this calculation.

TABLE 38: San Luis Obispo Regional Transit Fare Revenue Sharing Example

	Riders	Average Fare	Fare Weighted Riders	% of fare weighted riders	Day Pass Revenues	Adjusted for Administration	Revenue Share after adjustment/ Amount Due
RTA	39,605	\$1.08	46,433	74.67%	\$32,369.00	\$29,455.16	-\$2,913.84
SCAT	6,330	\$0.52	3,396	5.46%	\$6,868.50	\$2,113.49	-\$4,755.01
Paso Express	4,287	\$0.70	2,923	4.70%	\$965.25	\$1,936.59	\$971.34
Atascadero	\$884.00	\$0.43	\$502.00	0.81%	\$279.00	\$343.93	\$64.93
SLO Transit	16,312	\$0.62	8,933	14.37%	\$2,853.00	\$5,585.46	\$2,732.46
Total	-	-	62,187	-	\$43,334.75	\$39,434.62	

Source: San Luis Obispo Council of Governments, 6 Month Total

LSC evaluated three alternatives for integrating fare payment across the two systems. The first is to simply accept day passes from the other system, with no additional charge for transferring. The second is for Truckee TART to adjust its day-pass price to match Placer’s, and allowing that day pass to be used to make transfers between the two systems. A third alternative would be for Truckee TART to adjust its fare-structure to match Placer’s, but require riders to pay separate fares for travel on the two systems. A fourth alternative was also considered but rejected, that of keeping the existing fare structure the same, but instituting a new fare category (a \$7 or \$8 pass) that allows riders to transfer between Truckee and TART. While the fourth option would support farebox recovery, the introduction of an additional fare category would be confusing for riders and time-consuming for drivers, and would generate very limited use.

Accept Day Passes, No Additional Charge for Transferring Between the Two Systems

This scenario could present the least administrative burden to both riders and the two transit systems; however each system would be carrying some number of additional riders for whom they would not be able to collect a fare. Since Truckee’s fares are higher, the cost to Truckee to transport a rider transferring from Placer County TART is higher than the cost to Placer County to transport a rider transferring from the Truckee system. Since the number of riders travelling from Truckee to the Tahoe Region is likely higher than the reverse, there would be some parity in the cost to each system, as Placer County would be taking a larger number of riders in exchange for the more expensive, but lower number of trips transferred to the Truckee system.

As there would be a savings in this scenario to passengers over the current fare structure, trips that include this transfer could be expected to increase from the current 10 passenger trips to around 11 passenger trips, assuming a fare elasticity of -0.2. Still, the potential cost savings between taking transit and parking would be small, and likely not enough to attract many riders away from the convenience of their cars. Assuming 11 passenger-trips per day would include this transfer (11 passenger trips), the loss in fare revenue, at least at first, would likely be on the order of \$19.00 to \$28.00 (the cost of 5.5 day passes on each system) per day between the two systems, or between \$5,775 and \$8,250 annually. The loss would be shared, although perhaps not evenly, between the two systems. For the purposes of allocating costs to evaluate the impacts of each fare integration alternative, it is reasonable to assume that the costs would be

shared evenly – thus there could be between a \$2,890 and \$4,125 annual loss to each system, or an average of \$3,500 per system. For Truckee TART, this would lower the farebox recovery ratio from 23.1 percent to 22.3 percent. For this alternative to be successful, Placer County TART drivers would need to be able to manually record the number of riders transferring from the Truckee system, as Truckee’s day pass would not be recognized by the electronic fare readers that Placer County uses.

Adjust Truckee TART Fares to Match Placer TART – Passes Accepted on Both Systems

A second alternative is to adjust Truckee TART’s fare structure to match Placer’s, and allow passes purchased on either system to be accepted by the other system. This alternative would be the most convenient and the least confusing to passengers, although it would result in a reduction of farebox revenue for Truckee TART (but bring an increase in ridership), and a small reduction in lost transfer revenue to Placer TART, (the same amount as in the alternative above).

As noted in earlier chapters, in Fiscal Year 2015-2016, Truckee TART brought in \$15,000 in direct fare revenues on its fixed-route services. If Truckee TART were to change their fixed-route fare categories to match Placer’s, there would be about a 4.3 percent increase in annual ridership, from 14,600 to 15,230, compared to a 23 percent loss in revenues, from \$15,000 annually to \$11,500. This assumes a fare elasticity of -0.2, with the biggest ridership gains in the “adult” fare category.

There would also be the same increase in transfers between the two systems as in the above section, with a similar loss of revenue, an average of \$3,500 per system, as passes from one system would be accepted on the other with no additional cost to the passenger. With this scenario, the two systems could enter into a revenue-sharing agreement for the fares attributable to transfers. Table 39 shows an example of how this could work.

TABLE 39: Truckee - Placer County TART Revenue Sharing Example

	Annual transfer trips TO each system	Average Fare	Fare Weighted Riders	% of fare weighted riders	Day Pass Cost	Day Pass Revenues	Adjusted Amount	Amount Due
Truckee TART	600	\$3.50	2,100	40.00%	\$3.50	\$3,150.00	\$2,100.00	-\$1,050.00
Placer TART	900	\$3.50	3,150	60.00%	\$3.50	\$2,100.00	\$3,150.00	\$1,050.00
Total	-	-	5,250	-	-	\$5,250.00	\$5,250.00	\$0.00

Note: Some day pass revenues would need to go towards administrative costs, thus the total adjusted amount would be lower.

Adjust Truckee TART Fares to Match Placer TART – Separate Day Pass Purchase Required on Each System

A third option is to make day pass fares consistent between the two systems, but to require riders to purchase a new day pass or single-ride fare when transferring to the other system. This would have the effect of protecting the revenues currently generated by transfers, but

would not eliminate confusion among riders about why a new pass is needed on what appears to be the same system. As fares on Truckee TART would lower to the same extent as in the previous alternative, ridership and fare revenues would be approximately the same, with somewhat less loss in fare revenues from transfers. There would still be a small loss in transfer revenues, as Truckee TART would collect \$3.50 for each day pass rather than \$5.00. Also, the transfer ridership would stay closer to 10 passenger-trips per day, as the difference in overall fare would only drop from \$8.50 to \$7.00. The loss in revenues to Truckee TART based on the reduced day pass fare for transfers would be up to \$2,250 annually, lowering farebox recovery to 22.6 percent.

Recommended Fare Integration Alternative

While the third alternative has the least impacts to farebox recovery ratio, LSC recommends that the Town of Truckee pursue the second alternative (adjust Truckee TART's fare structure to match Placer's, and allow passes purchased on either system to be accepted by the other system). From a rider's perspective, the joint branding of the two systems indicates that no new fare should be needed to transfer between any buses on the system. The loss of revenues due to free transfers between the two systems is relatively small, and is an initial step towards the free fare option that Truckee wishes to pursue. The increased ridership on the Truckee TART system would provide a public benefit.

Integrate Online Information

The transit section of Placer County's website could be improved to include information about Truckee TART. Currently the Placer County TART page provides one link to laketahoetransit.com, but it is near the bottom of the page, in the "Connections and Other Transportation Services" section. There is no mention of Truckee TART on the Placer County TART page itself. While information about both Placer County and Truckee TART may be found on laketahoetransit.com, the first several links listed on a Google search of "TART," "Tahoe TART," or even "Truckee TART" is to Placer County's website.

Integrate Schedules

At present, the Truckee TART schedules are prepared separately from the Placer TART schedules, and there is no combined schedule available for the joint Placer/Truckee TART program which shows all public transit services available in Truckee on one page. The TMA creates and distributes seasonal public transit brochures describing all types of transit in the Tahoe/Truckee region. As a result, riders (or potential riders) may not be aware of the overall service available, particularly in Truckee where both services operate on some corridors. Table 3, above, presents a combined schedule showing both services. While this may not need to be widely distributed, it could be distributed in paper form in Truckee and posted on the Town's transit website and the laketahoetransit.com website for use by persons traveling within Truckee.

TRUCKEE TART INSTITUTIONAL STRUCTURE

There are multiple forms of institutional structure with respect to the provision of public transit. There is not necessarily a wrong way or a right way to provide public transit but rather it is important to ensure that public transit is being provided in the most cost effective and productive manner. As a municipal agency, the Town of Truckee provides public transit for residents within the Town limits as well as nearby portions of unincorporated eastern Nevada County through the use of a private contractor and in cooperation with regional jurisdictions and private entities. The contractor, Paratransit Services, is generally responsible for providing the actual operation of public transit service while the Town provides vehicles, facilities, and oversight.

There are advantages to hiring a private contractor to provide public transit operations rather than providing service “in-house” with municipal staff. With economies of scale, a private contractor can potentially provide service at a lower cost than a small municipality. A private contractor can also offer greater depth in management and operations knowledge. The disadvantages are that the municipality has less oversight of day to day operations and potentially less control over providing good customer service. This alternative explores the advantages, disadvantages, and financial feasibility of the Town of Truckee providing fixed route and demand response service “in-house”.

If the Town of Truckee were to provide the regular schedule fixed route (winter and non-winter) and demand response service (DAR), the Town would need to provide and pay for the following additional elements. (This analysis does not include the provision of the holiday shuttles and Truckee Thursday’s shuttle).

- **New Operations Staff** – The greatest cost under this alternative would be the additional staff required to operate public transit services. Based on the organizational structure from Paratransit Services, Inc., the Study Team would recommend the following staffing plan for status quo operations of the fixed route, Dial-A-Ride and NTTT or what is currently provided by Paratransit Services (see Figure 25 and Table 40).
 - **Transit Manager:** Currently, 80 percent of the Administrative Analyst time is allocated to transit. Operating transit in-house would require a full 100 percent position as a Transit Manager. The Transit Manger would be responsible for grant writing, liaison with other public and private entities, budget management, service changes, etc. The additional 20 percent of the Administrative Analyst’s salary adjusted for inflation equates to roughly \$22,930 annually.
 - **Operations Supervisor:** In addition to a Transit Manager, a full-time Operations Supervisor would be required. The Operations Supervisor would be responsible for direct supervision and scheduling of the drivers, training, and coordination with fleet maintenance.

Figure 25: Example Organization Chart for In-House Operation of Transit

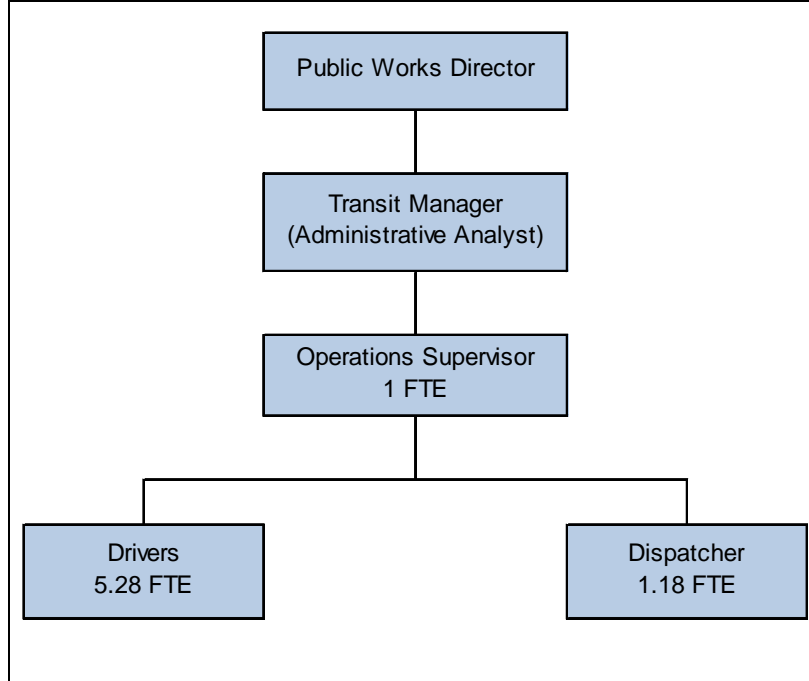


Table 40: Town of Truckee Additional Annual Costs of Bringing Transit Service "In-House"

FY 2017-18

Annual Staff Costs⁽¹⁾	
Administrative Analyst as Full-Time Transit Manager	\$22,930
Operations Supervisor (1 FTE)	\$75,400
Full Time Drivers (3 FTE)	\$203,760
Part-Time Drivers (1.45 FTE)	\$98,490
Seasonal Drivers (0.83 FTE)	\$56,370
Dispatcher (1 FTE)	\$66,000
Seasonal Additional Dispatcher (0.18 FTE)	\$11,900
<i>Subtotal</i>	\$534,850
Recruiting/Training	\$8,390
Drug and Alcohol Services	\$3,000
TOTAL	\$546,240
Requested Operating Contract with Paratransit in FY2017/18	\$620,230
Cost Savings with In-House Operations	\$73,990
Current Operating Contract with Paratransit for FY 2017/18	\$557,470
Cost Savings with In-House Operations	\$11,230

Note 1: Based on Town of Truckee Job Classification List Grade Order 2017-18

It was assumed for this analysis that the duties of an Operations Supervisor would be similar in compensation to the pay rate for a Town “Street Maintenance Worker II” or around \$47,000 per year for salary and \$29,590 for benefits. This figure is based on the minimum hourly rate for Street Maintenance Worker I according to the Town of Truckee Job Classification List.

- **Drivers and Dispatcher:** According to Paratransit Services, Truckee TART services require one full-time dispatcher, two full-time drivers and two part-time drivers on a year-round basis with an additional two full time and two part time drivers during the winter season. However, this does not include any on-call drivers from other Paratransit Services sites who may fill in for regular drivers on sick leave. Additionally, the dispatch position at Paratransit Services is shared between one of the drivers and the operations supervisor. Therefore, to be conservative, this estimate includes one additional Full-Time Equivalent (FTE) at the driver wage and benefit rate, for a total of 6.28 FTE employees. Wage rate for the drivers were assumed to be the minimum wage rate for a Street Maintenance Worker I (\$41,000 per year). Town of Truckee Finance Department staff estimates benefit levels for this position of \$27,216 per year, for a total cost per driver FTE of around \$68,000. The Dispatcher labor costs were estimated at the Office Assistant minimum wage rate at \$39,000 salary + \$27,000 benefits = \$66,000.

It should be noted that Placer TART has two job classifications for bus drivers: Driver I (entry level) and Driver II (experienced). Placer County TART’s Driver I and Driver II wages fall within the Town’s grade 5 and grade 8 salary matrix, respectively. A Town Street Maintenance Worker 1 base salary (which was used for this cost estimate) is at the grade 8 level.

- **Insurance** – Currently the Town of Truckee has an umbrella liability policy with the CalTIP Insurance Authority. The policy covers bodily injury, property damage, personal injury and public official errors and omissions in the amount of \$10,000 per occurrence. According to CalTIP, the cost of the Town of Truckee’s policy is based on vehicle mileage and is not dependent on whether or not the Town contracts for service. Per the operating contract, Paratransit Services carries additional business auto liability insurance for not less than \$5 million per occurrence as well as commercial general liability insurance for \$2 million per occurrence. The Town of Truckee pays roughly \$40,000 per year for insurance and it is assumed for this analysis that this would not change if transit were brought in-house. This figure is in-line with other rural transit operators.
- **Recruiting and Training** – Recruiting for new employees could fall under the job description of the Operations Supervisor and Transit Manager. It is unlikely that the Town would hire a separate position as a driver trainer; however it is possible that the Operations Supervisor would be qualified to conduct on-going and Verification of Transit

Training (VTT) recertification training⁷. It is also likely that the Town would only hire employees who have already a Commercial Driver's License. Regardless, training could be conducted through another transit agency or entity. It was assumed for this analysis that each FTE would undergo roughly 40 hours of on-going training annually for an additional cost of \$5,700.

- **Drug and Alcohol Testing** – As a recipient of Federal Transit Administration (FTA) funds, all drivers are subject to drug and alcohol testing. Currently, Paratransit Services pays for the testing program. Amador Transit, another similar rural transit agency, budgets roughly \$3,000 per year for drug and alcohol services. It is assumed that the Town of Truckee would spend a similar amount for these services.
- **Overhead Costs for Town of Truckee** -- Many municipalities allocate department costs such as accounting, human resources and legal between the various department budgets which use these services. In this manner revenue sources which are specific to certain departments can be used to share the burden of general services costs. Currently the transit department is not charged overhead. Therefore, it was assumed that this practice would continue, if transit were operated in-house.

All other elements of the transit program such as fleet maintenance, fuel, and utilities are already in the Town of Truckee transit budget and would not change.

Financial Feasibility

Table 40 displays the estimated additional annual operating costs of bringing transit in-house and compares it to the Paratransit Services contract cost. According to this estimate, it would cost the Town of Truckee around \$561,140 in annual FY 2017-18 operating costs to bring transit in-house. The current contractor, Paratransit Services, recently requested an increase in the contract hourly and monthly fixed rate equivalent to an 11 percent increase over the agreed upon contract rate. (Paratransit Services has found it difficult to attract and maintain drivers at the wage rates that were originally bid.) As Truckee TART receives funding through the FTA, they are subject to FTA laws pertaining to contracting. According to recent guidance by FTA, a third party operating contract cannot be amended unless there is adequate factual data and substantial cost analysis performed to support the idea that the contract is no longer fair and reasonable. FTA has advised that “higher costs to the contractor to perform the contract does not normally entitle the contractor to a price adjustment”. Therefore, it is highly unlikely that FTA would authorize the contract rate increase. The Town of Truckee does have the option of resoliciting the contract. Nevertheless, the increased rate Paratransit Services requested likely represents wage rates Paratransit Services needs to retain employees. Therefore both the agreed upon FY 2017/18 contract cost with Paratransit (\$557,467) and the “Requested Operating Contract Cost Estimate” (\$620,234) are included in Table 40 and compared to in-house cost estimates.

⁷ It may also be possible for Truckee Transit driver training to be provided through attending meetings and classes at other transit agencies, such as Placer County TART.

As shown, the cost of operating transit in-house is in between the two Paratransit Services contract rates, about \$11,000 less than the actual contract rate and \$74,000 less than the requested contract rate. It should be noted that Table 40 estimates the cost of bringing service in – house for FY 2017-18 (assuming that new employees would begin at the minimum wage rate). Over time, transit employee wage rates will increase. If the mid point wage rate (average of the minimum and maximum wage rates according to the Town of Truckee Job Classification List) are applied to the FTE estimates in Table 40, the total in-house cost would be around \$60,000 greater.

Miscellaneous Costs

There will be some capital costs involved with moving transit in-house, such as the purchase of additional computers and software:

- Workstations (\$4,500) – Paratransit owns the computers currently used by transit operations staff. It is estimated that the Town would need to purchase at least three workstations: dispatcher, operations supervisor, general workstation for other employees. The Town has printers available which could be used for transit administrative operations.
- Dispatch Software – Paratransit currently owns the license for the dispatch software used for Truckee TART services. The initial purchase of new dispatch software appropriate for Truckee TART’s level of service would be on the order of \$5,000 to \$7,000 with annual fees of \$350 – \$700 per year.

There would also be staff time associated with the initial implementation of a transit program. If pursued, the Town should make an effort to hire existing drivers and dispatchers. This would decrease time required for recruiting and initial training, ease the transition for passengers, and take advantage of the experience that the current drivers have with operating the program and serving the passengers. However, there would still be substantial Town staff time involved with identifying appropriate salary scales and processing new hire paperwork. Lastly, the Transit Manger would need to spend time preparing/updating policies and procedures specific to transit operations, such as dispatch procedures, fare revenue collection, and vehicle inspection.

Lessons Learned from Tahoe Transportation District

As part of this review, LSC contacted the Tahoe Transportation District (TTD) to identify any lessons learned regarding their recent shift from a contractor to in-house service provision. Overall, TTD staff feels that the right decision was made. The primary motivation for no longer using a contractor was to conduct vehicle maintenance in-house⁸. TTD felt that maintenance was not being performed adequately through the contractor. Another part of the rationale for the decision was that TTD is looking to grow public transit services and would like to develop a long-term workforce that can maintain and improve a high level of customer service and trust.

⁸ Which does not pertain in Truckee, as vehicle maintenance is already provided by Town staff.

If a municipality contracts with a private operator, the municipality is only guaranteed the same staff and managers for a five year period. Switching contractors can reduce the public transit system's ability to maintain a high level of trust and customer service. From the risk management perspective, operating public transit service in-house allows the transit manager to train drivers and staff in safety matters according to the standards of the municipality, rather than that of the contractor. Lastly, TTD staff indicated that the transition period from contractor to in-house requires much time and dedication along with coordination with the current contractor. The greatest challenge for TTD (which is also a challenge for Placer TART) is finding and retaining drivers.

Recommendation

Overall, this analysis shows that the cost of operating transit service in-house is slightly less than operating through a private contractor in FY 2017-18. As transit employees gain seniority at the Town, the cost for operating in-house may increase to become more than the contract rate, but within the same range. It is likely the next time the Town goes out to bid for an operating contract, the cost will be more similar to the "Requested Operating Contract" amount of \$620,234. The primary benefit of providing service in-house is to have direct control of the operation of service. This allows for greater oversight of drivers and improved customer service. Additionally, the Town has had difficulty finding operating contractors in recent years. Bringing service in-house would eliminate this uncertainty. It could also be argued that the benefits package as a Town of Truckee employee would be more attractive to a transit driver than what is offered through the contractor and therefore the Town would have improved transit driver retention. Given all these factors, the Consultant recommends that the Town bring transit service in-house.

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This chapter first reviews vehicle improvements, followed by enhancements to bus stops and other passenger facilities.

Vehicle Replacement Plan

In addition to new vehicles required for new services, the Town of Truckee must replace aging transit vehicles when they reach the end of their useful life so as to maintain a safe and cost effective fleet. Buses which require more frequent maintenance increase vehicle maintenance costs and reduce the reliability of public transit service.

