

# Livermore Amador Valley Transit Authority

Short Range Transit Plan FY2012-2021



### Livermore Amador Valley Transit Authority

# **Short Range Transit Plan**

Fiscal Years 2012 to 2021

Adoption Date: November 5, 2012



Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and local agencies, develop and periodically update a long-range Regional Transportation Plan (RTP), and a Transportation Improvement Program (TIP) which implements the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, MTC requires that each transit operator in its region which receives federal funding through the TIP, prepare, adopt and submit a Short Range Transit Plan (SRTP).

The preparation of this report has been funded in part by a grant from the U.S. Department of Transportation through section 5303 of the Federal Transit Act. The contents of this SRTP reflect the views of the Livermore Amador Valley Transit Authority (LAVTA), and not necessarily those of the Federal Transit Administration (FTA) or MTC. LAVTA is solely responsible for the accuracy of the information presented in this SRTP.

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Livermore Amador Valley Transit Authority

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# Introduction and Overview of LAVTA Governance and Administration

The purpose of the Short Range Transit Plan (SRTP) is to serve as a management and policy document for the Livermore Amador Valley Transit Authority (LAVTA) over a ten year timeframe. Since the last SRTP update, LAVTA has been proactive in responding to changes in the economy and coordinating transit services with growth and developments in the Tri Valley area.

- In response to the Great Recession, LAVTA was forced to cut fixed route service by 25% in 2009 and increase fares. In the past three years, LAVTA has been reinstating and growing its service in an effort to restore service to pre-Recession levels.
- A Bus Rapid Transit (BRT) line, named the Rapid, was implemented in January 2011 to connect East Livermore and West Pleasanton with points in-between, as well as provide a feeder service to the BART stations in the Dublin/Pleasanton area.
- The American Logistics Company (ALC) was awarded a contract, starting July 1, 2011, to deliver high quality, on demand paratransit service. Under the ALC business model, a flexible mobile fleet is owned and operated by independent subcontractors, eliminating fleet maintenance costs to LAVTA. Additional efficiencies include a streamlined call center which takes reservations, dispatches trips, and provides customer service.
- The Atlantis Operating and Maintenance (O&M) facility began construction in 2008 to meet LAVTA's need for a maintenance facility with a larger storage capacity. Phase I, the construction of a parking and storage area, was completed in 2008. Phase II, the construction of a bus fuel and wash facility, is scheduled to be completed in January 2013.

#### 1.1 AGENCY HISTORY

LAVTA was established in May 1985 when the Cities of Dublin, Livermore, Pleasanton and Alameda County executed a Joint Powers Agreement (JPA) that created the independent authority. LAVTA's charter mission was to develop and operate local and intercity public transportation in the Tri-Valley operating under the brand name, Wheels.

The following year, LAVTA began transit service on four fixed routes in the cities of Dublin and Pleasanton with nine leased buses. By July 1, 1987, the City of Livermore's Rideo system fully merged with LAVTA, providing seamless connections between all three cities and unincorporated portions of Alameda County.

The LAVTA Maintenance, Operations and Administration (MOA) facility was built in 1991 on Rutan Court. This facility acts as the central base of operations for all Wheels service. All maintenance and operation functions are dispatched from this location. The Wheels administration, including the agency and contracted operations staff, also operate out of this facility.

In 1996, LAVTA became fully compliant with the provisions of the Americans with Disabilities Act (ADA), requiring a fully wheelchair accessible fixed-route and paratransit fleet. Paratransit service was provided on a demand response basis.

The opening of the San Francisco Bay Area Rapid Transit (BART) Dublin/Pleasanton extension in 1997 reoriented Wheels service eastward to the new hub. Another major service change that year was the establishment of the Direct Access Responsive Transit (DART). DART is a hybrid of a deviated fixed route system and a demand responsive system that was open to the general public. Midday and Saturday service for local routes were also discontinued.

In 1999, LAVTA started regional express service, routes 70X and 20X, and a subscription service to Silicon Valley, named the Prime Time Express. Also that year, the Transit Center<sup>1</sup> was completed at the Railroad and Old First Street intersection in downtown Livermore. This center provides Wheels patrons direct access to the Altamont Commuter Express (ACE) platform which is adjacent to the Transit Center. LAVTA began shuttle services also to the Vasco Road and Pleasanton ACE Stations.

The Bay Area economy entered a depression as the dot com era boomed and busted in the early 2000s. Service levels were decreased in response to declining revenues and budgets. LAVTA shifted resources away from pure coverage routes towards more of a demand based service model.

By mid-decade, LAVTA was poised to meet the needs of the recovering economy. New service was established in 2006 to serve the newly constructed, high density, and transit oriented neighborhoods of East Dublin. The initiation of the Bay Area's new All Nighter transit network, which linked several activity centers in the region with 24 hour bus service, was also started this year. LAVTA transitioned the successful route 10 into an *All Nighter* route dubbed the route 810. A second ACE shuttle route, route 53, from the Pleasanton ACE to Stoneridge Mall, was added to facilitate the growing number of ACE commuters to jobs in Pleasanton. Offsetting the new service was the discontinuation of the Prime Time subscription service to Silicon Valley. DART service hours in Pleasanton and Dublin were converted back into regular, fixed route services on routes 1, 3, 7, 8, and 50. This growing trend continued, where the economy rebounded and Wheels revenues resulted in more service on the street.

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In 2006, the City of Livermore developed a large parking structure on the ACE site that provides over 500 spaces, with designated spots for transit users.

In 2008, ground was broken for a new bus operations and maintenance facility on Atlantis Court in Livermore. The Atlantis O&M Facility, Phase I, completed the construction of a parking and storage area in June 2008. Phase II, the bus fuel and wash plant and supporting maintenance facilities, is currently under construction and is anticipated to be completed in January 2013.

Responding to federal, state and local funding shortfalls caused by the Great Recession of 2008, LAVTA consolidated routes and discontinued the All Nighter route and many midday services in 2009. Overall, the service change resulted in a 25% reduction in revenue hours of service. Fare policy was restructured, resulting in a fare increase and policy changes discontinuing free services.

A Bus Rapid Transit (BRT) line, named the Rapid, was implemented in January 2011. The Rapid serves as a mainline east-west corridor serving Livermore, Dublin, and Pleasanton as well as provide a feeder service to the BART stations in the Dublin/Pleasanton area. The addition of this new service increased ridership and started LAVTA's recovery from the Great Recession.

In July 2011, ALC began its operation of the paratransit demand response services. The ALC business model utilizes independent subcontractors who own, operate, and maintain their vehicles, eliminating the need for a standalone paratransit fleet and the associated maintenance costs.

LAVTA continued growing in 2012, expanding services to the Dublin Ranch area and adding more frequent commuter services. A three year growth trend has effectively restored two-thirds of services to pre-Recession levels.

#### 1.2 GOVERNANCE

The governing body for LAVTA is the Board of Directors (BOD). The BOD establishes policy for the agency. Two representatives from Livermore, Dublin, and Pleasanton and one member representing Alameda County compose the BOD. The mayors of each municipality appoint elected city council members to terms on the LAVTA BOD, with each mayor having sole appointment authority. Board authority is based on a Joint Exercise of Powers Agreement that was approved by all member jurisdictions in 1985.

The current members of the LAVTA BOD, in no particular order, are:

•	Alameda County representative	Supervisor Scott Haggerty Term expires 11/12
•	City of Dublin representative	Mayor Tim Sbranti Term expires 11/12
•	City of Dublin representative	Councilmember Don Biddle Term expires 11/14

City of Pleasanton representative Councilmember Cindy McGovern
 Term expires11/12

City of Pleasanton representative
 Councilmember Jerry Thorne

Term expires 11/14

City of Livermore representative
 Councilmember Bob Woerner

Term expires 11/13

City of Livermore representative
 Councilmember Laureen Turner

Term expires 11/15

LAVTA's BOD is divided into two committees that meet regularly to consider items within each committee's purview.

The current members of the Finance and Administration Committee are:

- Don Biddle (Dublin)
- Jerry Thorne (Pleasanton)
- Laureen Turner (Livermore)

The current members of the Projects and Services Committee are:

- Scott Haggerty (Alameda County)
- Tim Sbranti (Dublin)
- Cindy McGovern (Pleasanton)
- Bob Woerner (Livermore)

#### 1.3 ORGANIZATIONAL STRUCTURE

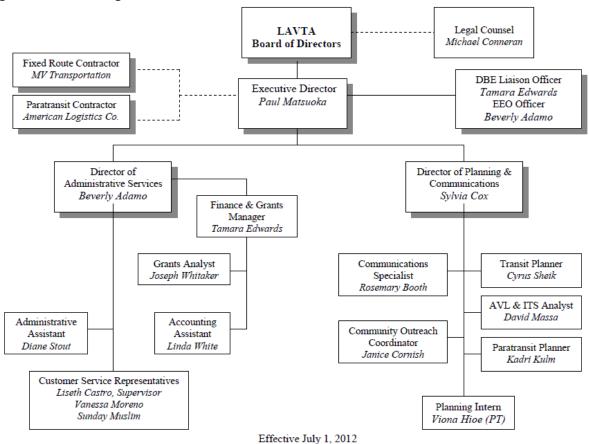
The LAVTA organization structure has remained relatively the same since last full SRTP update in 2008. Operating under the direction of the Executive Officer, the agency is divided into two departments, Administrative Services and Planning and Communications. Staffing levels have remained steady at approximately 15 full time employees (FTE). Figure 1 is a graphical representation of the LAVTA organization chart.

LAVTA contracts out the Operations and Maintenance for fixed route and paratransit services. From 2002 through 2011, MV Transportation provided operations and maintenance for the fixed route and paratransit services. MV Transportation employs drivers, mechanics, supervisors, and its own management staff at the LAVTA property. All non-management MV Transportation employees are represented by Teamsters Local #70.

After a thorough procurement process, MV Transportation was committed to a contract term of three years plus four, one year options for the operation of the fixed

route service and the maintenance of the LAVTA fleet starting in July 2011. ALC was awarded the operation of the paratransit service with the same start date. The ALC business model employs subcontractors who drive, own, and maintain their own vehicles, eliminating the need for LAVTA to operate a paratransit fleet. Under this business model, the LAVTA owned paratransit fleet is available for fixed route services or as a contingency fleet.

Figure 1-1. LAVTA Organizational Chart



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# **Demographic Analysis**

#### 2.1 OVERVIEW

The Wheels service area covers 40 square miles and consists of the jurisdictions of Dublin (pop. 46,036), Livermore (pop. 80,968), and Pleasanton (pop. 70,285) and some unincorporated areas of Alameda County. The area is sometimes called the Livermore Valley or Amador Valley and is commonly known as the Tri-Valley Area. The three cities in the Tri-Valley area have grown, developing from a primarily agricultural area with two small agriculturally-based cities into largely low-density, auto-oriented, mostly affluent suburban development. Dublin, in particular, has been one of the fastest growing cities in Alameda County. High population growth in the area led to rapid development in many undeveloped areas until limited by Measure D. Measure D passed in 2000 and established growth boundaries around the three cities and limited development in unincorporated areas.

The Tri-Valley area's demographic data provides background for the transit planning process. Travel patterns, the distribution of the population, and the locations of transit-dependent populations are key factors to understanding the area's transit needs. The most successful transit routes, in terms of productivity and ridership, link areas of high density and mixed uses. Thereby, identifying areas of population and employment density are also important in route planning. This section reviews existing densities in the Wheels service area based on 2010 US Census data.

#### 2.2 POPULATION AND INCOME DISTRIBUTION

#### 2.2.1 Population Densities

The cities of Livermore, Pleasanton, and Dublin overall have similar residential densities classified as suburban. The residential densities are 2,896, 3,155, and 3,216 people per square mile in Pleasanton, Dublin, and Livermore, respectively. The distribution of residential densities is not even throughout the communities with some very sparsely populated census tracts and some very concentrated. The highest areas of population density, as high as 7,000 to 10,000 people per square mile, are located in Livermore. One area is the central/western section of Livermore and is served by Wheels Routes 12 and 14. Another is adjacent to and just west of the Lawrence Livermore National Laboratory (LLNL)/Sandia transit hub at East Avenue and Vasco Road where Routes 10, 20X, and the Rapid terminate. Areas of low density are in the outlying agricultural areas of the Tri-Valley and between Livermore and Pleasanton where a large quarry dominates the landscape. Population density is shown in Figure 2-1.

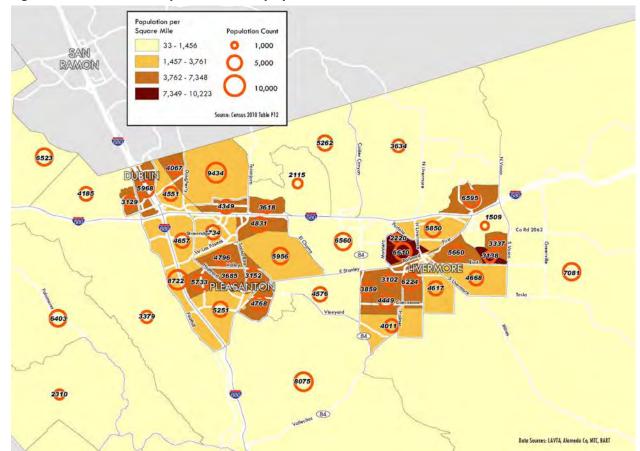


Figure 2-1. LAVTA Area Population Density by Tract

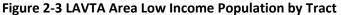
#### 2.2.2 Income

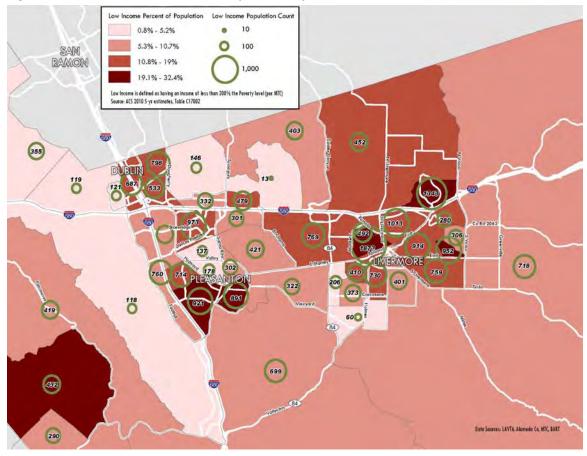
The median household income in the Tri-Valley area is higher than the Bay Area average. In fact, the three cities are among the most affluent midsized cities in the nation. The Bay Area average median income is \$76,000. Pleasanton's median household income is \$115,188, Dublin's median household income is \$107,754, and Livermore's is \$93,988. Within the Wheels service area, median household incomes vary from tract to tract, but fall generally between \$60,000 and \$160,000 a year. As shown in Figure 2-2, some of the areas with the highest median incomes are located in the low-density areas outside of city boundaries in areas characterized by exclusive neighborhoods and vineyards.

The pockets with the highest concentrations of low-income residents are in Pleasanton and Livermore. For the purposes of this study, a low-income population is defined as a household earning less than 200% of the federal poverty level. In Pleasanton, the southern tracts of the downtown area and within the vicinity of the Fairgrounds have high concentrations of low-income populations. In Livermore, parts of North Livermore/Springtown, the Wagner Farms/Rancho Arroyo Area, and the Old Northside neighborhood have high concentrations of low-income populations. In many cases, the tracts in Livermore with the highest concentration of low-income residents are also the most densely populated tracts. These are shown in Figure 2-3.

\$61,196 - 90,457 SAN \$90,458 - 112,696 RAMON \$112,697 - 138,589 \$138,590 - 169,286 ACS 2010 5-yr estimates, Table B19013 \$137,929 \$121,545 DUBLIN \$86,36 \$132,066 \$109,325 \$87,500 \$104,722 \$88,636 \$110,288 \$90,457 587,917 \$120,673 \$86,375 \$79,271 \$67,342 LIVERMORE \$105,217 \$112,696 \$122,470 \$80,611 \$77,446 \$101,845 LEASANTON \$99,635 \$135,433 \$61196 \$98942 Data Sources: LAYTA, Alameda Co, MTC, BART

Figure 2-2. LAVTA Area Median Household Income by Tract





#### 2.3 TRANSIT DEPENDENT POPULATIONS

Many seniors, young people, and people with disabilities depend on transit as their primary means of transportation as many cannot drive. In order to better serve these market groups, it is important to identify where there are concentrations of these groups.

#### 2.3.1 Seniors

Livermore and Pleasanton have senior populations that total about 10.3% and 11%, respectively, of their total populations. This is about average for the Bay Area. Dublin's proportion of seniors is lower at 7.3%. As shown in Figure 2-4, seniors are somewhat evenly dispersed throughout the Tri-Valley area. One tract in central Livermore has a higher density of seniors than the rest of the Tri-Valley. South of downtown and in the older Sunset East neighborhood, the density is between 15 and 20%.

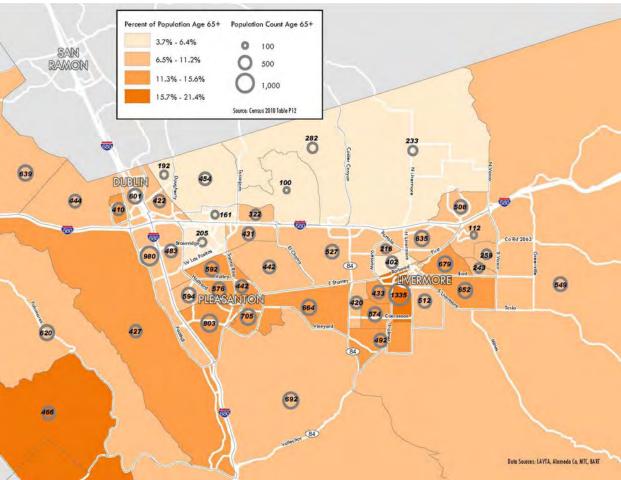


Figure 2-4. LAVTA Area Senior Population by Tract

#### 2.3.2 Youth

As shown in Figure 2-5, the youth population is distributed somewhat evenly throughout the three cities. Dublin has the lowest proportion of youth aged 5 to 19 with 17.2%. Pleasanton and Livermore have 23.6% and 21.3%, respectively.

The tracts with the largest proportion of young residents (28.5% to 33% of the population) are also areas with the lowest population densities. As transit is most likely planned in areas of high density, the youth in these areas of low population density are unlikely to be served by transit. The youth within the LAVTA service area are served by school tripper and fixed routes that run throughout the communities to middle and high schools. Corridor routes also connect youth to popular destinations, such as the Stoneridge Mall, parks, and libraries.

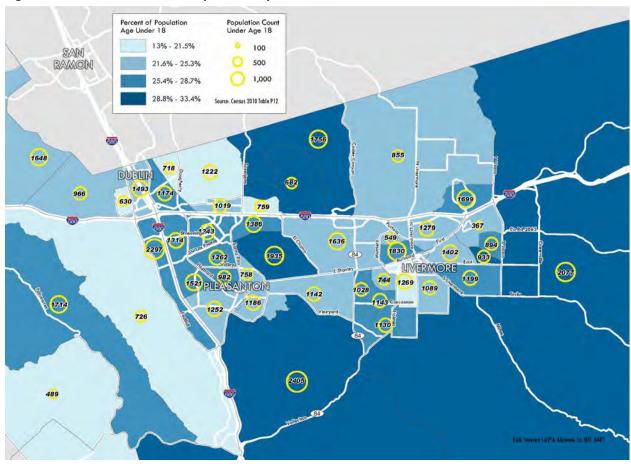


Figure 2-5. LAVTA Area Youth Population by Tract

#### 2.3.3 Zero-Vehicle Households

Zero-vehicle households are households that do no own or have access to a vehicle. People in zero-vehicle households tend to be dependent on transit as a primary mode of transportation. In the Tri-Valley Area, the percentage of zero-vehicle households is less than the Bay Area average. Most census tracts have between 0% and 7% of households without vehicles while in the Bay Area average is 10%. This reflects the general affluence of the Tri-Valley area.

Figure 2-6 shows the density of households that are without access to a vehicle. There are two tracts in Livermore, two tracts in Pleasanton, and one tract in Dublin with the highest proportion of zero-vehicle households, in the 7-12 % range. These areas generally coincide with the areas of low income.

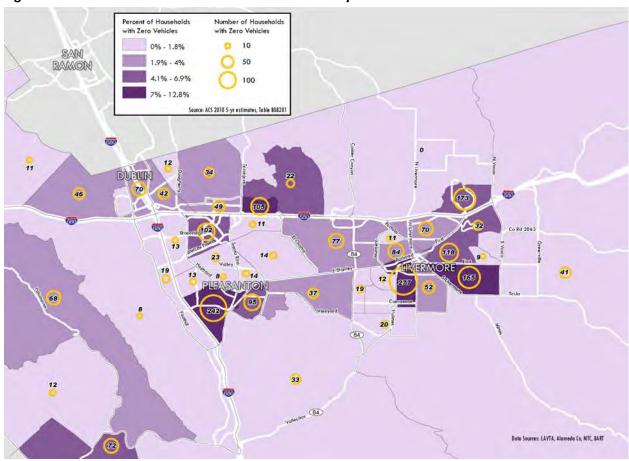


Figure 2-6. LAVTA Area Households with Zero Vehicles by Tract

#### 2.4 EMPLOYMENT

#### 2.4.1 Major Employers in the Tri-Valley

Table 2-1 lists the largest employers in the Tri-Valley area, indicating the number of employees by employer and the city where the job is located.

Table 2-1. Major Employers

Name	City	<b>Number of Employees</b>
Lawrence Livermore National Laboratory (LLNL)	Livermore	8,750
Kaiser Permanente	Pleasanton	4,255
Safeway	Pleasanton	3,300
United States Government (including Federal	Dublin	2,100
Correctional Institution)		1 100
Oracle	Pleasanton	1,488
Valley Care Health System, Lifestyle Rx Fitness Center	Livermore	1,300
Livermore Valley Joint Unified School District	Livermore	1,120
Pleasanton Unified School District	Pleasanton	1,114
Valley Care Medical Center	Pleasanton	1,075
Comcast	Livermore	1,000
Workday Incorporated	Pleasanton	970
Sandia National Laboratory	Livermore	910
FormFactor, Inc.	Livermore	850
Carl Zeiss Meditec	Dublin	830
SAP	Dublin	730
Ross Dress for Less Incorporated	Pleasanton	678
Wente Vineyards	Livermore	676
Kaiser Permanente Regional Distribution Center	Livermore	675
City of Livermore	Livermore	656
State Fund - Compensation Insurance	Pleasanton	650
Macy's	Pleasanton	616
Dublin Unified School District	Dublin	580
E M C Corporation	Pleasanton	566
DTI   Dental Technologies Inc.	Dublin	550
Livermore Area Recreation and Park District	Livermore	508
County of Alameda	Dublin	480
Hendrick Automotive	Pleasanton	478
Thoratec Corporation	Pleasanton	470
City of Pleasanton	Pleasanton	457
Roche Molecular Systems Inc.	Pleasanton	441
Blackhawk Network	Pleasanton	414
AT&T	Pleasanton	404
Safeway	Dublin	400
Topcon Positioning Systems	Livermore	394
Activant Solutions	Livermore	363
Clorox Service Company	Pleasanton	348 <sup>1</sup>
Nordstrom	Pleasanton	304
Wal-Mart	Pleasanton	289
ADP Inc.	Pleasanton	283
Johnson Controls, Inc.	Livermore	279

The number of employees is anticipated to increase by 600 when staff is relocated from the Oakland office in September 2012.

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Name	City	Number of Employees
J C Penny Co	Pleasanton	265
WalMart Stores	Livermore	265
Pro Business	Pleasanton	262
Nellcor Puritan Bennett	Pleasanton	256
Costco Wholesale	Livermore	245
Clubsport of Pleasanton	Pleasanton	242
Veeva Systems	Pleasanton	241
Cisco Systems Incorporated	Pleasanton	221
The Cheesecake Factory	Pleasanton	218
City of Dublin	Dublin	217
Patelco Credit Union	Pleasanton	216
Shaklee Corporation	Pleasanton	214
Prestige Protection	Pleasanton	212
Applied Biosystems/Life Technologies	Pleasanton	210
Pleasanton Nursing & Rehabilitation Center	Pleasanton	205
Franklin Templeton Investments	Dublin	200

The data supports that Pleasanton is a job-rich community, with more jobs than residents. Most of those jobs are concentrated around the intersection of Interstates 580 and 680, close to the Dublin BART station and in the Hacienda Business Park. In this area, there are between 13,000 and 20,000 jobs per square mile (see Figure 2-7). High job densities in Livermore include downtown and at Lawrence Livermore National Laboratory, the largest employer in the Tri-Valley. Employment data around the LAVTA service area is mapped in the figures and includes a portion of San Ramon, north of Dublin, where there is a concentration of jobs along I-680.

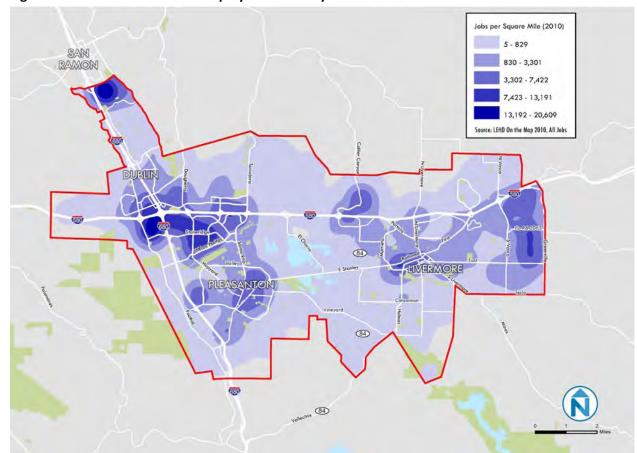


Figure 2-7. LAVTA Service Area Employment Density<sup>2</sup>

#### 2.4.2. Commute Patterns

Comparing maps of where residents work and where workers live in the Tri-Valley area, commute patterns are determined. Large concentrations of worksites between 2,500 and 4,000 jobs per square mile within each city provide the ability to live and work within the same community. The highest concentrations of Tri-Valley employees also reside in Dublin, Pleasanton, and Livermore. Some concentrations of employees live further east in Tracy and Manteca.

Concentrations of jobs also exist in major local employment centers like San Francisco and Oakland. Figure 2-8 shows that Tri-Valley residents are likely to commute all over the Bay Area. Figure 2-9 shows that people from all over the Bay Area are also commute to the jobs in the Tri-Valley area.

A portion of San Ramon is included to show the nearby concentrations of employment just outside of the core LAVTA service area.

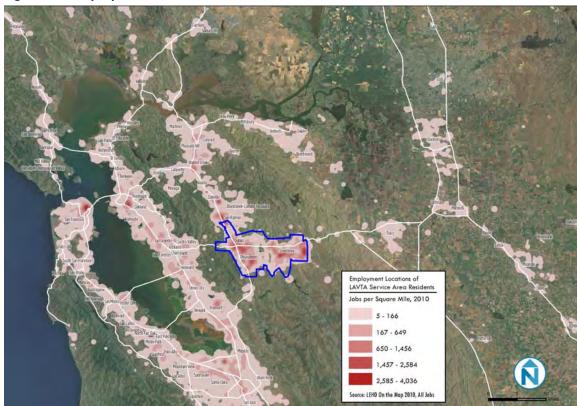
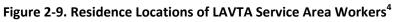
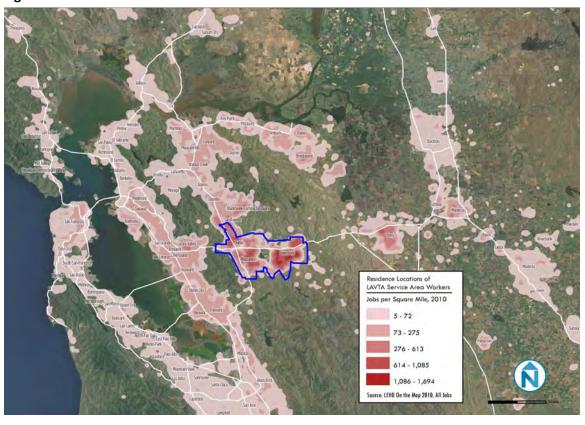


Figure 2-8. Employment Locations of LAVTA Service Area Residents<sup>3</sup>





<sup>3,4</sup> A portion of San Ramon is included to show the nearby concentration of employment just outside of the core service area.