Table 10 displays the Truckee TART public transit fleet along with estimated replacement dates based on FTA guidelines for vehicle useful life. As shown, the smaller backup vehicle is due for replacement next year. The two DAR vehicles are due for replacement in 2022 while the vehicles primarily used for fixed route operations are due in 2024 at the end of the transit planning period. The smaller DAR vehicles cost on the order of \$95,000 to replace while the larger fixed route vehicles cost on the order of \$130,000.

Automatic Chaining System on Truckee TART vehicles

Winter driving conditions are a particular challenge in the operation of the Truckee transit services, particularly when snow conditions vary across a route or service area. One option is the use of on-demand chaining systems. Sometimes called “spider chains”, these consist of a cylinder with short lengths of tire chains attached around the circumference that is pneumatically actuated to descend and rub against the inside of a tire. Set spinning, the chain lengths spin under the wheel to provide traction. The advantage of this technology is that it allows the bus driver to actuate the system without leaving the vehicle and for short portions of a trip (such as when ascending to Donner Summit or Tahoe Donner). It does result in increased tire wear (requiring tire replacement once or twice per year, depending on use), and requires deployment while the vehicle is in motion. The Lassen Rural Bus system serving Lassen County uses this system on all but three of their vehicles. Automatic chains could cost on the order of \$2,000 to \$2,500 per vehicle. Overall, this appears to be a beneficial improvement for Truckee’s transit fleet.

Ski Racks for Winter Services

Transit systems serving ski resorts have long provided ski racks on the right side of the bus. While many passengers find this to be a convenience, there are a number of operational issues:

- They increase the loading/unloading time, as passengers sort through the equipment.
- There is the potential for theft.

- Installing racks may make the vehicle exceed the maximum legal width (102 inches in California).
- The variety of equipment used in skiing/snowboarding has grown, with the growth of snowboarding, fat skis, split skis, etc. As a result the proportion of equipment that can be accommodated on an outside rack is declining.

For these reasons, the use of external ski racks is declining. They are not recommended for the Truckee TART program.

Bikes on Buses

All Truckee TART fixed route buses have racks on the front of the bus to hold two bicycles. As Truckee has plentiful recreational cycling opportunities, two bicycles at one time may not be sufficient. Public transit systems typically do not allow bicycles on the buses, for a variety of reasons:

- Perhaps most importantly, in the case of a crash or sudden braking action a bicycle can become a projectile that increases the potential for injury to passengers. Transit systems typically cite the liability issue as their reason to prohibit bikes on buses.
- Bicycles can quickly block passage by other passengers, or can conflict with wheelchair securement areas.
- On smaller vehicles like the Town’s Ford El Dorados it can be physically difficult to get a bike on or off of the vehicle.

There are bicycle racks designed to secure bicycle inside the bus but a row or two of seats would be needed to install these. This may not be feasible on Truckee TART’s smaller vehicles. For these reasons, allowing bikes within the Truckee TART buses is not recommended.

Mobile Ticketing

While many transit systems, including TART, have adopted magnetic stripe tickets as a fare medium, mobile ticketing is becoming more popular as smart phone technology is increasingly available to individuals, including many transit passengers. Current estimates are that two-thirds of American households own a smartphone. Even many low income individuals have access to smart phones through subsidy programs. Many people find smart phones to be a basic necessity in modern society. Mobile ticketing is the process whereby customers can order, pay for, obtain and/or validate tickets using mobile phones or other mobile devices. A mobile ticketing company builds the mobile apps for electronic ticket and fare collection, allowing users to buy tickets by app, and allowing the bus or rail conductor to check the tickets by mobile phone. Larger transit systems are increasingly investing in mobile ticketing programs, including the San Francisco MTA (“Muni Mobile”), the San Diego Metropolitan Transit system

("mTicket") as well as a pilot program at the Sacramento RT ("RideSacRT"). Many of these programs conveniently combine mobile ticketing with real-time vehicle location data and trip planning.

Mobile ticketing offers the following benefits:

- For Passengers:
 1. Can purchase tickets quickly and at any time of day
 2. No need to wait in lines or travel to an outlet
 3. Less likely to lose or damage tickets
 4. Will not result in overpayment (the need for exact fare can cause passengers to pay more for fares if they do not have exact change)
 5. Speeds up boarding time

- For Transit Systems:
 1. No expensive hardware costs that need to be implemented in order to get the technology installed
 2. Provides high customer satisfaction
 3. Reduced ticket printing/delivery costs
 4. Reduced payment fraud
 5. Speeds up boarding time—drivers visually identify active ticket on phone screen.
 6. Quickly and easily scan for valid mobile tickets as rider's board the transit system. Passport's visual inspection method uses QR codes to ensure the highest level of security for your operations. Transit operators can efficiently view riders' dynamic QR code on their mobile device as a secure method of ticket inspection when they board

Disadvantages for passengers may include that this ticketing is not available without a smart phone, and if a phone battery is dead, the ticket is unavailable.

There are numerous mobile ticketing choices with new options on the market regularly. Costs (both up-front capital/design costs and ongoing fees) vary widely between vendors, as do the capabilities of the various systems and the dependability of the vendors. This strategy would only be potentially beneficial if implemented both for Truckee TART and Placer TART. The best option would be for Town, Placer County and Truckee-North Tahoe Transportation Management Association staff to review the various options, identify what is appropriate for the region, and consider a joint procurement. However, if the Town of Truckee implements the free fare alternative, then the mobile ticketing option would not apply.

Downtown Transit Center

The current transit hub at the Truckee Depot is increasingly impacting the operations of public transit serving Truckee. The site is limited to a maximum of three buses at a time, which

precludes the Placer TART 89 Route and 267 Route buses to be onsite at the same time (which in turn limits the convenience of connections between Truckee TART and Placer TART routes). The central location, while convenient to many destinations, is increasingly impacted by the growth of special events in downtown, such as Truckee Thursdays. At the same time, these special events have resulted in the expansion of shuttle services, adding to the bus capacity issue.

The expansion of the transit program will increase the space required for a transit center beyond the reasonable capacity of the Truckee Train Depot (or another nearby location). Given the options discussed in this document, this could result in the following peak number of buses at one time:

Mainline	1 bus
Glenshire Route	1 bus
Tahoe Donner Route	1 bus
Prosser/Sierra Meadows Route	1 bus
SR 89 Placer TART Route	1 bus
SR 267 Placer TART Route	<u>1 bus</u>
Total	6 buses

In addition, at least one space would be needed for intercity (Greyhound, Amtrak Thruway, Reno Commuter, etc.) buses. Accommodating seven buses at the Depot would require reconfiguration of existing driveways and parking areas (such as use of the existing parking area west of the Depot building for transit) that would result in a substantial loss of parking and other impacts that would be an overall detriment to downtown. A review of potential options identified that the preferred location of a new transit center would be within the Railyard project. This is based on the following key factors:

- **Convenient walking distance to transit generators** -- As the Transit Center is the single most accessible point on the local and regional transit network, it is important that it be convenient to as many destinations as possible. While passengers could potentially transfer to another route to reach destinations in downtown from a remote location, the need to transfer reduces the overall convenience of using public transit. A Railyard site would be within a few hundred yard walk of existing Commercial Row, as well as a convenient walk to the Community Arts Center and the future Railyard land uses.
- **Impact on transit operations** – It is important to avoid significant increases in transit operating costs as a result of out-of-direction travel, or increases in running time that impacts the ability to provide convenient schedules. The Railyard site would have only minimal impacts on these factors.

- **Ability to accommodate the transit program** -- The ability to provide adequate space for the desired transit program is key, in a configuration that avoids delays to transit operations. This ability is provided on the Railyard site.
- **Compatibility** -- The location should be compatible with adjacent land uses (particularly residential or other uses sensitive to noise impacts) and does not result in traffic or other environmental impacts. A transit center is consistent with planned land uses in the Railyard project area.
- **Consistency with downtown and Town plans.** A transit center has been identified as a potential use in the Railyard Master Plan.

Rough cost estimates for a new transit hub (excluding land acquisition costs) is \$1,000,000.

Other Bus Stop Improvements

The existing Truckee fixed route stops are well provided with shelters at the higher activity locations and bus stop signs. Bus pullouts are currently warranted along Brockway Road at Cedar House and the Regional Park. At current unit costs, these improvements will require \$623,200 to construct.

Of particular concern to passengers is the lack of a shelter in front of the Truckee Donner Senior Apartments. Due to private property concerns, the bus pulls along the frontage road between Estates Drive and the actual apartment entrance and is not allowed to turn into the horseshoe driveway. Although it is a very short distance for residents to walk from the front door to the bus, it can be challenging if snow is on the ground. Additionally, residents do not want to wait out in the elements for the bus. Constructing a shelter at the property line with a good walkway from the door of the Senior Apartments is warranted if an agreement with the property owner can be reached.

If services are expanded to the neighborhoods, a total of approximately 76 new bus stops will need to be signed along the additional routes (including On Demand stops), based on standard transit stop spacing standards. Of these, an estimated 10 will warrant provision of a shelter (with bench), and an additional 10 will warrant provision of a bench only.

Added to the current stop improvement value, the total value of the improvements will be \$1,070,200.

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The following plan presents service programs, capital improvements, institutional strategies and financial strategies to guide the improvement of public transit services in Eastern Nevada County over the coming five years (FY 2018-19 through FY 2022-33). This chapter presents the individual plan elements in brief, based on the substantial discussions presented in previous chapters; the reader is encouraged to refer to previous chapters for additional background on the plan elements.

SERVICE PLAN

An effective and implementable service plan should meld cost effective alternatives with the goals, objectives and needs of the community. The Town has indicated that making the existing services more consistent is a priority over new services. Ultimately, the service plan is constrained by the level of funding available. Therefore the following three service plans are recommended for various levels of funding:

- Existing Funding Levels
- Existing Funding Levels + Additional County LTF
- Existing Funding Levels + Additional County LTF + Local Funding Sources

Service Plan A -- Existing Funding Levels

As shown in Table 41, this scenario assumes the following revenue sources:

- Flat growth of FTA 5311 funding.
- Two years of the FTA 5310 grant for DAR services outside the requirements of the ADA.
- Annual increase of 1.8 percent in LTF funding (based on the growth of the nationwide CPI over the past five years).
- Roughly \$135,000 in STA/SB 1 funding at the beginning of the planning period and remaining flat throughout the time horizon of the plan.
- Existing fare revenue growth to increase by 0.26 percent per year (historical growth rate for Town of Truckee population) for the planning period.
- Funding of the Donner Summit Shuttle to increase at a rate of 1.8 percent per year to reflect inflation.
- Contributions from the Grays Crossing Development per the latest agreement.
- Funding for the NTTT Shuttle through Area 4 Agency on Aging and medical facilities through FY 2019-20, after which the Town would need to reapply for the grant.
- Town of Truckee Air Quality Impact Fee/ Northern Sierra Air Quality Management District Grant Funds through FY 2021-22.

Table 41: Eastern Nevada County TDP Financial Plan

Plan Element	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
SERVICE PLAN A						
Base Case Costs	\$997,000	\$1,014,900	\$1,033,200	\$1,051,800	\$1,070,700	\$5,167,600
Operating Plan Elements	\$156,900	\$156,800	\$113,200	\$113,100	\$113,000	\$653,000
TOTAL OPERATING COSTS	\$1,153,900	\$1,171,700	\$1,146,400	\$1,164,900	\$1,183,700	\$5,820,600
Operating Revenues						
Annual FTA - 5311	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$425,000
FTA 5310 Grant ⁽¹⁾	\$227,100	\$227,100	\$0	\$0	\$0	\$454,200
Annual LTF	\$456,100	\$464,300	\$472,700	\$481,200	\$489,900	\$2,364,200
Annual STA/SB 1	\$135,000	\$135,000	\$135,000	\$135,000	\$135,000	\$675,000
Fare Revenues	\$24,800	\$26,100	\$27,400	\$28,700	\$30,000	\$137,000
Donner Summit Shuttle	\$102,300	\$104,100	\$106,000	\$107,900	\$109,800	\$530,100
Grays Crossing Contributions	\$49,600	\$51,100	\$52,600	\$54,200	\$55,800	\$263,300
A4AA - NTTT Senior Shuttle	\$29,600	\$29,600	\$0	\$0	\$0	\$59,200
Air Quality Mitigation Funds ⁽²⁾	\$65,000	\$65,000	\$65,000	\$65,000	\$0	\$260,000
NCTC CTSA Fund	\$24,000	\$24,400	\$24,800	\$25,200	\$25,700	\$124,100
Town General Fund for Holiday Shuttles	\$116,800	\$116,800	\$116,800	\$116,800	\$116,800	\$584,000
TOTAL OPERATING REVENUES	\$1,315,300	\$1,328,500	\$1,085,300	\$1,099,000	\$1,048,000	\$5,876,100
SERVICE PLAN B						
Total Operating Costs	\$1,307,800	\$1,340,100	\$1,372,700	\$1,405,700	\$1,427,100	\$6,853,400
Additional LTF from County	\$400,000	\$412,000	\$424,400	\$437,100	\$450,200	\$2,123,700
TOTAL OPERATING REVENUES	\$1,717,500	\$1,742,700	\$1,511,900	\$1,538,300	\$1,500,400	\$8,010,800
SERVICE PLAN C						
Total Operating Costs	\$1,569,800	\$1,606,900	\$1,644,400	\$1,682,300	\$1,708,700	\$8,212,100
Additional LTF from County	\$400,000	\$412,000	\$424,400	\$437,100	\$450,200	\$2,123,700
Local Funding Sources	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
TOTAL OPERATING REVENUES	\$1,915,300	\$1,940,500	\$1,709,700	\$1,736,100	\$1,698,200	\$8,999,800
Note 1: Provides funding for DAR service outside of ADA boundary (existing service) and Sunday DAR service (new)						
Note 2: Combination of Town Air Quality Impact Fee and NSAQMD Grant						

- Consolidated Transportation Services Agency (CTSA) allocation of LTF funding grown at a rate of 1.8 percent per year.
- Town General Fund money for the Holiday Shuttles and Truckee Thursday shuttles throughout the planning period.

These existing sources add up to roughly \$1.3 million in revenues available for transit operating costs in FY 2018-19 but due to the uncertainty of many of these funding sources, total revenues will decrease to \$1,055,000 in FY 2022-23. It is likely that some of the competitive grant sources will be available for the full five years but the figures in Table 42 represent a conservative estimate. As shown in the table, operating revenues from FY 2020-21 through FY 2022-23 are less than projected operating costs for each of those three years, although total operating revenues for the five year planning period are projected to be around \$90,000 more than total

operating costs over the five years. This indicates that the Town should save some funding from the early years of the planning period in case discretionary funds are no longer available at the end of the planning period.

At the existing level of funding the following service plan elements are recommended in addition to current levels of fixed route and DAR service as well as the existing regional contribution to Placer TART 267 and 89 services. Note that base case ridership is projected to grow at the rate of 0.26 percent per year (based on growth of Town of Truckee population from 2010 to 2016). Refer to Tables 42 - 44 for operating cost, ridership and fare revenue estimates for Service Plan A. Figures 26 - 28 graphically displays plan elements.

- **FTA 5310 Funded Dial-A-Ride Enhancements** – The Town of Truckee was recently awarded an FTA 5310 grant to pay for Dial-A-Ride services outside the requirement of ADA. The grant will fund Sunday Dial-A-Ride service during the non-winter months through FY2019-20 in addition to continuing to fund DAR service outside the ADA corridor.
- **Town of Truckee Holiday and Truckee Thursdays Shuttles** – As long as this service is meeting the objectives of the Town Council, the Town should fund the Neighborhood Holiday and Truckee Thursday Shuttles. For this analysis it is assumed that the Town will fund the program for the entire planning period.
- **NTTT Senior Shuttle** – In cooperation with TTD, the Town should operate the NTTT Senior Shuttle as long as grant funding is available through FY 2019-20 (longer if new grant funds are acquired).
- **Eliminating the Crossroads Stop** – This operating plan element will improve on-time performance and reduce travel time for the majority of passengers on the fixed route. It is estimated that this element will increase ridership by 280 passengers and save Truckee TART about \$3,300 in annual operating costs.
- **Match Placer TART's Fixed Route Fares** - LSC recommends that the Town of Truckee adjust Truckee TART's fare structure to match Placer's, and allow passes purchased on either system to be accepted by the other system. This would result in a loss of around \$7,000 in fare revenue but an increase in 630 trips. From a rider's perspective, the joint branding of the two systems indicates that no new fare should be needed to transfer between any buses on the system. The loss of revenues due to free transfers between the two systems is relatively small, and is an initial step towards the free fare option that Truckee wishes to pursue. The increased ridership on the Truckee TART system would provide a public benefit.

Table 42: Eastern Nevada County TDP Estimated Operating Cost - Service Plan A

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Operating Cost ⁽¹⁾	\$997,000	\$1,014,900	\$1,033,200	\$1,051,800	\$1,070,700	\$5,167,600
Service Plan Elements						
Sunday DAR Service Non-Winter	\$13,900	\$13,900	\$0	\$0	\$0	\$27,800
Holiday and Truckee Thursday Shuttles	\$116,800	\$116,800	\$116,800	\$116,800	\$116,800	\$584,000
NTTT Senior Shuttle	\$29,600	\$29,600	\$0	\$0	\$0	\$59,200
Eliminate Crossroads Stop	-\$3,400	-\$3,500	-\$3,600	-\$3,700	-\$3,800	-\$18,000
Match Placer TART's Fixed Route Fares	\$0	\$0	\$0	\$0	\$0	\$0
<i>Subtotal Service Plan Elements</i>	<i>\$156,900</i>	<i>\$156,800</i>	<i>\$113,200</i>	<i>\$113,100</i>	<i>\$113,000</i>	<i>\$653,000</i>
Total Service Plan A Operating Cost	\$1,153,900	\$1,171,700	\$1,146,400	\$1,164,900	\$1,183,700	\$5,820,600
Note 1: Based on proposed FY 17-18 Town budget increased by 1.8% annually for inflation as per three year growth of CPI. Includes Holiday and Truckee Thursday Shuttle and Existing Regional Transit Contributions						

Table 43: Eastern Nevada County TDP Estimated Ridership - Service Plan A

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Ridership	22,300	22,400	22,500	22,600	22,700	112,500
Service Plan Elements						
Sunday DAR Service Non-Winter	600	600	0	0	0	
Holiday and Truckee Thursday Shuttles	11,800	11,800	11,800	11,800	11,800	59,000
NTTT Senior Shuttle	200	200	0	0	0	400
Eliminate Crossroads Stop	300	300	300	300	300	1,500
Match Placer TART's Fixed Route Fares	630	630	630	630	630	3,150
<i>Service Plan Elements Ridership</i>	<i>13,530</i>	<i>13,530</i>	<i>12,730</i>	<i>12,730</i>	<i>12,730</i>	<i>64,050</i>
Total Service Plan A Ridership	35,830	35,930	35,230	35,330	35,430	176,550

Table 44: Eastern Nevada County TDP Estimated Farebox Revenues - Service Plan A

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Fare Revenue	\$30,600	\$30,700	\$30,800	\$30,900	\$31,000	\$154,000
Service Plan Elements						
Sunday DAR Service Non-Winter	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$6,000
Holiday and Truckee Thursday Shuttles	\$0	\$0	\$0	\$0	\$0	\$0
NTTT Senior Shuttle	\$0	\$0	\$0	\$0	\$0	\$0
Eliminate Crossroads Stop	\$0	\$0	\$0	\$0	\$0	\$0
Match Placer TART's Fixed Route Fares	-\$7,000	-\$7,000	-\$7,000	-\$7,000	-\$7,000	-\$35,000
<i>Service Plan Elements Fare Revenue</i>	<i>-\$5,800</i>	<i>\$1,200</i>	<i>\$1,200</i>	<i>\$1,200</i>	<i>\$1,200</i>	<i>-\$1,000</i>
Total Service Plan A Fare Revenue	\$24,800	\$31,900	\$32,000	\$32,100	\$32,200	\$153,000

Service Plan B -- Existing Funding Levels + Additional \$400K LTF

LTF funds are derived from a 0.25 percent sales tax, collected by the County Auditor and then reallocated based on the proportion of year-round population between the Town of Truckee, Nevada City, Grass Valley and unincorporated Nevada County. It has come to the attention of Town staff that the Town's LTF apportionment is much less than what the sales tax revenues are generating for the Town at the \$.025 tax rate (as visitors and other spending by non-residents increases sales in Truckee). Staff is currently working with NCTC and Nevada County to determine a more equitable apportionment process. Service Plan B assumes that an additional \$400,000 in LTF funds would be available for Truckee TART services. The following service elements could be implemented in addition to those identified in Service Plan A:

- **Expanded Hours of Non-Winter Service** – It is the Consultant's recommendation to make this service plan element the top priority for implementation when funding becomes available. Public transit service in the non-winter season between the hours of 9:00 AM and 5:00 PM allows for very few people to commute on public transit. This service plan element is consistent with Town objectives to have a more consistent public transit system. This plan element will also make Truckee TART more consistent with Placer TART and other ski resort area schedules and allow for more employees to commute between the two regions. This plan element will add 4,400 in ridership and \$61,000 in operating subsidy (assuming fixed route fares are eliminated as outlined below). If less than \$61,000 in funding is available, a reduced option would be to only implement service during the peak summer months.
- **Vanpool Subsidy** – This alternative requires the lowest subsidy per trip (with the exception of the Elimination of the Cross Roads Stop). The recently conducted Employee Survey of four major employers indicates a high level of support for a vanpool (provided that their commute time is not substantially extended). There was much less support for commuter bus service. Anecdotal evidence supports these findings. The best option would be for the Town to match the RTC contribution to a vanpool of \$400 per month per van for up to 10 vans. The Town should begin by funding 2 to 3 vanpools. If these vanpools are successful, the Town could subsidize the full ten vanpools by FY 2020-21.
- **Eliminate Fixed Route Fares** – This was the top priority alternative in the Truckee Long-Range Plan. Many ski resort towns offer free public transit and studies show that ridership is increased significantly. Additionally, the Town receives a relatively small amount in fixed route fares (\$17,300). The Town has also been successful in obtaining private funding as fare revenue, ensuring that the mandatory farebox ratio would still be maintained. This service plan element will increase ridership by nearly 7,000 one-way passenger trips per year.
- **Placer TART Winter Evening Extension to Truckee 5:30 PM to 11:00 PM** – This plan element was a top short-term priority in terms of contribution to Placer TART services in the Long-Range Plan. It is also cost effective with a marginal operating subsidy per trip of \$5.03. The North Lake Tahoe Region has evening service available during the winter between Crystal Bay and Squaw. To be consistent with regional services and be on par with other

resort areas, funding this service element for an approximate annual cost of \$45,700 is recommended as part of Service Plan B. Approximately 8,900 trips on the Placer TART service could be expected.

- **Placer TART Earlier S-bound Departures on 89 and 267** - Similar to the plan element above, this is a top priority in the Long Range Plan and will provide more options for Truckee residents to commute to the ski resorts on SR 89 and 267. With a very small subsidy of \$2,500 per year, this plan element is quite cost effective and will carry around 1,200 trips per year.

Table 45: Eastern Nevada County TDP Estimated Operating Cost - Service Plan B

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Operating Cost ⁽¹⁾	\$992,400	\$1,010,300	\$1,028,500	\$1,047,000	\$1,065,800	\$5,144,000
Service Plan Elements						
Sunday DAR Service Non-Winter	\$18,800	\$19,100	\$19,400	\$19,700	\$20,100	\$97,100
Holiday and Truckee Thursday Shuttles	\$116,800	\$116,800	\$116,800	\$116,800	\$116,800	\$584,000
NTTT Senior Shuttle	\$29,600	\$29,600	\$29,600	\$29,600	\$29,600	\$148,000
Eliminate Crossroads Stop	-\$3,400	-\$3,500	-\$3,600	-\$3,700	-\$3,800	-\$18,000
Vanpool Subsidy	\$12,000	\$24,000	\$36,000	\$48,000	\$48,000	\$168,000
Eliminate Fixed Route Fares	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$86,500
Expanded Hours of Non-Winter Service	\$76,100	\$77,500	\$78,900	\$80,300	\$81,700	\$394,500
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	\$45,700	\$46,500	\$47,300	\$48,200	\$49,100	\$236,800
Placer TART Earlier S-bound Departures on 89 and 267	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$12,500
<i>Subtotal Service Plan Elements</i>	<i>\$315,400</i>	<i>\$329,800</i>	<i>\$344,200</i>	<i>\$358,700</i>	<i>\$361,300</i>	<i>\$1,709,400</i>
Total Service Plan B Operating Cost	\$1,307,800	\$1,340,100	\$1,372,700	\$1,405,700	\$1,427,100	\$6,853,400

Note 1: Based on proposed FY 17-18 Town budget increased by 1.8% annually for inflation as per three year growth of CPI. Includes Holiday and Truckee Thursday Shuttle and Existing Regional Transit Contributions

Table 46: Eastern Nevada County TDP Estimated Ridership - Service Plan B

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Ridership	22,300	22,400	22,500	22,600	22,700	112,500
Service Plan Elements						
Sunday DAR Service Non-Winter	700	700	700	700	700	
Holiday and Truckee Thursday Shuttles	11,800	11,800	11,800	11,800	11,800	59,000
NTTT Senior Shuttle	200	200	200	200	200	1,000
Eliminate Crossroads Stop	300	300	300	300	300	1,500
Vanpool Subsidy	5,250	10,500	15,750	21,000	21,000	73,500
Eliminate Fixed Route Fares	6,900	6,900	6,900	6,900	6,900	34,500
Expanded Hours of Non-Winter Service	4,400	4,400	4,400	4,400	4,400	22,000
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	8,900	8,900	8,900	8,900	8,900	44,500
Placer TART Earlier S-bound Departures on 89 and 267	1,200	1,200	1,200	1,200	1,200	6,000
<i>Subtotal Service Plan Elements</i>	<i>39,650</i>	<i>44,900</i>	<i>50,150</i>	<i>55,400</i>	<i>55,400</i>	<i>242,000</i>
Total Service Plan B Ridership	61,950	67,300	72,650	78,000	78,100	354,500

Table 47: Eastern Nevada County TDP Estimated Farebox Revenues - Service Plan B

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Fare Revenues	\$30,600	\$30,700	\$30,800	\$30,900	\$31,000	\$154,000
Service Plan Elements						
Sunday DAR Service Non-Winter	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$7,000
Holiday and Truckee Thursday Shuttles	\$0	\$0	\$0	\$0	\$0	\$0
NTTT Senior Shuttle	\$0	\$0	\$0	\$0	\$0	\$0
Eliminate Crossroads Stop	\$0	\$0	\$0	\$0	\$0	\$0
Vanpool Subsidy	\$0	\$0	\$0	\$0	\$0	\$0
Eliminate Fixed Route Fares ⁽¹⁾	\$0	\$0	\$0	\$0	\$0	\$0
Expanded Hours of Non-Winter Service	\$800	\$800	\$800	\$800	\$800	\$4,000
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	\$0	\$0	\$0	\$0	\$0	\$0
Placer TART Earlier S-bound Departures on 89 and 267	\$0	\$0	\$0	\$0	\$0	\$0
<i>Subtotal Service Plan Elements</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$11,000</i>
Total Service Plan B Fare Revenue	\$32,800	\$32,900	\$33,000	\$33,100	\$33,200	\$165,000

Note 1: Loss of fares from fixed route service is accounted for in Operating Cost Plan Table

Service Plan C -- Existing Funding Levels + Additional \$400,000 LTF +\$200,000 Local Funding Sources

While there are other discretionary opportunities for bus purchases and other capital improvements, the state/federal opportunities for the more crucial issue of expanded operating funding are quite limited, due in part to Truckee’s status as rural area (for purposes of federal transit funding). This means that the key financial challenge facing the expansion of transit services is how best to expand ongoing local/regional funding for transit operations. Potential new or expanded sources consist of the following:

- **Sales Tax** – Along with the rest of California, there is already an effective ¼ cent sales tax for transit services in Truckee (which funds the statewide Local Transportation Fund program). There is the opportunity for local-option “self help” additional sales taxes. Sales tax is the mainstay of funding for other mountain resort communities, including Aspen, Colorado (which imposes a total of 1.165 percent sales tax for transit). In California, increasing sales tax for a specified purpose requires a two-thirds voter approval.
- **Lodging/Transient Occupancy Tax** – A Transient Occupancy Tax (TOT) can generate funds for a wide variety of uses, including transit operations and capital needs. This is an important element of funding for Placer County’s TART program. In Truckee, there is currently a 12 percent TOT tax rate (including 2 percent for the Truckee Tourism Business Improvement District). Transit funding could come from re-allocation of existing revenues, or an increase in the tax rate (which requires a simple majority). The expansion of evening services would be a logical use of TOT funding.
- **Business License Fees** – Annual business license fees are another potential source of ongoing transit funding. As an example, Park City collects a substantial proportion of the funding for their free-to-the-rider transit system through business license fees, such as an annual fee of \$0.33 per square foot on restaurant and retail establishments.

- **Impact Fee Programs** – As major developments have gone through the approval process, the Town of Truckee has been establishing ongoing annual fees on new construction. These are paid through property tax bills. As an example, the Gray’s Crossing development (PC-2) is currently generating on the order of \$60,000 per year. As developments are constructed over time, this source can potentially become a significant element in the overall funding strategy, particularly if applied to additional developments, such as PC-1, PC-3 and the Railyard.
- **Private Funding** – Private partners can also be an important part of the funding mix, as evidenced by the Town’s ongoing partnership with the Donner Summit resorts. As a whole, the resorts contribute approximately \$82,000 per year to support the winter service. It is reasonable to assume that future expansion of transit services connecting Truckee with the Donner Summit area would be dependent on additional funding from Summit partners. In addition, the Truckee Tahoe Airport District is a potential funding partner for transit service enhancements.
- **Truckee Special Service Areas** – There are currently two active Truckee Special Service Areas (TSSAs): TSSA 1 covering the Tahoe Donner Area (which currently generates approximately \$590,000 per year) and TSSA 5 in the Glenshire area (currently generating approximately \$175,000 per year). A portion of these revenues could potentially be allocated to funding expansion of transit services into these neighborhoods.
- **General Fund** – Transit services are a valid use of municipal general fund monies. The transit systems serving Telluride and Steamboat Springs both are funded largely through their respective municipal general funds.

The most successful mountain resort transit programs use several local funding sources, in order to equitably spread the financial burden over the various elements of the community.

This third service plan scenario accounts for an additional \$200,000 in Local Funding Sources. The following service plan elements are considered the next priorities for Service Plan C:

- **Neighborhood Shuttles Peak Winter Days 7:00 AM – 5:30 PM** – The community survey respondents indicated a desire for service to the neighborhoods and indeed current transit services do not serve a majority of the Town population. The Neighborhood Shuttle alternatives are anticipated to produce fairly high ridership and subsidy per trip ranges from \$5.00 to \$27.00 per trip. Peak Winter Day Service has the lowest subsidy per trip and therefore is the next priority service element. Operating transit service from the neighborhoods in Truckee on peak winter days will also allow residents and visitors to connect with Placer TART services to Squaw Valley and Northstar; thereby providing an alternative to driving a private vehicle for the entire trip to the ski resort. In FY 2018-19 this plan element is expected to carry 17,900 one-way passenger trips and cost \$101,100 in operating subsidy.

- Neighborhood Shuttles Peak Winter Evenings 5:30 PM – 11:00 PM** – The next step in the transit program progression, provided there is available funding, is to implement evening service from Truckee neighborhoods to the downtown area. This service would build on the success of the holiday shuttles by expanding service to peak winter season evenings. Roughly 6,600 in annual ridership is anticipated for an operating cost of \$52,900 during the first year of the planning period.
- Sunday Fixed Route Service in Non-Winter Season** – The Town received an FTA grant to implement DAR service on Sundays. This element would expand the fixed route service to 7 days per week which would match Placer TART’s span of service and be comparable to other ski resort areas. In FY 2018-19, this plan element is anticipated to cost \$31,600 and carry 1,400 one-way passenger trips.
- Mainline – Additional Hours 6:00 PM to 11:00 PM** – Providing evening service on the Truckee TART Mainline route during the summer and winter season is one of the high priority elements of the Long Range Plan. Operating this service through a contractor such as Metro Transit may be less expensive as it will require an additional dispatcher. In FY 2017-18, this element would cost \$76,400 and carry 5,150 passenger trips.
- Serving the New PC-3 Commercial Development** – In the alternatives analysis it was concluded that the revised 2-Route Non-Winter Fixed Route with overlapping service in the commercial core would not be cost effective **unless/until** the new shopping center (potentially Raley’s) is built as part of PC-3 off of Soaring Way. When this occurs, Truckee residents living at Henness Flat, Senior Apartments and along Brockway Road will likely prefer to travel to PC-3 instead of Safeway in downtown Truckee. Therefore, serving PC-3 is recommended once the shopping center is built with the route configuration outlined in the 2-Route Service alternative.

Table 48: Eastern Nevada County TDP Estimated Operating Cost - Service Plan C

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Operating Cost ⁽¹⁾	\$992,400	\$1,010,300	\$1,028,500	\$1,047,000	\$1,065,800	\$5,144,000
Service Plan Elements						
Sunday DAR Service Non-Winter	\$18,800	\$19,100	\$19,400	\$19,700	\$20,100	\$97,100
Holiday and Truckee Thursday Shuttles	\$116,800	\$116,800	\$116,800	\$116,800	\$116,800	\$584,000
NTTT Senior Shuttle	\$29,600	\$29,600	\$29,600	\$29,600	\$29,600	\$148,000
Eliminate Crossroads Stop	-\$3,400	-\$3,500	-\$3,600	-\$3,700	-\$3,800	-\$18,000
Vanpool Subsidy	\$12,000	\$24,000	\$36,000	\$48,000	\$48,000	\$168,000
Eliminate Fixed Route Fares	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$86,500
Expanded Hours of Non-Winter Service	\$76,100	\$77,500	\$78,900	\$80,300	\$81,700	\$394,500
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	\$45,700	\$46,500	\$47,300	\$48,200	\$49,100	\$236,800
Placer TART Earlier S-bound Departures on 89 and 267	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$12,500
Neighborhood Shuttles Peak Winter Days 7:00 AM to 5:30 PM	\$101,100	\$102,900	\$104,800	\$106,700	\$108,600	\$524,100
Neighborhood Shuttles Peak Winter Evenings 5:30 PM to 11:00 PM	\$52,900	\$53,900	\$54,900	\$55,900	\$56,900	\$274,500
Sunday Fixed Route Service in Non-Winter Season	\$31,600	\$32,200	\$32,800	\$33,400	\$34,000	\$164,000
Mainline - Summer/Winter, 6:00 PM to 11:00 PM	\$76,400	\$77,800	\$79,200	\$80,600	\$82,100	\$396,100
<i>Subtotal Service Plan Elements</i>	<i>\$577,400</i>	<i>\$596,600</i>	<i>\$615,900</i>	<i>\$635,300</i>	<i>\$642,900</i>	<i>\$3,068,100</i>
Total Service Plan C Operating Cost	\$1,569,800	\$1,606,900	\$1,644,400	\$1,682,300	\$1,708,700	\$8,212,100

Note 1: Based on proposed FY 17-18 Town budget increased by 1.8% annually for inflation as per three year growth of CPI. Includes Holiday and Truckee Thursday Shuttle and Existing Regional Transit Contributions

Table 49: Eastern Nevada County TDP Estimated Ridership - Service Plan C

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Ridership	22,300	22,400	22,500	22,600	22,700	112,500
Service Plan Elements						
Sunday DAR Service Non-Winter	700	700	700	700	700	3,500
Holiday and Truckee Thursday Shuttles	11,800	11,800	11,800	11,800	11,800	59,000
NTTT Senior Shuttle	200	200	200	200	200	1,000
Eliminate Crossroads Stop	300	300	300	300	300	1,500
Vanpool Subsidy	5,250	10,500	15,750	21,000	21,000	73,500
Eliminate Fixed Route Fares	6,900	6,900	6,900	6,900	6,900	34,500
Expanded Hours of Non-Winter Service	4,400	4,400	4,400	4,400	4,400	22,000
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	8,900	8,900	8,900	8,900	8,900	44,500
Placer TART Earlier S-bound Departures on 89 and 267	1,200	1,200	1,200	1,200	1,200	6,000
Neighborhood Shuttles Peak Winter Days 7:00 AM to 5:30 PM	17,900	17,900	17,900	17,900	17,900	89,500
Neighborhood Shuttles Peak Winter Evenings 5:30 PM to 11:00 PM	6,600	6,600	6,600	6,600	6,600	33,000
Sunday Fixed Route Service in Non-Winter Season	1,400	1,400	1,400	1,400	1,400	7,000
Mainline - Summer/Winter, 6:00 PM to 11:00 PM	5,150	5,200	5,200	5,200	5,200	25,950
<i>Subtotal Service Plan Elements</i>	<i>70,700</i>	<i>76,000</i>	<i>81,250</i>	<i>86,500</i>	<i>86,500</i>	<i>400,950</i>
Total Service Plan C Ridership	93,000	98,400	103,750	109,100	109,200	513,450

Table 50: Eastern Nevada County TDP Estimated Farebox Revenues - Service Plan C

	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23	5-Year Plan Total
Base Case Farebox Revenues	\$30,600	\$30,700	\$30,800	\$30,900	\$31,000	\$154,000
Service Plan Elements						
DAR Service Enhancements	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$7,000
Holiday and Truckee Thursday Shuttles	\$0	\$0	\$0	\$0	\$0	\$0
NTTT Senior Shuttle	\$0	\$0	\$0	\$0	\$0	\$0
Eliminate Crossroads Stop	\$0	\$0	\$0	\$0	\$0	\$0
Vanpool Subsidy	\$0	\$0	\$0	\$0	\$0	\$0
Eliminate Fixed Route Fares ⁽¹⁾	\$0	\$0	\$0	\$0	\$0	\$0
Expanded Hours of Non-Winter Service	\$800	\$800	\$800	\$800	\$800	\$4,000
Placer TART Winter Evening Ext to Truckee 5:30 PM - 11:00 PM	\$0	\$0	\$0	\$0	\$0	\$0
Placer TART Earlier S-bound Departures on 89 and 267	\$0	\$0	\$0	\$0	\$0	\$0
Neighborhood Shuttles Peak Winter Days 7:00 AM to 5:30 PM	\$0	\$0	\$0	\$0	\$0	\$0
Neighborhood Shuttles Peak Winter Evenings 5:30 PM to 11:00 PM	\$0	\$0	\$0	\$0	\$0	\$0
Sunday Fixed Route Service in Non-Winter Season	\$0	\$0	\$0	\$0	\$0	\$0
Mainline - Summer/Winter, 6:00 PM to 11:00 PM	\$0	\$0	\$0	\$0	\$0	\$0
<i>Subtotal Service Plan Elements</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$2,200</i>	<i>\$11,000</i>
Total Service Plan C Farebox Revenue	\$32,800	\$32,900	\$33,000	\$33,100	\$33,200	\$165,000

Note 1: Loss of fares from fixed route service is accounted for in Operating Cost Plan Table