## **Existing Transit Services**

#### 3.1 OVERVIEW

The current fixed route service levels reflect a service level still recovering from the Great Recession, but benefiting from the implementation of the Rapid BRT line in 2011 and recent improvements in the economy. A high level of service hours is allocated to the east-west corridor that connects the three cities in the LAVTA service area and the San Francisco BART network.

The LAVTA service area comprises the three suburban municipalities of Dublin, Pleasanton, and Livermore and some unincorporated areas within Alameda County. With a few exceptions, most fixed routes and demand response services start and end within the LAVTA service area.

The agency contracts out fixed route operations and maintenance to MV Transportation Inc, but owns the facilities and bus fleets. As of fall 2012, the peak vehicle requirement was 46 buses for the fixed route service. Considerable interlining is applied whenever feasible, most notably in the afternoon when vehicle demand is higher due to school trippers and commute hour services.

LAVTA provides ADA-mandated paratransit service for individuals who have a certified disability or heath-related condition that prevents them from using regular fixed-routes. The operation of the Dial-A-Ride paratransit service is contracted to ALC. The peak vehicle requirement for paratransit service is approximately 12 vehicles. LAVTA does not own the fleet currently being used for its paratransit operations.

#### 3.2 FIXED ROUTE SYSTEM

Under its Wheels brand, LAVTA operates 16 mainline routes and 15 school tripper routes. Local routes are generally numbered by a single digit in the Dublin/Pleasanton area and in the teen digits in the Livermore area. Intermunicipal routes generally are assigned even numbers, such as 10, 20, and 30. Routes focused to serve schools, called "school trippers", are generally assigned three-digit route numbers. Table 3-1 provides a summary of the Wheels fixed routes and the principal areas they serve.

Ridership is heavily focused on a few core routes with relatively robust levels of service. The remaining routes are primarily coverage-based community routes or routes that provide feeder service into other modes of transit. Route 10 experiences the highest level of ridership and carried approximately 35% of the total Wheels ridership in FY2012.

Routes 12, 15, and 30 also experience high ridership and together account for 35% of the sytem's ridership.

Table 3-1. Wheels Fixed Routes as of July 2012

	Mainline Routes		School Focused Routes
1	East Dublin	16	Big Trees Park
2	Dublin Ranch	201	East Dublin
3	West Dublin	202	East Dublin
8	Hopyard	203	West Dublin
9	Hacienda	601	Ruby Hill
10	Intermunicipal	602	Del Prado Park
11	Northeast Livermore	603	Muirwood Park
12	Intermunicipal	604	Fairlands
14	Central Livermore	605	Fairlands
15	Springtown	606	Vintage Hills
18	Granada	607	Laguna Oaks
20	Intermunicipal	608	Amaral Park
30	Intermunicipal (Rapid)	609	Del Prado Park
53	Stoneridge	610	Fairlands
54	Hacienda	611	Vintage Hills
70	Walnut Creek		

One of the intermunicipal routes, route 30, is operated and marketed as the Rapid, utilizing branded vehicles entirely separate from the general Wheels brand and color scheme. The Rapid incorporates some basic "bus rapid transit light" applications such as skip-stop operation, enhanced bus stops, low floor buses, high frequencies, next bus arrival, and traffic signal priority.

#### 3.2.1 Service Span and Frequency

Routes are generally designed to be peak only or all day services. Peak only routes targeting to serve commuters are generally scheduled to meet other modes of transit, such as ACE or BART. These routes are either picking up residents and connecting them to the regional transit network to get them to work outside the Tri-Valley area or picking up commuters coming from outside the area and delivering them to work. School focused routes can also be considered peak only since they are scheduled to meet school bell times in the morning and afternoon.

#### **Peak Only Routes**

#### Routes serving ACE

Routes 53 and 54 meet ACE trains at the Pleasanton ACE station, from 6 am to 9 am in the morning and from 4 pm to 5 pm in the afternoon. These routes operate on a 60 minute frequency.

#### Routes serving BART

Many routes are designed to serve the Dublin/Pleasanton BART station. Route 9 shuttles commuters between the Dublin/Pleasanton BART station and the Hacienda Business Park on a 15 minutes frequency from 7 am to 9 am and from 4 pm to 6 pm. Route 2 also connects residential areas in Dublin, including high density housing on Central Parkway and suburban developments in Dublin Ranch, to the BART station on a 45 minute frequency.

Route 3 connects to two BART stations, West Dublin/Pleasanton and Dublin/Pleasanton, to community services and schools in Dublin and a business park in Pleasanton. Running from 6 am to 9 am and from 4 pm to 9 pm on a 60 minute frequency, this route is designed for commuters.

Route 20 is an express service from the downtown Livermore Transit Center to the BART station and runs from 6 am to 10 am in the morning and from 4 pm to 7 pm in the afternoon with a 45 minute frequency.

Route 70 is an express service that travels into Contra Costa. This route serves four BART stations, Dublin/Pleasanton, West Dublin/Pleasanton, Pleasant Hill, and Walnut Creek. Route 70 operates from 6 am to 9 am and from 4 pm to 6 pm on a 30 minute frequency.

#### Routes serving the Transit Center

The downtown Transit Center is adjacent to the Livermore ACE station and acts as an intermodal connection for Route 18. Route 18 connects many residential neighborhoods, schools, and community services to the Transit Center from 7 am to 9 am and 2 pm to 7 pm on a 45 minute frequency.

#### Routes Focused on Schools

School focused routes meet bell times in the morning and the afternoon. These routes are generally less than an hour long and only run one or two trips in each peak period.

#### **All Day Routes**

Routes running the span of the day have different characteristics depending on the markets they serve. All day local routes have frequencies ranging between 30 to 60 minutes in the peak periods and 30 to 120 minutes in the midday. They generally span continuously from 6 am to 9 pm. One exception is the Route 15, which runs from 5 am to midnight. This route is designed to link the Springtown community with downtown Livermore with stops at Target, Wal-Mart, and Kaiser along the way. This route is successful as a quick trip between shopping centers and the downtown area as well as a link between a large residential area and the Transit Center.

Intermunicipal routes that run all day have frequencies ranging between 10 to 60 minutes. The Rapid has the highest frequencies with 10 minutes in the peak period and 15 minutes the rest of the day. The Rapid runs from 5 am to 8 pm.

The Route 10 is the most successful route, running 30 minute service from 5 am to 8 pm, and then 40 minute service from 8 pm to 2 am. This route is the backbone of the community routes, making connections with the Transit Center, the LLNL and Sandia, schools, medical facilities, residential neighborhoods, three downtown areas, the Stoneridge Mall, two BART stations, employment parks, and all stops in between. Similarly, the Route 12 also provides many of the same functions as the 10, but along a northern alignment. Route 12 runs 30 minute service in the afternoon peak period and 60 minutes the rest of the day. From 6 am to 11 pm, Route 12 makes connections with the Transit Center, Park and Rides, schools and Las Positas Community College, libraries, shopping centers, housing developments, and the Dublin/Pleasanton BART station.

Table 3-2 summarizes the weekday hours of operation by route. Route frequencies are shown inside the bars.

#### 3.2.2 Weekend and Holiday Service

The 10 line is the core service on weekends, operating both Saturdays and Sundays during approximately the same time span as on weekdays. Frequencies vary from 20 to 40 minutes. Saturdays see a relatively complementary local/feeder service, with routes 1, 3, 8, 12, and 15 operating hourly throughout most of the day. On Sundays, service is limited to routes 1, 10 and 15 only.

Holidays are usually defined as those recognized on the federal calendar. On most major holidays, a Sunday service is operated. On other holidays, an enhanced Saturday schedule is operated. On Thanksgiving Day and Christmas Day, a special, limited service is provided, with only the 10 and 15 lines running, both running hourly.

With weekday, weekend, and holiday service, Wheels operates 365 days a year.

5:00 AM | 6:00 AM | 7:00 AM | 8:00 AM | 9:00 AM | 10:00 AM | 11:00 AM | 12:00 PM | 1:00 PM | 3:00 PM | 3:00 PM | 5:00 PM | 5:0 Time of the Day Corridor Routes - All Day Local Routes - Peak Only Local Routes - All Day R (30) Route 

Table 3-2. Weekday Block

#### 3.3 PARATRANSIT SERVICE

LAVTA provides a complementary door to door paratransit service for those unable to utilize the fixed route system as mandated by the 1990 Americans with Disabilities Act (ADA). The ADA requires a minimum provision of on demand curb to curb paratransit services to any origin and destination within 0.75 miles on either side of a fixed route bus, during the times of fixed route service. The ADA also requires riders must have an "ADA qualifying disability" that would keep them from using the fixed route bus.

LAVTA provides a more user friendly, premium paratransit service called Wheels "Dial-A-Ride" (DAR). LAVTA provides DAR to eligible patrons in the entire LAVTA service area, regardless of whether a fixed route bus is within 0.75 miles. LAVTA provides door to door service whereby Wheels DAR bus drivers will assist passengers from the bus to the door of their destination if assistance is requested. In addition, LAVTA does not limit the length of trips, only enforces that it is within the service area.

Eligibility for LAVTA's DAR program requires certification under ADA requirements. Eligibility is determined based on a paper application with a licensed medical care professional's verification. Passengers must call ahead to make reservations, which can be made one to seven days in advance. There are no limits on the number of rides a person may take.

Fares are currently \$3.50 per ride. ADA registered passengers may also ride the Wheels fixed route network for a \$1.00. The Alameda County Transportation Commission (ACTC) sponsors a scholarship program funded by Measure B for low income riders. The program will provide up to 20 paratransit tickets per fiscal year to an eligible low income rider.

LAVTA also participates in a para-taxi program which provides same day service for its ADA eligible riders. Riders submit their taxi receipts to LAVTA and are reimbursed 85% of the cost, up to \$20 per trip and up to \$200 per month.

#### 3.3.1 Pleasanton Paratransit Service

LAVTA provides an ADA mandated DAR service for the entire service area. However, LAVTA has a cooperative service relationship with Pleasanton Paratransit in which Pleasanton Paratransit provides door to door service for their residents. Pleasanton Paratransit provides local trips for eligible residents that start and begin in Pleasanton. The hours of operation are general business hours on weekdays and Saturdays. LAVTA covers the overflow from Pleasanton Paratransit's operations as well as provides the services when Pleasanton Paratransit is not operating.

#### 3.3.2 Dublin and Livermore Service

LAVTA provides paratransit in the rest of the Tri-Valley, as well as in Pleasanton when its paratransit system does not operate. LAVTA serves complementary service to Dublin and Livermore and some areas of unincorporated Alameda County.

#### 3.4 CONNECTING SERVICES

#### 3.4.1 Other Operators within the LAVTA service area

#### **Altamont Commuter Express**

The Altamont Commuter Express (ACE) operates commuter rail service between Stockton and San José with three stations en route in the LAVTA service area – Vasco Road, Downtown Livermore, and Pleasanton. Four weekday trains travel in the direction of San José in the morning, and then return in the direction of Stockton in the afternoon.

LAVTA receives funding from ACE to provide routes that meet the ACE trains at the Pleasanton ACE station. In exchange for the funding, LAVTA requires no fare payment from ACE riders to and from the ACE station. Route 53 serves the Stoneridge Mall area and the West Dublin/Pleasanton BART station. Route 54 serves the Bernal and Hacienda business parks and the Dublin/Pleasanton BART station. While LAVTA has routes that also serve the Vasco Road and Downtown Livermore ACE stations, these routes are not underwritten by ACE and are not tailored to meet the ACE train schedules.

#### **Bay Area Rapid Transit**

There are two Bay Area Rapid Transit (BART) stations within the LAVTA service area – Dublin/Pleasanton, the eastern terminal for the Blue Line, and the West Dublin/Pleasanton stations. BART trains arrive on a 15 minute pulse.

#### **Other Bus Operators**

Central Contra Costa Transit Authority (County Connection), AMTRAK, the Modesto Area Express, and the San Joaquin Regional Transit District (RTD) provide limited service between points in the Tri-Valley and these BART stations.

#### Central Contra Costa Transit Authority

County Connection has four services within the LAVTA service area. Three of these services connect San Ramon Transit Center to the Dublin/Pleasanton BART station. County Connection also connects riders from Mitchell Drive/Park in Walnut Creek to the ACE station in Pleasanton. Descriptions of the routes and the destinations they serve are below.

Route 35 - San Ramon Transit Center - Bollinger Canyon Road/Market
 Place - Bollinger Canyon/Main Branch Road - E. Branch

Parkway/Windemere Parkway – Bollinger Canyon Road/Watermill Road - Dublin/Pleasanton BART Station

- Route 36 San Ramon Transit Center Bollinger Canyon Road/Talavera
   Drive Firecrest Lane/Craydon Circle Village Parkway/Elmwood Drive –
   Dublin/Pleasanton BART station
- Route 92X Mitchell Drive/Park (Walnut Creek) Danville Park and Ride -Crow Canyon Road/Crow Canyon Place - Bishop Ranch 15 - San Ramon Transit Center - ATT - Chevron San Ramon - ACE Train Station
- Route 97X San Ramon Transit Center -Bishop Ranch 15 Annabel Lane/End - Bishop Ranch 8 - Marriott - Sunset Drive/Bishop Drive -Chevron San Ramon - Bishop Ranch 1 - Dublin/Pleasanton BART Station

#### MAX express

The Modesto BART express connects riders from the Modesto Downtown Transportation Center to the Dublin/Pleasanton BART Station with one stop at Sisk Road, Modesto.

#### San Joaquin RTD Commuter

The San Joaquin RTD Commuter has three routes within the LAVTA service area. The commuter route 155 connects riders from Stockton/Manteca to Livermore at the LLNL and the Dublin/Pleasanton BART station. Route 152 connects riders from Stockton to Livermore at the LLNL. Route 155 connects riders from Mountain House to the Dublin/Pleasanton BART station. Descriptions of the routes and the destinations they serve are below.

- Route 150- Stockton/Manteca Lathrop Tracy Mountain House -LLNL -Dublin/Pleasanton BART Station
- Route 152 Stockton Lathrop -LLNL
- Route 155 Mountain House Dublin/Pleasanton BART Station

#### **AMTRAK**

AMTRAK provides a thruway bus that connects San Francisco to Stockton, supporting the AMTRAK San Joaquin line. The thruway bus has four stops within the LAVTA service area; one stop at the Dublin/Pleasanton BART station, one stop at the Pleasanton ACE Station, one stop at the Livermore Transit Center, and one stop at the Vasco Road ACE station in Livermore.

#### **Paratransit Services**

Interagency Paratransit transfers with the East Bay Paratransit (a consortium between AC Transit and BART) and Links (County Connection) are at the Dublin/Pleasanton BART station.

#### 3.4.2 Hubs and Transfer Points

#### **Hubs**

There are two primary hubs in the Wheels system, the Dublin/Pleasanton BART station and the Transit Center. The Dublin/Pleasanton BART station is located in the I-580 freeway median between Dublin and Pleasanton. The Transit Center is located at the northeastern area of downtown Livermore and is integrated with the downtown Livermore ACE station.

The majority of Wheels fixed routes serve one or both of these hubs. Schedules are set up to coincide with the BART train arrivals and departures to the extent possible, banking departures to the pulse of the train departures; this pulse then flows downstream to the Transit Center where routes are banked in a similar way. This setup maximizes transfer opportunities for bus to bus, bus to train, and train to bus connections while minimizing transfer wait times.

#### **Transfer Points**

There are several transfer points within the Wheels service area. Bus to rail transfers may be made at the West Dublin/Pleasanton BART station, the Pleasanton and Vasco Road ACE stations, and the Transit Center which is adjacent to the Livermore ACE station. s

Bus to Bus transfers may be made at East & Vasco at the LLNL, the intersection of Neal & First in downtown Pleasanton, the Transit Center, and the Stoneridge Mall. Wheels routes are not specifically timed for transfers at these locations.

#### 3.5 FARES

#### 3.5.1 Wheels Fares

#### **Fixed Route Fares**

Cash continues be the primary method of payment in the Wheels system. This can mainly be attributed to the socio-economic character of the ridership base. Regular fare is \$2.00. Children, aged 5 and under, ride free. No special youth or student discounts are provided. The fare for persons with disabilities or aged 65 or older is \$1.00, a 50% discount from the full fare cost. Table 3-3 summarizes the current Wheels fares.

Tickets are sold at the agency's customer service center at the Transit Center facility, at the Administration office, and at select area grocery retail stores. A 20% discount is available for tickets when they are bought in increments of 10. A regular monthly pass is available at \$60 and a Senior/Disabled monthly pass is available at \$18.

#### Paratransit Fare

The ticket fare for paratransit service is \$3.50 and no discounts are available. Tickets can be pre-purchased either individually at \$3.50 or in books of 10 at \$35.00. Transfers are free on inbound (Wheels receiving) interagency paratransit trips.

Table 3-3. Wheels Fares as of July 2012

Wheels Fares	
Cash Fares	
Regular	\$2.00
Senior 65+	\$1.00
Disabled / Medicare Card	\$1.00
Transfers	Free
Tickets and Passes	
10-Ride Tickets	\$16.00
Monthly Pass, Regular	\$60.00
Monthly Pass, Sen/Disabled	\$18.00
Paratransit Fares	
Cash	\$3.50
Single-Ride Ticket	\$3.50
10-Ride Tickets	\$35.00

#### Recent Changes in Fares

The last fare change took place in 2009 when the regular fare was raised from \$1.75 to \$2.00 and most other fares raised proportionately. Policies which allowed senior passengers to ride free on weekdays between 9 am and 2 pm, ADA certified clients to ride free on all fixed route service, and all passengers to ride free on Route 50 between the Koll Center Park and Ride and the Dublin/Pleasanton BART station were rescinded as part of the fare change.

#### 3.5.2 Employer Pass Program

The Hacienda Business Park participates in an employer commuter club program called the Hacienda Eco Pass Program to encourage transit use and to reduce congestion. The Hacienda Business Park administration pays an annualized cost per employee to Wheels to provide pass holders with free service. Employees and residents are eligible to use the Wheels system seven days a week, 365 days a year for free while employed or residing within the Park. Riders flash their pass to the driver when boarding a Wheels bus. The ECO Pass Program is actively managed by the Hacienda Business Park administration.

#### 3.5.3 Transfers

#### **Fixed Route Transfers**

Transfers are issued at no extra charge and are good for two hours following the first boarding payment. There are no restrictions on which route the transfer may be used on or on how many transfers can be made within the two-hour period. The transfers are traditional newspaper-print style slips with a letter code for the day. Upon issue, the bus operator tears off the slip at a time mark corresponding to the valid time window of the transfer.

#### **Inter-Operator Transfer Agreements**

LAVTA has a reciprocal transfer agreement with the County Connection in which the two agencies accept each other's transfer slips. It also participates in the East Bay Value Pass program, a joint monthly pass, which includes the County Connection, Western Contra Costa Transit Authority (WestCat), and Eastern Contra Costa Transit Authority (Tri-Delta Transit).

For passengers exiting BART and boarding a Wheels bus, the transfer fare is \$1.00 to ride the Wheels bus.

#### 3.5.4 Clipper Card

The Metropolitan Transportation Commission (MTC), the region's Metropolitan Planning Organization (MPO), is the lead agency on the region-wide transit fare card Clipper, the deployment of which LAVTA is in support of. All the large transit operators in the San Francisco Bay Area, including BART, have integrated and implemented Clipper as part of their fare payment system, with the approval and support of the MTC. However, the MTC has informed the remaining operators, including LAVTA, that the deployment of Clipper is on hold while it works on upgrading the system's hardware backbone. Once the new version is ready, the remaining operators will be asked to adopt Clipper.

After the implementation of Clipper on the Wheels system, is likely that LAVTA will continue to accept onboard cash payments. However, all other Wheels payment media, including tickets and monthly passes, may be discontinued.

#### 3.6 FLEET

#### 3.6.1 Revenue Vehicle Fleet and Types

The last major fleet-wide revamping of the LAVTA revenue vehicle fleet took place in 2003 when a total of 34 Gillig low-floor buses were acquired. These vehicles form the backbone of the Wheels system and are augmented by smaller subfleets. Seven 1996 New Flyer, the first low-floor buses in the agency's fleet, remains in service. Nine Gillig Phantom coaches from 2000 and 2002 are equipped with high-back seats. These fleets have standard clean-burning diesel engines outfitted with particulate-matter traps.

The agency purchased its first diesel-electric hybrid bus in 2007 and has been buying this technology exclusively since 2009. That year, 2009, a fleet of 14 buses were acquired and specially branded with the Rapid theme used on Rapid route. The latest revenue vehicle acquisition took place in 2011 with four 29' hybrid buses, two of which were branded for use on the Rapid. Table 3-4 shows a summary of the agency's fleet as of fall 2012.

Table 3-4. Revenue Vehicle Fleet as of Fall 2012

Revenue Vehicle Fleet				
Year	Mfg	Length	Capacity	# Vehicles
1996	New Flyer	40ft/12m	39+17	7
2000	Gillig	40ft/12m	43+28	5
2002	Gillig	40ft/12m	39+28	4
2002	Gillig	40ft/12m	39+21	4
2003	Gillig	40ft/12m	39+21	24
2003	Gillig	30ft/9m	21+21	10
2006	Ford	22ft/7m	13+1	9
2007	Gillig	30ft/9m	21+21	2
2008	Ford	22ft/7m	13+1	6
2009	Gillig	30ft/9m	21+21	2
2009	Gillig	40ft/12m	39+21	12
2011	Gillig	30ft/9m	21+21	4

All full-size coaches in the fleet feature 2 or 3 slot bike rack and two wheelchair positions. The 2003 Gillig 40-foot buses also have a designated area for strollers.

LAVTA also has a subfleet of 15 Ford cutaway vans that were used as the agency's paratransit fleet until 2011. Most of these vehicles are fixed-route ready, with such features as headsigns and bicycle racks, but are rarely utilized in revenue service.

MV Transportation is contracted for fixed route operations, including the maintenance of the fleet. The paratransit contractor, ALC, operate their own fleets resulting in a cost savings to Wheels.

#### 3.6.2 Subfleet Deployments

The overall capacity utilization, defined as a straight average percentage of available seat-miles, is relatively low in the Wheels system. However, due to the fact that certain route segments get busy during certain trips or certain times of the day on many routes, a 40-foot bus is the typical deployment in the system. Because this size of vehicle is quite accommodating with regard to capacity, this also enables more interlining flexibility and efficiency. For example, the Gillig Phantom model subfleet is deployed on blocks that contain trips on the express route 70.

School tripper routes almost always require the largest vehicle type available. The afternoon peak load on school focused routes requires overflow vehicles to cover the demand.

The 30-foot buses are deployed on some local lines having loads that are small and/or evenly distributed, including routes 1, 2, 3, 14, and 18.

As also indicated above, the 22-foot cutaway fleet is a leftover from the previous model of paratransit delivery and is not extensively used for the current fixed route service.

### 3.7 FACILITIES

The LAVTA maintenance, operations, and administration (MOA) facility on Rutan Court was built in 1991 and is located in a light industrial/office park area near the Livermore general aviation airfield. The facility is well situated within the overall Wheels service area and is near the I-580/Isabel Avenue interchange as well as Stanley Boulevard. A second property on Atlantis Drive, also near the airfield, provides overflow vehicle parking but has not completed the construction of any on-site facilities. LAVTA owns all fixed facilities and makes them available to MV Transportation for use in the operation and maintenance of the Wheels service.

#### 3.7.1 Administration

All administrative services of the agency are housed within the Rutan MOA facility, including those for executive, planning, finance, and administrative functions. This location also provides office space for the contractor's management and operations functions, such as those for site manager offices, dispatch work stations, and driver break room facilities. Board meetings and other public meetings are held in the Administration building. The Front Desk sells tickets and assists customers with applying for regional transit passes or Clipper cards.

### 3.7.2 Maintenance and Fueling

The Rutan MOA facility contains a workshop with a total of six indoor vehicle bays as follows:

- 1 steam bay
- 1 lubricant bay
- 2 rack lift bays
- 2 general bays

A canopied outdoor area provides two lanes for fueling incoming buses that have returned to the yard from their runs. At that location, the vehicle fareboxes are emptied

and the bus interiors are cleaned. Adjacent to the fuel island is an automated bus washer for daily bus washes.

# 3.7.3 Vehicle Storage and Staging

Having a theoretical maximum capacity of 70 vehicles; the Rutan MOA facility is insufficient for the current daily staging and operation of the entire LAVTA revenue and support fleet. Therefore, some vehicles are stored at and staged from the Atlantis location. This requires the shuttling of equipment and drivers as the Atlantis facility does not currently contain any on-site facilities. As of the fall 2012 schedule, only the afternoon peak pull on school days requires a secondary pull from the Atlantis location. Staging at all other times can be handled from the Rutan MOA facility.

### 3.7.4 Park and Ride Lots

There are five park and ride (PnR) locations within the Wheels service area that provide all day parking for the purposes of carpooling or taking transit. The downtown Livermore parking structure is the largest facility and is located adjacent to the Transit Center. It is a dual-purpose facility in the sense that it also serves as parking for downtown shoppers or other general trips that terminate in the vicinity of the garage. The California Department of Transportation (CalTrans) operates two surface lots, one on Portola Avenue in Livermore, which is lightly used, and one on Johnson Drive in Pleasanton, which is highly used. In addition, the BART District owns and maintains a PnR on Airway Boulevard that is little used. Finally, there is a PnR designated portion of the parking lot at the Dublin Center office complex off Tassajara Road. All these facilities have lighting and passenger shelter areas. Table 3-6 summarizes these locations and their respective car parking capacities.

Table 3-6. Description of Park-n-Ride Lots in the LAVTA service area

Area Park-n-Ride Lots	
Location	# Spaces
Transit Center / Livermore Downtown	500
Dublin Center / Tassajara & Dublin Blvd	200
Bart PnR / Airway & Rutan	150
CalTrans / Portola & P	100
CalTrans / Johnson & Stoneridge Dr	100

Although the LAVTA service is not focused on serving PnR, most of these PnRs are served directly or are in the vicinity of Wheels routes. But, most of these PnRs are currently used by carpoolers and not Wheels riders.

# 3.7.5 Transit Stops and Stations

#### **Transit Stops**

There are close to a thousand active bus stops in the LAVTA service area. Of these, approximately half are located on mainline routes while the other half are located in

areas only served by school tripper routes. The signage and amenities at each individual stop vary widely depending on the service levels and patronage and on right-of-way constraints. At the lowest end of the scale, school tripper-only stops are simply a red-and-white stencil marking on the curb, while highly-patronized stops in backbone service corridors typically feature seating, sheltering, and full signage including route numbers, schedules, and vicinity maps. Approximately 50 bus stops feature digital displays showing real-time arrival information generated by the agency's automatic vehicle locator (AVL) system.

En-route bus stops located within public right-of-way are subject to the features and improvements completed by the municipality that these are located in. Not all bus stops have the same level of improvement. For example, bus stops are not equally well-lit at night or wheelchair accessible, and may have other site-specific or contextual deficiencies. Similarly, a stop may be safe in its immediate spot, but a crosswalk may not be available nearby.