Figure 26
Eastern Nevada County Transit Plan A

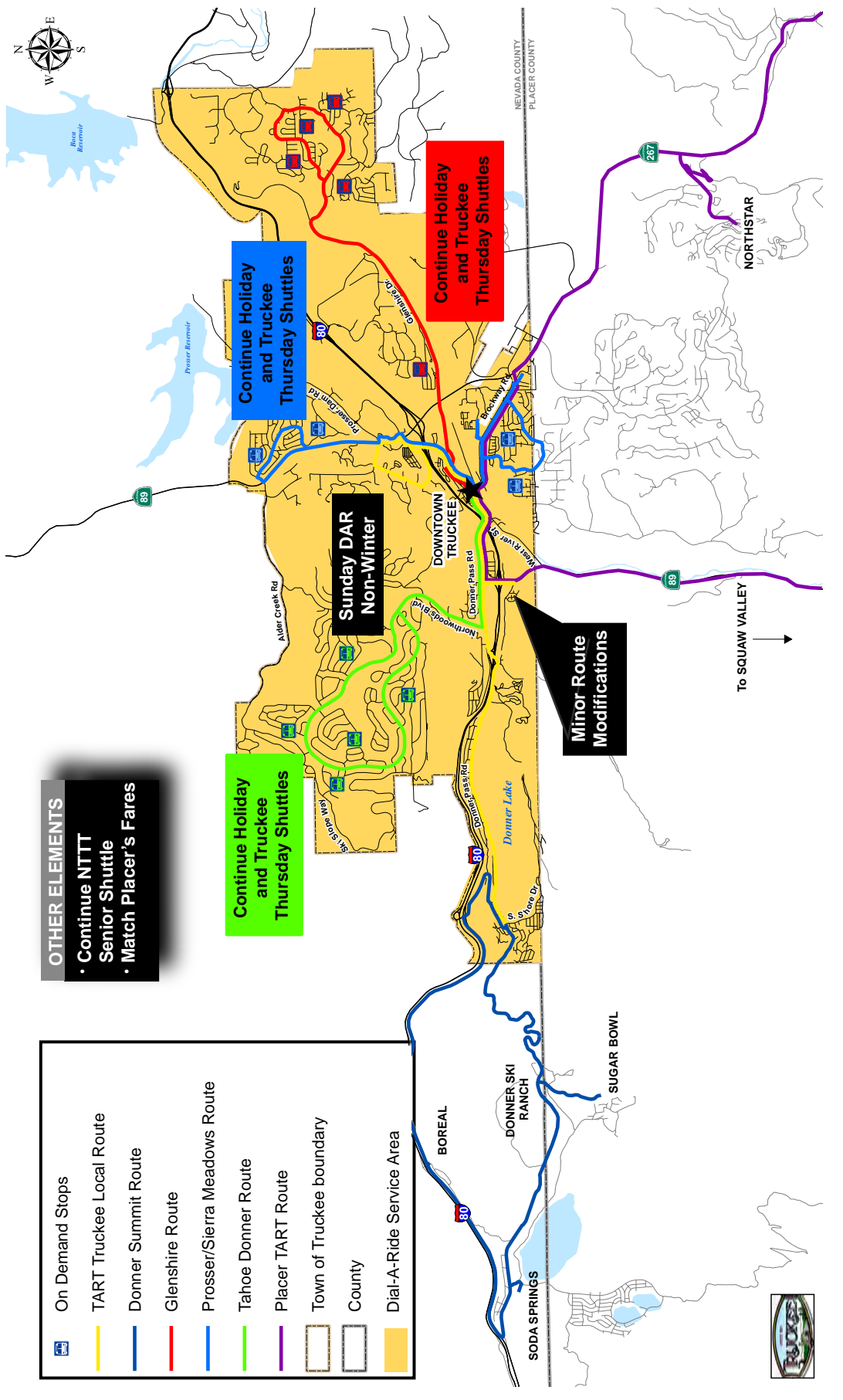


Figure 27 Eastern Nevada County Transit Plan B

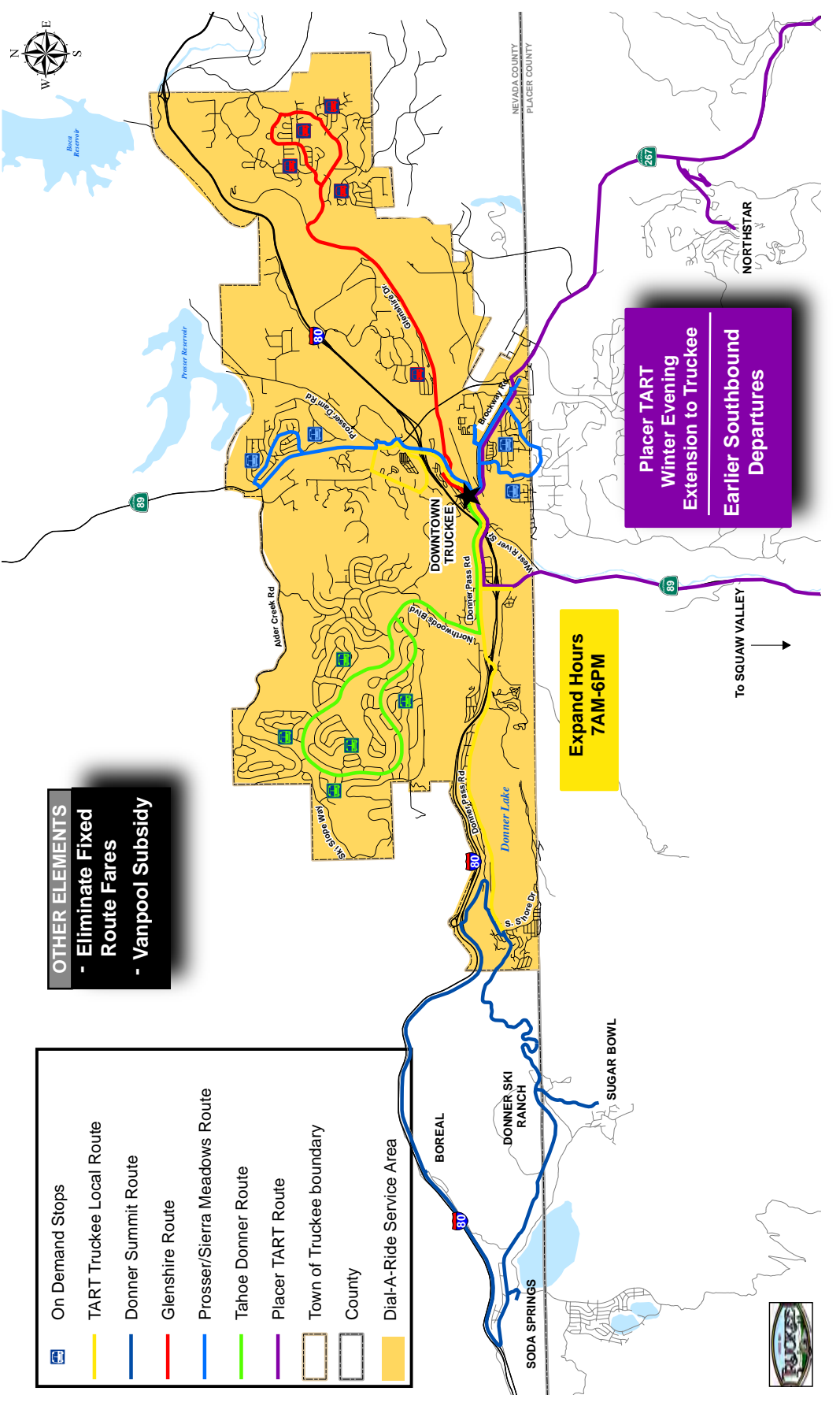
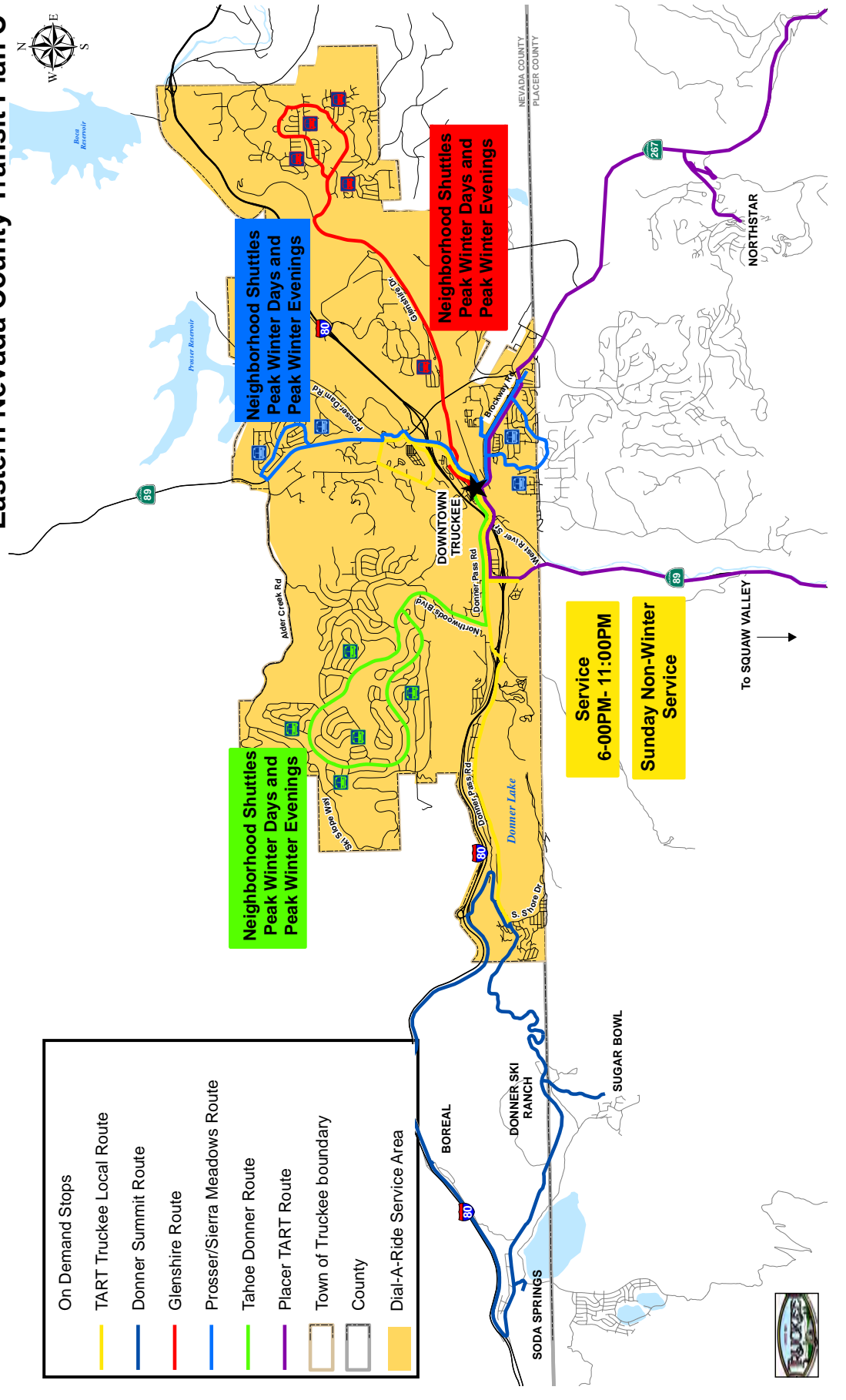


Figure 28
Eastern Nevada County Transit Plan C



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Appendix A
Survey Materials and Responses

Community Survey

Do You Ride TART in Truckee?



Why? Why Not?

Truckee/Donner Summit Transportation Community Survey

Eastern Nevada County Transit Development Plan Update

The Nevada County Transportation Commission has hired LSC Transportation Consultants Inc. to study public transit in the Truckee/Donner Summit area. We want to learn more about your travel patterns so that public transit can better serve your needs.



[PLEASE HELP US BY FILLING OUT A SURVEY AT:](https://www.surveymonkey.com/r/Truckee2017)

<https://www.surveymonkey.com/r/Truckee2017>

Alternative ways to provide input...

**To participate in the survey over the phone, or provide input,
please contact:**

Genevieve Evans

LSC TRANSPORTATION CONSULTANTS, INC.

EMAIL: genevieve@lsctahoe.com Phone: 530-583-4053



Do you ride TART in Truckee? Why? Why not?

The Nevada County Transportation Commission is conducting an update of the Eastern Nevada County (Greater Truckee) Transit Plan. To better understand how we can improve public transit in the Truckee/Donner Summit area, we need to know what would make you more likely to ride public transit.

1. Are you a Full-time resident? Seasonal resident? Visitor?
2. What neighborhood do you live in or are you staying in? _____
3. What is the nearest major cross street to your home or where you are staying?

4. Do you have a car in Truckee? Yes No

5. Do you have a valid driver's license? Yes No

6. Have you ever ridden TART? If **YES**:

6a) How often? Never 1 x month 1 x week 5+ days x week

6b) Which services/routes?

- Truckee TART bus between Truckee and Donner Summit
 - Truckee TART bus between Truckee and Donner Lake
 - Free Night Service
 - Holiday and New Year's Eve Shuttle
 - Truckee Thursday Shuttle
 - TART Mainline between Incline Village and West Shore
 - TART Hwy 89
 - TART Hwy 267
-

7. If **NO**, why not? (Check all that apply)

- Doesn't pick up near my house
- Operates too infrequently
- Too expensive
- Does not serve where I need to go
- Doesn't operate early enough

Other: _____

8. How could public transit improve to better serve this community?

- Earlier service
 - Later service
 - Expand service into the neighborhoods
 - More frequent service
 - Other: _____
-

9. Do you have any other suggestions as to how transit could better serve Eastern Nevada County?

You may also take this survey at: <https://www.surveymonkey.com/r/Truckee2017>

For more information, or to provide additional input, please contact Genevieve Evans of LSC at genevieve@lsctahoe.com, or 530-583-4053.

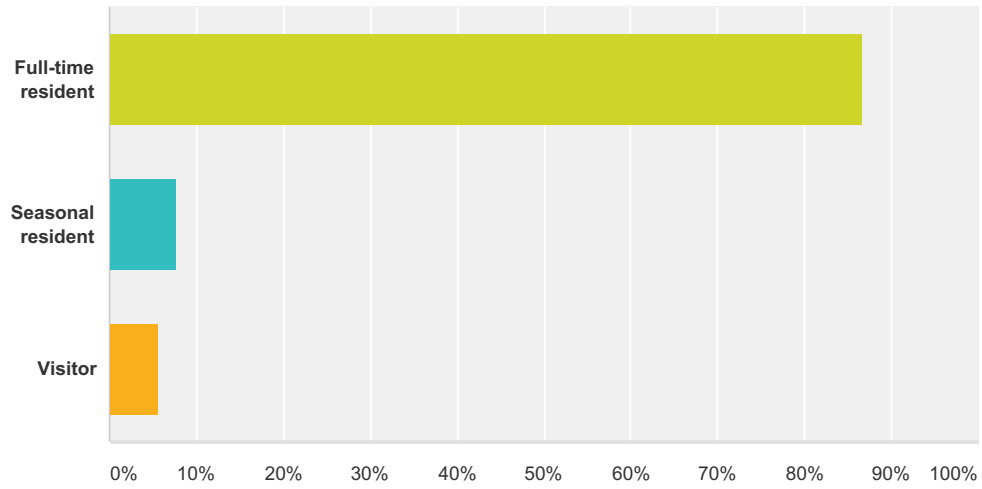
Please return card to:



Genevieve Evans
genevieve@lsctahoe.com
PO Box 5875
Tahoe City, CA 96145
Fax: 530-583-5966

Q1 Are you a:

Answered: 143 Skipped: 2



Answer Choices	Responses	
Full-time resident	86.71%	124
Seasonal resident	7.69%	11
Visitor	5.59%	8
Total		143

Truckee/Donner Summit Transportation Community Survey

Q2 What neighborhood do you live in or are you staying in?

Answered: 142 Skipped: 3

#	Responses	Date
1	winter creek	4/30/2017 6:19 AM
2	Sierra Meadows	4/26/2017 6:11 AM
3	Glenshire residential area in the Town of Truckee	4/25/2017 8:31 AM
4	Deerfield Drive Area	4/13/2017 7:21 AM
5	squaw Valley	4/8/2017 7:46 AM
6	Lake Forest	4/7/2017 1:45 PM
7	Kings Beach	4/4/2017 3:49 PM
8	Kings beach	4/4/2017 1:40 PM
9	Ponderosa Ranchos	4/4/2017 1:07 PM
10	Prosser	4/4/2017 12:03 AM
11	Quincy CA	4/2/2017 6:51 AM
12	Glenshire	4/1/2017 10:03 AM
13	Rubicon	4/1/2017 5:45 AM
14	Glenshire	3/31/2017 5:25 AM
15	Tahoe City	3/31/2017 3:55 AM
16	Highlands in Tahoe City	3/31/2017 3:12 AM
17	+ Cedar flat	3/30/2017 11:43 AM
18	tahoe city	3/29/2017 11:16 AM
19	Winter Creek, Truckee	3/29/2017 6:57 AM
20	Cedar Flat	3/29/2017 6:06 AM
21	Sierra Meadows	3/29/2017 2:27 AM
22	Glenshire	3/29/2017 2:15 AM
23	donner	3/29/2017 1:56 AM
24	West Shore	3/29/2017 1:28 AM
25	Prosser	3/29/2017 1:11 AM
26	West Shore of Donner Lake	3/29/2017 12:28 AM
27	Prosser Heights	3/29/2017 12:01 AM
28	Tahoe Donner	3/28/2017 1:15 PM
29	West end of Donner Lake	3/28/2017 10:11 AM
30	Glenshire	3/28/2017 8:54 AM
31	Prosser Lakeview	3/28/2017 8:53 AM
32	Prosser	3/28/2017 8:50 AM
33	Glenshire	3/28/2017 7:56 AM
34	Alpine meadows	3/28/2017 7:54 AM

Truckee/Donner Summit Transportation Community Survey

35	Tahoe Donner	3/28/2017 7:35 AM
36	Glenshire	3/28/2017 7:26 AM
37	Glenshire	3/28/2017 5:35 AM
38	Downtown Truckee	3/27/2017 9:49 AM
39	Armstrong Tract	3/27/2017 6:05 AM
40	Sierra Meadows	3/26/2017 4:14 AM
41	Glenshire	3/26/2017 1:51 AM
42	glenshire	3/25/2017 2:00 AM
43	Tahoe-Donner	3/24/2017 2:08 PM
44	Incline	3/24/2017 11:53 AM
45	Sierra Meadows	3/24/2017 11:26 AM
46	tahoe donner	3/24/2017 9:54 AM
47	Donner Lake, north shore	3/24/2017 8:32 AM
48	Prosser Lakeview Estates	3/24/2017 7:42 AM
49	glenshire	3/24/2017 5:46 AM
50	Dollar Hill, Tahoe City	3/24/2017 4:13 AM
51	Gray's Crossing	3/24/2017 3:48 AM
52	Glenshire	3/24/2017 3:30 AM
53	Glenshire	3/24/2017 3:15 AM
54	Lahontan	3/24/2017 2:29 AM
55	Coachland	3/24/2017 2:14 AM
56	sierra meadows	3/24/2017 1:52 AM
57	Armstrong Tract	3/24/2017 1:47 AM
58	tahoe donner	3/24/2017 1:17 AM
59	Gateway	3/24/2017 1:00 AM
60	Glenshire	3/24/2017 12:39 AM
61	Glenshire	3/24/2017 12:32 AM
62	Rolling hills ranchos	3/24/2017 12:25 AM
63	I live in Reno, but work full time in Truckee	3/23/2017 11:53 PM
64	Tahoe Donner	3/23/2017 11:38 PM
65	Glenshire	3/23/2017 11:27 PM
66	Glenshire	3/23/2017 11:07 PM
67	Tahoe Donner	3/23/2017 10:55 PM
68	Tahoe Donner	3/23/2017 10:42 PM
69	Glenshire	3/23/2017 10:09 PM
70	Reno, NV	3/23/2017 9:43 PM
71	Tahoe Vista	3/23/2017 4:14 PM
72	Grays crossing	3/23/2017 3:13 PM
73	Tahoe Donner	3/23/2017 2:46 PM
74	Pannonia Ranchos	3/23/2017 1:29 PM
75	Sierra meadows	3/23/2017 1:05 PM

Truckee/Donner Summit Transportation Community Survey

76	We are parttimers, living here about 40 - 45% of the year. Our home is in Ponderosa Ranchos and we do not rent it out.	3/23/2017 1:02 PM
77	Donner Lake	3/23/2017 12:43 PM
78	Juniper Hill	3/23/2017 12:27 PM
79	Tahoe Donner	3/23/2017 12:24 PM
80	Glenshire	3/23/2017 12:11 PM
81	Prosser Lakeview Estates	3/23/2017 12:06 PM
82	Olympic heights	3/23/2017 11:45 AM
83	Historic Truckee. Stonebridge.	3/23/2017 11:40 AM
84	Truckee Donner Senior Center (Estates Dr.)	3/23/2017 11:33 AM
85	prosser lakeview estates	3/23/2017 11:32 AM
86	Donner Trail	3/23/2017 11:27 AM
87	Glenshire, Truckee	3/23/2017 11:26 AM
88	Armstrong Tract	3/23/2017 10:46 AM
89	Tahoe Donner	3/23/2017 10:23 AM
90	Tahoe Donner	3/23/2017 10:10 AM
91	Winter creek	3/23/2017 9:57 AM
92	Boulders	3/23/2017 9:35 AM
93	Glenshire	3/23/2017 9:18 AM
94	Tahoe Donner	3/23/2017 9:17 AM
95	Boca Bluff (inside but not controlled by The Meadows)	3/23/2017 9:05 AM
96	Tahoe Donner	3/23/2017 9:02 AM
97	donner lake	3/23/2017 8:37 AM
98	Prosser Lakeview Estates	3/23/2017 8:24 AM
99	Armstrong	3/23/2017 8:21 AM
100	Ponderosa Ranchos	3/23/2017 8:10 AM
101	Sierra Meadows	3/23/2017 8:08 AM
102	Ponderosa Palisades (or more general Sierra Meadows)	3/23/2017 1:20 AM
103	Truckee-Glenshire	3/23/2017 12:20 AM
104	Mt. Rose Highway	3/22/2017 9:12 AM
105	Glenshire	3/22/2017 8:26 AM
106	Comstock	3/22/2017 7:46 AM
107	Ponderosa Palisades	3/22/2017 7:04 AM
108	Truckee	3/22/2017 6:09 AM
109	The Kingswood Area in Tahoe Vista	3/22/2017 5:49 AM
110	Olympic Heights	3/22/2017 5:30 AM
111	Prosser Heights	3/22/2017 5:28 AM
112	Schaffer's Mill	3/22/2017 5:22 AM
113	Armstrong Tract	3/22/2017 5:11 AM
114	Tahoe Donner	3/22/2017 4:51 AM
115	Tahoe Donner	3/22/2017 4:23 AM

Truckee/Donner Summit Transportation Community Survey

116	N/A	3/22/2017 4:08 AM
117	Tahoma	3/22/2017 4:01 AM
118	Sierra Meadows	3/22/2017 4:00 AM
119	Alpine Meadows	3/22/2017 2:26 AM
120	Soda Springs/ donner summit	3/22/2017 1:31 AM
121	Olympic heights	3/22/2017 12:37 AM
122	Tahoe Donner	3/21/2017 11:06 PM
123	Glenshire	3/21/2017 9:26 PM
124	Tahoe Donner, near Trout Creek Rec Center	3/21/2017 5:07 PM
125	Alpine	3/21/2017 4:36 PM
126	Kings Beach	3/21/2017 4:07 PM
127	Glenshire	3/21/2017 3:30 PM
128	Live and own a home in Prosser Lakeview	3/21/2017 2:44 PM
129	Tahoe Vista	3/21/2017 2:22 PM
130	Downtown	3/21/2017 2:19 PM
131	Old town Truckee	3/21/2017 1:53 PM
132	Tahoe Donner	3/21/2017 1:46 PM
133	Armstrong tract	3/21/2017 1:33 PM
134	Sierra Meadows	3/21/2017 1:01 PM
135	Sierra Meadows	3/21/2017 12:49 PM
136	Olympic heights	3/21/2017 12:46 PM
137	Donner summit	3/21/2017 12:34 PM
138	West end donner lake	3/21/2017 12:14 PM
139	Northstar	3/21/2017 11:45 AM
140	Cedar Flat	3/21/2017 10:51 AM
141	Armstrong	3/21/2017 9:13 AM
142	Sierra Meadows	3/21/2017 9:03 AM

Truckee/Donner Summit Transportation Community Survey

Q3 What is the nearest major cross street to your home or where you are staying?

Answered: 140 Skipped: 5

#	Responses	Date
1	Palisades Drive and Brockway Road	4/30/2017 6:19 AM
2	Thelin	4/26/2017 6:11 AM
3	Dorchester Ave	4/25/2017 8:31 AM
4	Deerfield Drive	4/13/2017 7:21 AM
5	Christy	4/8/2017 7:46 AM
6	Lake Forest Road	4/7/2017 1:45 PM
7	The Grid	4/4/2017 1:40 PM
8	Martis & brockway	4/4/2017 1:07 PM
9	89/East Alder Creek/Rainbow	4/4/2017 12:03 AM
10	Main Street	4/2/2017 6:51 AM
11	Somerset	4/1/2017 10:03 AM
12	Lester Beach Rd	4/1/2017 5:45 AM
13	Dorchester/Glenshire dr.	3/31/2017 5:25 AM
14	Hwy 89	3/31/2017 3:55 AM
15	Hwy 89	3/31/2017 3:12 AM
16	Kardin	3/30/2017 11:43 AM
17	old mill	3/29/2017 11:16 AM
18	Palisades & Old Brockway	3/29/2017 6:57 AM
19	Lardin	3/29/2017 6:06 AM
20	The two entrances of Sierra Meadows	3/29/2017 2:27 AM
21	Donnington and the Strand	3/29/2017 2:15 AM
22	??	3/29/2017 1:56 AM
23	Highway 89	3/29/2017 1:28 AM
24	Rainbow Rd.	3/29/2017 1:11 AM
25	Donner Pass Road	3/29/2017 12:28 AM
26	Hwy 89	3/29/2017 12:01 AM
27	Lausanne	3/28/2017 1:15 PM
28	Donner Lake Rd	3/28/2017 10:11 AM
29	Dorchester	3/28/2017 8:54 AM
30	Rainbow Drive	3/28/2017 8:53 AM
31	89/Alder Creek	3/28/2017 8:50 AM
32	Glenshire Drive and The Strand	3/28/2017 7:56 AM
33	3 miles from my house. at the river ranch 89 and alpine meadows rd	3/28/2017 7:54 AM
34	Pathway and Hansel	3/28/2017 7:35 AM

Truckee/Donner Summit Transportation Community Survey

35	Rolands and Dorchester	3/28/2017 7:26 AM
36	The Strand and Donnington	3/28/2017 5:35 AM
37	West River	3/27/2017 9:49 AM
38	Donner Pass Road	3/27/2017 6:05 AM
39	Palisades or silver fur	3/26/2017 4:14 AM
40	Glenshire and Courtenay	3/26/2017 1:51 AM
41	glenshire and the strand	3/25/2017 2:00 AM
42	Lausanne	3/24/2017 2:08 PM
43	Highway 28	3/24/2017 11:53 AM
44	Palisades	3/24/2017 11:26 AM
45	northwoods blvd	3/24/2017 9:54 AM
46	Summit Drive	3/24/2017 8:32 AM
47	Pine Forest and E. Alder Creek	3/24/2017 7:42 AM
48	the strand and glenshire road	3/24/2017 5:46 AM
49	Dollar Dr.	3/24/2017 4:13 AM
50	Alder/89	3/24/2017 3:48 AM
51	Archery View	3/24/2017 3:30 AM
52	Dorchester Dr	3/24/2017 3:15 AM
53	Schaffer Mill Road	3/24/2017 2:29 AM
54	Pioneer Trail	3/24/2017 2:14 AM
55	brockway	3/24/2017 1:52 AM
56	Donner Pass Road	3/24/2017 1:47 AM
57	lausanne	3/24/2017 1:17 AM
58	DPR	3/24/2017 1:00 AM
59	Dorchester	3/24/2017 12:39 AM
60	Somerset/Glenshire Dr.	3/24/2017 12:32 AM
61	The Strand	3/24/2017 12:25 AM
62	work: Truckee Airport Way and Soaring Rd	3/23/2017 11:53 PM
63	Schussing	3/23/2017 11:38 PM
64	Glenshire Drive	3/23/2017 11:27 PM
65	Dorchester	3/23/2017 11:07 PM
66	Hansel and pathway	3/23/2017 10:55 PM
67	Davos	3/23/2017 10:42 PM
68	Glenshire and Dorchester	3/23/2017 10:09 PM
69	McCarren	3/23/2017 9:43 PM
70	National	3/23/2017 4:14 PM
71	Prosser dam rd	3/23/2017 3:13 PM
72	Northwoods	3/23/2017 2:46 PM
73	Prosser Dam Road	3/23/2017 1:29 PM
74	Martis valley rd	3/23/2017 1:05 PM
75	We are near Palisades Drive and Ponderosa Drive.	3/23/2017 1:02 PM

Truckee/Donner Summit Transportation Community Survey

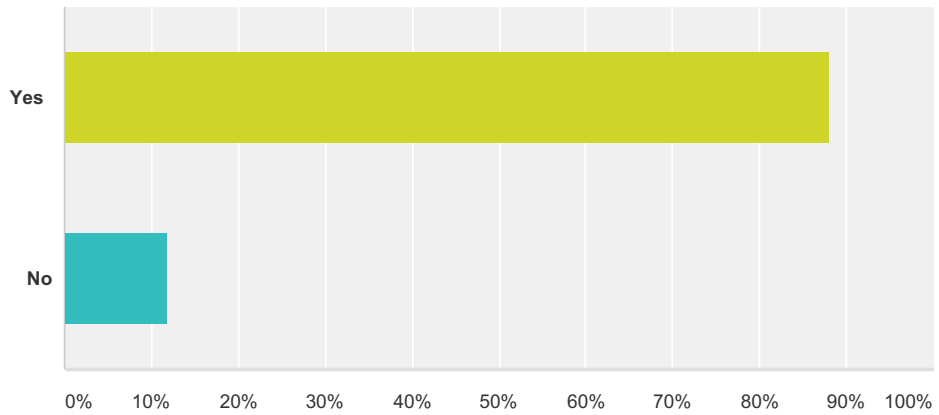
76	Summit	3/23/2017 12:43 PM
77	The Strand	3/23/2017 12:27 PM
78	Scshussing	3/23/2017 12:24 PM
79	Dorchester	3/23/2017 12:11 PM
80	Hey 89/Rainbow	3/23/2017 12:06 PM
81	Glenshire dr	3/23/2017 11:45 AM
82	E Jibbom and Keiser Ave.	3/23/2017 11:40 AM
83	Brockway Road	3/23/2017 11:33 AM
84	89 North & Rainbow	3/23/2017 11:32 AM
85	Meadow Way	3/23/2017 11:27 AM
86	Dorchester	3/23/2017 11:26 AM
87	Richards	3/23/2017 10:46 AM
88	Skislope Way / Alder Creek	3/23/2017 10:23 AM
89	Donner Pass Road/Northwoods	3/23/2017 10:10 AM
90	Estates	3/23/2017 9:57 AM
91	Highway 89	3/23/2017 9:35 AM
92	Glenshire and Woodbridge	3/23/2017 9:18 AM
93	Northwoods and Northwoods (Tahoe Donner clubhouse)	3/23/2017 9:17 AM
94	Stallion Way	3/23/2017 9:05 AM
95	Northwoods	3/23/2017 9:02 AM
96	exit 184	3/23/2017 8:37 AM
97	Highway 89	3/23/2017 8:24 AM
98	Donner Pass Road	3/23/2017 8:21 AM
99	Palisades	3/23/2017 8:10 AM
100	Old Brockway x Martis Valley	3/23/2017 8:08 AM
101	Ponderosa/Silverfir	3/23/2017 1:20 AM
102	Glenshire Drive	3/23/2017 12:20 AM
103	Mt. Rose Hwy and SR 431	3/22/2017 9:12 AM
104	Glenshire Drive	3/22/2017 8:26 AM
105	Ponderosa	3/22/2017 7:04 AM
106	Northwoods	3/22/2017 6:09 AM
107	Regency Way	3/22/2017 5:49 AM
108	Glenshire Drive	3/22/2017 5:30 AM
109	89 Northl	3/22/2017 5:28 AM
110	267	3/22/2017 5:22 AM
111	Donner Pass Road	3/22/2017 5:11 AM
112	Northwoods	3/22/2017 4:51 AM
113	Northwoods BLVD	3/22/2017 4:23 AM
114	N/A	3/22/2017 4:08 AM
115	Pine / Highway 89	3/22/2017 4:01 AM
116	Star Pine and Martis Valley Road	3/22/2017 4:00 AM

Truckee/Donner Summit Transportation Community Survey

117	89 and Alpine Meadows rd	3/22/2017 2:26 AM
118	Donner pass road	3/22/2017 1:31 AM
119	Glenshire dr	3/22/2017 12:37 AM
120	Northwoods and Northwoods	3/21/2017 11:06 PM
121	Dorchester	3/21/2017 9:26 PM
122	Northwoods & Muhlebach way	3/21/2017 5:07 PM
123	89 & Alpine Meadows Rd	3/21/2017 4:36 PM
124	Coon	3/21/2017 4:07 PM
125	Somerset	3/21/2017 3:30 PM
126	Pine Forest Rd and Rainbow	3/21/2017 2:44 PM
127	North Lake Blvd	3/21/2017 2:22 PM
128	HWY 89	3/21/2017 2:19 PM
129	Donner Pass Rd.	3/21/2017 1:53 PM
130	Donner Trail Road and Donner Pass Road	3/21/2017 1:46 PM
131	Donner Pass are and Old Highway Rd	3/21/2017 1:33 PM
132	Golden Pine	3/21/2017 1:01 PM
133	Brockway/Palisades	3/21/2017 12:49 PM
134	Olympic Blvd and glenshire drive	3/21/2017 12:46 PM
135	Donner pass rd	3/21/2017 12:34 PM
136	Donner pass rd and south shore drive	3/21/2017 12:14 PM
137	267	3/21/2017 11:45 AM
138	HWY 28	3/21/2017 10:51 AM
139	Donner Pass Rd and Highway	3/21/2017 9:13 AM
140	Brockway and Martis Valley	3/21/2017 9:03 AM

Q4 Do you have a car in Truckee?

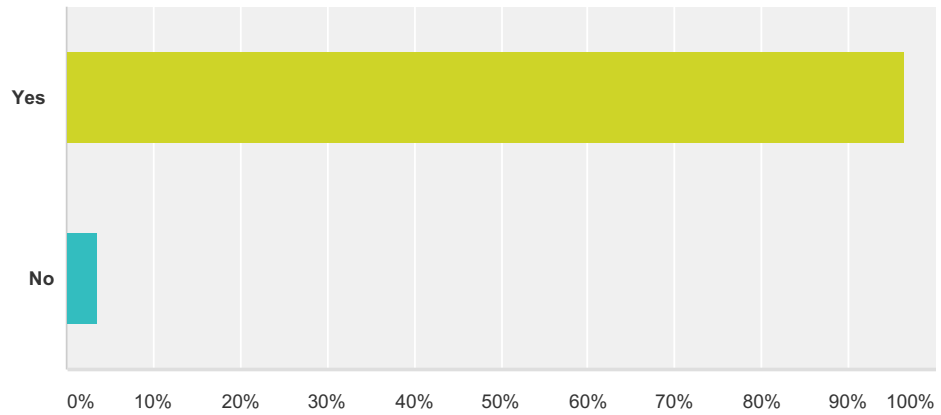
Answered: 142 Skipped: 3



Answer Choices	Responses	
Yes	88.03%	125
No	11.97%	17
Total		142

Q5 Do you have a valid driver's license?

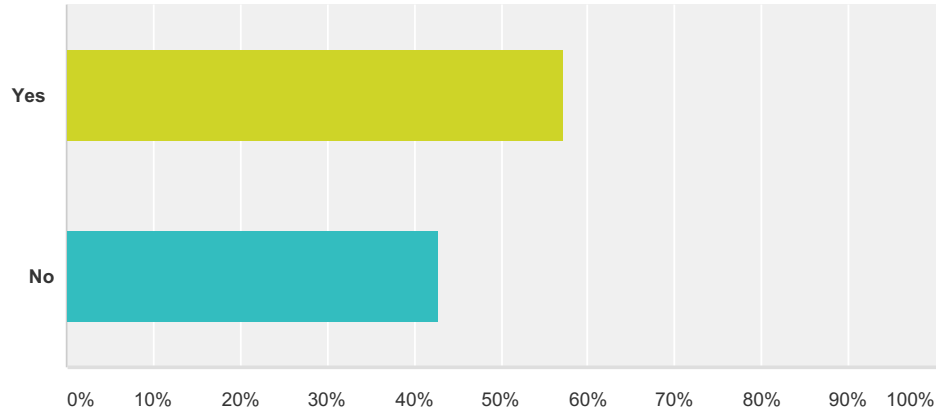
Answered: 143 Skipped: 2



Answer Choices	Responses
Yes	96.50% 138
No	3.50% 5
Total	143

Q6 Have you ever ridden Truckee Tahoe Area Regional Transit TART (local public transit)?

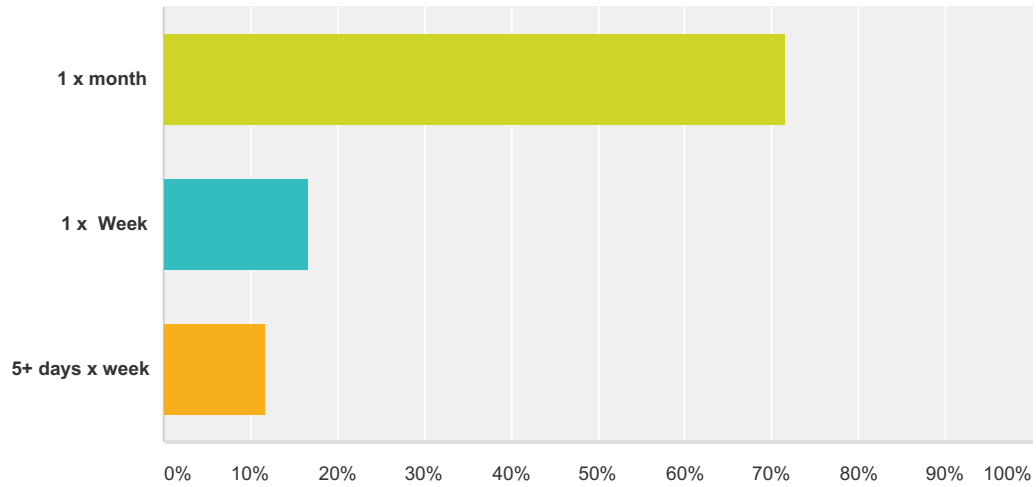
Answered: 145 Skipped: 0



Answer Choices	Responses
Yes	57.24% 83
No	42.76% 62
Total	145

Q7 How often do you ride TART services?

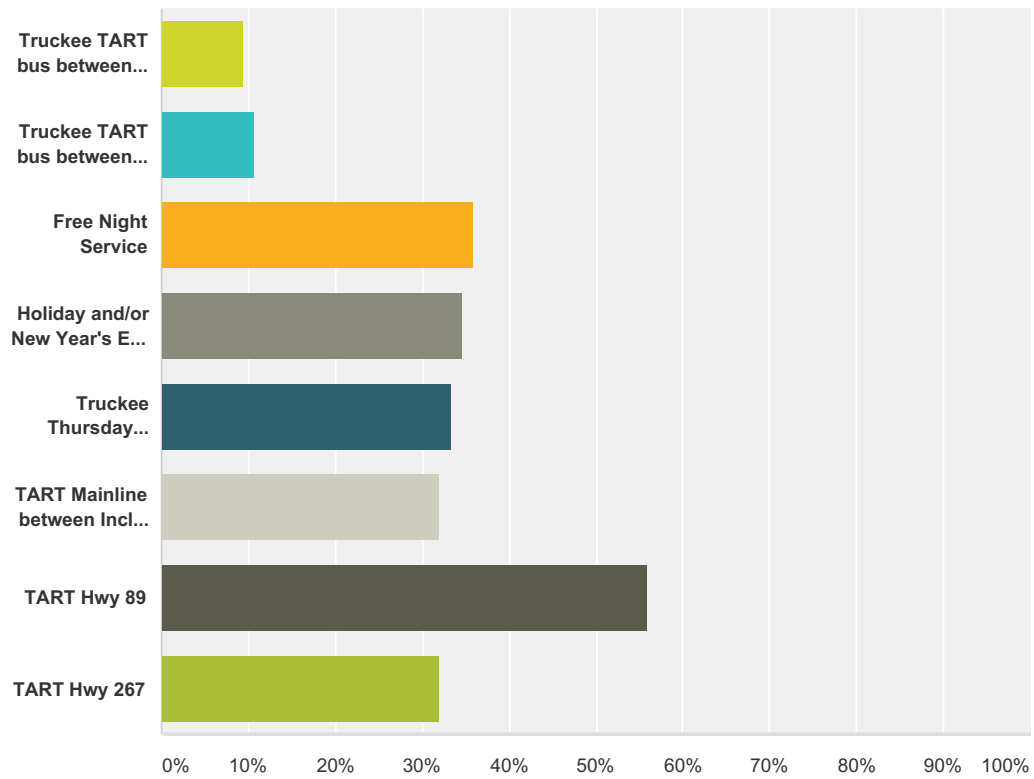
Answered: 60 Skipped: 85



Answer Choices	Responses	
1 x month	71.67%	43
1 x Week	16.67%	10
5+ days x week	11.67%	7
Total		60

Q8 Which service/routes have you ridden in the past?

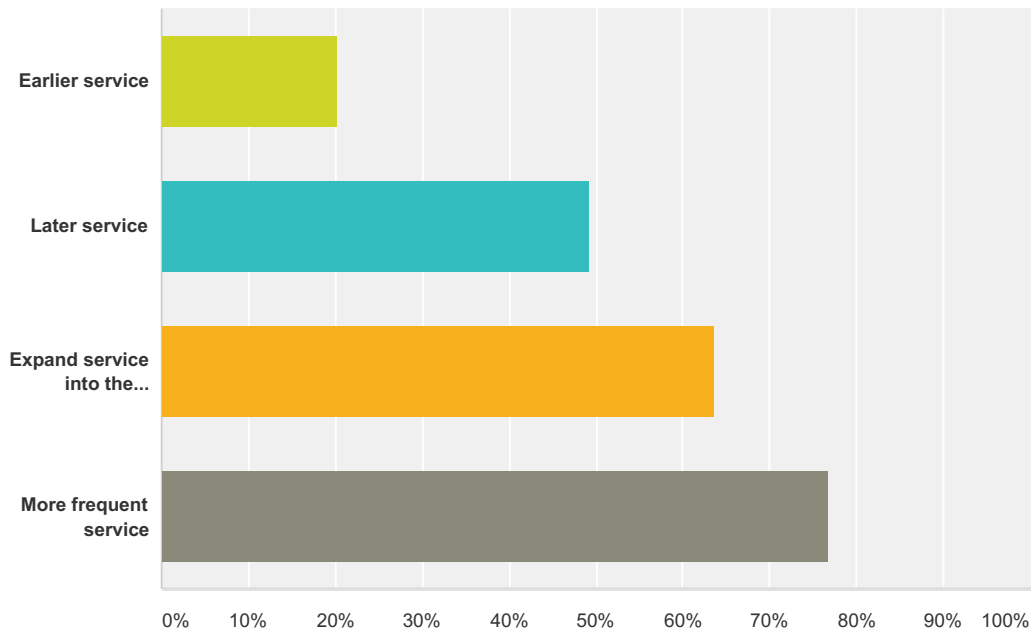
Answered: 75 Skipped: 70



Answer Choices	Responses
Truckee TART bus between Truckee and Donner Summit	9.33% 7
Truckee TART bus between Truckee and Donner Lake	10.67% 8
Free Night Service	36.00% 27
Holiday and/or New Year's Eve Shuttle	34.67% 26
Truckee Thursday Shuttle	33.33% 25
TART Mainline between Incline Village and West Shore	32.00% 24
TART Hwy 89	56.00% 42
TART Hwy 267	32.00% 24
Total Respondents: 75	

Q9 How could public transit improve to better serve this community?

Answered: 69 Skipped: 76



Answer Choices	Responses
Earlier service	20.29% 14
Later service	49.28% 34
Expand service into the neighborhoods	63.77% 44
More frequent service	76.81% 53
Total Respondents: 69	

#	Other (please specify)	Date
1	Routing/Scheduling Regular service to the ski areas	4/13/2017 7:22 AM
2	On time arrival On Time Service! First world transportation services must have drivers who are the slaves to the time table. I don't care if you only run your buses every three hours, when the time table says the driver should be there, they must be there. This includes , especially, trying to figure out some way for the buses to be on time during construction season. Time tables are not optional. They are the most important part of any mass trans system.	4/7/2017 1:52 PM
3	Routing/Scheduling longer service hours (i.e. service to the Amtrak station in Truckee even if Amtrak train service is delayed after 5:30 pm - so that arriving passengers can travel by public transit to North Tahoe)	4/4/2017 3:53 PM
4	Routing/Scheduling Get to my direct destination faster. Example: for an appointment/work/ just gets there without any trouble of sitting for almost one hour on a bus.. wich on a car can take a lot of quicker!	4/4/2017 1:44 PM
5	Routing/Scheduling keep free night rider throughout all year	3/29/2017 11:17 AM
6	Fares/payment system Seasonal bus passes	3/29/2017 1:29 AM
7	Routing/Scheduling until midnight on Friday, Sat	3/29/2017 12:04 AM
8	Safety/Amenities Better signage and bus shelters on the summit	3/28/2017 8:53 AM
9	Routing/Scheduling Incline to crystal bay at night	3/24/2017 11:54 AM

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10	On time arrival More reliable on snow days	3/24/2017 11:34 AM
11	Routing/Scheduling More direct between Tahoe City and Truckee. No Squaw Valley. No Northstar.	3/24/2017 4:18 AM
12	Routing/Scheduling Some night service to and from Truckee .	3/24/2017 1:03 AM
13	Routing/Scheduling Ensure that stops happen close to areas in town where there are large concentrations of people who would likely benefit from transit (i.e. mobile home parks in town)	3/24/2017 12:18 AM
14	Safety/Amenities Information on arrivals at each stop	3/23/2017 4:15 PM
15	Routing/Scheduling Regular service along the Truckee Thursday route that follows Martis Valley Road to Ponderosa and then out onto Brockway Road via Palisades Drive.	3/23/2017 1:06 PM
16	On time arrival Maintain on-time service.	3/23/2017 11:42 AM
17	Safety/Amenities It's impossible to use TART from Glenshire, and even if you wanted to take TART to Tahoe City, where do you legally leave your car in Truckee? Safeway parking lot is not really legal parking.	3/23/2017 11:33 AM
18	Fares/payment system Make it free	3/23/2017 1:22 AM
19	General feedback Good for now.	3/22/2017 9:16 AM
20	Routing/Scheduling feeder lines for access to routes	3/22/2017 6:10 AM
21	Routing/Scheduling The bus system MUST start offering earlier and more frequent options, especially if public transit is ever going to be a viable method of transportation in a town already clogged with too much traffic.	3/22/2017 5:15 AM
22	Routing/Scheduling Safety/Amenities I've had busses drive right past me at TART stops, leaving me to either walk home for an hour in freezing temps or stand and wait an hour for the next bus in freezing temps. More frequent service would help long waits.	3/22/2017 2:30 AM
23	Routing/Scheduling More services to the ski resorts and more often	3/22/2017 12:38 AM
24	Routing/Scheduling Service from Glenshire to west end beach. Another line from tahoe donner to airport	3/21/2017 9:28 PM
25	Routing/Scheduling I tried using the bus. Unfortunately it would require my employer to compromise their business / business hours to accommodate the bus schedule because the bus doesn't run late enough. I know this is primarily about Donner Summit area, but it goes for the entire region. Additionally, the 89 route is problematic in the winter for those of us who don't work at Squaw because we have to plan for extreme traffic (& weather) so the bus can route all the way into Olympic Valley. If someone lives in Tahoe City (for ex) and works in Truckee - this renders the bus pretty useless. There needs to be an "express" option that bypasses Squaw Valley rd during commute hours IMO. During the week I tried to take the bus, I ended up successfully taking it in the morning 1x! And I was late for work and then had to leave early from work to catch the last bus. I hitchhiked thereafter.	3/21/2017 4:43 PM
26	Routing/Scheduling More busses	3/21/2017 1:55 PM
27	Routing/Scheduling Ski shuttles every 15 minutes	3/21/2017 1:47 PM
28	On time arrival Routing/Scheduling Not cuttin service, being consistent, actually providing a professional transit system. Tart is a joke.	3/21/2017 1:03 PM
29	Routing/Scheduling I would definitely use it at night to go out to dinner, bars, etc as a safe way to get home.	3/21/2017 12:49 PM
30	On time arrival Routing/Scheduling Run on time/ more stops	3/21/2017 12:16 PM

Q10 Do you have any other suggestions as to how transit could better serve Eastern Nevada County?