The agency provides cleaning and maintenance of its owned bus stop facilities. The remaining locations are the responsibility of their respective owner, typically an apartment complex or a business park. Maintenance for shelters, benches, and signs at the agency-owned locations is performed by LAVTA's operations contractor. Periodic cleaning, such as emptying trash receptacles and power washing, is performed by a separate contractor.

LAVTA has been conducting an inventory of its bus stops approximately every five years. The last such effort was completed in 2010 and included updating an amenities and attributes database as well as digital imagery of each stop. An assessment was also done for each location with regard to accessibility and condition of all stops. School tripper-only stop locations were included for the first time in the 2010 inventory.

GPS-satellite based surveys to geocode the bus stop locations are inputted into the AVL system. This information is used for passenger counts and to track on time performance.

#### **Transit Center**

The only facility owned by LAVTA classified as a "station" is the Transit Center in downtown Livermore. The Transit Center features eleven bus bays, restroom facilities, bike racks, and the agency's customer services which sells tickets on site.

#### **BART stations**

The Dublin/Pleasanton BART station, owned and operated by the BART District, features a total of seventeen bus bays and enables bus-exclusive through operation via a tunnel under the freeway. One elevator and three escalators link the fare gate area on the ground level with the train platform above. Prior to the beginning of recent housing

construction activity, a mix of structured and open parking spaces provided close to 3,000 parking spaces at this station exclusively for use by train patrons. However, this number will be gradually reduced and confined to the structured parking area as the immediate vicinity continues to develop.

The new West Dublin/Pleasanton BART station, opened in February 2011, provides a total of six bus dwelling locations and approximately 1,150 parking spaces. Bus operation at this station is constrained by the lack of vehicle through access between the Dublin and Pleasanton sides of the station. One elevator and two escalators link the fare gate area on the mezzanine level with the train platform below.

# 3.7.6 Right of Way, Track or Guideway

LAVTA does not operate rail or fixed guideway service, nor does it operate in exclusive rights-of-way. Smaller priority treatments, such as intersection signal queue-jumps, were implemented at two locations as part of the Rapid program in 2011. The locations of the queue jumps are westbound on Stanley Boulevard at Murietta Avenue in Livermore and eastbound on Dublin Boulevard at Dougherty Road in Dublin.

# 3.7.7 Bicycle Facilities

Bicycles are accommodated on Wheels buses when available capacity and space permit. For this purpose, all vehicles in the fleet are equipped with a 2- or 3-slot bicycle rack that is mounted on the front outside of the bus.

Stationary bicycle storage is limited; LAVTA does provide bike racks at a few of its Rapid branded bus stops and at the Transit Center. Wheels passengers may also use the bike lockers provided at BART and ACE stations.

# Goals, Objectives, and Standards

### 4.1 BACKGROUND

In 2009, the Board of Directors for the LAVTA adopted a new LAVTA Strategic Plan. This Plan established an overall mission, vision, and values for Wheels, and developed a series of goals and strategies to guide the future development of Wheels' services, programs, and organization. The Plan provides a framework through which Wheels' administrative, operational, and communication processes can be reexamined. At the core of ensuring the Strategic Plan continues to be a "living" document, is the relationship between the Strategic Plan, Budget, and Annual Work Plans, using a top down approach moving from large general goals at the top to more specific actions at the bottom. This relationship is part of a larger ongoing and iterative planning cycle, which will result in future updates of the Strategic Plan based on agency performance and use of the Plan.

### 4.2 VISION

The Strategic Plan provides the Mission and Vision of the agency as well as a set of general goals and specific objectives.

#### The Mission stated:

"The Mission of the Livermore Amador Valley Transit Authority (Wheels) is to provide equal access to a variety of safe, customer oriented, reliable, and affordable public transportation choices, increasing the mobility and improving the quality of life of those who live or work in and visit the Tri-Valley area."

#### The Vision stated:

"An essential link in the regional transportation system, Wheels strives to be a well-recognized, highly respected, integrated public agency utilizing appropriate tools and technologies to provide cost-effective, exceptional transit service in response to the needs and priorities of those who live or work in or visit the Tri-Valley area."

# 4.3 GOALS AND STANDARDS

The LAVTA Strategic Plan outlines all goals that apply to the agency functions, ranging from Administration to Finance to Planning to Maintenance. For the purposes of this document, goals relevant to the planning and delivery of service, as well as those that pertain directly to the metrics required to monitor the health of the service from the 2009 Strategic Plan are used. The Strategic Plan Goals and Strategies are listed in the next sections.

# 4.3.1 Service Development

Service-relevant objectives revolve around the parameters of service, such as time span and frequency, as well as standards for performance and safety.

### <u>Goal</u>

Provide effective transit services that increase the accessibility to community, services, and jobs.

### Strategies

- A1) Provide routes and services to meet current and future demand for timely and reliable transit service subject to fiscal restraints
- A2) Increase accessibility to community, services and jobs
- A3) Optimize existing routes and services to increase productivity
- A4) Improve connectivity with regional transit systems
- A5) Explore innovative fare policies and pricing options
- A6) Provide routes and services to promote mode shift from personal car to public transit

# 4.3.2 Marketing and Public Awareness

The objectives here lie in the areas of customer information and feedback.

#### Goal

Marketing and Public Awareness: Improve visibility, image, and awareness of Wheels

### Strategies

- B1) Continue to build the Wheels brand image, identity and value for customers
- B2) Improve the public image and awareness of Wheels
- B3) Increase two-way communication between Wheels and its customers

- B4) Increase ridership to fully attain community benefits achieved through optimum utilization of our transit system
- B5) Promote Wheels to new businesses and residents

# 4.3.3 Community and Economic Development

The main objective is this area is to improve communication with local jurisdictions regarding land-use and site plans and to develop partnerships with other agencies to meet common goals.

### **Goal**

Utilize transit as an essential community and economic development tool for local communities

### Strategies

- C1) Integrate transit into local economic development plans
- C2) Advocate for increased transit friendly and transit oriented developments in the Cities' planning departments and in the site development processes
- C3) Partner with employers in the use of transit to meet transportation demand management requirements

# 4.3.4 Regional Leadership

The objectives under this goal focus on establishing partnerships with other agencies and jurisdictions to advocate for transit.

#### <u>Goal</u>

Strengthen Wheels' leadership position within the region to enhance opportunities for development and maintenance of quality transit service

### Strategies

- D1) Advocate for local, regional, state, and federal policies that support Wheels' goals
- D2) Support Staff involvement in leadership roles representing the agency at regional, state, and federal forums
- D3) Promote transit priority and improvements initiatives with city and county governments
- D4) Develop regional initiatives that support riders mobility through more seamless passenger use

# 4.3.4 Organizational Effectiveness

The objectives and standards under this goal relate primarily to administrative and human resources aspects of the agency.

### **Goals**

Strengthen organization wide capabilities and resources to improve overall performance and customer satisfaction

### Strategies

- E1) Promote system wide continuous quality improvement initiatives
- E2) Continue to expand the partnership with contract staff to strengthen teamwork and morale and enhance the quality of service
- E3) Establish performance based metrics with action plans for improvement
- E4) Strengthen human resources through staff development and a focus on employee quality of life and strengthen technical resources throughout the organization
- E5) Enhance and improve organizational structures, processes and procedures to increase system effectiveness
- E6) Develop policies that hold Board and Staff accountable, providing clear direction through sound policy making decisions

# 4.3.5 Financial Management

The objectives and standards under this goal relate primarily to financial management.

### <u>Goal</u>

Maintain fiscal responsibility to ensure financial sustainability of existing and new transit services

### Strategies

- F1) Develop budget in accordance with the Strategic Plan, integrating fiscal review processes into all decisions
- F2) explore and develop revenue generating opportunities
- F3) Maintain fiscally responsible long range capital and operating plans

#### 4.4 PERFORMANCE STANDARDS

Elements from the 2009 SRTP were updated and incorporated with the FY11 Strategic Goals to develop LAVTA's performance standards. The performance standards for each strategic goal are shown in Table 4-1.

Table 4-1. Objectives and Standards for the 2009 Strategic Plan

Service Development: To provide effective transit services that increase the accessibility to community, services, and jobs.		
Objective	Performance Standard	
Provide service hours that are reasonably distributed relative to the population in each of the agency's three member municipalities	Stay within +/- 15% joint powers agreement formula	
Provide service with a time span that is sufficient to effectively serve the primary target markets for each route	0400 -0100 h/day on backbone lines(s); 0500-0000 on other primary lines; 0600-0900 and 1600-1900 on neighborhood, local feeder, and regional express lines; and one daily round trip for school tripper lines	
Provide trip frequencies that effectively serve the primary target markets for each route	15/30 min on backbone lines, 10 min peaks if demand warrants; 30/60 min on other primary lines; 60/0 min on neighborhood, local feeder, and regional express lines; Single daily round trip for school tripper lines (peak/base)	
Create and maintain services/routes that are productive, based on unlinked passenger boardings per vehicle revenue hour	20/10 pax/h on backbone lines, other primary lines and regional express lines; 8/5 pax/h neighborhood and local feeder lines; and 40/ pax/h on school tripper lines (peak/base)	
Provide fixed route service to all middle and high school students who attend the main bell at a public school, subject to the agency's global route performance standards	20/10 pax/h on backbone lines, other primary lines and regional express lines; 8/5 pax/h neighborhood and local feeder lines; and 40/ pax/h on school tripper lines (peak/base)	
Provide service coverage to large residential clusters and major employment centers in the Wheels service area	Provide fixed route service within a quarter-mile radius of medium- to high density residential areas and to 80% of 100+ employee locations	
Provide basic fixed route service to areas that might not meet transit-oriented land-use practices but that house and/or employ a significant socio-economically disadvantaged population	Conduct a service evaluation prior to every major service change	
Coordinate, to maximum feasible extent, services and schedules to optimize transfer opportunities with other transit systems	Pulse bus departures at the Dublin/Pleasanton Bart station with train arrivals, departures, or both	
Provide continuous fixed route service to all new and existing developments or re-developments that meet best transit-oriented land-use practices	Meet standard MTC "4d": Developments/redevelopments that incorporate density, diversity (mixed land-uses), design (safe, pleasing pedestrian network), and distance (close proximity to transit)	
Operate routes on their scheduled times	90% as defined by departing a timepoint zero minutes early and zero to five minutes late	
Minimize service redundancies	Stagger schedules and/or disperse routes geographically	
Minimize fleet deadhead hours	Use interlining and other supportive scheduling approaches	
Minimize fleet peak requirement	Use interlining and other supportive scheduling approaches	

community, services, and jobs.	
Objective	Performance Standard
Minimize the inconvenience of bus-to-bus transfers	Coordinate scheduled arrivals/departures at hubs and other major transfer points; 90% route recovery assigned to hubs/ terminals
Make service changes several times annually to optimize services	Two service changes per year
Plan new services (such as Rapid, Express Bus) to meet changing demands and to connect regionally	Re-evaluate bus stop locations on the Rapid line; Ensure that 60% of routes system-wide include a regional connection
Conduct route evaluations annually and identify routes in need of adjustment to meet demand and to improve regional connections	Use monthly statistics and OTP report to do service evaluations
Maintain bus stop spacing that optimally balances average route speeds against customer convenience and access time	1 mile between stops on Rapid line; No min/max spacing on other 1/3 mile (500m) between stops on backbone lines and other primary lines, except where on undeveloped or on freeway segments
Monitor Dial-A-Ride and Fixed Route statistics and identify trends in usage, modify as necessary	Prepare monthly monitoring reports.
Implement and monitor status of Dial-A-Ride demand management techniques	Prepare monthly statistics and reports; Conduct eligibility screening once every three years; Conduct travel training for 2 persons every month; Encourage 10 people per month to utilize LAVTA parataxi program
Evaluate effectiveness of SQSI (Service Quality Standards Index) as a tool to meet operational goals, adjust as necessary	Adjust measures every year
Compile SQSI monthly and annual report	Prepare monthly, quarterly, and annual SQSI reports
Annually submit NTD data to FTA.	To meet objective
Integrate local transit plans into regional plans	Complete SRTP and mini SRTP based on schedule set by MTC
Coordinate fare payment media with other SF Bay Area operators	Implement Clipper card
Maintain a minimum farebox recovery ratio	20% system-wide
Apply fares and utilize fare media that minimize average dwell times at stops	Charge cash fares in 25 cent denominations; Promote use of bulk tickets and flash passes; Implement Clipper card
Operate routes with a high degree of traffic- and passenger safety	100,000 vehicle miles between traffic accidents; One passenger boarding or onboard injury per 100,000 boardings
Maximize access to local and regional schedule- and route information on the Internet	Maintain a user-friendly web page, including access to real-time bus position information; Participate in regional 511 trip planning system
Monitor and optimize effectiveness and organizational usage of existing transit technology products and tools.	Upgrade to newer version/different when available and when finances permit

Service Development: To provide effective transit services that increase the accessibility to community, services, and jobs.		
Objective	Performance Standard	
Evaluate new transit technology products and recommend those most appropriate for LAVTA to pursue.	Attend transit technology/vendors conferences to identify newest technology	
Operate routes with vehicles that are quiet and offer a comfortable environment for all passengers	Use newest transit technology for quieter vehicles and comfortable amenities as finances permit	
Offer a safe and secure passenger environment	Install cameras in the buses and at transit center; seek funding for safety improvements at transit center and at transit stops	
Receive and respond to customer suggestions and complaints, including research and analysis of operational challenges	Take action on customers' comments within 3 days; Resolve customers' complaint within 1 month; Resolve action on customers' suggestions within 12 months	
Complete full Short Range Transit Plan (SRTP) and get Board adoption every 4 years	To meet objective	
Complete annual Mini SRTP in years when no full SRTP is required, and get Board adoption	To meet objective	
Ensure all capital projects are accurately portrayed in terms of scope, schedule and budget.	Perform 2 levels of QA/QC	
Develop and implement capital projects that enhance LAVTA's operations, marketing, and maintenance capacities.	Prepare a capital improvement plan assessing LAVTA needs	
Maximize LAVTA resources by identifying, applying for, and obtaining an optimal level of regional, state, and federal funding	Attend regional funding meeting to identify funding opportunities	

Marketing and Public Awareness: Improve visibility, image, and awareness of Wheels		
Objective	Performance Standard	
Maintain high levels of customer satisfaction ratings	75% of Wheels riders rating the service as good to excellent on satisfaction surveys	
Use directional signage to increase visibility of major boarding locations	Install wayfinding signage at hubs and transfer points and vicinity maps at major transit stops	
Continue to make the electronic customer comment card available on the Wheels website	Maintain customer complaint system; Respond to all requests in a timely manner	
Utilize electronic communications to enhance rider experience	Integrate Clipper card; create smart phone applications for Wheels schedule and information	
Provide presentations before civic organizations and human service groups to build support for LAVTA	Attend regular meeting with civic organizations and human services groups, including Hispanic Business Council, Livermore Chamber of Commerce, Tri-Valley Senior Centers, Tri Valley Senior Support group, Tri-Valley Cities Economic Departments, Local Businesses and Apartment complexes that join LAVTA new outreach program, Livermore Needs Committee, Tri-Valley Spare the Air and School Districts;  Provide orientation to teachers to promote the Class Pass Program for school field trips	

Marketing and Public Awareness: Improve visibility, image, and awareness of Wheels		
Objective	Performance Standard	
Plan, organize and direct public involvement activities to support fare/service changes	Hold one or more informal public workshops before finalizing recommendations; Hold public hearing when final draft recommendations are ready	
Conduct Commuter Fairs at employer worksites to promote Wheels services and regional connectivity	Target employers that have 100+ employees	
Work with local high schools to develop art for bus shelters	Complete two art shelters projects every year	
Print Wheels Transit Guide and bus stop information displays to coincide with service changes	Prepare with every major service changes	
Hold in-house training sessions for drivers so they understand they are our front-line ambassadors	Conduct monthly training	

Community and Economic Development: Utilize transit as an essential community and economic development tool for local communities		
Objective	Performance Goal	
Review development plans for inclusion of transit stops and transit stop furnishings	To meet objective	

Financial Management: Maintain fiscal responsibility to ensure financial sustainability of existing and new transit services		
Objective	Performance Goal	
Develop service plans that are affordable in the current year and sustainable over the longer term.	To meet objective	

# 4.5 CONCLUSION

The standards outlined in this chapter are used to evaluate the health of the system in Chapter 5.

# **Service Evaluation**

### 5.1 OVERVIEW

LAVTA provides both fixed-route bus service and paratransit service within Dublin, Pleasanton, Livermore, and the surrounding unincorporated areas of Alameda County. The LAVTA service areas is also provided with regional service by BART, AMTRAK, Greyhound, San Joaquin Regional Transit, ACE, Tri Delta Transit, County Connection, and Modesto Area Express (MAX).

This chapter presents an analysis of both fixed routes and Dial-A-Ride performance between fiscal year (FY) 2009 and FY 2011. Fixed-route performance is presented first, in Section 5.2, followed by Dial-A-Ride services in Section 5.4. The financial and operating statistics presented are based on NTD data.

The purpose of this chapter is to:

- Demonstrate how LAVTA services are performing relative to current standards.
- Outline the need to refine these standards.
- Establish the foundation for the short and near-term service changes that are outlined in Chapter 6.

# 5.2 FIXED ROUTE SYSTEM PERFORMANCE

Fixed-route service performance over the last three years, FY 2009 through FY 2011, was evaluated by looking at operating costs, revenue service hours and miles, ridership, farebox revenues and associated performance indicators.

Table 5-1 below presents key operating statistics for LAVTA fixed-route service. Service indicators were used to analyze data for trends which are shown in Graphs 1 through 7.

# 5.2.1 Annual Ridership

Ridership declined in the last three fiscal years, as shown in Figure 5-1. Ridership grew steadily between 2005 and 2008 but fell slightly in 2009 and more dramatically in 2010. Between FY 2009 and FY 2011, ridership has declined by 22%. This decline in ridership could largely be explained by the economic downturn and service cuts in FY 2010. LAVTA's two major revenues, Transportation Development Act (TDA) monies and State Transit Assistance (STA) funds, were both reduced: STA monies were cut by 50% in FY 2009.1

In FY 2010, LAVTA implemented a 25% reduction in service hours coupled with a fare increase. These measures were necessary to respond to significant losses in revenues.

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LAVTA CAFR 2009

Ridership trends also show some correlation with gasoline prices, with the highest annual ridership in 2008, when gasoline prices were highest.

**Table 5-1. Fixed-Route Operating Statistics** 

Indicator	FY 2009	FY 2010	FY 2011
Operating Cost	\$12,764,264	\$11,143,305	\$11,564,234
Annual Change		-12.7%	3.8%
Vehicle Service Hours	139,304	102,047	111,484
Annual Change		-26.7%	9.2%
Vehicle Service Miles	2,017,218	1,500,165	1,637,604
Annual Change		-25.6%	9.2%
Annual Ridership	2,195,408	1,740,297	1,712,879
Annual Change		-20.7%	-1.6%
Farebox Revenue	\$2,318,883	\$2,118,803	\$2,051,489
Annual Change		-8.6%	-3.2%
Operating Cost per Service Hour	\$91.63	\$109.20	\$103.73
Annual Change		19.2%	-5.0%
Operating Cost per Passenger	\$5.81	\$6.40	\$6.75
Annual Change		10.1%	5.4%
Passengers per Service Hour	15.8	17.1	15.4
Annual Change		8.2%	-9.9%
Subsidy per passenger	\$4.76	\$5.19	\$5.55
Annual Change		9.0%	7.1%
Average Fare per Passenger	\$1.06	\$1.22	\$1.20
Annual Change		15.3%	-1.6%
Farebox Recovery Ratio	18.2%	19.0%	17.7%
Annual Change		4.7%	-6.7%

<sup>\*</sup> Operating data for FY 2009, FY 2010, and FY 2011 provided by LAVTA and CAFR Reports; Operating Cost excludes depreciation and Farebox Revenue includes Special Contract Revenue

This time period reflects the years hardest hit by the Great Recession. While outside of the data range of this document, it is important to note that LAVTA's performance improved in FY2012 as the economy recovered. Annual ridership increased 3.3% in FY2012 and the operating revenue to operating expense ratio (OR/ER) was over 20%.

2,500,000
2,195,408
2,000,000
1,740,297
1,712,879
1,000,000
500,000

Figure 5-1. Annual Ridership

# 5.2.2 Operating Costs

0

Along with declining ridership, operating costs decreased by nearly 13% between FY 2009 and FY 2010 (Figure 5-2). Operating cost declines have been accompanied by generally declining service hours and miles. After a steep decrease in operating costs in FY 2010, operating costs were increased by nearly 4% in the last fiscal year with the launch of the Rapid service.

2010

Fiscal Year

2011

# 5.2.3 Farebox Recovery Ratio

2009

Between FY 2009 and FY 2010, operating costs decreased approximately 13% while fare revenue decreased by 9%, resulting in a nearly 5% increase in farebox recovery in FY 2010. In response to significant losses in revenue due to the recession, LAVTA raised its base adult local fares in FY 2010 from \$1.75 to \$2.00.

In FY 2011, farebox recovery dropped by nearly 7% when operating costs increased by 4% and fare revenue decreased by 3.2%. The farebox recovery ratio dropped from 19% in FY 2010 to 17.7% in FY 2011. Farebox recovery ratio trends are shown in Figure 5-3.

LAVTA's farebox recovery performance goal is 20%, however, in accordance with TDA regulations 20% is not required since LAVTA is a feeder system to BART. LAVTA's fixed routes have not met farebox recovery performance standards during the last three years.

Figure 5-2. Operating Costs

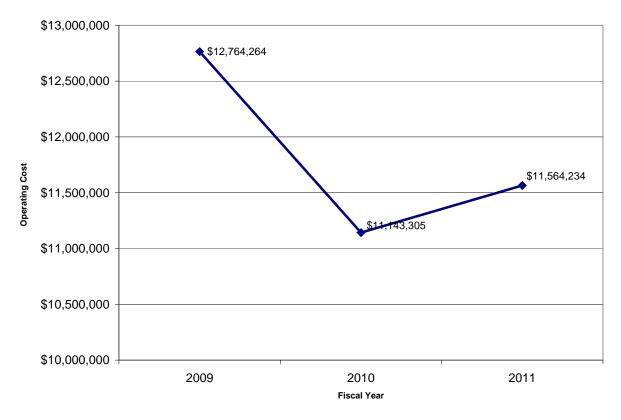
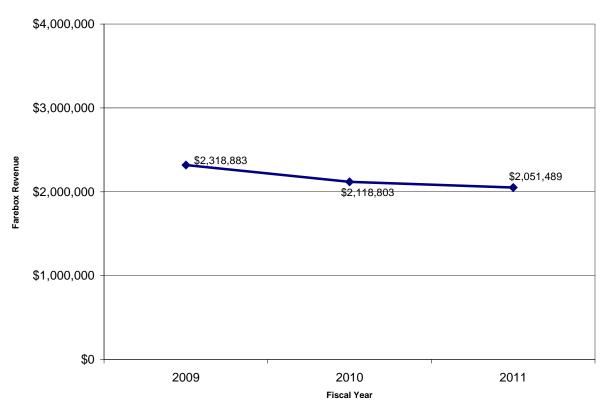


Figure 5-3. Farebox Recovery Ratio



# 5.2.4 Passengers Per Revenue Hour

LAVTA's performance standard for primary and regional express lines is 20/10 (peak/non-peak) passengers per hour, while the standard for neighborhood and local feeder lines is 8/5 passengers per hour. Based on 2011 data, only two primary routes had more than 20 passengers per hour, with most generally meeting the agency's lower off peak threshold standards.

In the last fiscal year, LAVTA experienced a 10% decrease in passenger productivity, reversing the upward trend in FY 2010 (see Figure 5-4). In FY 2010, productivity increased by over 8% to 17.1 passengers per hour due to a 27% reduction in service hours and only a 21% drop in ridership.

In FY 2011, ridership decreased by nearly 2% while vehicle service hours increased by over 9%. As a result, productivity dropped to 15.4 passengers per hour in FY 2011, the lowest of the three-year period examined.

### 5.2.5 Operating Cost Per Passenger

Although operating costs have declined over the past three years, ridership has declined at a faster rate, resulting in the operating cost per passenger increasing from a low of \$5.81 in FY 2009 to \$6.74 per passenger in FY 2011 (Figure 5-5). The largest increase in operating costs per passenger occurred between FY 2009 and FY 2010 with a 10% increase. This increase was due to a 13% decrease in costs while ridership dropped by 21% during the same time period.

# 5.2.6 Operating Cost Per Revenue Hour

Hourly costs fluctuated over the last three years, ranging from a low of \$91.63 in FY 2009 to a high of \$109.20 in FY 2010 (Figure 5-6). Between FY 2009 and FY 2010, operating costs per revenue hour increased by 19%. As previously mentioned, operating costs decreased by 13% in FY 2010 while service hours decreased by nearly 27%.

Vehicle service hours increased by 9% in FY 2011 and corresponded with a less than 4% increase in operating costs. In FY 2011, hourly costs declined by 5% from \$109.20 to \$103.73.

# 5.2.7 Subsidy Per Passenger

An increase in the subsidy per passenger represents a negative performance trend, as shown in Figure 5-7. The subsidy paid per passenger has increased nearly 17% between FY 2009 and FY 2011. The subsidy per passenger was lowest in FY 2009 at \$4.76. In FY 2011, the subsidy was \$5.55 per passenger.

Figure 5-4. Passengers per Revenue Hour

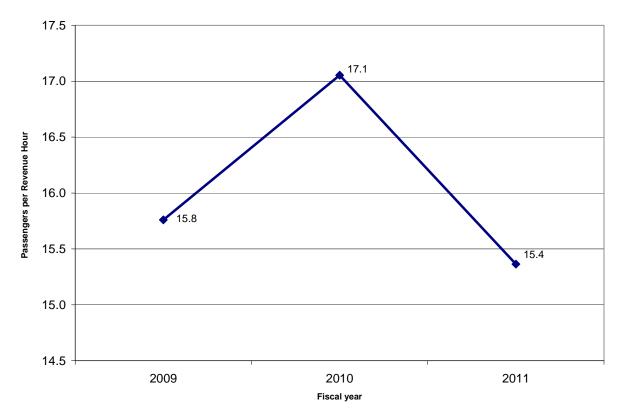


Figure 5-5. Operating Cost per Passenger

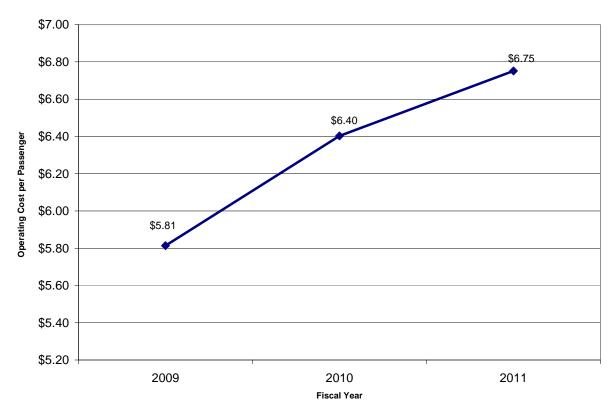


Figure 5-6. Operating Cost per Revenue Hour

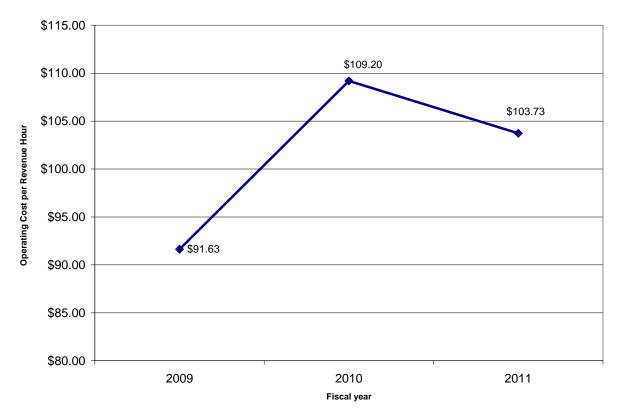
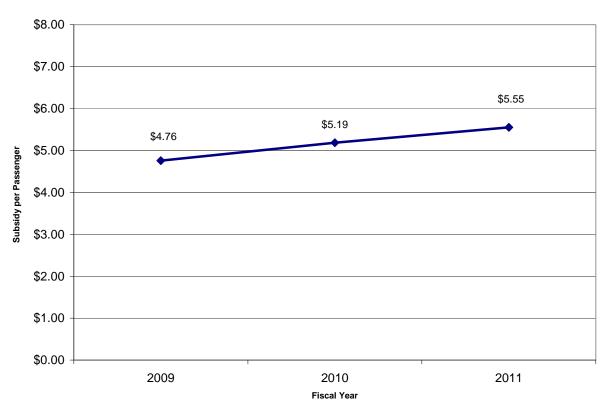


Figure 5-7. Subsidy per Passenger



### 5.3 LINE BY LINE ANALYSIS

LAVTA completed a comprehensive ridecheck on all fixed-route Wheels bus lines on Thursday, February 16, 2012. Surveyors recorded passenger counts at all bus stops and also recorded arrival and departure times for all timepoints. All boarding counts by stop and by trip, passenger load, and on-time performance data in this section are based on data collected during the ridecheck.