Answered: 45 Skipped: 100

#	Responses	Date
1	Routing/Scheduling Smaller Buses/ More frequent	4/26/2017 6:12 AM
2	Timespan Bus service needs to run into the evening - late into the evening.	4/13/2017 7:22 AM
3	On time arrival Priority needs to always be on having the buses and drivers and having them show up ON TIME. There's just no other way. If people can't count on their buses being there then they aren't going to use the system. Simple as that. Millions have been spent in this area servicing construction contractors for any number of totally pointless or questionably necessary projects, much at the expense of real transportation needs. We don't need more "infrastructure" , we need dependable service.	4/7/2017 1:52 PM
4	Demand management congestion pricing on chokepoint/bottlenecks to discourage automobile travel and encourage public transit; keep the Sierras green!	4/4/2017 3:53 PM
5	Routing/Scheduling Just getting to our destination faster and directly without taking other routes that have no point in going and taking longer to be at the destination!	4/4/2017 1:44 PM
6	Timespan please keep the free night rider all year	3/29/2017 11:17 AM
7	Demand management It would be wonderful to create a transit only lane on 89 and Donner Pass Road somehow, lol	3/29/2017 12:29 AM
8	Routing/Scheduling Timing of bus routes should better consider work schedules, when people go skiing, seasonality.	3/28/2017 8:53 AM
9	Routing/Scheduling The only time I have taken TART was from the airport to the Women's March in King's Beach. It was a great reason to try out the TART system. I would use it more if it were convenient to do so from Glenshire. I haven't used the Truckee Thursday shuttle because the earliest return time is too late for me to do with a small child that needs to get home early for bedtime. If there were an earlier trip to get us home, my family would take the shuttle then.	3/28/2017 8:00 AM
10	On time arrival Safety/Amenities I use the bus stop near the 7-11 on Brockway. There's no bus stop and the street isn't well plowed forcing all of the riders to stand in the street on snow days. It's really icy at the intersection and we regularly watch cars slide through it. Also, the bus is late nearly every morning. I ride the first route of the day and I'm supposed to be picked up at like 7:03 but the bus often isn't there until 7:20, even on clear days. On snow days, some drivers start their work day at the normal time even though they have additional work to chain up the bus On snow days, there should be more buses to keep the schedule closer. I've had to wait more than an hour and a half for a bus to show up on a snow day. If it can't be reliable then I can't use it to get to work Buses should run more often than once per hour. It forces people to go in super early or drive. Guess which one most people choose?	3/24/2017 11:34 AM
11	Fares/Payment System Routing/Scheduling make sure stops are close to key community buildings and services: Rec center, library, courthouse, hosp., sierra college, school, DMV etc. Senior discounts if you dont have them already. A good pass system.	3/24/2017 5:51 AM
12	Routing/Scheduling Squaw Valley/Alpine to service their employees and guest as does Northstar.	3/24/2017 4:18 AM
13	Routing/Scheduling Truckee needs to be connected to the rest of the North Shore via night rider and/or later service. Service needs to be more receptive to locals living and working in neighborhoods and have service that corresponds to their working hours. Truckee is not a 9-5 town! Need to get off Donner Pass Rd to side areas that people actually need to go to	3/24/2017 3:20 AM
14	Fares/Payment System On time arrival Routing/Scheduling Safety/Amenities No reason for the first run to be late and it always is if it's snowing. The driver should arrive early to chain up so everyone on the bus isn't late to work. The app that shows where the bus is isn't reliable. Add more buses on busy days and more frequent buses every day. Add a bus shelter at brockway and palisades. There is one on the side that no one uses at that intersection. Everyone is going to Northstar, not the 1 block to downtown. Remove Lahontan stop on the 267 route, it adds too much time in getting to Northstar. Have system where people can buy tickets before they get on the bus so they don't take so long to load up. Or make them free like most resort towns! Have a system for skis and boards so they aren't flying all over the bus. Figure out how to accomodate more bikes.	3/24/2017 2:00 AM

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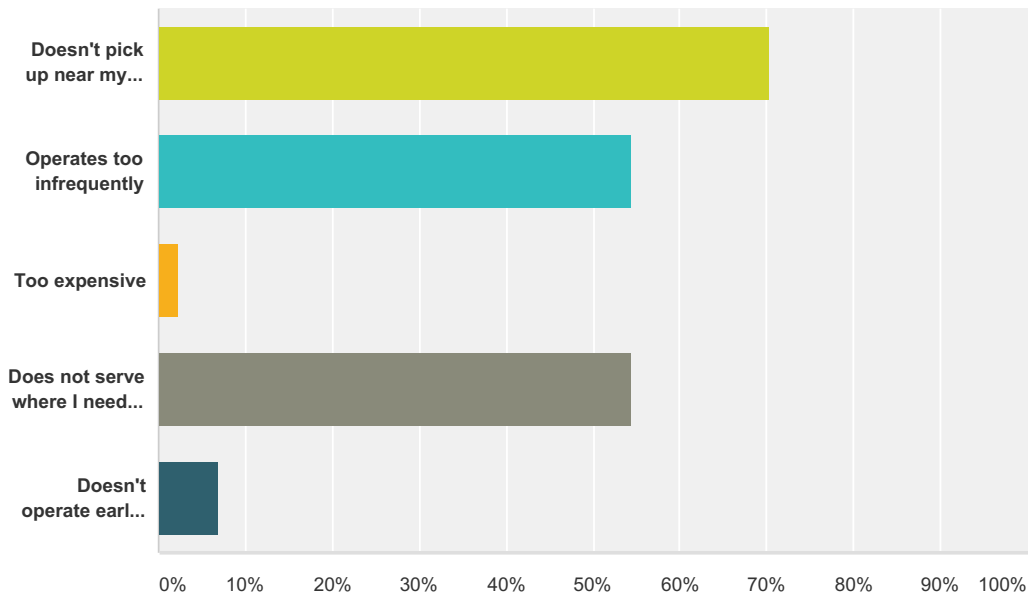
15	Demand management Dedicated bus lane on crowded days on 89.	3/24/2017 1:03 AM
16	Routing/Scheduling Ensure that Nevada County transit lines align with TART/Placer transit lines for connected service to Northstar and Highway 89.	3/24/2017 12:18 AM
17	Fares/Payment System Routing/Scheduling Fast, free and fun	3/23/2017 11:28 PM
18	Demand management I am happy that you are making this effort. I would like to see more transit options to keep I less cars in the Tahoe area. Vail and beaver creek have more shuttle service from the airport to prevent the need for cars at all once you arrive for a ski vacation	3/23/2017 11:10 PM
19	Routing/Scheduling Add smaller buses to the neighborhoods.	3/23/2017 4:15 PM
20	Routing/Scheduling I have only used this service one time but that was not an option above. However, if this type of service was available regularly, I would use it to go into town, transfer, and then shop at Safeway, etc. I have also used the bus from Tahoe City to Emerald Bay. In general, if we have to drive our car to catch a bus/trolley, then we may as well drive it into town and leave out the bus.	3/23/2017 1:06 PM
21	General feedback I usually take Dial a Ride and they are very, very good. I am an older passenger and need help	3/23/2017 11:40 AM
22	Routing/Scheduling Yes. Residents will never be able to give up using their individual vehicles, which 80% of the time have just one person in the car> We need public transportation at times we go to work, school, play -leaving from a central point in our neighborhoods. There is limited parking everywhere now; I work at the hospital. Difficult to park there! Employees could ride public transport, instead of taking up parking spots that patients could use. Less gas used, less traffic, less air pollution.	3/23/2017 11:33 AM
23	Routing/Scheduling Work with Amtrak to develop routes from Reno or the bay at a more consistent rate.	3/23/2017 8:25 AM
24	On time arrival Be more punctual.	3/23/2017 8:23 AM
25	Fares/Payment System Provide free service.	3/23/2017 1:22 AM
26	Safety/Amenities Is there an App to get information and schedules? I tried searching for one on my I-phone 7	3/22/2017 9:16 AM
27	Routing/Scheduling More service stops, there are no bus stops in Glenshire, only dial a ride.	3/22/2017 8:29 AM
28	see #9	3/22/2017 6:10 AM
29	Fares/Payment System Routing/Scheduling find a method to provide free, frequent service, similar to other resort towns.	3/22/2017 4:24 AM
30	Routing/Scheduling It would be great if the TART had later connections to get to and from Tahoe City. I work in Tahoe City, so if I take the bus, I have to leave before 5 to take the 4:50pm. It would be great to have service ideally until 2am like the TART does on other routes, but at least until 10 or 11pm so you can go out and enjoy dinner. It would also be great if there was better connection from the 267 route on TART to the Highway 89 route. If I get on the bus in Sierra Meadows to try to get to Squaw, you have to wait at the train station for 30 minutes	3/22/2017 4:03 AM
31	Routing/Scheduling More regular busses would be key so that if you miss one bus (it's early, or just doesn't stop to pick you up) then you aren't left stranded. Additionally, if busses left more often overnight and the night rider service continued into spring and summer then that would help curb drink driving and fatalities in the area. Too many people drive home absolutely drunk off their faces because the bus is unreliable, inconsistent, and stops night service. The cost to operate would be greater financially - but doing so would save lives (and prevent DUI's)	3/22/2017 2:30 AM
32	Routing/Scheduling Just fix our winter traffic problem. Do more services to the ski resorts every 15-30 minutes.	3/22/2017 12:38 AM
33	Fares/Payment System Free service...like Aspen	3/21/2017 11:08 PM
34	Routing/Scheduling Two lines north south east west see above	3/21/2017 9:28 PM

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35	<p>On time arrival Routing/Scheduling The bus does not run frequently enough to make it convient to take. It would be much better if it ran every half hour or 15 min. The bus does not always run on time, making it an unreadable option for going to work. Having buses that go to the neighborhoods, even just to the main streets in neighborhoods, such as Northwoods in TD, would make the bus a much more useable option for residents. So few of truckee's residents live in downtown truckee where the bus service. my husband & I have only 1 awd car, and hoped to make use of public transportation this winter, but it was so unreliable that after a few uses we turned to carpooling, but that was often hard to organize. I work at Northstar, an the bus between Northstar & town is alright, but I would typically have to wait in town for a ride up TD, or often ended up hitchhiking up TD. To get to the bottom of TD, I needed to take the Donner summit bus, which never seemed to be running when I needed it. My husband works at Boreal/Woodward, and he never took the Donner summit bus as it seemed so unreliable. There seems to be a lot of people in Northwoods who would take a bus if available. I also think an earlier start would be useful for people going to work. For me, the 7am bus from truckee to Northstar was cutting it close if the bus did not run on time. We previously lived in South Lake Tahoe, and both my husband & myself took the bus daily for work. There is a lot of frustration among the population with the amount of cars on the roads a peak times, particurally on 267 and 89 with Northstar and Squaw traffic, and issues with full parking at these locations. I try to do my part by not adding another car to the road, but found this winter that TART was such a hassle to use that it was a waste of my time. I would like to have access to a more efficient, resident friendly system. I would use the bus daily as transport to work if the routes came up to Tahoe Donner, and if then ran more frequently.</p>	3/21/2017 5:27 PM
36	<p>Routing/Scheduling Run all year long to truckee, run every line late, run a damn night rider to incline already!!!!!!!</p>	3/21/2017 4:08 PM
37	<p>Awareness Routing/Scheduling Advertise. Many locals have no clue as to how inexpensive it is to travel. As well as the frequency of trips on your current schedule.</p>	3/21/2017 3:32 PM
38	<p>Fares/Payment System Routing/Scheduling Supply free transfers. I have to take the bus from Tahoe Vista to the stop at Ace Hardware and then transfer to the 267 bus. It's silly that I have to pay 3.50 or pay for a bus pass when I don't need a day pass. A simple transfer would be great. Supplying back up shuttles or shuttles twice an hour during peak season, especially to shuttles that hit Northstar/Squaw even if it's just the 7-9am busses and 4-5 when all the seasonal employees get off. The busses are over crowded, sometimes at capacity, or if they're over capacity you have to wait an hour for the next bus. It's really uncomfortable and sometimes feels unsafe. Anywho! Thanks for your time and consideration.</p>	3/21/2017 2:28 PM
39	<p>Demand management Routing/Scheduling Bus specific lanes and more frequent service</p>	3/21/2017 1:47 PM
40	<p>See last comment.</p>	3/21/2017 1:03 PM
41	<p>Routing/Scheduling More frequent schedules would help with locals to be able to take public transportation to/from work on more convenient schedules. Too hard to work with at 1x per hour.</p>	3/21/2017 12:50 PM
42	<p>Routing/Scheduling I commute to Reno everyday, it would be amazing if there was some kind of public transit between truckee and Reno</p>	3/21/2017 12:49 PM
43	<p>Routing/Scheduling More frequent loops, in summer too</p>	3/21/2017 12:35 PM
44	<p>Routing/Scheduling Add stops. They are very far away from eachother. Being able to go for a hike around brokway summit would be great if you could get off the bus up there.</p>	3/21/2017 12:16 PM
45	<p>Routing/Scheduling Consistent scheduling of service</p>	3/21/2017 9:05 AM

Q11 Why do you not ride TART (public transit)? (Check all that apply)

Answered: 44 Skipped: 101



Answer Choices	Responses
Doesn't pick up near my house	70.45% 31
Operates too infrequently	54.55% 24
Too expensive	2.27% 1
Does not serve where I need to go	54.55% 24
Doesn't operate early enough	6.82% 3
Total Respondents: 44	

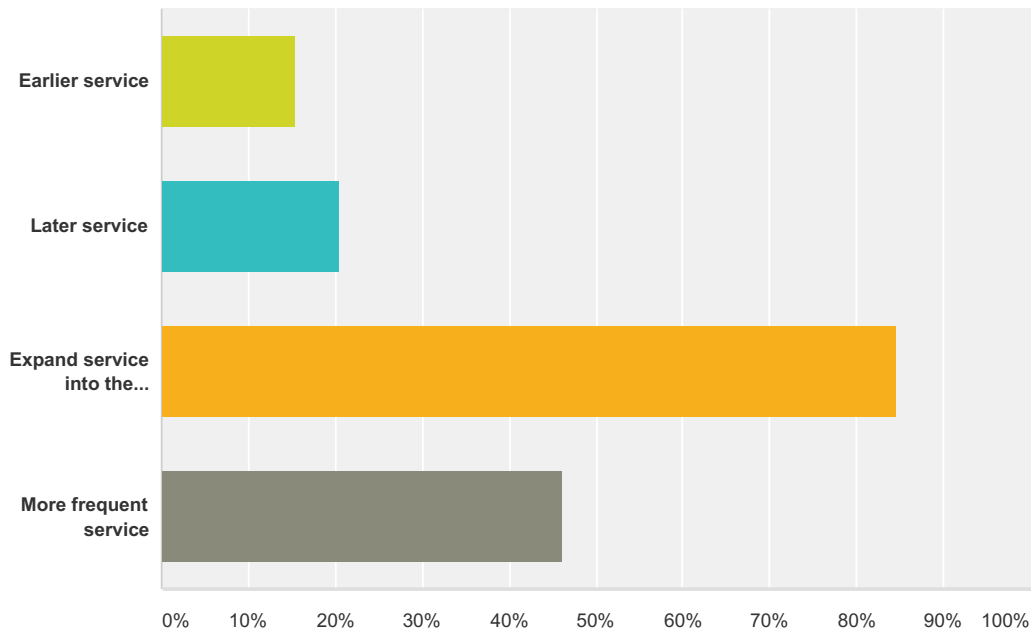
#	Other (please specify)	Date
1	Easier to just jump in my car and get where I'm going faster.	4/30/2017 6:22 AM
2	Potential groups arrive on Amtrak to go to Quincy during summer	4/2/2017 6:53 AM
3	I Plan to ride it in May	3/31/2017 3:56 AM
4	Dont really know anything about it, seems like it wouldn't stop everywhere I need when I need it	3/29/2017 6:59 AM
5	Not sure of availability from my home to my work	3/28/2017 7:36 AM
6	not convenient for my work and recreation needs	3/28/2017 5:36 AM
7	It's difficult to take public transportation with infants.	3/26/2017 1:52 AM
8	We drive or ride bikes	3/24/2017 7:43 AM
9	Car convenience and flexibility	3/24/2017 3:51 AM
10	No easy connections to Reno	3/24/2017 12:02 AM
11	No need	3/23/2017 11:39 PM
12	I have a carpool.	3/23/2017 3:15 PM

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13	Don't need it nor want it in my neighborhood	3/23/2017 2:49 PM
14	No need for public transit as I drive around town.	3/23/2017 1:29 PM
15	Is never on time, will pass you by while you're waiting at the stop, doesn't come	3/23/2017 12:49 PM
16	Because driving is easy and comfortable and there is parking available wherever I am going.	3/23/2017 11:37 AM
17	Honestly I don't know much about it. I've seen the buses, but I don't know the routes or where I'd pick it up besides the obvious stops downtown.	3/23/2017 9:21 AM
18	no need	3/23/2017 8:38 AM
19	I mostly drive around town for groceries, to schools, or to work meetings.	3/22/2017 7:05 AM
20	I drive my car everywhere	3/22/2017 5:50 AM
21	It's faster to drive	3/22/2017 1:32 AM

Q12 How could public transit improve to better serve this community?

Answered: 39 Skipped: 106



Answer Choices	Responses
Earlier service	15.38% 6
Later service	20.51% 8
Expand service into the neighborhoods	84.62% 33
More frequent service	46.15% 18
Total Respondents: 39	

#	Other (please specify)	Date
1	I'm not sure since I don't know the schedules and routes	4/30/2017 6:22 AM
2	Don't know yet	3/31/2017 3:56 AM
3	New types of service Other modes of transport, like a Tram?	3/29/2017 6:59 AM
4	Awareness Suggest letting residents know what is available	3/28/2017 7:36 AM
5	Routing/Scheduling more stops	3/27/2017 6:07 AM
6	Routing/Scheduling The TART bus comes nowhere near my house--very inconvenient.	3/24/2017 2:10 PM
7	NA	3/24/2017 7:43 AM
8	General feedback None - I'm not a fan of the transportation taxes bestowed upon tax payers and communities when there are no public transportation options within those communities	3/24/2017 3:51 AM
9	n/a	3/24/2017 1:18 AM
10	Routing/Scheduling NO Service in neighborhoods, pollution and noise	3/23/2017 2:49 PM
11	Don't know	3/23/2017 1:29 PM

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12	On time arrival Be on time. Be reliable. Have consistent hours for long enough to build a clientele and grow a population of non drivers in the area. I would loooove to not have to have a car	3/23/2017 12:49 PM
13	Rounting/Scheduling I would probably take a bus to go to the bars at night if I knew I could get home late in the evening.	3/23/2017 11:37 AM
14	Rounting/Scheduling Way to get to Sugar Bowl when Sugar Bowl parking is full.	3/23/2017 10:26 AM
15	On time arrival More reliable service	3/23/2017 8:11 AM
16	Demand Management Provide incentive to ride it.	3/22/2017 5:50 AM

Q13 Do you have any other suggestions as to how transit could better serve Eastern Nevada County?