### 5.3.1 Route 1A/B

Route 1A/B operates with service to Emerald Point, Santa Rita Jail, Rose Pavilion, and California Center. This route serves east Dublin and northeast Pleasanton, with a hub at Dublin Pleasanton BART Station. In FY 2011, route 1A/B operated nearly 4,880 annual revenue hours and 70,100 annual revenue miles. Route 1A/B operates approximately every 30 minutes on weekdays. Weekend service is provided by route 1, which was integrated with former shuttle route 51.

### **Ridership**

This route averages 7.3 passengers per hour, based on LAVTA FY 2011 operating data. A total of 45 passenger boardings were recorded by survey staff on route 1A, and 73 passenger boardings were recorded on route 1B.

### **Boardings by Trip**

Weekday activity on route 1A peaked at 7:28 AM with seven boardings. The peak boarding activity on route 1B occurred at 4:58 PM and 6:58 PM with 7 boardings.



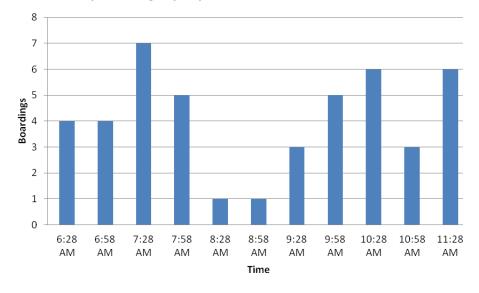
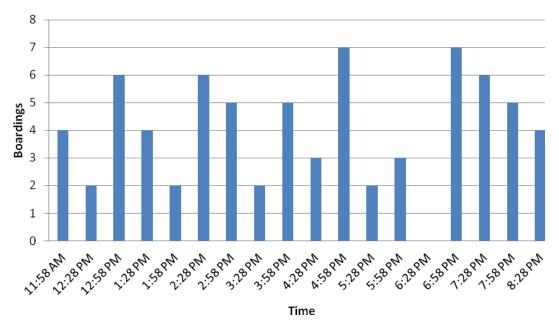


Chart 2. Route 1B Weekday Boardings by Trip



# **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 1A/B were at Dublin/ Pleasanton BART station and Broder Boulevard/Santa Rita Jail. Other stops with activity included Hacienda Business Park (Oracle, Walmart, Rose Pavilion, Koll Center) and Waterfront Plaza. Weekday boardings and alightings by stop are shown in Figure 5-8 and 5-9.

Table 5-2. Route 1A Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		20
Broder Boulevard	Santa Rita Jail	16
Rose Pavilion Inbound		10
Owens	Rosewood	9
Owens	Hacienda	4

Table 5-3. Route 1B Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		84
Broder Boulevard	Santa Rita Jail	35
Dublin Boulevard	Hacienda Drive	5
Dublin Boulevard	Tassajara WB	3

LAVIA RIDERSHIP BY STOP

1A (CLOCKWISE)

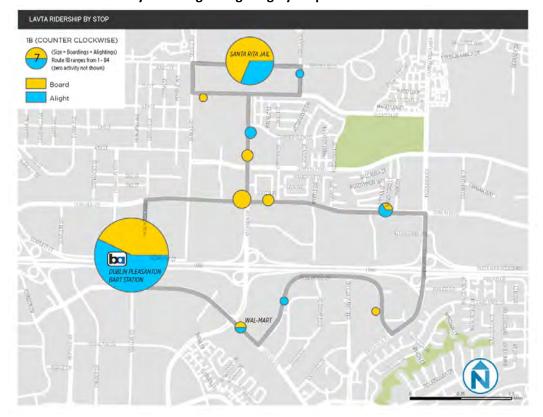
Cross-Bondings-Majelings)
Route Harneys from 1- 20

Cross-Bondings-Majelings
Route Harneys from 1- 20

Cross-Bondings-Majeli

Figure 5-8. Route 1A Weekday Boarding & Alighting by Stop

Figure 5-9. Route 1B Weekday Boarding & Alighting by Stop



#### 5.3.2 Route 2

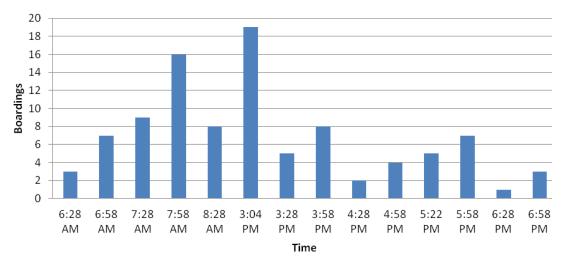
Route 2 serves east Dublin, including the north Dublin Ranch development and Dublin/Pleasanton BART station. Service is peak periods only, at 30-minute headways. Route 2 was renamed from 1E in 2009. In FY 2011, route 2 operated nearly 1,620 annual revenue hours and 19,900 annual revenue miles.

### **Ridership**

This route averages 11.6 passengers per hour, based on LAVTA FY 2011 operating data. A total of 97 passenger boardings were recorded by survey staff on route 2.

# **Boardings by Trip**

The highest number of boardings was on the 7:58 AM trip, with 16 boardings, and the 3:04 PM trip, with 19 boardings.



**Chart 3. Route 2 Weekday Boardings by Trip** 

# **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 2 were mostly at the Dublin/ Pleasanton BART station and at Fallon Middle School. Other stops with activity included Central Parkway stops at Glynnis Rose and at Aspen.

Street	Cross Street	Total Activity	
East Dublin/Pleasanton BART		98	
Fallon Middle School		46	
Central Pkwy	Glynnis Rose	13	
Central Pkwy	Aspen	12	

Table 5-4. Route 2 Weekday Top Boarding & Alighting Locations

Weekday boarding and alighting by stop are shown in Figure 5-10.

Figure 5-10. Route 2 Weekday Boarding & Alighting by Stop

DUBLIN PLEASANTON BART STATION

bo

# 5.3.3 Route 3, 3V

Route 3 covers a large area of west Dublin, including most residential areas east of I-680. Route 3 also serves northwest Pleasanton and includes Stoneridge Mall. Land-uses are primarily residential on the Dublin side, but mostly employment and commercial on the Pleasanton side. As part of the spring 2009 service reductions, service on this line was drastically reduced, from operating all day on 15-60 minute frequencies to hourly only during the peak period in the peak direction.

Route 3V complements the base route 3 by extending its coverage to the residential areas west of I- 680 on the Dublin side; its coverage in other parts of west Dublin and on the Pleasanton side is abbreviated relative to the regular route 3. Service is peak period only, and was reduced from a 60-minute headway to three trips as part of the spring 2009 service reductions. Route 3-3V runs clockwise in the morning and counterclockwise in the afternoon.

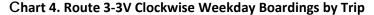
In FY 2011, route 3-3V operated nearly 3,280 annual revenue hours and 56,400 annual revenue miles.

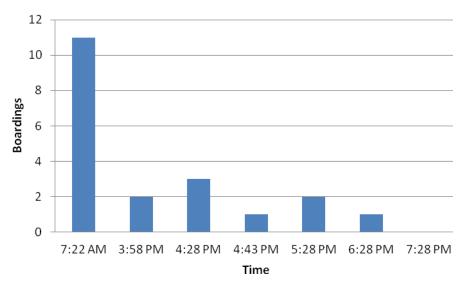
### Ridership

This route averages 8.0 passengers per hour, based on LAVTA FY 2011 operating data. A total of 20 passenger boardings were recorded by survey staff on route 3-3V Clockwise and 27 passenger boardings on route 3-3V Counter Clockwise.

# **Boardings by Trip**

Weekday activity for route 3-3V in the clockwise direction peaked at 7:22 AM with 11 boardings and at 2:58 PM with 17 boardings in the counterclockwise direction.





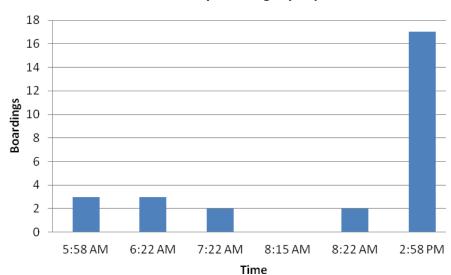


Chart 5. Route 3-3V Counter Clockwise Weekday Boardings by Trip

# **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 3-3V occurred at West and Dublin/Pleasanton BART station and Wells Middle School. The other stop with significant activity included Village Parkway at Brighton.

Table 5-5. Route 3-3V Clockwise and Counter Clockwise Weekday Top Boarding & Alighting Locations

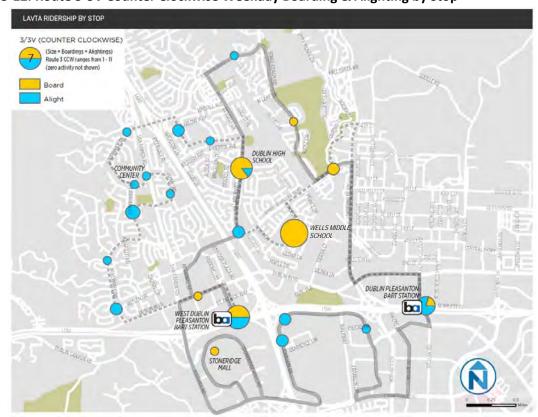
Street	Cross Street	Total Activity
West Dublin/Pleasanton BART		14
East Dublin/Pleasanton BART		12
Wells Middle School		12
Village Pkwy	Brighton	8

Weekday boarding and alighting by stop are shown in Figures 5-11 and 5-12.



Figure 5-11. Route 3-3V Clockwise Weekday Boarding & Alighting by Stop

Figure 5-12. Route 3-3V Counter Clockwise Weekday Boarding & Alighting by Stop



#### 5.3.4 Route 8A/B

Route 8A/B serves a parallel north-south corridor to the 10 line in the Pleasanton area, with primary service areas being the Hopyard Road area, downtown Pleasanton, and Vintage Hills. Frequencies were reduced in the spring of 2009. Route 8A/B operates all day on an hourly frequency. Land-uses are mainly commercial and residential, with some office uses, primarily within the Bernal Business Park.

On morning runs, buses serve Bernal Business Park from BART and in afternoons, buses pick up at Bernal Business Park en route to BART. In Downtown Pleasanton, the route operates as follows:

```
Route 8A: BART \to Civic Center \to First & Neal \to Kottinger Park \to Senior Center \to Ridgeview Commons \to BART
```

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Route 8B: BART \to Ridgeview Commons \to Senior Center \to First & Neal \to Kottinger Park \to Civic Center \to BART
```

In FY 2011, route 8A/B operated nearly 4,750 annual revenue hours and 73,800 annual revenue miles.

### **Ridership**

This route averages 10.3 passengers per hour, based on LAVTA FY 2011 operating data. A total of 145 passenger boardings were recorded by survey staff on route 8A (Clockwise) and 108 passenger boardings were recorded on route 8B (Counter Clockwise).

#### **Boardings by Trip**

Passenger boarding activity on route 8A spiked at 3:58 PM with 24 boardings. On route 8B, passenger activity peaked in the morning with 18 passenger boardings at 8:28 AM and 9:58 AM. During the remainder of the day, boarding activity fluctuated, but was highest in the afternoon on route 8A.

**Chart 6. Route 8A Clockwise Weekday Boardings by Trip** 

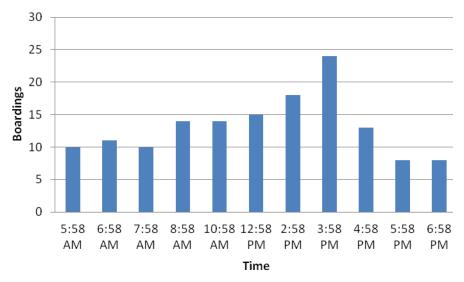
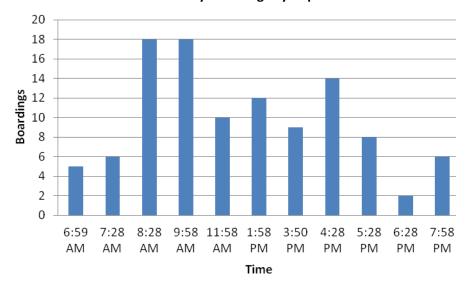


Chart 7. Route 8B Counter Clockwise Weekday Boardings by Trip



# **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 8A/B were mostly at the East Dublin/Pleasanton BART station. Other stops with activity included Neal Street at First Street and Valley Avenue at Koll Center.

Table 5-6. Route 8A/B Clockwise & Counter Clockwise Combined Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		186
Neal St.	First EB	54
Valley Avenue	Koll Center	35
Hopyard Road	Las Positas Boulevard	30
Valley Avenue	Koll Center	30

Weekday boardings and alightings by stop are shown in Figures 5-13 and 5-13.

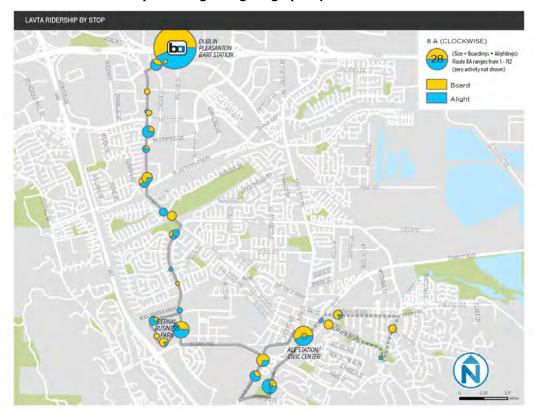
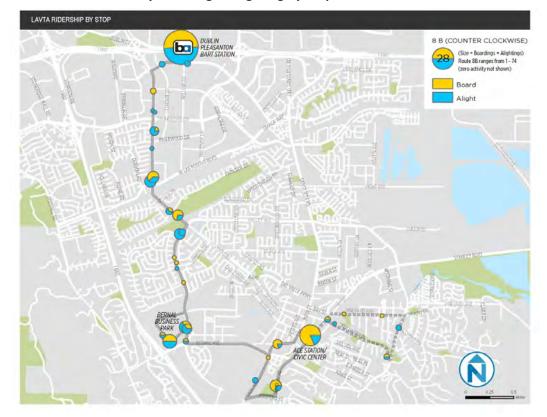


Figure 5-13. Route 8A Weekday Boarding & Alighting by Stop

Figure 5-14. Route 8B Weekday Boarding & Alighting by Stop



### 5.3.5 Route 9

Route 9 serves Hacienda Business Park in Pleasanton as a frequent BART feeder route in a loop configuration. In the mornings Route 9 operates clockwise and in the afternoons it operates counterclockwise. Select trips originate from or continue as route 70X at Dublin/Pleasanton BART Station. Service is peak periods only, on 15-minute headways. Route 9 replaced former route 50 in summer 2009.

In FY 2011, route 9 operated nearly 2,430 annual revenue hours and 30,000 annual revenue miles.

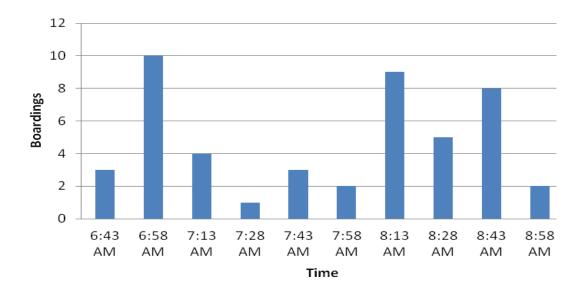
# Ridership

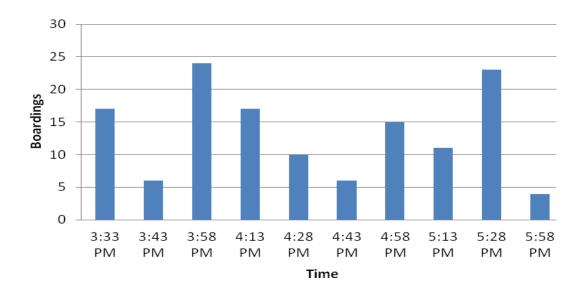
This route averages 12.3 passengers per hour, based on LAVTA FY 2011 operating data. A total of 180 passenger boardings were recorded by survey staff on route 9 (Clockwise and Counter Clockwise).

### **Boardings by Trip**

Route 9 AM Clockwise peaked at 6:58 AM with 10 passengers boardings. Route 9 PM Counter Clockwise peaked at 3:58 PM with 24 passenger boardings, followed by 5:28 PM with 23 passenger boardings.

Chart 8. Route 9 AM Clockwise Weekday Boardings by Trip





**Chart 9. Route 9 PM Counter Clockwise Weekday Boardings by Trip** 

## **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 9 occurred at East Dublin/ Pleasanton BART station, Kaiser, and California Center. Other stops with activity included Chabot Drive at Inglewood Drive and Stoneridge at Courthouse.

Table 5-7. Route 9 Clockwise & Counter Clockwise Combined Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		117
Kaiser NB		65
California Center		52
Chabot Drive.	Inglewood Drive.	14
Stoneridge	Courthouse	13

Weekday boardings and alightings by stop are shown in Figures 5-15 and 5-16.

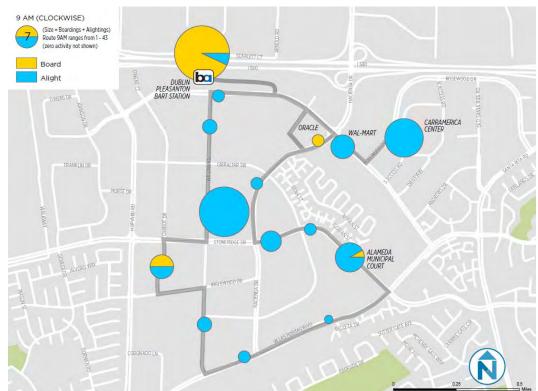
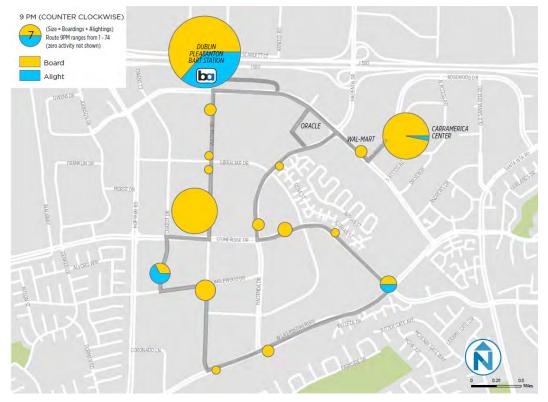


Figure 5-15. Route 9 Clockwise Weekday Boarding & Alighting by Stop





#### 5.3.6 Route 10

Route 10 serves as the backbone of the Wheels fixed-route system, providing east-west trunk service, crossing through the three downtowns of Livermore, Pleasanton, and Dublin, and carrying half of LAVTA's total fixed route ridership. The nearly 24-hour service, which was implemented in 2005 as part of the regional AllNighter program, was suspended as part of the spring 2009 service reduction, along with implementing frequency reductions during off-peak times.

Current frequencies vary from 15 to 40 minutes. In FY 2011, service hours were reduced on route 10 where they duplicated the Rapid's new hours. Route 10 serves Lawrence Livermore National Laboratory, the Livermore Transit Center, Dublin/Pleasanton BART, and Stoneridge Mall.

In FY 2011, route 10 operated nearly 39,080 annual revenue hours and 509,000 annual revenue miles. Trip 2 is used in the following analysis.

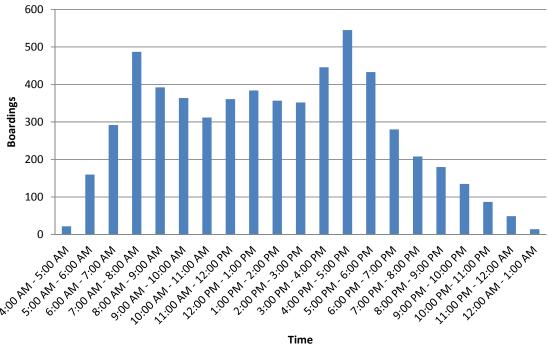
### <u>Ridership</u>

This route averages 20.7 passengers per hour, based on LAVTA FY 2011 operating data, making it LAVTA's most productive regular fixed route. A total of 902 passenger boardings were recorded on route 10 Westbound and 959 passenger boardings were recorded on route 10 Eastbound.

### **Boardings**

Route 10 has some clear commute-hour peaks. Weekday boarding activity is highest between 4:00 PM and 5:00 PM with 545 boardings. Route ridership is also high between 7:00 AM and 8:00 AM with 487 boardings.

Chart 10. Route 10 Weekday Boarding Activity (08/18/2010 & 08/25/2010)



# **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 10 centered mostly on East Dublin/Pleasanton BART and Livermore Transit Center. Other stops with activity included Neal Street and First Street. Weekday boardings and alightings by stop are shown in Figures 5-17 and 5-18.

Table 5-8. Route 10 Westbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		257
Livermore Transit Center		234
Neal St	First NB	121
First St.	Ray	118
Owens	Hacienda	105

Table 5-9. Route 10 Eastbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		350
Livermore Transit Center		226
Neal St	First NB	108
First St.	Kottinger NB	107
Railroad	P St.	104

Figure 5-17. Route 10 Westbound Weekday Boarding & Alighting by Stop West Half



### **East Half**

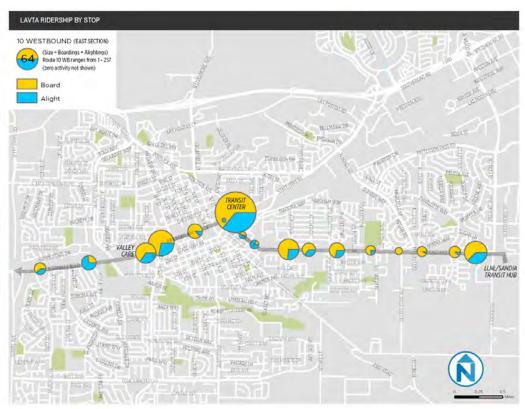
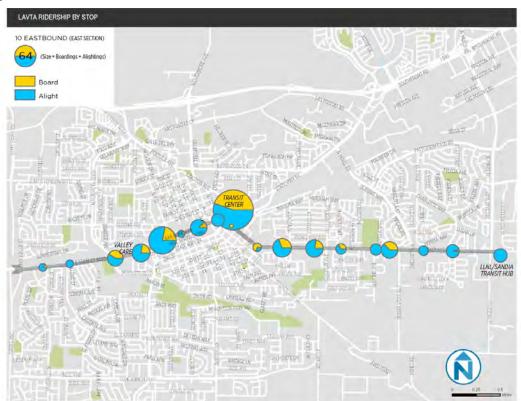


Figure 5-18. Route 10 Eastbound Weekday Boarding & Alighting by Stop West Half



### **East Half**



#### 5.3.7 Route 11

Route 11 is a limited-service route, connecting downtown Livermore with mostly warehouse, distribution, and some commercial highway uses in eastern Livermore – including Target, Las Positas Road, and Springtown. Route 11 operates during a short peak period window in the morning and afternoon on a 45-minute headway. This route was reduced to five weekday trips as part of the spring 2009 service reductions. In FY 2011, route 11 operated nearly 830 annual revenue hours and 14,500 annual revenue miles.

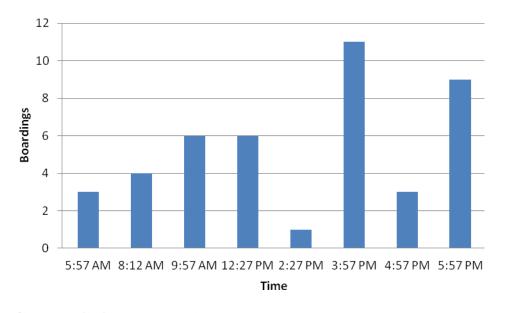
## **Ridership**

This route averages 5.8 passengers per hour, based on LAVTA FY 2011 operating data. A total of 43 passenger boardings were recorded by survey staff on route 11.

### **Boardings by Trip**

Passenger boarding activity experienced a large spike at 3:57 PM with 11 boardings. During the remainder of the day, boarding activity fluctuated, but was highest in the late afternoon and evening.

Chart 11. Route 11 Weekday Boardings by Trip



## **Top Boarding & Alighting Locations**

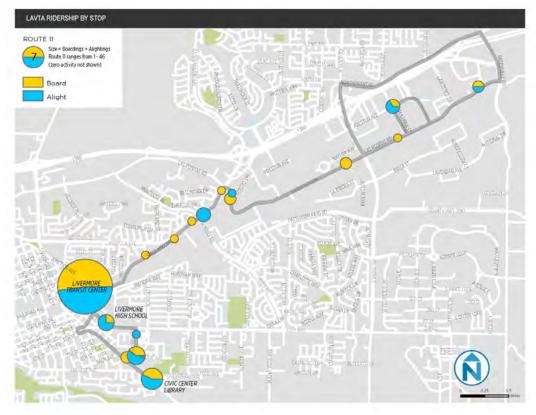
Top boarding and alighting locations on Route 11 centered mostly on Livermore Transit Center. Other stops with activity included Livermore Library, Dolores at Pacific, Livermore High School, and First Street at Mines.

Table 5-10. Route 11 Westbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Livermore Transit Center		46
Livermore Library		7
Dolores	Pacific	5
Livermore High School		4
First St.	Mines	4

Figure 5-19 show weekday boarding and alighting activity by stop.

Figure 5-19. Route 11 Weekday Boarding & Alighting by Stop



### 5.3.8 Route 12-12V

Route 12 is an inter-municipal line serving northwest Livermore – including Las Positas College – and east Dublin. An express pattern (12V) bypasses the North Canyons Parkway loop and the College; a special pattern also serves the Hagemann Park neighborhood for Junction Avenue Middle School. Route 12 operates all day with service frequencies of 30-60 minutes.

This route received frequency and cycle time reductions as part of the spring 2009 budget-driven cutbacks. It is the second-highest route in terms of raw ridership. In FY 2011, route 12-12V operated nearly 13,220 annual revenue hours and 216,700 annual revenue miles.

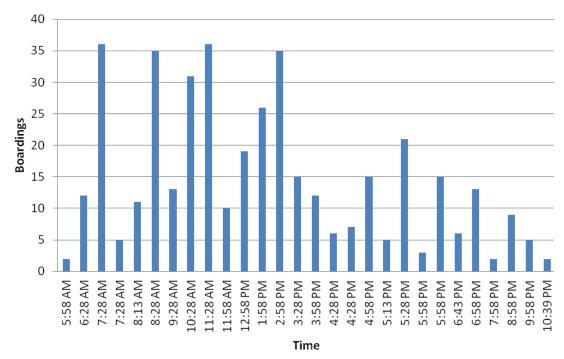
### **Ridership**

This route averages 13.5 passengers per hour, based on LAVTA FY 2011 operating data. A total of 407 passenger boardings were recorded by survey staff on route 12-12V Eastbound and 382 passenger boardings were recorded on route 12-12V Westbound.

## **Boardings by Trip**

Weekday boardings on Eastbound route 12-12V were highest in the morning and peaked at 7:38 AM and 11:28 AM with 36 boardings. Boardings on the Westbound route 12-12V were highest in the late morning and early afternoon, peaking at 2:48 PM with 44 boardings.

Chart 12. Route 12-12V Eastbound Weekday Boardings by Trip



50 45 40 35 **Boardings** 25 20 15 10 5 6:57 AM 7:42 AM 8:42 AM 9:27 AM 1:57 PM 2:48 PM 3:53 PM 4:57 PM 6:27 AM 5:57 PM 6:57 PM 7:57 PM 6:12 AM 7:27 AM 8:27 AM 10:27 AM 11:27 AM 11:57 AM 12:57 PM 3:57 PM 4:12 PM 4:27 PM 4:42 PM 5:27 PM Time

Chart 13. Route 12-12V Westbound Weekday Boardings by Trip

Top boarding and alighting locations on route 12-12V were mostly at Las Positas College, Dublin/Pleasanton BART station, and Livermore Transit Center.

Table 5-11. Route 12-12V Eastbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Las Positas College		208
East Dublin/Pleasanton BART		182
Livermore Transit Center		72
Murietta	Portola	31

Table 5-12. Route 12-12V Westbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Las Positas College		191
East Dublin/Pleasanton BART		187
Livermore Transit Center		109
Murietta	Portola	28

Figures 5-20 and 5-21 show the boarding and alighting by stop for route 12.

Figure 5-20. Route 12-12V Eastbound Weekday Boarding & Alighting by Stop West Half



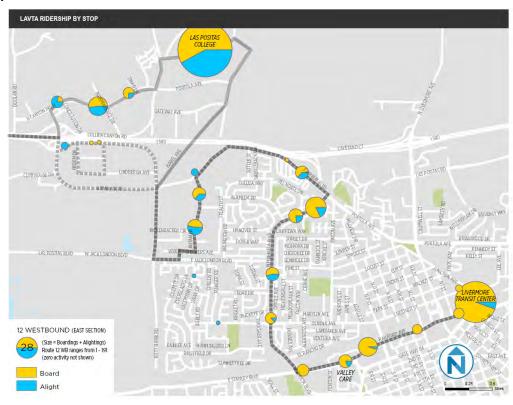
#### **East Half**



Figure 5-21. Route 12-12V Eastbound Weekday Boarding & Alighting by Stop West Half



#### **East Half**



### 5.3.8 Route 14

Route 14 serves near-downtown areas of Livermore, connecting residential blocks to the north with commercial and civic uses to the south. Shaped in the form of a figure "8", it operates every 30 minutes throughout the day. In FY 2011, route 14 operated nearly 3,360 annual revenue hours and 37,700 annual revenue miles.

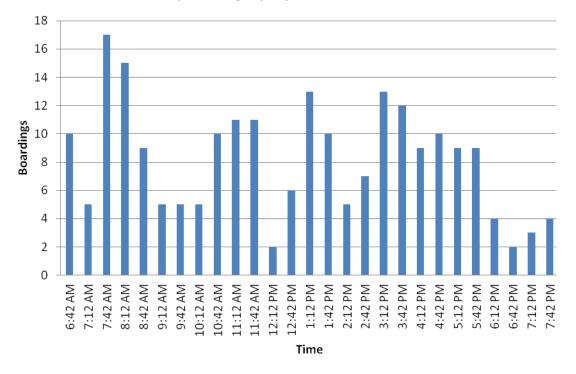
## Ridership

This route averages 8.0 passengers per hour, based on LAVTA FY 2011 operating data. A total of 221 passenger boardings were recorded by survey staff on route 14.

## **Boardings by Trip**

Route 14 boardings peaked at 7:42 AM with 17 boardings. Boarding activity decreased in the midmorning and increased again in the afternoon with 13 passenger boardings at 1:12 PM and 3:12 PM.

Chart 5-14. Route 14 Weekday Boardings by Trip



The top boarding and alighting location on route 14 was Livermore Transit Center. Other stops with activity included Dolores at Pacific and South P Street at Railroad.

Table 5-13. Route 14 Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Livermore Transit Center		159
Dolores	Pacific	41
South P St	Railroad	36
Pacific	Livermore	33
Chestnut	Junction	29

Figures 5-22 shows weekday boarding and alighting activity by stop.

Figure 5-22. Route 14 Weekday Boarding & Alighting by Stop



### 5.3.9 Route 15A/B

Route 15 is a robust local route connecting downtown Livermore with commercial landuses along North Livermore Avenue/Las Positas Road, as well as residential uses in the Springtown district. It is a balloon route, with the balloon piece served bi-directionally. Route 15A is a clockwise loop around Springtown, serving Bluebell and Galloway before serving Christensen School. Route 15B is a counterclockwise loop that serves Bluebell and Galloway after serving Christensen School.

Service frequency was 30 minutes during peak periods, but was decreased to hourly during midday as part of the systemwide spring 2009 service reductions. In FY 2011, route 15A/B operated nearly 8,390 annual revenue hours and 115,600 annual revenue miles.

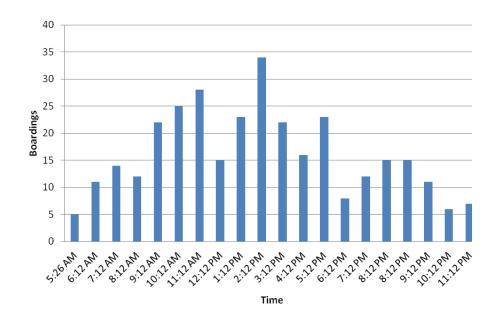
### **Ridership**

This route averages 17.1 passengers per hour, based on LAVTA FY 2011 operating data. A total of 309 passenger boardings were recorded by surveying staff on route 15A and 176 passenger boardings were recorded by surveying staff on route 15B.

### **Boardings by Trip**

Route 15A boardings peaked at 2:12 PM with 34 boardings and route 15B boardings peaked at 3:42 PM with 49 boardings.

Chart 15. Route 15A Clockwise Weekday Boardings by Trip



60 50 40 20 10 6:42 AM 7:42 AM 8:42 AM 1:42 PM 2:42 PM 3:42 PM 4:42 PM 5:42 PM 6:42 PM 7:42 PM

Chart 16. Route 15A Counter Clockwise Weekday Boardings by Trip

Top boarding and alighting locations on route 15A/B occurred at Livermore Transit Center and Livermore Walmart.

Time

Table 5-14. Route 15A Clockwise Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Livermore Transit Center		256
Livermore Walmart		48
Springtown Boulevard.	Bluebell	35
Las Positas	Plaza Drive.	26
Scenic Avenue.	Vasco Road.	23

Table 5-15. Route 15B Counter Clockwise Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Livermore Transit Center		154
Livermore Walmart		20
Bluebell	Las Flores	19
Broadmoor St.	Greenwich St	15
First St.	Las Positas	14

Weekday boarding and alighting activity by stop is shown in Figures 5-23 and 5-24.

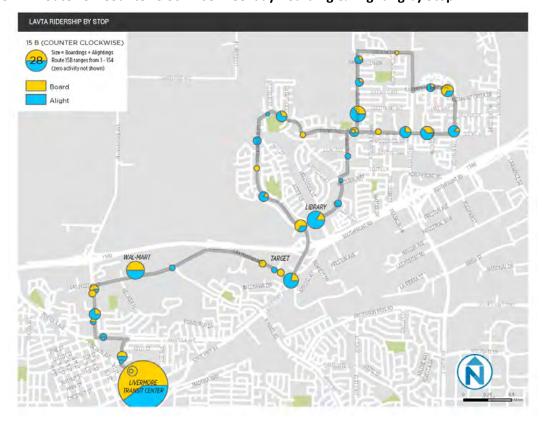
LAYTA RIDERSHIP BY STOP

15 A (CLOCKWISE)

Size - Boardings - Algebrage Route 1-256 (cools) and the state of the state of

Figure 5-23. Route 15A Clockwise Weekday Boarding & Alighting by Stop

Figure 5-24. Route 15B Counter Clockwise Weekday Boarding & Alighting by Stop



#### 5.3.9 Route 18A/B

Route 18 is a loop route with a clockwise and a counterclockwise pattern, serving the Granada neighborhood of Livermore, including a middle school and a high school. A few daily trips extend to Ravenswood Park, primarily to accommodate students.

Route 18A is the clockwise loop and route 18B is the counter clockwise loop. Route 18A/B serves Concannon, Arroyo, Superior, Lexington, and Holmes. and-uses along the route outside the immediate downtown area are almost exclusively low-density residential. Frequencies are 30 to 45 minutes during peak periods, midday service was discontinued as part of the spring 2009 systemwide service reductions.

In FY 2011, route 18A/B operated nearly 1,890 annual revenue hours and 21,800 annual revenue miles.

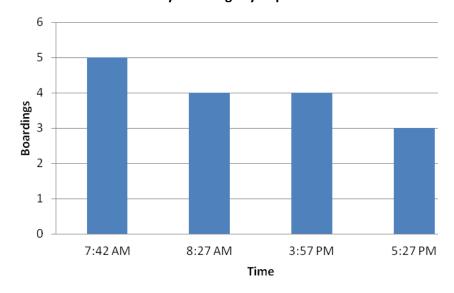
## Ridership

This route averages only 4.6 passengers per hour, based on LAVTA FY 2011 operating data. A total of 16 passenger boardings were recorded by survey staff on route 18A and 34 passenger boardings were recorded by survey staff on route 18B.

### **Boardings by Trip**

Boardings on route 18A/B were fairly consistent throughout the day, with a peak of 5 boardings in the morning at 7:42 AM and in the afternoon/evening (2:27 PM, 3:12 PM and 6:12 PM).





6 5 4 4 2 PM 2:27 PM 3:12 PM 4:42 PM 6:12 PM

Chart 18. Route 18B Counter Clockwise Weekday Boardings by Trip

The top boarding and alighting location on route 15A/B was at Livermore Transit Center.

Time

Table 5-16. Route 18A Clockwise Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
Livermore Transit Center		9
Concannon Boulevard	Barcelona St.	4
El Prado Drive.	Orange Way	3
Granada High School		3

Table 5-17. Route 18B Counter Clockwise Weekday Top Boarding & Alighting Locations

Street	Cross Street	<b>Total Activity</b>
Livermore Transit Center		20
Holmes St.	Concannon Boulevard	10
4th St.	K St.	5

Weekday boarding and alighting activity by stop is shown in Figures 5-25 and 5-26.

LAVIA RIDERSHIP BY STOP

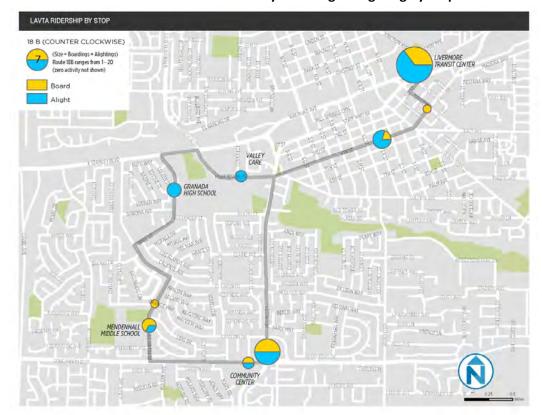
18 A (CLOCKWISE)

18 A (CLOCKWISE)

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Figure 5-25. Route 18A Clockwise Weekday Boarding & Alighting by Stop

Figure 5-26. Route 18B Counter Clockwise Weekday Boarding & Alighting by Stop



#### 5.3.10 Route 20X

Route 20X is a semi-express route serving a niche market of reverse-direction commuters between Dublin/Pleasanton BART and employment areas in east Livermore, including LLNL. Route 20X serves the area between Hacienda Road/I-580 (Pleasanton) and Greenville Road/I-580 (Livermore). Service is every 45 minutes, peak periods only. In FY 2011, route 20X operated nearly 1,580 annual revenue hours and 38,900 annual revenue miles.

### **Ridership**

This route averages 8.3 passengers per hour, based on LAVTA FY 2011 operating data. A total of 75 passenger boardings were recorded by survey staff on route 20X.

### **Boardings by Trip**

Boardings on route 20X peaked at 6:58 AM with 19 boardings.

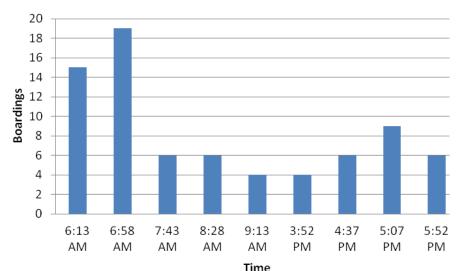


Chart 19. Route 20X AM and PM Weekday Boardings by Trip

### **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 20X occurred mostly at West Dublin/Pleasanton BART station and East Avenue at South Vasco Road. See Figures 5-27 and 5-28 for boardings and alighting by stop information for route 20X.

Table 5-18. Route 20X Weekday T	p Boarding & Alighting Locations
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Street	Cross Street	Total Activity
West Dublin/Pleasanton BART		72
East Avenue	South Vasco Road	26
Vasco	Daphne	12
Vasco	Brisa	10

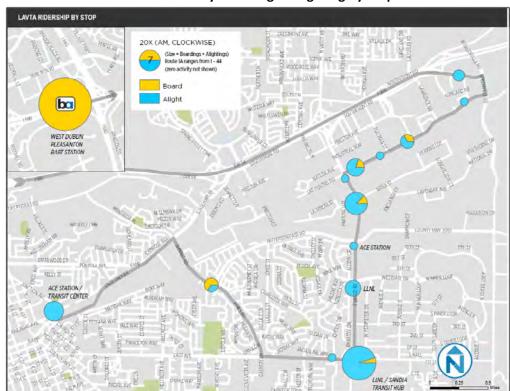
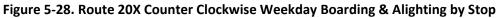
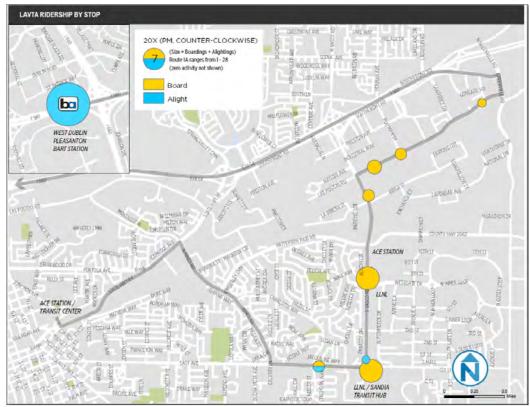


Figure 5-27. Route 20X Clockwise Weekday Boarding & Alighting by Stop





## 5.3.11 Tri-Valley Rapid (Route 30)

The Rapid is a high-capacity transit system that operates in the Tri-Valley from East Livermore to West Pleasanton and points in between, including two BART stations. The LAVTA Rapid was built upon the already-successful route 10 which provides both intravalley trips and serves regional destination points. Destinations on the Rapid include:

- Stoneridge Shopping Center
- Dublin/Pleasanton BART Station
- Downtown Dublin
- Hacienda Crossings
- Valley Care Medical Center (Livermore Campus)
- Downtown Livermore Business District
- Livermore High School
- Lawrence Livermore National Laboratories

In FY 2011, the Rapid operated nearly 15,490 annual revenue hours and 239,300 annual revenue miles.

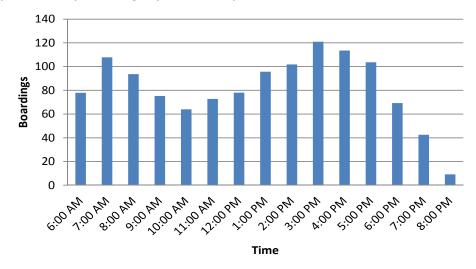
### Ridership

This route averages 9.5 passengers per hour, based on LAVTA FY 2011 operating data. A total of 776 passenger boardings were recorded by survey staff on the Westbound Rapid and 706 passenger boardings were recorded on the Eastbound Rapid.

### **Boardings by Trip**

Boardings on route 30/R have very clear peaks during commute hours. Boardings peaked at the 3:00 PM hour with 121 boardings. Ridership was also high during the 7:00 AM hour with 108 boardings.

Chart 20. Rapid Weekday Boardings by Time of Day



Top boarding and alighting locations on the Rapid occurred at Dublin/Pleasanton BART station and Railroad Avenue at Maple Signature Stop/Bankhead Theater.

Table 19. Route 30/R Westbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		431
Railroad Avenue	Maple Signature Stop	168
Dublin Boulevard	Golden Gate WB	104
Stanley	Valley Med WB	101

Table 20. Route 30/R Eastbound Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
East Dublin/Pleasanton BART		386
Railroad Avenue	Bankhead Theater	147
Dublin Boulevard	Regional St.	102
Stoneridge Mall		88

Figures 5-29 and 5-20 show the boarding and alighting by stop for the Rapid.

Figure 5-29. Rapid Weekday Boarding & Alighting by Stop West Half



Figure 5-30. Rapid Weekday Boarding & Alighting by Stop East Half



#### 5.3.12 Route 53

Route 53 provides a link between the West Dublin/Pleasanton BART Station and the Alameda County Fairgrounds/ACE Train Station traveling primarily an express routing via I-680. The service operates three AM trips and three PM trips designed to meet the ACE Train. In FY 2011, route 53 operated nearly 1,290 annual revenue hours and 13,500 annual revenue miles.

### **Ridership**

This route averages 11.1 passengers per hour, based on LAVTA FY 2011 operating data. A total of 150 passenger boardings were recorded by survey staff on route 53 during the AM and PM service hours.

### **Boardings by Trip**

Boardings on route 53 AM were highest on the first trip, at 5:34 AM with 35 passengers. Route 53 PM ridership was fairly consistent, with between 21 and 24 passenger boardings per run.

40 35 30 25 Boardings 20 15 15 10 5 0 5:34 AM 6:49 AM 7:55 AM 3:53 PM 4:39 PM 5:39 PM Time

Chart 21. Route 53 Weekday Boardings by Time of Day

### **Top Boarding & Alighting Locations**

Top boarding and alighting locations on route 53 were primarily at the Pleasanton and Walnut Creek BART stations. See Figures 5-31 and 5-32 for boarding and alighting information by stop for route 53.

Table 5-21. Route 53 AM and PM Weekda	y Top	Boarding	& Ali	ghting	Locations
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Street	Cross Street	Total Activity
West Dublin/Pleasanton BART		104
ACE Rail Station		153
Stoneridge Mall		33

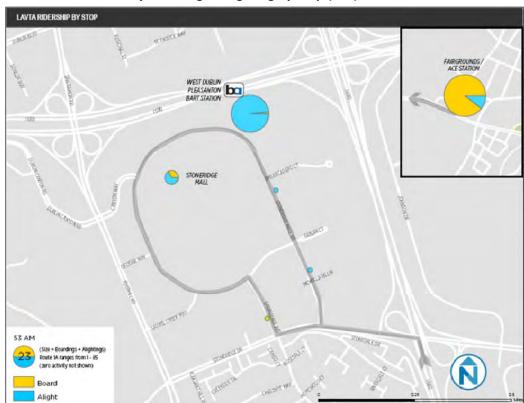
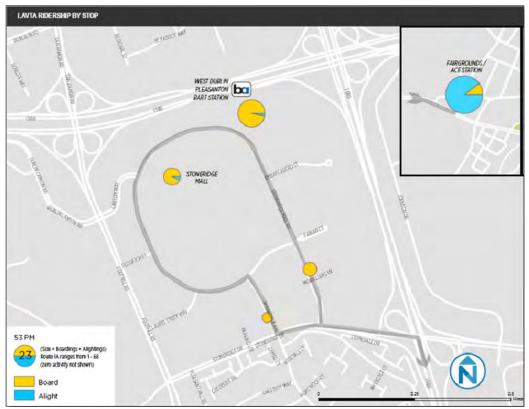


Figure 5-31. Route 53 Weekday Boarding & Alighting by Stop (AM)

Figure 5-32 Route 53 Weekday Boarding & Alighting by Stop (PM)



#### 5.3.13 Route 54

Route 54 provides a connection from the ACE Train Station to the Dublin/Pleasanton BART Station via Hacienda Business Park, where it circulates. The service operates three AM trips and three PM trips designed to meet the ACE Train. In FY 2011, route 54 operated nearly 1,340 annual revenue hours and 18,700 annual revenue miles.

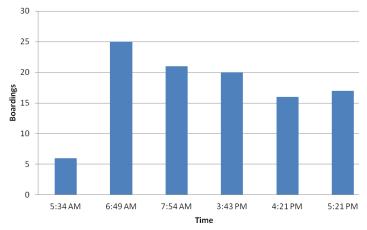
## Ridership

This route averages 24.7 passengers per hour, based on LAVTA FY 2011 operating data, making it the best performing route designed to serve the general public. A total of 95 passenger boardings were recorded by survey staff on route 54 during the AM and PM service hours.

### **Boardings by Trip**

Boardings on route 54 AM were highest on the second trip, at 6:49 AM with 25 passengers. Route 54 PM ridership was fairly consistent, with between 16 and 20 passenger per run.

Chart 22. Route 54 Weekday Boardings by Trip



#### **Top Boarding & Alighting Locations**

The single location with the highest number of boardings and alightings was the ACE Rail Station. See Figures 5-33 and 5-34 for boarding and alighting data by stop.

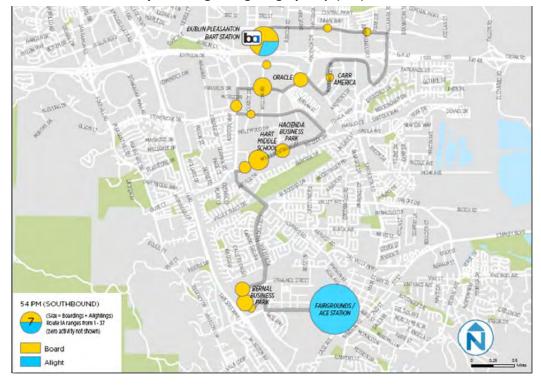
Table 22. Route 54 AM and PM Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
ACE Rail Station		153
Dublin/Pleasanton BART		13
Gibraltar	Willow	12
Las Positas	Willow	11



Figure 5-33. Route 54 Weekday Boarding & Alighting by Stop (AM)





#### 5.3.14 Route 70

Route 70 is an express route operating between BART stations at Pleasant Hill, Walnut Creek, and Dublin/Pleasanton. It interlines to/from route 9, effectively serving local streets in the Hacienda Business Park in Pleasanton. Service is peak-period only, on 30-minute headways. A "V" pattern was introduced in the summer of 2009, providing two daily trips directly to/from the Stoneridge Mall area.

In FY 2011, route 70 operated nearly 4,460 annual revenue hours and 115,400 annual revenue miles.

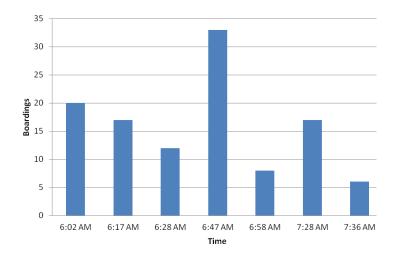
### **Ridership**

This route averages 9.5 passengers per hour, based on LAVTA FY 2011 operating data. A total of 178 passenger boardings were recorded by survey staff on route 70 during the AM and PM service hours.

## **Boardings by Trip**

Boardings on route 70 AM were highest at 6:47 AM with 33 passengers. Route 70 PM peaked at 4:28 PM and 4:58 PM with 17 passenger boardings on both runs.

Chart 23. Route 70AM Weekday Boardings by Trip



18 16 14 12 10 88 10 10 8 8 6 4 2 9 M 4:58 PM 5:08 PM 5:28 PM

Chart 24. Route 70 PM Weekday Boardings by Trip

Top boarding and alighting locations on route 70 were primarily at the Pleasanton and Walnut Creek BART stations.

Time

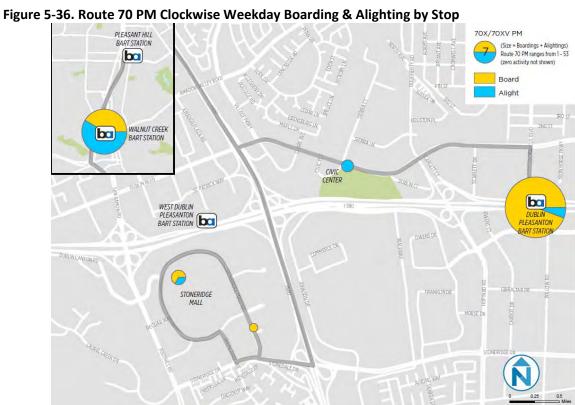
Table 23. Route 70 AM and PM Weekday Top Boarding & Alighting Locations

Street	Cross Street	Total Activity
West Dublin/Pleasanton BART		108
Walnut Creek BART		94
Pleasant Hill BART		44
Dublin Boulevard	Civic Plaza	11

Weekday boarding and alighting activity by stop is shown in Figure 5-35 and 5-36.

70X/70XV AM (Size = Boardings + Alightings) Route 70 AM ranges from 3 - 65 (zero activity not shown) PLEASANT HILL BART STATION (ba) CIVIC ba WEST DUBLIN
PLEASANTON
BART STATION STONERIDGE MALL

Figure 5-35. Route 70 AM Weekday Boarding & Alighting by Stop



### 5.3.14 **Summary**

Wheels ridership declined in each of the past three fiscal years, leading to an increased cost per passenger and an overall declining number of passengers per hour. The farebox recovery ratio decreased from 18.2% to 17.7% and the average fare per passenger increased from \$1.06 in FY 2009 to \$1.20 in FY 2011 due to a fare increase in FY 2010. Overall ridership increased since 2007, but dipped significantly in FY 2010 due to service cuts, a fare increase, and the general state of the economy. Vehicle service hours declined in 2010, but were up slightly in 2011 with the introduction of the new Rapid service.

## 5.4 DIAL A RIDE SYSTEM PERFORMANCE

Operating statistics such as operating cost, ridership, and service hours were compiled over the last three fiscal years to assess the performance of LAVTA's Dial-A-Ride service. Dial-A-Ride operations have generally experienced declining ridership and increased costs since the Great Recession.

Table 5-24. Dial-A-Ride Operating Statistics

	FY 2009	FY 2010	FY 2011
Operating Cost	\$1,882,773	\$1,766,628	\$1,719,889
Annual Change		-6.2%	-2.6%
Vehicle Service Hours	29,742	24,551	22,350
Annual Change		-17.5%	-9.0%
Vehicle Service Miles	382,848	347,357	312,903
Annual Change		-9.3%	-9.9%
Annual Ridership	67,070	61,619	56,795
Annual Change		-8.1%	-7.8%
Farebox Revenue	\$245,054	\$222,500	\$187,426
Annual Change		-9.2%	-15.8%
Operating Cost per Service Hour	\$63.30	\$71.96	\$76.95
Annual Change		13.7%	6.9%
Operating Cost per Passenger	\$28.07	\$28.67	\$30.28
Annual Change		2.1%	5.6%
Passengers per Service Hour	2.3	2.5	2.5
Annual Change		11.3%	1.2%
Subsidy per passenger	\$24.42	\$25.06	\$26.98
Annual Change		2.6%	7.7%
Average Fare per Passenger	\$3.65	\$3.61	\$3.30
Annual Change		-1.2%	-8.6%
Farebox Recovery Ratio	13.0%	12.6%	10.9%
Annual Change	0040	-3.2%	-13.5%

<sup>\*</sup> Operating data for FY 2009, FY 2010, and FY 2011 provided by LAVTA and CAFR Reports; Operating Cost excludes depreciation and Farebox Revenue includes Special Contract Revenue

The operating statistics reported in Table 5-24 represent the service performance under MV Transportation in FY2009-2011.

Starting July 1, 2011, ALC began operating the Dial-A-Ride service. In the first year of operation, the operating cost per trip was \$25.00, a 17.4% reduction when compared to FY2011's \$30.28. The performance results of the Dial-A-Ride service under ALC are much anticipated over the next three years.

#### 5.4.1 On Time Performance

The current contract agreement between LAVTA and ALC includes an on-time performance standard of 95% or greater. On-time performance is based on drivers indicating via their GPS devices when they arrive at a designated location. According to ALC's records, the most recent on-time performance data, for FY2012, is shown in Table 5-25.

Table 5-25. FY2012 Dial-A-Ride On-Time Performance Data

le e	On Time	
Month	Performance	
July	91.6%	
August	94.1%	