Answered: 32 Skipped: 113

#	Responses	Date
1	Awareness I haven't checked out your website to see how/when I could use it which is my fault. Maybe make schedules easily accessible at places like grocery stores/ drug stores, places where people frequent.	4/30/2017 6:22 AM
2	Routing/Scheduling Offer some sort of shuttle to Quincy CA Hundreds arrive weekly from bay area to go to Oakland Feather River Camp	4/2/2017 6:53 AM
3	General feedback I spoke with Julia at the Tahoe City Transit Center - VERY nice and VERY helpful! What a great employee!	3/31/2017 3:56 AM
4	New types of service A mall light rail or tram network in Truckee would be great, regular service, hop on, off - that would encourage me to use more public transport. I used to live in Japan and never had a car, train, light rail, subway everywhere. If the service is there, people will use it.	3/29/2017 6:59 AM
5	Routing/Scheduling Frequent access to sugar bowl would make me consider it. I might use it in the summer if it came more often in general	3/28/2017 1:17 PM
6	Routing/Scheduling Connect with transport to Reno	3/28/2017 10:11 AM
7	On time arrival I tried to take the winter shuttle up to Sugar Bowl last year and the bus was over an hour late and there seemed to be a lot of confusion between the bus drivers operating that route. After that (I was about 2 hours late to work) I haven't tried to take any kind of Public Transit because I don't trust that it will get me where I need to go on time. However, I used to live in NYC and never owned a car until I moved to Truckee so I highly support a public transportation system.	3/28/2017 8:55 AM
8	Routing/Scheduling We love the free Truckee Thursday Shuttle. If there were TART access from Glenshire to town, I'm sure we would use it.	3/28/2017 7:27 AM
9	Routing/Scheduling Smaller routes	3/27/2017 9:50 AM
10	General feedback None - I'm not a fan of the transportation taxes bestowed upon tax payers and communities when there are no public transportation options within those communities. These funds could be better served elsewhere.	3/24/2017 3:51 AM
11	Routing/Scheduling Not really as we realize that servicing a outlying area such as ours would be terribly expensive without achieving a ridership level that would justify its support. Only possibly would be a feeder line to a central location ie train depot where transfers to other branches are available although necessary time to get to destination would be a huge deterrent.	3/24/2017 3:35 AM
12	Demand Management Stop building homes and hotels and you won't need the transit service!	3/24/2017 1:18 AM
13	Demand Management The only foreseeable way to get visitors (and maybe even locals) to ride buses is to strictly limit the number of vehicles allowed into the region, much as they do in Yosemite. Special permits could be issued for vehicles towing boats or motorhomes.	3/24/2017 12:42 AM
14	Routing/Scheduling Safety/Amenities Pick up in neighborhoods, Transit to Squaw valley and alpine meadows with ski racks.	3/24/2017 12:26 AM
15	Routing/Scheduling We have so many Nevada Co. residents who commute to Reno, and vice versa. A commuter bus service could make a big difference in quality of life, and reducing cars on the road. -Need a Truckee transit hub location that includes parking (like Tahoe City's). The Depot area is too congested to serve this need, and puts strain on downtown parking capacity. an off-site lot where peak traffic time traffic (e.g. squaw ski traffic) can be directed to park and shuttle is needed. For weekends, consider partnership to use parking at Truckee High School or Alder Creek Middle School, or elsewhere outside of downtown.	3/24/2017 12:02 AM
16	Safety/Amenities Dog friendly	3/23/2017 10:10 PM
17	Routing/Scheduling More ski hill stops; plus to-from Reno	3/23/2017 9:45 PM
18	General feedback None. If I need it, I know it's there. My kids have used it and it has never failed.	3/23/2017 3:15 PM

Q9/Q10 Summary: Do you have any other suggestions as to how transit could better serve Eastern Nevada County? (for those who DO ride TART) (note: responses that are in multiple categories appear in each category)

Awareness

Advertise. Many locals have no clue as to how inexpensive it is to travel. As well as the frequency of trips on your current schedule.

Demand Management/System Management

congestion pricing on chokepoint/bottlenecks to discourage automobile travel and encourage public transit; keep the Sierras green!

It would be wonderful to create a transit only lane on 89 and Donner Pass Road somehow, lol

Dedicated bus lane on crowded days on 89.

I am happy that you are making this effort. I would like to see more transit options to keep less cars in the Tahoe area. Vail and beaver creek have more shuttle service from the airport to prevent the need for cars at all once you arrive for a ski vacation

Bus specific lanes and more frequent service

Fares/Payment System

Provide free service.

Free service...like Aspen

Seasonal bus passes

Make it free

No reason for the first run to be late and it always is if it's snowing. The driver should arrive early to chain up so everyone on the bus isn't late to work. The app that shows where the bus is isn't reliable. Add more buses on busy days and more frequent buses every day. Add a bus shelter at brockway and palisades. There is one on the side that no one uses at that intersection. Everyone is going to Northstar, not the 1 block to downtown. Remove Lahontan stop on the 267 route, it adds too much time in getting to Northstar. Have system where people can buy tickets before they get on the bus so they don't take so long to load up. Or make them free like most resort towns! Have a system for skis and boards so they aren't flying all over the bus. Figure out how to accomodate more bikes.

make sure stops are close to key community buildings and services: Rec center, library, courthouse, hosp., sierra college, school, DMV etc. Senior discounts if you dont have them already. A good pass system.

Fast, free and fun

find a method to provide free, frequent service, similar to other resort towns.

Supply free transfers. I have to take the bus from Tahoe Vista to the stop at Ace Hardware and then transfer to the 267 bus. It's silly that I have to pay 3.50 or pay for a bus pass when I don't need a day pass. A simple transfer would be great.

Supplying back up shuttles or shuttles twice an hour during peak season, especially to shuttles that hit Northstar/Squaw even if it's just the 7-9am busses and 4-5 when all the seasonal employees get off. The busses are over crowded, sometimes at capacity, or if they're over capacity you have to wait an hour for the next bus. It's really uncomfortable and sometimes feels unsafe.

Anywho! Thanks for your time and consideration.

On Time Arrival

Priority needs to always be on having the buses and drivers and having them show up ON TIME. There's just no other way. If people can't count on their buses being there then they aren't going to use the system. Simple as that.

Millions have been spent in this area servicing construction contractors for any number of totally pointless or questionably necessary projects, much at the expense of real transportation needs. We don't need more "infrastructure" , we need dependable service.

Be more punctual.

On Time Service! First world transportation services must have drivers who are the slaves to the time table. I don't care if you only run your buses every three hours, when the time table says the driver should be there, they must be there. This includes , especially, trying to figure out some way for the buses to be on time during construction season. Time tables are not optional. They are the most important part of any mass trans system.

More reliable on snow days

Maintain on-time service.

The bus does not run frequently enough to make it convient to take. It would be much better if it ran every half hour or 15 min. The bus does not always run on time, making it an unreadable option for going to work. Having buses that go to the neighborhoods, even just to the main streets in neighborhoods, such as Northwoods in TD, would make the bus a much more useable option for residents. So few of truckee's residents live in downtown truckee where the bus service. my husband & I have only 1 awd car, and hoped to make use of public transportation this winter, but it was so unreliable that after a few uses we turned to carpooling, but that was often hard to organize. I work at Northstar, an the bus between Northstar & town is alright, but I would typically have to wait in town for a ride up TD, or often ended up hitchhiking up TD. To get to the bottom of TD, I needed to take the Donner summit bus, which never seemed to be running when I needed it. My husband works at Boreal/Woodward, and he never took the Donner summit bus as it seemed so unreliable. There seems to be a lot of people in Northwoods who would take a bus if available. I also think an earlier start would be useful for people going to work. For me, the 7am bus from truckee to Northstar was cutting it close if the bus did not run on time. We previously lived in South Lake Tahoe, and both my husband & myself took the bus daily for work. There is a lot of frustration among the population with the amount of cars on the roads a peak times, particurally on 267 and 89 with Northstar and Squaw traffic, and issues with full parking at these locations. I try to do my part by not adding another car to the road, but found this winter that TART was such a hassle to use that it was a waste of my time. I would like to have access to a more efficient, resident friendly system. I would use the bus daily as transport to work if the routes came up to Tahoe Donner, and if then ran more frequently.

No reason for the first run to be late and it always is if it's snowing. The driver should arrive early to chain up so everyone on the bus isn't late to work. The app that shows where the bus is isn't reliable. Add more buses on busy days and more frequent buses every day. Add a bus shelter at Brockway and Palisades. There is one on the side that no one uses at that intersection. Everyone is going to Northstar, not the 1 block to downtown. Remove Lahontan stop on the 267 route, it adds too much time in getting to Northstar. Have system where people can buy tickets before they get on the bus so they don't take so long to load up. Or make them free like most resort towns! Have a system for skis and boards so they aren't flying all over the bus. Figure out how to accommodate more bikes.

I use the bus stop near the 7-11 on Brockway. There's no bus stop and the street isn't well plowed forcing all of the riders to stand in the street on snow days. It's really icy at the intersection and we regularly watch cars slide through it.

Also, the bus is late nearly every morning. I ride the first route of the day and I'm supposed to be picked up at like 7:03 but the bus often isn't there until 7:20, even on clear days. On snow days, some drivers start their work day at the normal time even though they have additional work to chain up the bus

On snow days, there should be more buses to keep the schedule closer. I've had to wait more than an hour and a half for a bus to show up on a snow day. If it can't be reliable then I can't use it to get to work

Buses should run more often than once per hour. It forces people to go in super early or drive. Guess which one most people choose?

Not cutting service, being consistent, actually providing a professional transit system. TART is a joke.

Run on time/ more stops

Routing/Scheduling

Smaller Buses/ More frequent

Just getting to our destination faster and directly without taking other routes that have no point in going and taking longer to be at the destination!

Timing of bus routes should better consider work schedules, when people go skiing, seasonality.

The only time I have taken TART was from the airport to the Women's March in King's Beach. It was a great reason to try out the TART system. I would use it more if it were convenient to do so from Glenshire. I haven't used the Truckee Thursday shuttle because the earliest return time is too late for me to do with a small child that needs to get home early for bedtime. If there were an earlier trip to get us home, my family would take the shuttle then.

Squaw Valley/Alpine to service their employees and guests as does

Northstar.

Truckee needs to be connected to the rest of the North Shore via night rider and/or later service.

Service needs to be more receptive to locals living and working in neighborhoods and have service that corresponds to their working hours. Truckee is not a 9-5 town!

Need to get off Donner Pass Rd to side areas that people actually need to go to
Ensure that Nevada County transit lines align with TART/Placer transit lines for connected service to Northstar and Highway 89.
Add smaller buses to the neighborhoods.
I have only used this service one time but that was not an option above. However, if this type of service was available regularly, I would use it to go into town, transfer, and then shop at Safeway, etc. I have also used the bus from Tahoe City to Emerald Bay. In general, if we have to drive our car to catch a bus/trolley, then we may as well drive it into town and leave out the bus.
Yes. Residents will never be able to give up using their individual vehicles, which 80% of the time have just one person in the car> We need public transportation at times we go to work, school, play -leaving from a central point in our neighborhoods. There is limited parking everywhere now; I work at the hospital. Difficult to park there! Employees could ride public transport, instead of taking up parking spots that patients could use. Less gas used, less traffic, less air pollution.
Work with Amtrak to develop routes from Reno or the bay at a more consistent rate.
More service stops, there are no bus stops in Glenshire, only dial a ride.
It would be great if the TART had later connections to get to and from Tahoe City. I work in Tahoe City, so if I take the bus, I have to leave before 5 to take the 4:50pm. It would be great to have service ideally until 2am like the TART does on other routes, but at least until 10 or 11pm so you can go out and enjoy dinner. It would also be great if there was better connection from the 267 route on TART to the Highway 89 route. If I get on the bus in Sierra Meadows to try to get to Squaw, you have to wait at the train station for 30 minutes
More regular busses would be key so that if you miss one bus (it's early, or just doesn't stop to pick you up) then you aren't left stranded. Additionally, if busses left more often overnight and the night rider service continued into spring and summer then that would help curb drink driving and fatalities in the area. Too many people drive home absolutely drunk off their faces because the bus is unreliable, inconsistent, and stops night service. The cost to operate would be greater financially - but doing so would save lives (and prevent DUI's)
Just fix our winter traffic problem. Do more services to the ski resorts every 15-30 minutes.
Two lines north south east west see above
Run all year long to truckee, run every line late, run a damn night rider to incline already!!!!!!!
More frequent schedules would help with locals to be able to take public transportation to/from work on more convenient schedules. Too hard to work with at 1x per hour.
I commute to Reno everyday, it would be amazing if there was some kind of public transit between truckee and Reno
More frequent loops, in summer too
Add stops. They are very far away from eachother. Being able to go for a hike around brokway summit would be great if you could get off the bus up there.
Consistent scheduling of service
Regular service to the ski areas
longer service hours (i.e. service to the Amtrak station in Truckee even if Amtrak train service is delayed after 5:30 pm - so that arriving passengers can travel by public transit to North Tahoe)

Get to my direct destination faster. Example: for an appointment/work/ just gets there without any trouble of sitting for almost one hour on a bus.. wich on a car can take a lot of quicker!
keep free night rider throughout all year
until midnighnt on Friday, Sat
Incline to crystal bay at night
More direct between Tahoe City and Truckee. No Squaw Valley. No Northstar.
Some night service to and from Truckee .
Ensure that stops happen close to areas in town where there are large concentrations of people who would likely benefit from transit (i.e. mobile home parks in town)
Regular service along the Truckee Thursday route that follows Martis Valley Road to Ponderosa and then out onto Brockway Road via Palisades Drive.
feeder lines for access to routes
The bus system MUST start offering earlier and more frequent options, especially if public transit is ever going to be a viable method of transportation in a town already clogged with too much traffic.
More services to the ski resorts and more often
Service from Glenshire to west end beach. Another line from tahoe donner to airport
I tried using the bus. Unfortunately it would require my employer to compromise their business / business hours to accommodate the bus schedule because the bus doesn't run late enough. I know this is primarily about Donner Summit area, but it goes for the entire region. Additionally, the 89 route is problematic in the winter for those of us who don't work at Squaw because we have to plan for extreme traffic (& weather) so the bus can route all the way into Olympic Valley. If someone lives in Tahoe City (for ex) and works in Truckee - this renders the bus pretty useless. There needs to be an "express" option that bypasses Squaw Valley rd during commute hours IMO. During the week I tried to take the bus, I ended up successfully taking it in the morning 1x! And I was late for work and then had to leave early from work to catch the last bus. I hitchhiked thereafter.
More busses
Ski shuttles every 15 minutes
I would definitely use it at night to go out to dinner, bars, etc as a safe way to get home.
Advertise. Many locals have no clue as to how inexpensive it is to travel. As well as the frequency of trips on your current schedule.
make sure stops are close to key community buildings and services: Rec center, library, courthouse, hosp., sierra college, school, DMV etc. Senior discounts if you dont have them already. A good pass system.
Fast, free and fun
find a method to provide free, frequent service, similar to other resort towns.
Supply free transfers. I have to take the bus from Tahoe Vista to the stop at Ace Hardware and then transfer to the 267 bus. It's silly that I have to pay 3.50 or pay for a bus pass when I don't need a day pass. A simple transfer would be great.
Supplying back up shuttles or shuttles twice an hour during peak season, especially to shuttles that hit Northstar/Squaw even if it's just the 7-9am busses and 4-5 when all the seasonal employees get off. The busses are over crowded, sometimes at capacity, or if they're over capacity you have to wait an hour for the next bus. It's really uncomfortable and sometimes feels unsafe.
Anywho! Thanks for your time and consideration.

Not cuttin service, being consistent, actually providing a professional transit system. Tart is a joke.
Run on time/ more stops
I've had busses drive right past me at TART stops, leaving me to either walk home for an hour in freezing temps or stand and wait an hour for the next bus in freezing temps. More frequent service would help long waits.
The bus does not run frequently enough to make it convient to take. It would be much better if it ran every half hour or 15 min. The bus does not always run on time, making it an unreadable option for going to work. Having buses that go to the neighborhoods, even just to the main streets in neighborhoods, such as Northwoods in TD, would make the bus a much more useable option for residents. So few of truckee's residents live in downtown truckee where the bus service. my husband & I have only 1 awd car, and hoped to make use of public transportation this winter, but it was so unreliable that after a few uses we turned to carpooling, but that was often hard to organize. I work at Northstar, an the bus between Northstar & town is alright, but I would typically have to wait in town for a ride up TD, or often ended up hitchhiking up TD. To get to the bottom of TD, I needed to take the Donner summit bus, which never seemed to be running when I needed it. My husband works at Boreal/Woodward, and he never took the Donner summit bus as it seemed so unreliable. There seems to be a lot of people in Northwoods who would take a bus if available. I also think an earlier start would be useful for people going to work. For me, the 7am bus from truckee to Northstar was cutting it close if the bus did not run on time. We previously lived in South Lake Tahoe, and both my husband & myself took the bus daily for work. There is a lot of frustration among the population with the amount of cars on the roads a peak times, particurally on 267 and 89 with Northstar and Squaw traffic, and issues with full parking at these locations. I try to do my part by not adding another car to the road, but found this winter that TART was such a hassle to use that it was a waste of my time. I would like to have access to a more efficient, resident friendly system. I would use the bus daily as transport to work if the routes came up to Tahoe Donner, and if then ran more frequently.
No reason for the first run to be late and it always is if it's snowing. The driver should arrive early to chain up so everyone on the bus isn't late to work. The app that shows where the bus is isn't reliable. Add more buses on busy days and more frequent buses every day. Add a bus shelter at brockway and palisades. There is one on the side that no one uses at that intersection. Everyone is going to Northstar, not the 1 block to downtown. Remove Lahontan stop on the 267 route, it adds too much time in getting to Northstar. Have system where people can buy tickets before they get on the bus so they don't take so long to load up. Or make them free like most resort towns! Have a system for skis and boards so they aren't flying all over the bus. Figure out how to accomodate more bikes.
Bus specific lanes and more frequent service
Bus service needs to run into the evening - late into the evening.
please keep the free night rider all year
Safety/Amenities
Is there an App to get information and schedules? I tried searching for one on my I-phone 7
Better signage and bus shelters on the summit
Information on arrivals at each stop
It's impossible to use TART from Glenshire, and even if you wanted to take TART to Tahoe City, where do you legally leave your car in Truckee? Safeway parking lot is not really legal parking.
General Feedback
I usually take Dial a Ride and they are very, very good. I am an older passenger and need help
Good for now.

Q12/13 Summary: Do you have any other suggestions as to how transit could better serve Eastern Nevada County? (for those who do NOT ride TART) (note: responses that are in multiple categories appear in each category)

Awareness

I haven't checked out your website to see how/when I could use it which is my fault. Maybe make schedules easily accessible at places like grocery stores/ drug stores, places where people frequent.

Suggest letting residents know what is available

Demand Management/System Management

Stop building homes and hotels and you won't need the transit service!

The only foreseeable way to get visitors (and maybe even locals) to ride buses is to strictly limit the number of vehicles allowed into the region, much as they do in Yosemite. Special permits could be issued for vehicles towing boats or motorhomes.

If there were bus lanes during critical traffic times, taking the bus would be more appealing.

Dedicated bus or bus & HOV lane

Provide incentive to ride it.

Establish an offsite parking area for the ski areas and use busses to get skiers from the parking area to the resorts.

Fares/Payment System

- lower the price - \$1.75 to ride downtown from sierra meadows? doesn't seem worth it.

- smaller buses - if there isn't enough ridership, operate smaller buses

- in fact, the regular TART service is probably ok, but within town there is no way to get around. Would be great to have smaller buses that go around between Truckee's spread out neighborhoods. So that it's possible to get to Glenshire on public transit.

New Types of Service

A mall light rail or tram network in Truckee would be great, regular service, hop on, off - that would encourage me to use more public transport. I used to live in Japan and never had a car, train, light rail, subway everywhere. If the service is there, people will use it.

We should implement the gondola plan to connect the resort triangle and use buses as a back up

Other modes of transport, like a Tram?

On Time Arrival

I tried to take the winter shuttle up to Sugar Bowl last year and the bus was over an hour late and there seemed to be a lot of confusion between the bus drivers operating that route. After that (I was about 2 hours late to work) I haven't tried to take any kind of Public Transit because I don't trust that it will get me where I need to go on time. However, I used to live in NYC and never owned a car until I moved to Truckee so I highly support a public transportation system.

Be on time. Be reliable. Have consistent hours for long enough to build a clientele and grow a population of non drivers in the area. I would loooove to not have to have a car
More reliable service
Routing/Scheduling
Offer some sort of shuttle to Quincy CA
Hundreds arrive weekly from bay area to go to Oakland Feather River Camp
Frequent access to sugar bowl would make me consider it. I might use it in the summer if it came more often in general
Connect with transport to Reno
We love the free Truckee Thursday Shuttle. If there were TART access from Glenshire to town, I'm sure we would use it.
Smaller routes
Not really as we realize that servicing a outlying area such as ours would be terribly expensive without achieving a ridership level that would justify its support. Only possibly would be a feeder line to a central location ie train depot where transfers to other branches are available although necessary time to get to destination would be a huge deterrent.
We have so many Nevada Co. residents who commute to Reno, and vice versa. A commuter bus service could make a big difference in quality of life, and reducing cars on the road.
-Need a Truckee transit hub location that includes parking (like Tahoe City's). The Depot area is too congested to serve this need, and puts strain on downtown parking capacity. an off-site lot where peak traffic time traffic (e.g. squaw ski traffic) can be directed to park and shuttle is needed. For weekends, consider partnership to use parking at Truckee High School or Alder Creek Middle School, or elsewhere outside of downtown.
More ski hill stops; plus to-from Reno
Please don't put it into neighborhoods and bring big city living to our quiet areas. We had a few temp buses here during Truckee Thursday's. it was noisy, polluted, and often drivers sped by. Please no.
If so, I'll move.
Smaller busses with more frequent and neighborhood services.
Getting to Reno Airport is difficult. I have rented a car in Truckee and returned it at Reno Airport. Cheaper than paying for long term parking.
Improve summer service for recreationists who want to visit Donner Summit and the PCT.
Go to the places that people want to go and expand the hours of service even if it means operating less frequently
Please offer services to all areas. I am lucky and have reliable transportation.
more stops
The TART bus comes nowhere near my house--very inconvenient.
NO Service in neighborhoods, pollution and noise
I would probably take a bus to go to the bars at night if I knew I could get home late in the evening.
Way to get to Sugar Bowl when Sugar Bowl parking is full.