September	92.7%	
October	96.6%	
November	96.1%	
December	95.6%	
January	94.1%	
February	93.5%	
March	94.3%	
April	92.0%	
May	91.0%	
June	90.0%	
FY11 Average	93.5%	

While these percentages indicate the ALC only met the performance standard during three months in the past year, overall the percentages are reasonable based on industry standards.

# 5.4.2 Annual Ridership

Dial-A-Ride ridership decreased steadily during the period of FY2009 to FY2011, from approximately 67,000 to 57,000 annual passenger trips. Between FY2009 to FY2012, the number of trips taken by registrants fell from 55,000 to 41,000, or a decline of 25%. These trends follow the same declining trend as shown with the fixed route service and can partially be explained as fallout from the Great Recession. Dial-A-Ride service is significantly more expensive per passenger than fixed-route service, any decrease in Dial-A-Ride ridership is viewed positively from an operations perspective.

While the number of passengers decreased in the last three years, historically, looking at the last ten years, paratransit ridership has increased by more than 100%. Potential explanation for this decline could be due to a number of factors, such as:

- Prior to FY2012, ridership from the Livermore Senior Housing Shopping Shuttles was included (about 2,000 annual trips).
- Tri-Valley Senior Support Services Volunteer Driver Program ridership has been increasing (but, in fact, the increase has been very minimal, from 1,913 to 2,013 between FY2011 and FY2012).
- Para-Taxi program ridership has been increasing (from 609 trips in FY2011 to 1,236 rides in FY2012).
- There has been a decrease in day programs provided by social service agencies, resulting in less demand.
- The Dial-A-Ride ticket price has increased (the fare increased from \$3 to \$3.50 in March 2009, so likely did not have a significant impact in the past two years).

While it is likely that these factors have influenced the decrease in ridership during the past four years, determining by how much is unknown.

Figure 5-37 shows the annual paratransit ridership over the past three fiscal years and Figure 5-38 demonstrates the historical ridership since 1989.

Figure 5-37. Three Year Annual Ridership

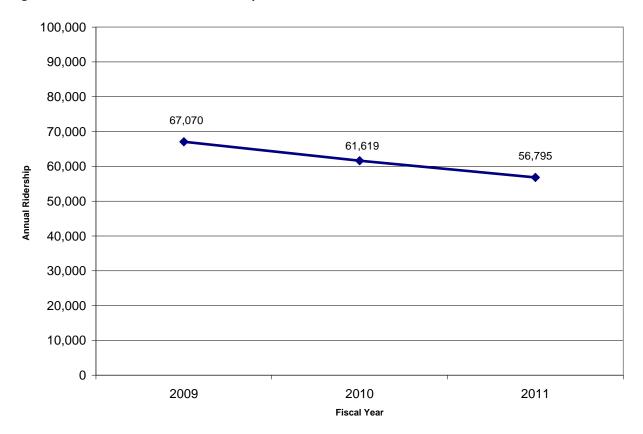
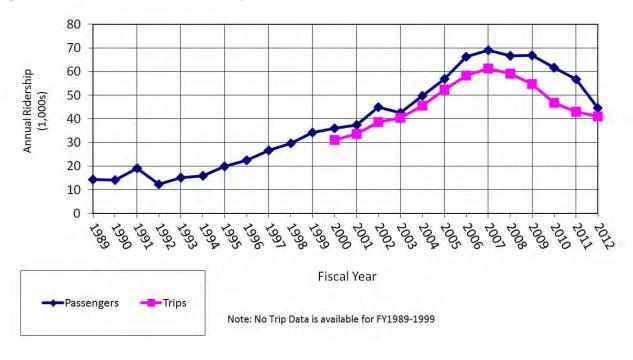


Figure 5-38. Annual Paratransit Ridership 1989-2012



# 5.4.2 Operating Cost

The overall operating cost declined by approximately 9% since FY 2009. The operating cost was just over \$1.7 million in FY 2011. See Figure 5-39 for the three year overview of this service indicator.

#### 5.4.3 Farebox Revenue

Farebox revenues have declined in the past three years. Revenues peaked in FY 2009 when nearly \$250,000 was received from passenger fares. In FY 2011, revenues declined to approximately \$190,000 – a 23.5% decrease in farebox revenue from FY 2009. See Figure 5-40 for the three year overview of this service indicator.

# 5.4.4 Farebox Recovery Ratio

The farebox recovery ratio peaked along with farebox revenues in FY 2009 at 13%. The ratio has since fallen to 10.9% in FY 2011. Between FY 2010 and FY 2011, operating costs decreased by nearly 3% while fare revenues decreased by nearly 16%. In FY 2010, fares for LAVTA's paratransit service increased by \$0.50 to \$3.50. See Figure 5-41 for the three year overview of this service indicator.

Figure 5-39. Dial-A-Ride Operating Costs

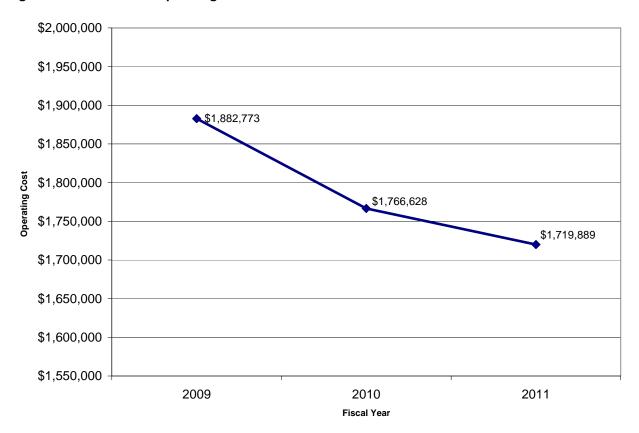


Figure 5-40. Dial-A-Ride Farebox Revenue

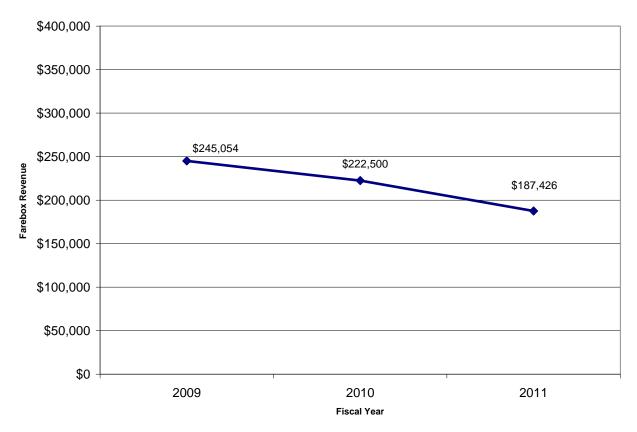
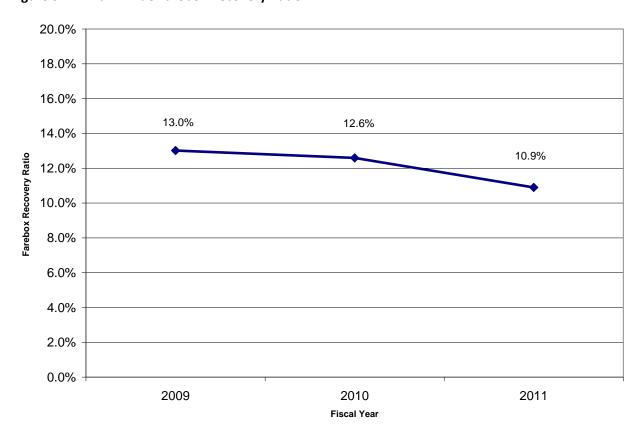


Figure 5-41. Dial-A-Ride Farebox Recovery Ratio



## 5.4.5 Passengers per Revenue Hour

The number of passengers carried per revenue hour has increased each of the last three years. This is partially due to service hours decreasing at a faster rate than ridership has increased. In FY 2010, vehicle service hours decreased by 17.5% while ridership declined by only 8%. This resulted in an 11% increase in passengers per hour to 2.51 in FY 2010. In FY 2011, Dial-A-Ride averaged 2.54 passengers per revenue hour. See Figure 5-42 for the three year overview of this service indicator.

### 5.4.6 Operating Cost Per Passenger

Operating cost per passenger is up 8% since FY 2009. Operating costs per passenger increased by nearly 6% during FY 2011, due to a nearly 3% drop in costs and an 8% ridership decline (with a corresponding reduction in service levels). In FY 2011, operating costs were more than \$30 per passenger. The current operating cost per trip is approximately \$28.50 under the ALC business model. Additionally, the reduction in fleet maintenance costs is not reflected in the operational cost. See Figure 5-43 for the three year overview of this service indicator.

# 5.4.7 Operating Cost Per Service Hour

Operating cost per service hour has been increasing steadily over the past three years. Operating cost per revenue service hour increased by 22%, from \$63.30 to nearly \$77.00 between FY 2009 and FY 2011. This large increase is due mostly to a 25% decrease in vehicle service hours, while operating costs decreased by only 9% during the same period. See Figure 5-44 for the three year overview of this service indicator.

The cost per hour is no longer relevant for the current contract in FY12 due to the different operating model, as service hours are not dedicated to the program and no meaningful comparison can be made.

## 5.4.8 Subsidy per Passenger

The subsidy per passenger has increased slightly in the last three fiscal years. The measure increased at its greatest rate in FY 2011, by 7.7% to \$26.98 per passenger. See Figure 5-45 for the three year overview of this service indicator.

Figure 5-42. Dial-A-Ride Passengers Per Revenue Hour

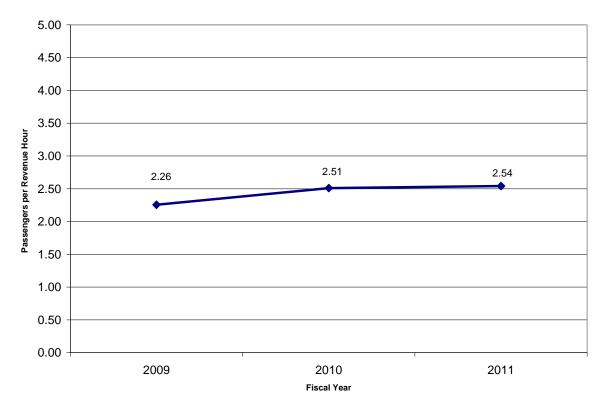


Figure 5-43. Dial-A-Ride Operating Cost per Passenger

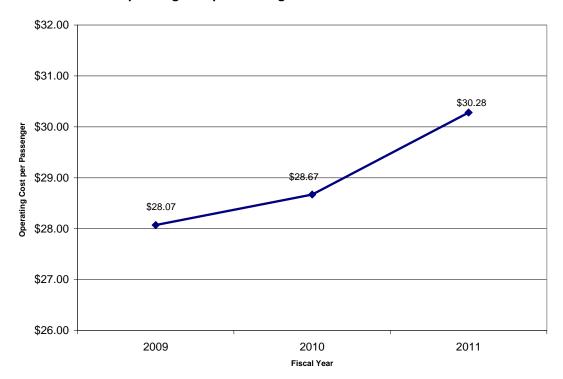


Figure 5-44. Dial-A-Ride Operating Cost per Service Hour

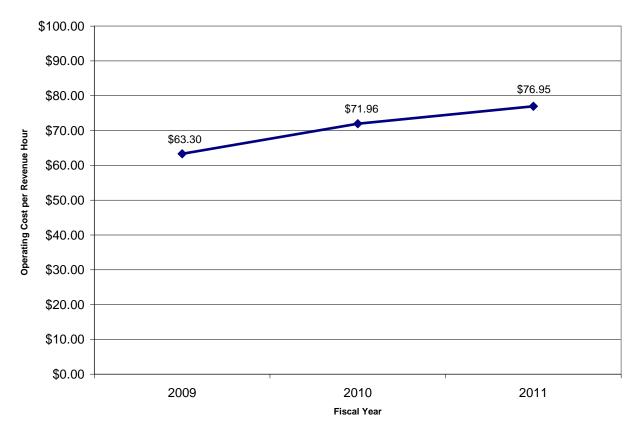
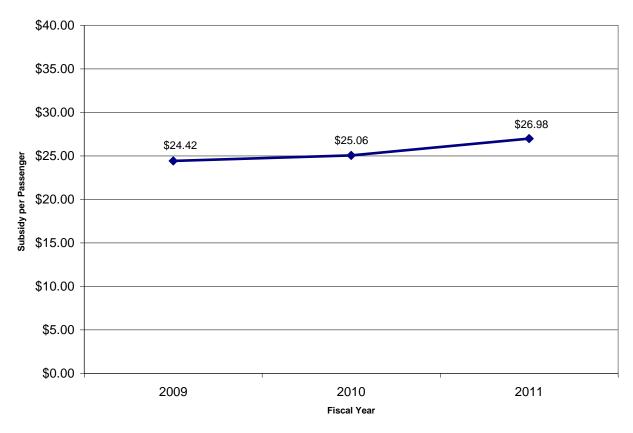


Figure 5-45. Dial-A-Ride Subsidy Per Passenger



## 5.4.9 Trip Origins and Destinations

Figure 5-46 illustrates the most frequent trip origins and destinations, based on a sample of Dial-A-Ride trips taken during one week, between June 11 and June 17. To give a sense of trips taken on a single weekday, trips for Wednesday, June 13 are highlighted in orange.

The top five destinations are the Dublin/Pleasanton BART Station, Vocational Development services for ARC of Alameda County on Rutan Drive; 3201 Doolan Road., Livermore; Stoneridge Mall; and the VA Medical Center. Other key destinations include community centers, shopping centers, and apartment complexes.

It should be noted that many of the boardings and alightings are at locations that are either on or are adjacent to fixed routes.

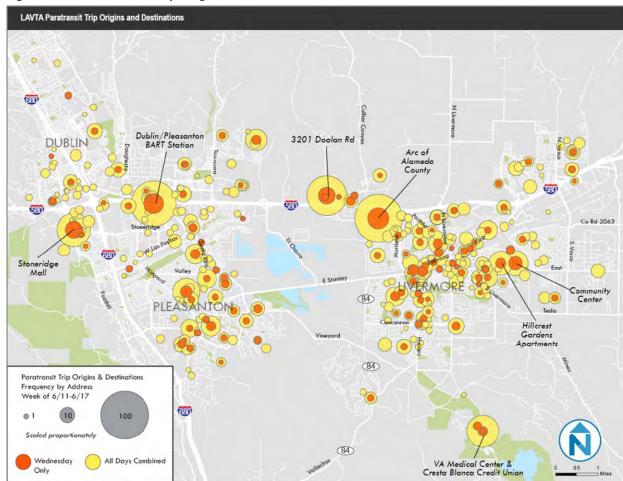


Figure 5-46. Dial-A-Ride Trip Origins and Destinations

## 5.4.10 Summary

In the last three years there were major reductions in vehicle service hours and vehicle service miles; however Dial-A-Ride costs have not decreased proportionally. These factors led to the decision for LAVTA to try a new business model or contractor for the paratransit service. Starting July 1, 2011, ALC began operating the Dial-A-Ride service.

In the first year of operation, the operating cost per trip was \$25.00 and in the second year of operation, the operating cost per trip was \$25.50. The performance results of the Dial-A-Ride service under ALC are much anticipated over the next three years.

## 5.5 GENERAL ISSUES

Other service evaluation considerations are discussed in the following sections, including LAVTA's involvement in MTC's Community Based Transportation Planning (CBTP) program, a review of the most recent Title VI report, and the FY 20102 FTA Triennial Review.

## 5.5.1 Community-Based Transportation Planning Program

MTC's Lifeline Transportation Program supports projects that address mobility and accessibility needs in low-income communities throughout the region. The program is funded by a combination of federal and state operating and capital funding sources, including the Federal Transit Administration's Jobs Access and Reverse Commute Program, and state Proposition 1B Transit Capital and State Transit Assistance programs. LAVTA currently does not have any local CBTP or welfare-to-work programs. The Dial-A-Ride scholarship is funded by 1B GAP funds; all the other low-income projects receive lifeline funding. Lifeline funded projects include Bus Stop Improvements, route 14, and Civic Center Driveway Improvements.

#### 5.5.2 Title VI

LAVTA operates its services without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. LAVTA's June 2012 Title VI Report was updated to be consistent with the guidelines set forth in FTA Circular 4702.1A (dated May 13, 2007). LAVTA's Title VI compliance describes the activities specifically undertaken to ensure broad participation and access to the process by minority, low-income, non-English speaking and other underrepresented populations.

LAVTA has had one Title VI complaint since the last title VI submission. The complaint was filed by a woman who resides in Oakland CA. She filed a Title VI complaint on March 28, 2012 alleging she was the victim of discrimination based on her color/race on March 27, 2012. After performing an investigation into her complaint, LAVTA concluded that there was no evidence of any racial discrimination directed against the passenger. The driver had followed standard operating procedures. The passenger is currently preparing an appeal to the final investigations report. This Title VI complaint is still in the process of settlement.

#### 5.5.3 FTA Triennial Review

The FTA Triennial Review of LAVTA's compliance with federal requirements was determined by the examination of grant management practices and program implementation. The last triennial review for LAVTA's transit services considered fiscal years 2009, 2010, and 2011. The Triennial Review determined that there were no deficiencies in accordance with FTA requirements in 21 of the 24 areas reviewed.

Deficiencies were identified in Disadvantaged Business Enterprise and the Drug and Alcohol Program. In addition, one advisory comment was made in the Safety and Security area. In response to the review, the following corrective actions have been taken:

- LAVTA submitted to FTA Reviewer and received approval of procedures to evaluation good faith efforts and to maintain documentation of evaluation in procurement files.
- LAVTA submitted to FTA Reviewer and received approval of revised contract clause addressing prompt return of retainage.
- LAVTA submitted to FTA Reviewer and received approval of analysis of why DBE awards were less than overall goal.
- LAVTA submitted to FTA Reviewer and received approval of badge procedure for visitors to control access to facilities. Employees and contractors are issued permanent badges.
- LAVTA submitted to FTA Reviewer and received approval of revised American Logistics Company (ALC) Drug and Alcohol Policy with documentation that it has been approved by the ALC governing board. ALC also confirmed via email that this policy has been communicated to all affected employees.

#### 5.5.4 Environmental Justice

To ensure that service and fare changes are not disproportionately impacting and populations of people within the LAVTA service area, extensive public outreach is performed prior to any major service change or fare increase. In addition, an equity analysis is performed to ensure that there are no disproportionate impacts to any populations of concern.

As an example of LAVTA's commitment to ensuring that there no environmental justice impacts due to their actions, the outreach and involvement process for the last service change, effective August 25, 2012, is provided. LAVTA's public outreach and involvement process included four workshops at various locations in the Tri-Valley area and a public meeting at a LAVTA Board meeting. All venues were ADA accessible and translators were available with advance notification. To advertise these events, flyers were posted in the communities and overhead car cards were displayed in the buses the weeks before the meetings. Information for the service changes was available in English and Spanish on the LAVTA website and via press releases.

LAVTA received input regarding the proposed service changes from the community, including riders and other community stakeholders. In addition, comments from the Wheels bus drivers were also received. Taking into consideration the input received as well as operational and cost impacts, LAVTA proposed the service route changes. A service equity analysis was performed ensuring that the route changes did not disproportionately impact or favor any group. It was found that the changes within

areas of concern had positive benefits or were operational efficiencies that had no net impact on the surrounding community. In addition, an analysis under the California Environmental Quality Act (CEQA) also ensures that there are no impacts on the grounds of environmental justice.

The service changes were presented to the Board of Directors on June 4<sup>-</sup> 2012. As a public meeting, public comment on the service changes could again be taken before vote and adoption. Once approved, extensive outreach to notify the community of the change was implemented to ensure a smooth transition.

## **Operations Plans**

## 6.1 FIXED ROUTE SERVICE DESIGN GUIDELINES

It is important to consider for a moment some of the basic design guidelines that serve as the foundation for almost every transit service plan, whether for a small rural town with 10,000 people or major city with over 8 million. LAVTA strives to serve as many residents, workers, and visitors as it can within the confines of the resources it has available. At the same time, it needs to serve a wide variety of riders, trip types, and demands, many of which conflict with each other. For example, most riders want fast service, but many also want lots of bus stops so that the distance they have to walk to/from a destination is minimized. Having lots of stops improves access to the transit system but it also slows down the routes. These two desires are in direct conflict with each other. Service elements that might attract one type of rider to transit can drive other riders away. LAVTA must balance these types of competing demands.

As the Wheels system grows over the next twenty years, it is possible that LAVTA will use different types of services, such as Rapid Bus, Local Bus, Limited Stop, and Deviated Fixed Route. These services are intended to meet the basic needs of residents who cannot drive as well as to provide compellingly options to those who can drive. For both types of riders—and those in between—there are certain service design principles that will improve service for nearly all riders.

#### 6.1.1 Service Should Be Simple

Service should be designed so that it is easy to understand. In this way, potential riders can learn about the options that are available to take them where and when they want to go without experiencing frustration and problems. At the core of the transit planner's tool box is an approach that seeks to make all services intuitive, logical, and easy to understand.

## 6.1.2 Routes Should Operate Along a Direct Path

The fewer directional changes a route makes, the easier it is to understand. Conversely, circuitous alignments are disorienting and difficult to remember. Routes should not deviate from the most direct alignment unless there is a compelling reason.

#### 6.1.3 Route Deviations Should be Minimized

The use of route deviations—the deviation of service off of the most direct route—should be minimized. However, there are many instances when the deviation of service off of the most direct route is appropriate. For example, a route may deviate off a straight corridor to provide service to major shopping centers, employment sites, and schools. In these cases, the benefits of operating the route off of the main route must be

weighed against the inconvenience caused to passengers already on board who do not want to do to those activity centers.

In most cases, where route deviations are provided, they should be provided on an all-day basis. Exceptions are during times when the sites that the route deviations serve have no activity. For example, route deviations to shopping centers do not need to serve those locations before the commute time for the employees working there.

## 6.1.4 Routes Should be Symmetrical

Routes should operate along the same alignment in both directions, making it easy for riders to know how to get back to where they came from.

#### 6.1.5 Routes Should Serve Well-Defined Markets

Service should be developed to serve clearly defined markets. Ideally, major corridors should be served by only one route of each route type. For example, one radial route and one express route would suffice; multiple radial routes and multiple express routes would be redundant. However, exceptions can and should be made when multiple routes should logically operate through the same corridor to unique destinations.

## 6.1.6 Major Transit Routes Should Operate Along Arterials

Potential transit users have at least a basic knowledge of an area's arterial road system and use that knowledge as points of reference. The operation of bus service along arterials therefore makes transit service easier to figure out and to use. It also makes service faster.

#### 6.1.7 Service Should be Consistent

People can easily remember repeating patterns but have difficulty remembering irregular sequences. For this reason, routes should operate along consistent alignments and at regular intervals (headways).

## 6.1.8 Stops Should be Spaced Appropriately

Transit stops are the access and egress points for transit services and should be conveniently located. However, transit stops are also the major reason that transit service is slower than automobile trips. Since most riders want service that balances convenience and speed, the number and location of stops is a key component of determining that balance. Services that emphasize speed (for example, Rapid Service routes) should have fewer stops, while service that emphasizes accessibility (for example, Lifeline routes) should have more frequent stops.

## 6.1.9 Transit Options Should Match Land Use

In thinking about the long term options for transit in the Tri-Valley, it is important to be realistic. In many communities, public transit advocates can become nostalgic about rail service and enamored with certain modes like Streetcars or Light Rail, even if these modes are not good choices given the land use patterns. The type of transit service

implemented by an agency should be directly related to the type of development it will serve. Experience has repeatedly demonstrated that there is a direct correlation between the density of development (residential, retail, commercial and industrial) and the willingness of people in those areas to use transit service.

Transit must be designed to address the realistic demand in each area and it must do so in a manner which is cost effective. For example, it is certainly possible to build a Light Rail Line in a small city of 40,000 people and then use it to connect neighborhoods or districts with 2,000 people per area, but most planning agencies would not consider this scenario because the service would never be cost effective given the operating and capital cost per passenger per mile. It simply would not make sense.

Figure 6-1 presents the generally accepted relationship between land use density and transit service type.

Density

Light Rail

Rapid
Streetcar

Rail

Streetcar

Rail

Rapid
Streetcar

Shousing / acre
20 housing / acre
25 emp. / acre
20 housing / acre
20 housing / acre
20 housing / acre
20 housing / acre
20 emp. / acre
5 housing / acre
5 housing / acre
5 housing / acre
15 emp. / acre

Transit
Mode
Characteristics

Figure 6-1. Relationship Between Land Use and Type of Service

## 6.2 FIXED ROUTE SERVICE PLAN

#### 6.2.1 Imminently Anticipated Service Changes

As of July 2012, a round of schedule and service revisions had been approved for implementation in August as part of the fall 2012 signup and school starts. Although quite a few revisions were made, the implementation was close to cost neutral, with less than a one-percent increase in overall service hours. Among the items approved were:

- Mainline and school tripper geographic expansion in east Dublin
- Direction reversal for route 3

- Valley Ave extension and new Sunday service for route 8
- Elimination of a school tripper (route 612)

The annualized amount of service based on the August signup is approximately 126,200 revenue hours.

LAVTA requested a waiver from the FTA to implement a reduction in its peak period frequency on the Rapid from 10 to 15 minutes. This change was based on achieving a consistent sync with the 15-minute BART train frequencies and to lower operating costs in a struggling economy. The FTA approved the change in frequency on the Rapid to all day 15 minute service. The effective date of this service change is anticipated to be within the next three to four months.

A short list of potential improvements that could be done with the savings from the Rapid service change was presented to the Board. The potential improvements included increasing the morning peak frequency of the 12 line from 60 to 30 minutes, starting the 10 line one hour earlier to connect Livermore with the first outbound BART train from Dublin/Pleasanton, extend routes 53 and 54 to meet a fourth ACE train, and provide a limited service on the 12 line on Sundays. These service changes are targeted for implementation within the next six months.

Also on the nearby horizon is a grant that will help fund a frequency improvement on route 3 from 60 to 30 minutes. This service change is planned to be implemented within the next six moths.

Table 6-1 summarizes the current service level and ridership and shows the very-near-term approved changes in service described above. The reduction of peak frequency for the Rapid is not expected to result in a significant loss of ridership, while the peak vehicle requirement would stay roughly flat during this timeframe.

**Table 6-1. Imminently Anticipated Service Changes** 

Service	Annual Revenue Hours	Annual Ridership Impact	Peak Vehicle Req. Diff.
Current service levels fall 2012	126,207	1,749,168	50
Add Rt 53/54 service to accommodate fourth Ace train	693	14,193	0
Reduction of Rt 30/R peak frequency to 15 min	-3,294	0	-4
Increase Rt 3 frequency to 30 min	1,260	6,174	1
Increase Rt 12 am peak frequency to 30 min	1,000	8,850	2
Add limited Rt 12 Sunday service	720	4,806	n/a
Start Rt 10 earlier to meet earlier outbound Bart train	560	5,544	0

## 6.2.2 Intermunicipal Service Plan

The spine of the Wheels service network consists of the east-west intermunicipal trunk routes that connect the three suburban municipalities of Dublin, Pleasanton, and Livermore, the 10, Rapid, and 12. The most recent major change this corridor was the addition of the new skip-stop Rapid line that serves primarily Livermore and Dublin. The backbone route 10 continues to be of major importance in the corridor, providing local underlay service along portions of the Rapid alignment, as well as supplementing service to the corridor when the Rapid is not operating. The 12 line also carries substantial ridership traveling between Livermore and Dublin via Las Positas College.

The Rapid has struggled to meet the ridership levels expected from a route with a high level of service. In the near term, LAVTA has focused on marketing the benefits of the route and optimizing Rapid stop locations. In the medium- to long term, a number of options may exist that would allow the agency to better align the Rapid line or its hours to yield higher ridership opportunities.

#### **Intermunicipal Service Alternatives**

## Re-alignment of the Rapid to Las Positas College (Alternative 1)

One alternative would be to modify the Rapid's existing alignment to include Las Positas College, a ridership generator that is expected to continue growing over the next several years. In this scenario, the bus would travel from the Transit Center to Livermore Avenue and Portola Avenue instead of Railroad Avenue, and vice versa. At the same time, the local route 12 service to Las Positas College would be reduced to an hourly frequency all day, including during peak hours. This alternative would be estimated to, at the least, save about 2,500 revenue hours annually.

## Re-alignment of the Rapid to Pleasanton/Integration with Route 10 (Alternative 2)

Another option would be to route the Rapid service more closely to the 10 alignment. This would require seeking a consensus with the City of Pleasanton regarding any option that would in deviate from the 10 alignment. At the conceptual level, if the new merged service would entail a minor reduction of bus stops in the corridor, a savings of approximately 13,000 revenue hours annually could be achieved.

#### Discussion

Under both alternatives, the 10 line would continue to be the local and trunk workhorse in its corridor. In the second alternative, more or full integration opportunities would exist. The efficiencies stemming from integration could be used to boost frequencies and/or use the savings to make other enhancements in the same corridor or in other productive corridors.

Due to the high capital costs associated with making changes to the Rapid's alignment, these alternatives would not be feasible in the near term. A short-term

consideration would be to make enhancements to route 10 depending on ridership trends and the agency's finances.

## Rapid Service Expansion

In the event that the Rapid's ridership would start to show a substantial and sustained trend of increased ridership, 10-minute peak period frequency would be restored to the peak period, followed by adding Saturday and Sunday service. A phased build out could potentially include an eight-hour service span on Saturdays on a 15-20 minute frequency and a six-hour service span on Sundays on a similar frequency. In this scenario, weekend service on route 10 westbound would be terminated at the Dublin/Pleasanton BART station and not continue to the Stoneridge Mall during the operating hours of Rapid.

#### Route 10 Enhancements

Enhancements could include headway improvements on segments and at times that currently are on 30 minutes or less frequencies, as well as service span extensions. For the purposes of this plan, it is assumed that 5,000 annual revenue hours would be used toward route 10 improvements.

Table 6-2 summarizes the items above for intermunicipal service. No changes in ridership and revenue hours have been estimated for the Rapid as a preferred alternative has not yet been identified. Options for route 12 are discussed under the Livermore Service heading.

Table 6-2. Intermunicipal Service Plan

Service	Annual Revenue Hours	Annual Ridership Impact	Peak Vehicle Req. Diff.
Rt 30 / Rapid peak 10-min frequency restoration	3,294	32,940	4
Rt 30 / Rapid Saturday service implementation	3,248	32,480	n/a
Rt 30 / Rapid Sunday service implementation	2,592	25,920	n/a
Rt 30 / Rapid alignment revision via College area (alt 1)	-2,500	Unknown	-2
Rt 30 / Rapid realignment via Pleasanton (Alt 2)	-13,104	Unknown	-6
Rt 10 Enhancements	5,000	50,000	2

#### 6.2.3 Dublin Service Plan

Dublin is distinctly divided into an east and a west part, with an Army base situated in its middle. The western side is an older portion developed prior to the City's incorporation in 1982, and consists mainly of low to medium-low density residential subdivisions with limited street network connectivity. The southern end of this area features automobile-oriented retail uses, with a mix of big-box stores, strip malls, and drive-thru restaurants.

The best core transit opportunities in both eastern and western Dublin are in the commercial corridor along Dublin Boulevard which runs near the south perimeter of the

municipality. Other areas of the City are more suitable for local feeder routes providing low to moderate levels of service. Student ridership within the Wheels service in Dublin is moderate, but growing concurrent with new developments on the western side.

## **Dublin Alternatives**

No major changes are envisioned for Dublin as the western half of the city is already largely "built out" and as LAVTA has recently expanded its service considerably in the western half.

#### Restructure Service to Santa Rita Jail

The City of Dublin considers service to the Santa Rita Correctional Facility (Jail) an important service to the community; hence the 1 line runs seven days a week on generous service spans and medium/high frequencies. Opportunities may exist to disconnect service to the Jail from the rest of the route 1 coverage into Pleasanton and possibly provide a shuttle or small bus service connection to BART for service to the Jail. Given the size of the vehicle, a contracted shuttle provider or a social service agency could be considered for the operation of this route. For the purposes of this plan, a modest saving of 1,300 revenue hours is assumed.

## Expansion of Tripper Service to Shäfer Ranch

Since development of the previous SRTP, a new subdivision, Schäfer Ranch, has opened far to the western limits of LAVTA's service area. It is unclear at this time what the student ridership potential there might be and is shown only as a placeholder item at this point.

Table 6-3 summarizes the few items that are, or could be, planned for Dublin in the medium- to long term.

Table 6-3. Dublin Service Plan

	Annual	Annual	Peak
	Revenue	Ridership	Vehicle
Service	Hours	Impact	Req. Diff.
Restructure service to Santa Rita Jail	-1,300	Unknown	-1
Expand tripper service to Shäfer Ranch	250	5,000	1

#### 6.2.4 Pleasanton Service Plan

Pleasanton is a suburban/metropolitan city with large office parks, regional retail, and low to medium density housing. A well-maintained, but small, historical downtown with a grid street network is surrounded by an auto oriented hierarchy of cul-de-sacs that feed into collector streets and arterial highways. Many areas within Pleasanton are not expected to substantially change in density or roadway circulation in any near future. Instead, development in Pleasanton is expected to occur in enclaves of opportunity

where there is either undeveloped land or existing land-uses that are economically and politically feasible to redevelop.

There does not appear to be a need for any major route restructuring within the City of Pleasanton, but rather to optimize the existing service to ensure that productive corridors receive high levels of service and that other areas receive service to provide coverage and feed into the mainlines. Also, Pleasanton is expected to continue to be a big generator for middle and high school student ridership, a demand that is met largely with supplemental (school tripper) routes.

#### **Alternatives**

## Reduction of Service to Johnson Drive

The Johnson Drive area, which contains a mix of office, commercial, and hospitality uses has struggled to yield ridership for many years. If ridership does not recover in this area, Johnson Drive could be considered for a reduction in the number of total trips or even elimination of service altogether. A withdrawal of service on the Johnson loop would still leave its denser eastern portions accessible to route 8 along Hopyard Road, although the western would effectively be placed out of reach of transit service.

## Simplify Vineyard - Kottinger Loop

The current service setup along the Vineyard - Kottinger loop is currently served by a variant of the 10 line, the 10V, during commute hours and by the 8 line at other times. There is a potential benefit to serve this area with a simple, direct route.

## Linking Hacienda and Dublin Routes

In the Hacienda Business Park area, opportunities may exist to link or interline the existing route 9 with route 1.

## Limited School Tripper Expansion

Most of the middle and high schools in Pleasanton are on Wheels mainlines; however, many of the neighborhoods where students live are not. As such, the current extensive network of eleven supplemental tripper lines will likely need to be maintained or expanded over the plan's period. Currently, very few Pleasanton neighborhoods are without either mainline or school tripper coverage.

#### Eastern Pleasanton Specific Plan Development

Starting with the 2004 SRTP, the LAVTA short-range plans have contained a reference to service to eastern Pleasanton developments. This area is only now starting to develop, along with the roadway network in the area where Stoneridge Drive will connect with Jack London Boulevard at the widened I-580 interchange at El Charro Road. The type of land-uses on the Pleasanton side of this development area may not necessarily create a large new market for transit ridership. For budgeting purposes, a service with either two buses during peak periods or one bus running all-day service is assumed. A specific route design has not yet been developed, but could entail either a local or

intermunicipal setup; either should connect to other Wheels routes at the Dublin/Pleasanton BART station. LAVTA will work with City staff as this Plan develops.

Table 6-4 summarizes the planned items for Pleasanton mentioned above.

Table 6-4. Pleasanton Service Plan

Service	Annual Revenue Hours	Annual Ridership Impact	Peak Vehicle Req. Diff.
Reduction of service to Johnson Dr area	-1,170	-5,850	0
Simplification of service to Kottinger Park	0	Unknown	0
Connect / link Hacienda line with east Dublin line	0	Unknown	0
Limited school tripper expansion	250	5,000	0
Eastern Pleasanton Specifc Plan development	2,500	12,600	1

#### 6.2.5 Livermore Service Plan

Although similar in density and street layout to Dublin and Pleasanton, Livermore is characterized less by employment and high-end retail than the other two cities in the LAVTA service area. A new terminal BART station is planned at the Isabel Avenue crossing of I-580 crossing. The BART to Livermore project will change the dynamics of the transit network in the region as well as provide development opportunities for housing and employment.

## <u>Alternatives</u>

#### Route 11 Coverage Optimization

Performance along First Street and the Livermore Industrial Park is extremely limited by the development patterns and levels of density. The role of this route should be determined and optimized accordingly. An alignment modification should be considered whereby the current routing north of I-580 is deleted in favor of expanding coverage to National Drive and/or Patterson Pass Road, using the route's existing vehicle hours to do so.

#### Route 15 Alignment Adjustment Away From Springtown Boulevard

Route 15 a workhorse route and good performer in the Wheels route system. The bus stop-specific boarding data shown in Chapter 5 indicates Springtown Boulevard as a weak ridership segment of the 15 line. Given this fact, the route could likely be aligned away from that portion, and instead travel as a linear route on the Bluebell Drive/Heather Lane section.

#### Route 18 Service Level Adjustment

In the Granada area, route 18 is a legacy neighborhood route that has seen a substantial decline in ridership in recent years, and is currently one of the poorest performing routes in the Wheels system, despite being located along both Granada High School and Mendenhall Middle The role of the 18 line should be reconsidered and,

corresponding service modifications, ranging from adjusting the route's geography and/or terminus to reducing its status and service levels to that of a school tripper, should be pursued. Another option would be to combine it with other local community routes to provide coverage of residential areas and the downtown.

## Route 20 Potential Reallocation of Service to Springtown

On the eastern end of Livermore, route 11 provides a downtown connection, while route 20 offers an express service to/from the Dublin/Pleasanton BART station. These two routes serve primarily the modest-density light industrial and warehouse land uses in the area and carry relatively low ridership numbers. The utility of serving the LLNL has also diminished since September 11. These routes should be monitored and considered for revision in response to ridership levels and demand. The agency may want to explore the option of adding or re-routing trips to make them more direct. One option is to facilitate a more expeditious trip between the Springtown area and BART. A second option would be to re-purpose the route to serve the industrial area and BART more directly.

## Realignment of Service Downtown to College

Prior to the recently implemented alignment revision for route 12 across the new I-580/Isabel interchange, various other options for further route restructuring were studied. Such options included, among others, routings away from Railroad Avenue and instead using Junction Avenue to and from the Transit Center, bypassing the Airway Business Park (where the LAVTA MOA facility is located), and having a new terminus at the new Paragon Outlets.

## Review/Adjustment of Service Duplication Along Railroad Avenue

Due to the fact that so many of the retail and other activities in central Livermore are located along Railroad Avenue, all trunk routes that travel west of the Transit Center currently ply at least a few blocks of this road before branching out in their respective directions. Coverage differentiation or route combination opportunities may exist for some of the local service, including those of the 12 and 14 lines.

## Springtown Service Frequency Improvements

Route 15 has been a consistent performer in the Wheels route network, with high loads on many of its trips throughout the day. As such, an improvement in frequencies on this route could benefit a large number of existing riders as well as stimulate additional ridership. Previous plans have outlined a desire to increase the peak period frequency to 15 minutes, up from the current 30 minutes. Other options may include restoring the midday and Saturday frequency from 60 to 30 minutes from the reduction that took place in 2009.

Table 6-5 summarizes the planned and optional items for Livermore service.

**Table 6-5. Livermore Service Plan** 

Service	Annual Revenue Hours	Annual Ridership Impact	Peak Vehicle Req. Diff.
Rt 11 coverage optimization	0	0	0
Rt 15 alignment adjustment away from Springtown Blvd	0	Unknown	0
Rt 18 service level adjustment	-1,300	-5,070	0
Rt 20 potential reallocation of service to Springtown	0	Unknown	0
Realignment of service downtown-to-College	0	Unknown	0
Review / adjust service duplication along Railroad Ave	0	Unknown	-
Springtown service frequency improvements	2,500	25,000	2

## 6.2.6 Regional Service Plan

The LAVTA service area – although part of the nine-county San Francisco Bay Area and to a large extent functionally integrated with it – is geographically separated from many of its urban and suburban neighbors by the Dublin grade to the west of the Tri-Valley. On the north end, Dublin borders with San Ramon, which is a low-density, high-income community with somewhat similar characteristics to the Tri-Valley, while the areas to the south are largely mountainous and undeveloped. On the eastern end lies the Altamont ridge beyond which exurban bedroom communities are located, containing low development densities and few local concentrations of employment.

The municipalities to the east of the Tri-Valley are located in San Joaquin County, which is outside of the nine-county MTC Bay Area defined region, and vary in development character, from bedroom communities such as Tracy to more established and urban cities such as Stockton. Some of the San Joaquin communities have an exurban relationship with the Bay Area, and have some limited existing transit services available that serve or pass through the LAVTA service area, including the ACE train line and a few bus routes offered by the San Joaquin RTD. These services, however, are limited.

#### <u>Alternatives</u>

#### BART to Livermore Restructuring

A new terminal station at the Isabel Avenue crossing of I-580 will require a system-wide redesign of commuter services. Feeder routes to the Dublin/Pleasanton station would need to be redesigned to meet the new Livermore station. Community and corridor services would also need to be reevaluated to determine if their alignments and frequencies meet the travel demand patterns created by the new BART station. As a second phase, the BART to Livermore project provides an opportunity for the Wheels service to expand eastward.

## Park and Ride Express

Early morning commuters drive in from the Central Valley and transfer to BART at the Dublin/Pleasanton BART stations. As demand for parking spaces increases, local residents are finding it hard to find available parking at the stations when they start their morning commute. Nearby park and ride lots provide additional parking resources, but need an efficient and reliable connection to the BART stations.

One alternative in the near term could be a Park and Ride Express service between the Dublin/Pleasanton BART station, Tassajara Road Park and Ride lot, and Airway Boulevard Park and Ride lot. This service would utilize I-580 and on-ramp priority to quickly move commuters from their cars to BART.

For estimation purposes, it is assumed that an express service would be started using a single bus, operating four roundtrips in the morning and four roundtrips in the afternoon commute periods. To increase the service to higher frequencies, a funding partnership would need to be identified as the service will benefit many transit operators.

After the BART to Livermore extension is completed, this service could be restructured to stop at new park and ride locations to the east. Potential locations of new park and rides lots include Greenville Road and Vasco Road.

Table 6-6 summarizes the regional route possibilities outlined above.

**Table 6-6. Regional Service Plan** 

	Annual Revenue	Annual Ridership	Peak Vehicle
Service	Hours	Impact	Req. Diff.
BART to Livermore Restructuring	1500-3000	Unknown	N/A
Park and Ride Express	1,250	12,500	1

#### 6.2.7 Other Considerations

In addition to the specific local and regional services outlined above, LAVTA may want to implement miscellaneous additional improvements to the Wheels fixed route network, should its revenue outlook improve and ridership demand increase significantly at a future point. For the purposes of this planning document, 8,000 additional annual revenue hours are carried over illustratively for the potential use toward extending the hours and number of trips on select local and feeder routes, should ridership and development trends so warrant. Examples of possible uses of additional hours may include, but not be limited to:

- 15-minute peak frequency on route 12
- Restoring midday service on routes 2 and/or 3
- Expanding the operating hours of route 20
- Improving weekend services

Any of these items may be best implemented on a trial basis, and should meet the minimum off-peak performance standard in order to be continued.

## 6.2.8 Fixed Route Summary

The table below summarizes, by priority, the outlined service modifications envisioned for planned and potential implementation during the ten-year horizon of this planning document. The indicated priority ranks are approximate, as the timing and sequence of the implementation of individual items may depend on revenue projections for subsequent years, grant funding that may be earmarked for a particular route or type of service, and unanticipated changes in developments and demand. In the end, items that do not conform to the budgeted hours should be considered as illustrative at this point.

**Table 6-7. Service Plan Priorities List** 

Priority	Service	Service Type	Annual Revenue Hours	Cumulative Hours
Beginning Annu	al Revenue Hours (FY12)			126,207
	Add Rt 53/54 service to accommodate fourth ACE train	Local	693	
	Increase Rt 3 frequency to 30 min	Local	1,260	
	Increase Rt 12 am peak frequency to 30 min	Primary	1,000	
FY13	Add limited Rt 12 Sunday service	Primary	720	
L112	Start Rt 10 earlier to meet earlier outbound Bart train	Primary	560	
	Rt 11 coverage optimization	Local	0	
	Reduction of Rt 30/R peak frequency to 15 min	Primary	-3,294	
	FY 13 Total Annual Revenue Hours			127,146
	Rt 15 alignment adjustment away from Springtown Blvd	Local	0	
5)/4.4	Connect / link Hacienda line with east Dublin line	Local	0	
	Rt 20 potential reallocation of service to Springtown	Local	0	
FY14	Simplification of service to Kottinger Park	Local	0	
	Realignment of service downtown-to-College	Local	0	
	Review / adjust service duplication along Railroad Ave	Local	0	
	FY 14 Total Annual Revenue Hours			127,146
	Rt 30 / Rapid peak 10-min frequency restoration	Primary	3,294	3,294
	Reduction of service to Johnson Dr area	Local	-1,170	
	Limited school tripper expansion in Pleasanton	Local	250	
FY15	Restructure service to Santa Rita Jail	Local	-1,300	
	Expand tripper service to Shäfer Ranch	Local	250	
	Rt 18 service level adjustment	Local	-1,300	
	FY 15 Total Annual Revenue Hours			127,170
Illustrative Serv	rice Plans			
	Eastern Pleasanton Specific Plan development	Local	2,500	N/A
	Springtown service frequency improvements	Local	2,500	N/A
Undetermined	Local routes span and frequency improvements	Local	8,000	N/A
	BART to Livermore Restructuring	Regional	1,500-3,000	N/A
	Park and Ride Express	Regional	1250	N/A

In the perspective of both current and past service levels, this plan is relatively conservative and plans for expansions in services to be offset by service efficiencies and re-alignments.

Implementation of the entire plan list would bring the total revenue hours level to just above 148,500 annually from the current fall 2012 baseline of 126,000 hours. To place this in perspective, in the recent past, LAVTA operated 139,300 hours in FY2009, and as many as 140,600 hours in FY2002.

#### 6.3 PARATRANSIT PLAN

## 6.3.1 Short - Term Dial-A-Ride Recommendations

Recommendations for Wheels Dial-A-Ride service are as follows:

- An evaluation of the ALC model should be undertaken annually using measureable performance metrics that can be compared to the service under MV Transportation.
- Evaluation of the ALC model should take into account the level of responsiveness of ALC management and the ability to have service issues addressed in a timely manner.
- Opportunities for cost sharing with dialysis clinics whose patients receive ADA
  premium service should be explored. The basis for these negotiations can be the
  areas in which the service provided exceeds the ADA minimums in order to meet
  the needs of the clinics, such as provision of subscription service, narrower
  window for trip time negotiation, and narrower on-time performance
  parameters.
- Add an online format and approval process in addition to the written application process for the Eligibility determination process.
- Establish agreements with neighboring paratransit providers to provide one seat rides to medical facilities. For example, explore one seat rides to Kaiser in Walnut Creek or to Stanford Hospital in Palo Alto.
- Improve the modes of gathering of feedback from customers.
- Educate customers about LAVTA Dial-A-Ride policies.
- Increase the marketing of Para-taxi, Scholarship, and Travel Training programs.

## 6.4 CONCLUSIONS

LAVTA has long provided an emphasis in its short- and long-range plans toward its transit-dependent population, something that is reflected in its extensive network of local and supplemental service, as well as off-peak service. Prior to implementing the items described above, LAVTA will conduct a service analysis in accordance with FTA regulations.

# Financial Plan, Operations Budget and Capital Plan

## 7.1 OVERVIEW

This chapter takes the information provided in the previous sections to create a comprehensive ten year capital and operating financial plan. The two plans are shown in detail in Exhibits 1 through 4 at the end of the chapter. The financial plan presented in these exhibits is financially constrained based on known revenue sources. Given the prospect of emerging new revenue sources, the final section of this chapter summary identifies new projects that can be added as new revenues emerge.

## 7.2 OPERATIONS BUDGET

## 7.2.1 Operating Expenditures

The operating expenses shown in Exhibit 1 are comprised of the following line categories: Salaries and Wages, Personnel Benefits, Professional Services, Non-Vehicle Maintenance, Communications, Fuel and Lubricants, Office/Operating Supplies, Printing, Utilities, Insurance, Taxes and Fees, Purchased Transportation Service, Miscellaneous, Professional Development, and Advertising.

## 7.2.2 Financial Assumptions

#### Revenue

- LAVTA's primary operating revenue sources: TDA, STA, Federal 5307 Capitalized Preventive Maintenance and ADA set aside, and BART feeder bus subsidy are all based on MTC's "Plan Bay Area Forecasts for revenue trends using LAVTA's FY11 actuals and FY12 budget.
- Fares are assumed to increase by \$.25 every five years, in FY15 and FY20.
- While the agency may prefer to do more frequent smaller increases, the total over the ten year period is representative.
- STA is distributed to jurisdictions for fixed route service in two ways as a revenue-based and a population-based subsidy for transit capital and operating needs. The source of this funding is not entirely stable therefore LAVTA budgets STA revenues on a year lag. Additional STA comes to LAVTA in the form of a paratransit allocation and as part of the feeder bus agreement with BART. These amounts are not carried over if LAVTA does not use them and therefore are included in the operating budget. If the STA revenue for these two programs are lost LAVTA will request additional TDA from the reserves to fill the gap.
- Lifeline is shown as being stable over the life of the forecast, and only available for funding the existing route 14 service. This is conservative (see opportunities below).

#### **Expenses**

- Fixed Route Contract operations costs, LAVTA's most significant cost element, are based on the recently signed contract with MV through FY2018. The final three years assume a 3% annual cost increase.
- The Paratransit costs are based on the recently signed contract with ALC through FY2018 and then increase 3% each year for the remaining three years.
- Administrative costs also are assumed to increase by 3%.

#### 7.2.3 Financial Results

The plan includes adding additional revenue hours for fixed route in Fiscal Years 15 and 16. The demand for paratransit also increases over this period at a higher rate than the paratransit revenues, therefore paratransit costs are offset by fixed route revenues. The result is a deficit in TDA reserves at the end of the ten year period. However, LAVTA is confident that either new funding sources will be made available during this period or that LAVTA will be able to make the necessary cuts to ensure financial stability.

## 7.2.4 Financial Risks and Opportunities

As stated above, this forecast is based on known available and committed revenues. High on the opportunity list are new revenues, changes to existing revenue policy, and possible grant opportunities. These include:

- New lifeline funds and programs
- Measure B Express bus funds and the passage of Measure B1
- The addition of revenues through the CARB Cap and Trade
- The addition of revenues from the addition of an HOV lane
- Other grant programs such as BAAQMD grants

While these and other heretofore unknown revenue sources are opportunities, they also represent risk in that to compete for new sources of revenue, it requires relatively well developed projects, and often extensive grant applications. This work is done with no assurance that the revenues will ultimately materialize. In both the operating and capital arena, grants may be given for project development with no assurance that the follow-on project construction or operating funds will materialize. From LAVTA's vantage point, the most valuable funding sources are those that are allocated annually to the agency by formula and are completely fundable. These funding sources are, however, dwindling.

Another possible financial upside not included in this forecast is increases in TDA revenues. TDA is sensitive to environmental factors that affect the overall economy. Additionally the forecasts used for the TDA estimates are not adjusted for inflation and only include a minimal economic turn around.

Other risks are higher than anticipated cost increases, and changes in the economic and political environment.

## 7.3 FUNDING

#### 7.3.1 Planned increases

LAVTA has fare increases planned for fiscal years 15 and 20. Additionally, as the economy recovers LAVTA anticipates an increase in ridership which will result in an increase in farebox revenues. The ridership increases will be affected by the changes in revenue hours and increased efficiency in bus routing. These changes will have a positive impact on the farebox revenues and may qualify LAVTA for additional grant funding.

## 7.3.2 Sources of Operating Revenue

LAVTA services are supported by two primary types of operating revenues:

- Revenues generated by the agency either through the provision of transit service (farebox and contract fares) or through supplementary activities such as advertising and ticket concessions.
- Federal, State and Local transportation funding assistance programs including Transportation Development Act (TDA), State Transit Assistance (STA), Federal Transit Administration grants, and Measure B sales tax revenue.

A brief description of each budget line item follows:

## Passenger Fares

Revenues derived from the farebox are forecast to increase over the budgeted rate for both fixed route and paratransit. These forecasts are based on the current running rate for FY 2012, plus additions based on fare increases and route changes.

Revenue is also generated from an agreement with Hacienda Business Park This revenue is expected to increase based on CPI.

#### **Contract Services**

LAVTA receives revenues from both the San Joaquin Regional Rail Commission (SJRRC), and the Alameda County Transportation Commission to subsidize the ACE shuttle service (ACE passengers then ride free). Revenue from an agreement with BART to supply paratransit services to the BART station for connections with East Bay Paratransit are also included as is the revenue from BART Plus.

#### Concessions, Advertising, Interest and T-Mobile Agreement

LAVTA receives revenues from and agreement with T-mobile for the use of LAVTA land for a cell phone tower. LAVTA also receives funds from the San Joaquin Regional Rail Commission (SJRRC) to sell ACE train tickets at the transit center, and receives a portion of the ticket sales for BART tickets sold by LAVTA. The advertising revenues show a decrease based on a new contract signed for advertising on the exterior of LAVTA's buses. Interest is also expected to decrease based on the current economic conditions and then slowly increase over the period.