Establish an offsite parking area for the ski areas and use busses to get skiers from the parking area to the resorts.
- lower the price - \$1.75 to ride downtown from sierra meadows? doesn't seem worth it. - smaller buses - if there isn't enough ridership, operate smaller buses - in fact, the regular TART service is probably ok, but within town there is no way to get around. Would be great to have smaller buses that go around between Truckee's spread out neighborhoods. So that it's possible to get to Glenshire on public transit.
Pick up in neighborhoods, Transit to Squaw valley and alpine meadows with ski racks.
Safety/Amenities
Dog friendly
Pick up in neighborhoods, Transit to Squaw valley and alpine meadows with ski racks.
General Feedback
I spoke with Julia at the Tahoe City Transit Center - VERY nice and VERY helpful! What a great employee!
None - I'm not a fan of the transportation taxes bestowed upon tax payers and communities when there are no public transportation options within those communities. These funds could be better served elsewhere.
None. If I need it, I know it's there. My kids have used it and it has never failed.
None - I'm not a fan of the transportation taxes bestowed upon tax payers and communities when there are no public transportation options within those communities
No.
Please note that Question #1 had no choice for my situation - part-time resident, all year long
I'm not sure since I don't know the schedules and routes

Truckee/Donner Summit Transportation Community Survey

19	Rounting/Scheduling Please don't put it into neighborhoods and bring big city living to our quiet areas. We had a few temp buses here during Truckee Thursday's. it was noisy, polluted, and often drivers sped by. Please no. If so, I'll move.	3/23/2017 2:49 PM
20	no	3/23/2017 1:29 PM
21	New types of service We should implement the gondola plan to connect the resort triangle and use buses as a back up	3/23/2017 12:49 PM
22	Rounting/Scheduling Smaller busses with more frequent and neighborhood services.	3/23/2017 12:29 PM
23	Demand Management Rounting/Scheduling Establish an offsite parking area for the ski areas and use busses to get skiers from the parking area to the resorts.	3/23/2017 12:13 PM
24	Demand Management If there were bus lanes during critical traffic times, taking the bus would be more appealing.	3/23/2017 11:37 AM
25	Rounting/Scheduling Getting to Reno Airport is difficult. I have rented a car in Truckee and returned it at Reno Airport. Cheaper than paying for long term parking.	3/23/2017 10:26 AM
26	No. Please note that Question #1 had no choice for my situation - part-time resident, all year long	3/23/2017 9:06 AM
27	No	3/23/2017 9:02 AM
28	Fares/Payment System Rounting/Scheduling - lower the price - \$1.75 to ride downtown from sierra meadows? doesn't seem worth it. - smaller buses - if there isn't enough ridership, operate smaller buses - in fact, the regular TART service is probably ok, but within town there is no way to get around. Would be great to have smaller buses that go around between Truckee's spread out neighborhoods. So that it's possible to get to Glenshire on public transit.	3/23/2017 8:12 AM
29	Rounting/Scheduling Improve summer service for recreationists who want to visit Donner Summit and the PCT.	3/22/2017 5:31 AM
30	Rounting/Scheduling Go to the places that people want to go and expand the hours of service even if it means operating less frequently	3/22/2017 4:10 AM
31	Rounting/Scheduling Please offer services to all areas. I am lucky and have reliable transportation.	3/21/2017 2:45 PM
32	Demand Management Dedicated bus or bus & HOV lane	3/21/2017 1:34 PM

On-Board Survey Materials

Truckee TART Survey Form

Please help Truckee TART Transit improve services by answering this survey and returning the form to the surveyor as you leave the bus.

All responses are confidential. Thank you!

PLEASE FILL OUT THIS FORM EACH TIME YOU GET ONE

Mark only one response for each question

1. What time did you board this bus?
_____ AM PM
2. How did you get to this bus?
 Dropped off Bicycled
 Transferred from Route _____
 Walked 0-2 blocks Walked 3-4 blocks
 Walked 5+ blocks (1/2 mile or more)
 Walked unspecified distance
 Drove alone Wheelchair
 Other (*explain*) _____
3. Where did you get on this bus?
Name of bus stop: _____
Street: _____
Cross Street: _____
4. Where will you get off this bus?
Name of bus stop: _____
Street: _____
5. What is the main purpose of this trip?
 School/College Shopping
 Personal Business Doctor / Dentist
 Work Recreation/Social
 Other _____
6. How will you make your return trip?
 I'm going one way only. Ride with someone
 Hitch hike Take the school bus
 Drive my car Walk
7. How often do you ride the bus?
 1 Day/Week 1-4 Days/Month
 2-3 Days/Week Less than 1 Day/Month
 4-5 Days/Week
8. How long have you been using the bus?
 First Time Under 6 months
 6 months to a year More than a year
9. If you needed help planning your trip, which would you use first?
 Bus Schedule Driver of bus
 Friend / Co-worker Telephone Internet
10. Are you a Full-time resident? Seasonal resident?
 Visitor?
11. Do you require the wheelchair lift to board or exit the bus? Yes No
12. Do you have a disability that limits driving?
 Yes No
13. Do you have a driver's license?
 Yes No
14. Was there a vehicle that you could have used for this trip instead of the bus? Yes No
15. Are you: Male Female
16. What is your age?
 Under 12 12 to 17 18 to 59
 60 to 74 75 or over
17. What is your main occupation?
 Full-time employed Part-time employed
 Homemaker Student
 Retired Not employed
 Unable to work
18. Please indicate your opinion of the fixed route service from 1 to 5 using the list below (*please circle your answer or leave blank if you have no opinion*):

	Poor		Excellent		
	1	2	3	4	5
a. Driver courtesy	1	2	3	4	5
b. On time performance	1	2	3	4	5
c. Areas served	1	2	3	4	5
d. Bus comfort	1	2	3	4	5
e. Cost of bus fares	1	2	3	4	5
f. Bus cleanliness	1	2	3	4	5
g. Printed information materials	1	2	3	4	5
h. On line information services	1	2	3	4	5
i. Bus stops and shelters	1	2	3	4	5
j. Overall	1	2	3	4	5

19. What service or customer improvements would you like to see?
 Increased service frequency – if so, when? _____
 New or extended routes – if so, where? _____
 Earlier *Weekday* Service Later *Weekday* Service Earlier *Saturday* Service Later *Saturday* Service
 Sunday Service Other _____

20. Other Comments: _____

Thank you for helping us to improve Truckee TART bus service by participating in this survey!

Encuesta Para Truckee TART

Por favor ayude al Truckee Transit a mejorar sus servicios contestando las preguntas y devolviendo este formulario al encuestador.

Su respuesta será confidencial. ¡Gracias!

POR FAVOR LLENE ESTE FORMULARIO CADA VEZ QUE USTED CONSIGA UNO

Marque solo una respuesta por cada pregunta

1. ¿A que hora abordo el autobús? ____ AM PM
2. ¿Como llego a este autobús?
 - Le dieron un aventón Bicicleta
 - Transferido de ruta _____
 - Camino 0-2 cuadras Camino 3-4 cuadras
 - Camino 5+ cuadras (1/2 milla o mas)
 - Camino numero de millas no especificadas
 - Manejo sola Silla de ruedas
 - Otro (*explique*) _____
3. ¿Desde donde se subió al autobús? _____
 Nombre de parada del autobús: _____
 Calle: _____
 Esquina de calle: _____
4. ¿En donde se bajara de este autobús? _____
 Nombre de parada de autobús: _____
 Calle: _____
5. ¿Que es el propósito de este viaje?
 - Escuela/Universidad Compras
 - Negocio personal Doctor / Dentista
 - Recreación/Social Trabajo
 - Otro _____
6. ¿Como volverá de este viaje?
 - Un destino Vuelvo con carro privado
 - Aventón Autobús escolar
 - Carro propio Caminando
7. ¿Con que frecuencia usa los servicios del autobús?
 - 1 Día/Semana 1-4 Días/Mes
 - 2-3 Días/Mes Menos de 1 Día/Mes
 - 4-5 Dias/Semana
8. ¿Cuánto tiempo ha estado usando los servicios del autobús?
 - Primera vez Menos de 6 meses
 - 6 mese a 1 año Más de 1 año
9. ¿Si necesita usted ayuda para planear su viaje, cual usaría primero?
 - Horario de autobús Conductor de autobús
 - Amigo/Colega Teléfono Internet
10. ¿Es usted Residente a tiempo completo?
 Residente estacional? Visitante?
11. ¿Necesita usted ascensor de silla de rueda para entrar y salir del autobús? Si No
12. ¿Tiene usted alguna incapacidad limitada que le evita conducir? Si No
13. ¿Tiene usted licencia de conducir? Si No
14. ¿Hay algún vehiculo que podía usted haber usado para este viaje en vez del autobús? Si No
15. Es usted: Hombre Mujer
16. ¿Que edad tiene?
 - debajo de 12
 - 12 a 17 18 a 59
 - 60 a 74 75 o mayor
17. ¿Qué es su ocupación principal?
 - Empleado tiempo completo Estudiante
 - Empleado medio tiempo Ama de casa
 - Jubilado Desempleado
 - No puedo trabajar
18. Por favor dénos su opinión del servicio de ruta, de 1 a 5 use la lista abajo (*por favor circule su respuesta o deje en blanco*):

	Pobre		Excelente		
	1	2	3	4	5
a. Cortesía de conductor	1	2	3	4	5
b. Puntualidad	1	2	3	4	5
c. Áreas servidas	1	2	3	4	5
d. Comodidad de autobús	1	2	3	4	5
e. Tarifas de autobús	1	2	3	4	5
f. Limpieza de autobús	1	2	3	4	5
g. Material de información	1	2	3	4	5
h. Servicios de información telefónica	1	2	3	4	5
i. Refugio de las paradas de autobús	1	2	3	4	5
j. En general	1	2	3	4	5

19. ¿Que servicios o mejoramientos al consumidor le gustaría ver?
 - Aumentar los servicios con frecuencia – si es así, ¿cuando? _____
 - Rutas nuevas/extendidas – si es así, ¿donde? _____
 - Servicios entre semana mas temprano Servicios entre semana mas tarde
 - Servicios más temprano los sábados Servicios más tarde los sábados
 - Servicios los domingos Otros _____
20. Comentarios: _____

¡Gracias por su participación en esta encuesta lo cual nos ayudara a mejorar los servicios del auto bus del Truckee TART!

Truckee TART On-Board Survey Comments

Fixed Route

Getting people from Sugar Bowl/ give 1 more hour in the afternoon

Noon

Start earlier

Later hours in the summer 6:30 - 7:30

Increase service - more often to all the routes & New extended routes to Tahoe Donner. Service at least until 8pm if not 9pm

Increase Service All day & New routes all the way to Sugar Bowl every trip

Reno/Sparks NV.

Increase service to March - April and Extend Routes to Truckee - Mt Judah Lodge

Evening - Night hours

More buses at 6pm, 8pm, 5pm and 11am

More stops along the Resorts in the area

At least one more ride between 8:49 and 9:26

Night service in Truckee

Year round to summit or at least through ski season

Longer operation schedule, operate into April

Extended route in Tahoe Donner area. Frequency - Instead of 2hr break do 1hr between buses

Go later into the season

Continue being awesome, Maybe a summer Shuttle?

When bus is not in service due to weather or closed provide info online and phones.

Very good organization, they should respect the times/hours

The service would be better if the buses arrived on time by the hour, especially on stormy days.

It would be great if there were frequent shuttles to all the local resorts & Truckee, get people out of Cars!

Dial-A-Ride Survey

Improved on-time performance

Communication with dispatch

Improved on-time performance

Drivers are very nice/friendly

Drivers are very nice

Communication with dispatch needs to be improved. There are scheduling issues/scheduled trips are repeatedly messed up. Bus drivers are all amazing.

Great drivers

Happy to ride the bus

Love the drivers

DAR is a great service



EASTERN NEVADA COUNTY TRANSIT DEVELOPMENT UPDATE 2017

**Is the bus taking you where you
need to go?**

**Come hear about proposed alternatives to improve
public transit in Truckee/Donner Summit:**

Public Workshop

Monday, September 11

Truckee Donner Senior Apartments

10040 Estates Dr. Truckee, CA 96161

1:00pm - 3:00pm

**Public Workshop
1:00pm - 3:00pm
Immediately Following
Senior Lunch**

PURPOSE:

**To obtain input on
ways to improve
Truckee TART**

FOR QUESTIONS CONTACT:

GENEVIEVE EVANS at

LSC Transportation Consultants

Email: Genevieve@lsctahoe.com

Phone: 530-583-4053

LCS Transportation
Consultants

530-5834053

www.lsctahoe.com

2690 Lake Forest Road, Suite C

PO Box 5875

Tahoe City, CA. 96145



Eastern Nevada County Transit Plan Update

Project Advisory Committee Notes

September 11, 2017 @ 10:00 AM

Truckee Town Hall

Attendees: Gordon Shaw (LSC), Genevieve Evans (LSC), Kelly Beede (Truckee), Dan Wilkins (Truckee), Sarah Deardorff (Sierra Senior Services), Maria Martin (TFHD)

Comments after a presentation by LSC:

Anecdotaly there seems to be more people working in Truckee moving to Reno in the past couple years. Is there a possibility to look at mortgage data for employees recently moving to Reno?

Nextbus is coming to Truckee

Fare alternatives competing for funding so include that into evaluation

Include discussion about half million of LTF tax dollars which originated in Truckee are going to County so having that conversation now. Kelly has spreadsheet from state on actual sales tax dollars

\$50 – 70K for SB1

Have 5310 grant for DAR Sunday service in non-winter and funding DAR into non-ADA corridor. No official letter from Caltrans yet. Three year grant but it is competitive so have to reapply but this will take cost off Sunday service.

For Plan Chapter have 3 scenarios:

- 1) Existing funding levels
- 2) Existing funding levels + \$400K per year from County LTF
- 3) Existing funding levels + \$400K from County LTF + \$200K per year from General Fund,

Asking for SB1 money to be weighted toward Eastern County to make up for “extra” LTF that is going to County.

High Priority Alternatives for Town

- Eliminate Fares
- Sunday Service – Make service more consistent. This is a priority over neighborhood service.
- 12 hour day service year round

Look at Placer TART Winter Evening on 89 and 267 north of the resorts from the Long Range Plan – Took what was important to Truckee from Placer TARTs plan. How would these compare head to head with what we came up with in Truckee plan. Night connection into Truckee would be good.

Town would prefer to fund connections to Squaw and Northstar during peak period than local transportation.

Have enough information about why commuter bus isn't as effective as vanpool.

Look for carpool apps. Look at SACOG. This happens informally and could be better organized.

If we get a lot of vanpools maybe commuter bus makes more sense.

Washoe RTC is potentially willing to partner.

Look more closely at bringing in house. TTD just brought service in-house.

- Need to make a hard recommendation here.

Comments from Sierra Senior Services Staff – Emphasize need for bus shelter at the Senior Apartments. When seniors are waiting for the bus, they are waiting in parking area and could easily slip, particularly in winter. Need shelter on easement with good walkway from apartment.

A lot of people moving to west Reno.

For commuter bus, would feel safer with a stop at Library or Boomtown than 4th street station

Carpool or vanpool might be best. Punch card for vanpool would be convenient.

Public Workshop Notes
Truckee Donner Senior Apartments
9/11/2017 at 1:00 PM

15 participants

Comments:

- Re-implement DAR @ Safeway at particular time (*In the past DAR had set pick up and drop off times at certain locations, but turned out to not be as productive*)
- Don't like to make reservations in advance
- Sunday service would be nice
- Evening Service would be nice until 9pm (fixed route)
- Transportation to Town and TMA meetings
- Service to Glenshire
- Service to Reno
- Mid-day run to Reno – Yes
 - o Shopping
 - o Doctors
 - o Need about 4 hours in Reno
- Fare integration
 - o Be able to use same day pass on Placer + Truckee TART
 - o FareBox -> Donation Box
- Europe has more free transportation
- Recreation District provides 1 trip per month to Reno
- Bus stop at In-and-Out Burger (when it goes in), near Cold Stream Rd.
- Drivers
 - o Fabulous!
 - o Some treat vehicles like rental cars
- Placer TART
 - o Need more sensitivity to ADA passengers
- Unlimited – Monthly pass for Truckee TART fixed routes
 - o Now have 20 day pass
- Fixed route stop on property of Senior Apartments would be nice
 - o Not allowed; so shelter on property line would be nice if allowed by property owners.

- People get on wrong Truckee TART bus, can't see head sign or Truckee new buses don't have it (need a simple solution, like signs near the boarding door)
- Flag stop/on-call through smart phone
 - o extra charge okay
- NTTT – Senior shuttle
 - o Service to South Shore again
 - o Would consider adding back as special trip, but hospital is one of the funders

Appendix C
Long Range Plan Priorities

Table 3: Prioritization of Truckee Participation in Placer TART Service Improvements

Implemen- tation Order	Service Alternatives (1)	Annual Ridership	Potential Town Contribution	Cost per Passenger Trip
High Priority: Short-Term within 5 Years				
1	Winter Evening Service Extension to Truckee 5:30 PM to 11:00 PM	8,925	\$44,900	\$5.03
2	Earlier Winter Southbound Departures on 89 and 267 (2)	1,195	\$2,450	\$2.05
3	Winter Half-Hourly Service Frequency Extension to Truckee: 2 Hours in AM, 3 Hours in PM	4,558	\$48,850	\$10.72
<i>Total High Priority Placer TART</i>		14,678	\$96,200	
Medium Priority: Mid-Term within 10 Years				
4	Summer Evening Service Extension to Truckee 5:30 PM to 11:00 PM	3,698	\$36,000	\$9.74
5	Off-Season Evening Service Extension to Truckee 5:30 PM to 9:30 PM	1,300	\$15,800	\$12.15
<i>Total Medium Priority Placer TART</i>		4,998	\$51,800	
Low Priority: Long-Term within 20 Years				
6	Winter Half-Hourly Service Frequency Extension to Truckee - Mid-day Period (9:30 AM-2:30PM)	3,974	\$51,650	\$13.00
7	Summer Half-Hourly Service Frequency Extension to Truckee	2,700	\$83,850	\$31.06
8	Winter Evening Service Extension to Truckee 11:00 PM to 2:00 AM	2,975	\$39,200	\$13.18
9	Summer Evening Service Extension to Truckee 11:00 PM to 2:00 AM	1,102	\$31,450	\$28.53
<i>Total Low Priority Placer TART</i>		10,751	\$206,150	
Total		30,427	\$354,150	

Note 1: All Placer TART alternatives assume 116 days per winter season (mid-December through first weekend in April), 68 days per summer season (last weekend in June through Labor Day), and 181 days of spring/fall seasons

Note 2: Requires full additional run on 89 Route. 267 Route costs are incremental over cost of current deadhead runs to Crystal Bay.

TABLE 4: Prioritization of Truckee TART Service Improvements

Implemen- tation Order	Truckee TART Service Alternatives	Annual Ridership	Annual Marginal Operating Subsidy	Subsidy per Passenger Trip	
High Priority: Short-Term within 5 Years					
1	Elimination of Fares on Truckee TART	7,700	\$35,000	\$4.55	
2	Mainline - Additional Hours, Non-Winter, 6 Days/Week, 7:00 AM to 9:00 AM & 5:00 PM to 6:00 PM (1)	28,133	\$111,700	\$3.97	
3	Neighborhood Summer/Winter Service, 5:30 PM to 11:00 PM	Tahoe Donner	5,879	\$90,500	\$15.39
		Glenshire	5,793	\$91,200	\$15.74
		Prosser/Sierra	7,121	\$89,200	\$12.53
		<i>Subtotal</i>	18,794	\$270,900	\$14.41
4	Mainline - Summer/Winter, 6:00 PM to 11:00 PM	5,150	\$87,500	\$16.99	
5	Peak Winter Daytime Neighborhood Service (2)	Tahoe Donner	7,352	\$36,300	\$4.94
		Glenshire	7,629	\$36,600	\$4.80
		Prosser/Sierra	8,933	\$35,700	\$4.00
		<i>Subtotal</i>	23,915	\$108,600	\$4.54
<i>Total High Priority Truckee TART</i>		83,692	\$613,700		
Medium Priority: Mid-Term within 10 Years					
6	Non-Winter Sunday Main Line and DAR Service	1,635	\$80,100	\$49.00	
7	Expand Winter Season From 88 to 116 Days	1,278	\$45,500	\$35.60	
8	Spring/Fall, 5:30 PM to 11:00 PM	Tahoe Donner	2,906	\$78,000	\$26.85
		Glenshire	2,457	\$78,600	\$32.00
		Prosser/Sierra	3,574	\$76,900	\$21.52
		<i>Subtotal</i>	8,936	\$233,500	\$26.13
9	Mainline - Spring/Fall, 6:00 PM to 11:00 PM	4,288	\$75,500	\$17.61	
<i>Total Medium Priority Truckee TART</i>		16,137	\$434,600		
Low Priority: Long-Term within 20 Years					
10	Year-Round Neighborhood Service, 6:30 AM to 5:30 PM (3)	Tahoe Donner	29,948	\$329,000	\$10.99
		Glenshire	27,771	\$331,200	\$11.93
		Prosser/Sierra	36,667	\$324,100	\$8.84
		<i>Subtotal</i>	94,385	\$984,300	\$10.43
<i>Total Low Priority Truckee TART</i>		94,385	\$984,300		
Total Prioritized Truckee TART		194,214	\$2,032,600		
Non-Prioritized Services					
Donner Summit Service: Add Summer Service		4,200	\$106,100	\$25.26	
All Truckee TART Services on 30 Minute Headways		92,197	\$3,026,700	\$32.83	
Note 1: Includes Dial-A-Ride expansion costs and ridership					
Note 2: Operates 7:00 AM to 5:30 PM, all Saturdays and Sundays from mid-December through mid-March, weekdays in last week of December and first week of January, MLK Birthday, and Presidents Day (total of 38 days)					
Note 3: Beyond Winter Peak Season Daytime Service					