## Transportation Development Act Funds (TDA)

These funds are derived from a ¼ cent sales tax and distributed by the Metropolitan Transportation Commission (MTC) to Alameda County and all of its incorporated cities.

LAVTA is eligible for two different programs within this funding source:

TDA 4.0 which provides general transit assistance and can be used for capital and operating expenses for both fixed route and paratransit and TDA 4.5 which is exclusively for paratransit services.

LAVTA also receives a portion of BART's TDA 4.0 apportionment to help support feeder service to the Dublin/Pleasanton station. These funds help subsidize Wheels' route 20 to the LLNL, and Wheels' route 12 which serves Las Positas College and the Livermore Transit Center.

## Regional Measure 2 (RM2)

Regional Measure 2 increased the toll on Bay Area bridges by \$1. Funds from this increase were designated to fund projects to improve transit in the Bay Area. LAVTA has received RM2 funding for the Rapid service.

## **State Transit Assistance Funds (STA)**

STA is distributed to jurisdictions for fixed route service in two ways – as a revenue-based and a population-based subsidy for transit capital and operating needs. The source of this funding is not entirely stable therefore LAVTA budgets these monies on a year lag.

Additional STA comes to LAVTA in the form of a paratransit allocation and as part of the feeder bus agreement with BART. These amounts are not carried over if LAVTA does not use them and therefore are included in the operating budget. If the STA revenue for these two programs are lost LAVTA will request additional TDA from the reserves to fill the gap.

#### Federal Transit Administration (FTA) Section 5307

FTA Section 5307 funds are distributed by MTC to transit operators in the region. These funds are available to LAVTA to fund bus replacement projects, ADA paratransit (see below) and any remaining funds from the Livermore UA may be used for other projects. LAVTA is choosing to use this money to fund preventative maintenance which is the only eligible fixed route operating use for these monies. These funds are budgeted on a fiscal year lag to account for the difference between the state and federal fiscal year's and the grant processing cycle time. In addition to the flexible set aside funds LAVTA has some additional flexible funds provided by the deferral of our purchase of fixed route buses. This deferral was made possible because of the agencies efforts to "right size" our fleet. In addition, another source of funds was the deferral of purchasing

paratransit buses. The flexible amount netted from these two deferrals will be spread out over the next three operating budgets.

Additional FTA regional capital funds are used for ADA paratransit operating purposes. These funds are also budgeted on a year lag.

#### Measure B

Voters in Alameda County re-authorized a one-half cent sales tax dedicated to funding transportation projects. This measure was originally passed in 1992. A portion of the revenues from this measure is dedicated to supporting paratransit services throughout the County. Funds are distributed to eligible recipients based on a population formula that includes the number of elderly and disabled persons in the jurisdiction, as well as the number of low income persons. The revenue projections include the anticipated passage of measure B1 with would increase the revenues received by LAVTA in both "pass through" and express bus money.

## 7.4 CAPITAL IMPROVEMENT PROGRAM

## 7.4.1 Revenue Source Descriptions

The capital plan involves five categories, fixed route vehicles, service vehicles, major components which includes items such as engine replacements, and miscellaneous. The recent change in the paratransit service model has allowed LAVTA to eliminate the paratransit capital expense budget is split into two sections, specialized projects and ongoing/routine projects.

## 7.4.2 Revenue Source Descriptions

#### FTA Section 5307 Funds

These funds are distributed by the Federal Transit Administration to the various urbanized areas (UA), based on a formula that considers population, population density and passenger miles. Beginning in FY 2003, LAVTA received FTA Section 5307 funds from two urbanized areas: Livermore and Concord. Based on the Regional Transit Capital Priorities process, this plan assumes that Livermore UA funds will be utilized first, and then any remaining major capital expenditure left unfunded will be allocated resources from the Concord UA. On the other hand, if the funds from the Livermore UA are not required entirely to fund vehicle replacements and rehabilitations, the excess funds will be used to fund capital needs.

## **State and Regional Funds**

Five and one half million dollars is currently programmed from the State Transportation Improvement Program for LAVTA's Atlantis Satellite Facility. The recently enacted Proposition 1B provides a new source of capital funds for transit operators. LAVTA intends to designate all of these funds to the purchase of fixed route vehicles in FY15 and 16.

## **Bridge Tolls**

These funds come from the base toll on state-owned bridges and are available to transit operators in the Bay Area. This money is used primarily to match FTA Section 5307 grants. This plan assumes that all vehicle replacements and rehabilitations will have a Bridge Toll match.

#### **TDA Article 4.0**

This is LAVTA's primary source of revenue for both operating and small capital projects. It comes from a ¼ cent sales tax levied throughout California. This is LAVTA's most flexible funding source; it is used to fund all projects that cannot be funded from another source.

# 7.5 VEHICLE REPLACEMENTS, REHABILITATION, AND EXPANSION

## 7.5.1 Basis for Revenue Vehicle Projects - Fixed Route

The fixed route fleet consists of 74 vehicles ranging in size from 29 to 40 feet, designed to provide local, intra-city transit services. This fleet also includes a sub-fleet of nine coaches with upgraded interiors (high-back passenger seating with tray tables and footrests, luggage racks with individual lights and fans) to provide inter-city commute service between Walnut Creek and the Tri-Valley.

## Revenue Vehicle Replacement, Rehabilitation, and Expansion

## Life Cycle

These vehicles have a 12-year useful lifespan as stipulated by the Department of Transportation through its Altoona Testing Program.

#### Passenger Amenities

These include a fully functional and ADA-compliant wheelchair lift/ramp and two securement locations, ergonomic passenger seating, digital surveillance systems (for security and safety), electronic farebox, automatic vehicle location system, voice annunciation system, automatic passenger counters, front-mounted bicycle (2 and 3) racks, and head, side and rear destination signs. Since Fall 2003, the majority of LAVTA's fixed route fleet consists of low-floor coaches to enable easier and more efficient access/egress.

#### Mode of Power and Emissions Considerations

The LAVTA Board of Directors elected to place the agency on the diesel fuel path in 2000 citing infrastructure costs considerations. Additionally, LAVTA has placed dieselemissions control units on more than 1/3 of its fleet. These units greatly reduce the harmful emissions from diesel fuel, yet the overall fuel economy of the vehicle is reduced due to these technologies. Finally, starting in 2007 and continuing in 2008, LAVTA is purchasing 16 Diesel/Electric hybrid coaches as replacements to its RTS fleet.

## Fleet Expansion

A decrease in the fleet is included in this plan to match the fleet to agency need. The current fleet consists of 67 active fixed route vehicles and 22 contingency for a total of 89 vehicles.

#### Current Peak Pull Requirements

LAVTA's peak pull fluctuates by time of day with the larger peak occurring in the morning. Afternoon school tripper routes easily interline with the commuter focused afternoon peak services. In the morning, the school peak and the commuter peak period coincide and as a result, interlining is not possible.

The current morning peak period requires 46 buses and the afternoon peak period requires 43 buses<sup>1</sup>. This results in a 93% spare ratio (43/46), a high spare ratio and well above FTA's guidance recommending a spare ratio of 20%.

LAVTA is currently planning conservatively for growth and no large service expansions are planned at this time. With the current fleet, LAVTA has an ample number of vehicles if vehicles are maintained properly and rehabilitated at mid-life.

As a result of the excess spare ratio, LAVTA is in active fleet reduction mode. In FY 2011, four 1996 fixed-route vehicles and three former paratransit cutaways vehicles were retired and disposed of without replacement. The seven remaining 1996 buses are in the contingency fleet. To become compliant with FTA spare ratio guidance, LAVTA must shed or place into contingency 21 additional vehicles which will be done over time as vehicles reach their useful life. Because all vehicles in the active fleet are within their useful life, the Authority still operates all current revenue vehicles in regular revenue service. The Authority plans to continue to operate all active vehicles in normal service to maintain them in good operating condition and to best utilize the public dollars expended to purchase these vehicles.

## Major Component Rehabilitation Program

In addition to purchasing new vehicles, LAVTA has an aggressive rehabilitation schedule for the vehicles in the fixed route fleet. Engines and transmissions are replaced as needed, but generally at the half-life of the vehicle (six years), to meet current and anticipated emissions standards. LAVTA has a policy of only replacing these two components at a mid-life rehabilitation, and replaces seats and other passenger amenities as needed. As LAVTA does not use regional funds for this rehabilitation effort, there is no extension of useful life beyond the regionally programmed useful life of equipment.

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<sup>&</sup>lt;sup>1</sup> As of November 5, 2012 service change

#### Non-Revenue Vehicle Replacement and Expansion

## Replacement

LAVTA has an ongoing program of non-revenue vehicle replacement. LAVTA has five types of non-revenue vehicles in its active fleet: three low-floor, ADA accessible supervision vans; two pickup trucks used by the maintenance department; one eight-passenger van used by LAVTA; two light duty vans for operator shift change; and one sedan car. Each of these vehicles has a four-year useful life expectancy per the MTC'. No rehabilitation of these vehicles has been performed. Funding is expected to come from local sources.

## 7.6 MAJOR FACILITIES REPLACEMENT,

# REHABILITATION, UPGRADE AND EXPANSION PROJECTS

## 7.6.1 Planned Projects

## **Bus Stop and Shelter Program**

In FY2006, LAVTA conducted a detailed and high-level analysis of all bus stop locations in the LAVTA service area. This study was completed by a team from the University of California, Berkeley Transportation Institute and highlighted deficiencies in certain locations. The deficiencies included safety concerns, ADA concerns, accessibility concerns, pedestrian crossing concerns, as well as vehicle movement considerations. LAVTA has begun a systematic process to correct the identified deficiencies on an annual basis. Improvements required range from simple solutions up to and including actual stop re-location. This project is ideally suited to new proposition 1B lifeline funds.

#### Office/Facility Equipment/Miscellaneous Capital

Each year LAVTA allocates funds to acquire new and replacement office and facility equipment. Approximately \$100,000 has been programmed annually for these routine replacements. From time to time, larger improvements and replacements are required, such as replacing the bus washer, upgrading the GFI farebox system, and implementing a local area network.

## 7.6.2 Future Projects

Given the requirement that forecasts be financially constrained, not all projects, including some that are currently under development, are included in this forecast. It is important to note that funding is constantly changing and one of goal of the long range planning process is to be prepared to compete for emerging fund sources with viable projects. Concurrent with the development of the Short Range Transit Plan, Alameda County and MTC are developing their own regional and sub-regional long range (25 year) plans. As part of their planning processes, they issue calls for projects from potential sponsors. Inclusion in these programs is a necessary step to receiving state, federal and regional funds.

## **Atlantis O&M Facility**

Not included in the ten-year capital plan is the construction of an additional Operations and Maintenance (O&M) facility. The facility is planned to provide for additional capacity for LAVTA future growth.

LAVTA will continue to seek federal funding support for the Atlantis O&M Facility, however it may become imperative to identify other methods of assembling the funding for this project. LAVTA recently completed the 30% design phase of the entire project. Phase I was completed in June 2008 and Phase 2 is anticipated to be completed in January 2013. Final Design and Construction of the final phases are on hold pending new funding.

The current phasing strategy is as follows:

Phase 1: Construct Secured Bus Parking (completed)

Phase 2: Bus Wash and Fueling Center Phase 3: Construct Operations Building

Phase 4: Construct Rutan Facility Improvements

Phase 5: Construct Maintenance Building

LAVTA may find mechanisms for obtaining all or portions of the needed funding for the Facility in the upcoming Federal Transportation Bill reauthorization, through additional STIP funding, or through some other as-yet-unidentified funding sources. Because funding for this project is anticipated to be federal discretionary, LAVTA has not included funding or expenses for this project in the SRTP.

#### New AVL System

The current AVL system is almost ten years old and many features are outdated. In FY 2016, when the 2003 Gillig fleet retires, the Authority may want to consider implementation of a new, modern AVL system including software and hardware upgrades for the entire fleet. With the 2016 vehicle purchase, the AVL system will be included in the purchase price however the remainder of the revenue and support fleet will need to be updated.

#### Trapeze Blockbuster

LAVTA currently performs scheduling, blocking, and runcutting the old fashioned way. The agency relies on the fixed-route transit planner to write schedules in Microsoft Excel and then block the routes using the same program. The Operations Manager must then take this information and turn it into driver paddles. This process is very time consuming and is subject to human error. LAVTA typically allots 2-3 months for this process for major schedule changes. Trapeze Blockbuster can do this task at the touch of a button and have efficient blocks and runcuts created without the burden on staff.

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## **EXHIBIT 1**

Operating Financial Plans - Fixed Route, Paratransit, Systemwide

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## Exhibit 1A -FIXED ROUTE FINANCIAL PLAN AND OPERATING CHARACTERISTICS FY 2012-2021

		FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
	<u> </u>	Actual	Budget			<u>.</u>	•	<u>.</u>				
EXPENSES	r											
Operating Expenses (1)		\$11,564,234	\$12,711,118	\$13,910,050	\$14,209,297	\$14,612,983	\$15,263,178	\$15,718,890	\$16,243,258	\$16,747,632	\$17,267,736 19,895,791	\$17,804,061 1,201,721
Capital Expenses (fixed route and paratransit)  Total Fixed Route Expenses	\$	11,564,234 \$	998,006 13,709,124 \$	2,267,734 16,177,784 \$	1,478,090 15,687,387 \$	2,423,681 17,036,664 \$	8,152,198 23,415,376 \$	8,162,025 23,880,915 \$	967,827 17,211,085 \$	498,863 17,246,495 \$	37,163,527 \$	1,301,721 19,105,782
Total Fixed Route Experises	Þ	11,504,234   \$	13,709,124   \$	10,177,704   \$	15,007,307   \$	17,030,004	23,415,370 \$	23,000,713 \$	17,211,000 \$	17,240,473 \$	37,103,327 \$	19,100,702
REVENUES												
Passenger Fares (2)		1,658,856	1,603,894	1,700,128	1,802,135	2,018,392	2,159,679	2,289,260	2,426,615	2,547,946	2,996,385	3,146,204
Business Parks (3)		151,155	141,504	145,749	150,122	154,625	159,264	164,042	168,963	174,032	179,253	184,631
Special Contract Fares		241,479	263,044	270,935	279,063	287,435	296,058	304,940	314,088	323,511	333,216	343,213
Concessions		27,584	35,400	35,400	35,400	35,400	35,400	35,400	35,400	35,400	35,400	35,400
Bus Lease/Miscellaneous		222.274	210.000	125.000	125.000	115 000	05.000	05.000	07.050	100 707	102.000	107 022
Advertising Revenue		332,274 12,445	310,000 8,000	125,000 9,034	125,000 8,587	115,000 8,818	95,000 9,056	95,000 9,301	97,850 9,552	100,786	103,809 10,075	106,923 10,307
Interest (4) Subtotal		2,423,792	2,361,842	2,286,246	2,400,307	2,619,670	2,754,458	2,897,943	3,052,469	9,810 3,191,485	3,658,138	3,826,677
Subtotal		2,423,192	2,301,042	2,200,240	2,400,307	2,019,070	2,734,430	2,077,743	3,032,409	3,171,403	3,000,130	3,020,077
STA (Population Based)(5)(6)		1,226,941	0	945,542	816,967	887,137	963,334	1,046,075	1,135,923	1,233,489	1,339,434	1,454,479
STA (Revenue Based)(5)(6)		201,728	0	215,503	183,196	198,931	215,017	234,571	254,719	276,597	300,354	326,151
TFCA		758,038	489,960	0	310,000	341,000	375,100	412,610	453,871	499,258	549,184	604,102
Regional Measure 2 (7)		686,001	580,836	580,836	0	0	0	0	0	0	0	0
Measure B Express Bus (8)		958,401	1,049,667	500,000	807,870	829,682	852,084	875,090	898,717	922,983	947,903	969,705
Pop 1B PTMISEA		24,785		0	0	0	0	0	0	0	0	0
FTA 5311 -		193,203	40,520	40,520	1 2 4 4 4 4 2 2			7,637,517	0	0	19,454,534	0
FTA 5307 - Formula(9)		1,912,799	1,745,816	1,392,236	1,364,400	201 400	200 225	-6,147,117	1,535,400	1,581,300	-17,825,534	1,677,600
Lifeline(10) BART Subsidy(11)		144,000 369,126	179,409 468,132	166,154 508,243	283,000 516,375	291,490 524,637	300,235 533,031	309,242 541,560	318,519 550,225	328,075 559,028	337,917 567,973	348,054 577,060
Measure B(12)		693,940	684,763	617,755	1,174,272	1,205,978	1,238,539	1,271,980	1,306,323	1,341,594	1,377,817	1,409,507
Subtotal		7,168,962	5,239,103	4,966,789	5,456,080	4,278,855	4,477,340	6,181,527	6,453,697	6,742,323	7,049,582	7,366,659
		.,,	2,221,122	1,100,101	5,125,225	1,213,333	1, , 2	27.2.752	5,155,511		.,	1,000,000
TDA 4.0 Funds needed to balance budget		1,971,480	5,110,173	6,657,014	6,352,911	7,714,458	8,031,381	6,639,420	6,737,091	6,813,824	6,560,016	6,610,725
Total Operating Revenues	\$	11,564,234 \$	12,711,118 \$	13,910,050 \$	14,209,297 \$	14,612,983 \$	15,263,178 \$	15,718,890 \$	16,243,258 \$	16,747,632 \$	17,267,736 \$	17,804,061
CAPITAL REVENUES												
FTA Section 5307 - Livermore UA			0	0	0	0	1,447,200	1,490,400	0	0	0	0
FTA Section 5307 -Concord UA			0	0	0	0	4,838,291	0	0	0	0	0
State Funds			0	0	0	0	0	0	0	0	0	0
Bridge Tolls			0	0	0	0	226,260	0	0	0	0	0
TDA Article 4.0		866,877	0	0	0	0	0	0	0	0	0	0
Proposition 1B PTMISEA			0	0	0	0	991,163	0	0	100.040	0	0
Funding Not Secured	¢	0// 077   ¢	998,006	2,267,734	1,478,090	2,423,681	649,283	524,508	967,827	498,863	441,258	1,301,721
Total Capital Revenue	\$	866,877 \$	998,006 \$	2,267,734 \$	1,478,090 \$	2,423,681 \$	8,152,198 \$	2,014,908 \$	967,827 \$	498,863 \$	441,258 \$	1,301,721
Total Fixed Route Revenue	\$	12,431,111 \$	13,709,124 \$	16,177,784 \$	15,687,387 \$	17,036,664 \$	23,415,376 \$	17,733,798 \$	17,211,085 \$	17,246,495 \$	17,708,993 \$	19,105,782
OPERATING CHARACTERISTICS												
Revenue Hours(13)		111,484	124,702	127,146	127,146	127,170	131,760	131,760	131,760	131,760	131,760	131,760
change in revenue hours		.,	13,218	2,444	0	24	4,590	0	0	0	0	0
Ridership(14)		1,712,879	1,749,168	1,748,466	1,835,889	1,890,966	1,947,695	2,064,557	2,126,493	2,190,288	2,255,997	2,323,677
% Ridership Increase			2%	0%	5.0%	3.0%	3.0%	6.0%	3.0%	3.0%	3.0%	3.0%
Average Fare Per Passenger		\$1.06	\$1.00	\$1.06	\$1.06	\$1.12	\$1.19	\$1.19	\$1.22	\$1.24	\$1.41	\$1.43
Passenger per Revenue Hour		15.4	14.0	13.8	14.4	14.9	14.8	15.7	16.1	16.6	17.1	17.6
Farebox Recovery Ratio (W/ B Parks & Special)		18%	16%	15%	16%	17%	17%	18%	18%	18%	20%	21%
Cost Per Hour		\$103.73	\$101.93	\$109.40	\$111.76	\$114.91	\$115.84	\$119.30	\$123.28	\$127.11	\$131.05	\$135.12

<sup>(1)</sup> Operating cost per revenue hour increases 3% annually starting in FY 2012. Costs increase 5% in every third year. (2) Assumes a fare increase in FY15

<sup>(3)</sup> Business Parks- Assumes 3% increase

<sup>(3)</sup> Business Parks- Assumes 3% increase
(4) Interest calculation: TDA/12 times average interest
(5) Assumes STA program per MTC projections with a one year budgeting lag
(6) Assumes STA program per MTC projections with a one year budgeting lag
(7) RM2 funds for BRT service approved through FY14
(8) Forecasts based on FY13 projections and increased based on the passage of Measure B1 base amount projections and escalated at the same rate as TDA.
(9) Annual excess 5307 from the Livermore UA is used for preventative maintenance.
(10) Lifeline is through CMA. These funds cover some of the cost of Route 14.
(11) BART's TDA/STA/Bridge Toll payments to LAVTA for providing feeder bus service to BART. Assumes contributions increase by 1.6% annually.
(12) Forecasts based on FY13 projections and increased based on the passage of Measure B1 base amount projections and escalated at the same rate as TDA.
(13) Estimated annual hours increase/decrease based on available funding levels
(14) Estimated annual fixed-route ridership based on ridership/revenue hour

Exhibit 1B - PARATRANSIT FINANCIAL PLAN AND OPERATING CHARACTERISTICS

Actual Build	1,397,413	1,510,698	1 555 041	4 (50 740 )		•	·	•		
REVENUES         1,719,889           Passenger Fares (2)         133,168           Special Contract Fares         54,258           Interest         187,426           TDA 4.5 (15)         86,712           STA Regional Paratransit (15)         98,821           Measure B Paratransit (12)         130,424           FTA Secions 5316 and 5317         171,719,889	1,397,413	1,510,698	1 555 041	4 (50 740 )						
REVENUES         Passenger Fares (2)       133,168         Special Contract Fares       54,258         Interest       187,426         TDA 4.5 (15)       86,712         STA Regional Paratransit (15)       98,821         Measure B Paratransit (12)       130,424         FTA Secions 5316 and 5317       130,424	1,397,413	1,510,698	1 555 041	4 (50 740						
Passenger Fares (2)       133,168         Special Contract Fares       54,258         Interest       187,426         TDA 4.5 (15)       86,712         STA Regional Paratransit (15)       98,821         Measure B Paratransit (12)       130,424         FTA Secions 5316 and 5317       130,424			1,555,961	1,650,719	1,785,252	1,893,974	2,009,317	2,173,076	2,305,417	2,445,817
Special Contract Fares       54,258         Interest       187,426         TDA 4.5 (15)       86,712         STA Regional Paratransit (15)       98,821         Measure B Paratransit (12)       130,424         FTA Secions 5316 and 5317       130,424										
Interest Subtotal 187,426  TDA 4.5 (15) 86,712  STA Regional Paratransit (15) 98,821  Measure B Paratransit (12) 130,424  FTA Secions 5316 and 5317	121,404	144,692	149,032	175,433	180,695	186,116	191,700	197,451	228,796	235,660
Subtotal       187,426         TDA 4.5 (15)       86,712         STA Regional Paratransit (15)       98,821         Measure B Paratransit (12)       130,424         FTA Secions 5316 and 5317       130,424	60,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
TDA 4.5 (15) 86,712 STA Regional Paratransit (15) 98,821 Measure B Paratransit (12) 130,424 FTA Secions 5316 and 5317										
STA Regional Paratransit (15) 98,821 Measure B Paratransit (12) 130,424 FTA Secions 5316 and 5317	181,404	174,692	179,032	205,433	210,695	216,116	221,700	227,451	258,796	265,660
Measure B Paratransit (12) 130,424 FTA Secions 5316 and 5317	94,547	87,244	89,600	92,019	94,504	97,055	99,676	102,367	105,131	107,549
FTA Secions 5316 and 5317	66,624	61,478	63,138	64,843	66,594	68,391	70,238	72,134	74,082	75,786
	128,699	122,804	233,434	239,736	246,209	252,857	259,684	266,695	273,896	280,196
ETA C 1' F007 ADA D 1 ''	10,000									
FTA Section 5307 ADA Paratransit 397,781	320,433	320,433	322,250	332,009	341,920	352,191	362,736	373,649	384,837	396,414
Subtotal 713,738	620,303	591,958	708,421	728,607	749,227	770,494	792,335	814,846	837,946	859,945
TDA 4.0 Funds needed to balance budget 818,725	595,706	744,048	668,507	716,679	825,330	907,364	995,283	1,130,779	1,208,674	1,320,211
Total Operating Revenues \$ 1,719,889 \$	1,397,413 \$	1,510,698 \$	1,555,961 \$	1,650,719 \$	1,785,252 \$	1,893,974 \$	2,009,317 \$	2,173,076 \$	2,305,417 \$	2,445,817
OPERATING CHARACTERISTICS	24.210	24.045	25 (02 )	2/ ///	27.250	20.075	20.010.	20.705	20 / 70	21 500
Revenue Hours 22,350	24,218	24,945	25,693	26,464	27,258	28,075	28,918	29,785 47,470	30,679	31,599
Passenger Trips Ridership 56,795	40,932 44,596	41,341 45,934	41,755 47,312	42,590 48,731	43,442 50,193	44,745 51,699	46,087 53,250	54,847	48,894 56,493	50,361 58,188
Ridership 56,795 % Ridership Increase 0%	-21%	3%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Average Fare Per Passenger \$2.34	\$2.72	\$3.15	\$3.15	\$3.60	\$3.60	\$3.60	\$3.60	\$3.60	\$4.05	\$4.05
Passenger per Revenue Hour 2.5	ΨΖ.1Ζ	\$3.13		\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$4.00	
Farebox Recovery Ratio (W/ Special Contract)	ואַ ד	1 ΩΙ	1 ΩΙ	1 Ql	1 Q l	1 Ql	1 01	1 ΩΙ	1 있	IΧ
Cost Per Hour \$76.95	1.8 13%	1.8 12%	1.8 12%	1.8 12%	1.8 12%	1.8 11%	1.8 11%	1.8 10%	1.8 11%	1.8 11%

Operating cost per revenue hour increases 3% annually starting in FY 2012. Costs increase 5% in every third year.
 Assumes a fare increase in FY15
 Forecasts based on FY13 projections and increased based on the passage of Measure B1 base amount projections and escalated at the same rate as TDA (15) Assumed continuation of STA program

## Exhibit 1C - OPERATING CHARACTERISTICS

Revenue Hours	22,350	24,218	24,945	25,693	26,464	27,258	28,075	28,918	29,785	30,679	31,599
Passenger Trips		40,932	41,341	41,755	42,590	43,442	44,745	46,087	47,470	48,894	50,361
Ridership	56,795	44,596	45,934	47,312	48,731	50,193	51,699	53,250	54,847	56,493	58,188
% Ridership Increase	0%	-21%	3%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Average Fare Per Passenger	\$2.34	\$2.72	\$3.15	\$3.15	\$3.60	\$3.60	\$3.60	\$3.60	\$3.60	\$4.05	\$4.05
Passenger per Revenue Hour	2.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Farebox Recovery Ratio (W/ Special Contract)	11%	13%	12%	12%	12%	12%	11%	11%	10%	11%	11%
Cost Per Hour	\$76.95	\$57.70	\$60.56	\$60.56	\$62.38	\$65.50	\$67.46	\$69.48	\$72.96	\$75.15	\$77.40

## SYSTEMWIDE OPERATING INFORMATION AND NOTES

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
TDA 4.0 RESERVE BALANCE		· · · · · · · · · · · · · · · · · · ·					l .	<u> </u>	I	l .	
Prior Year TDA Carryover	9,060,363	4,982,109	3,610,695	6,423,864	6,035,075	4,398,781	2,466,397	1,969,362	1,460,172	916,906	731,910
TDA 4.0 Interest earned on reserves (Alameda Cty)		12,094	108,321	192,716	181,052	131,963	73,992	59,081	43,805	27,507	21,957
TDA 4.0 Revenue Forecast	2,935,687	7,510,718	6,775,753	6,439,913	6,613,791	6,792,363	6,975,757	7,164,103	7,357,533	7,556,187	7,729,979
TDA 4.0 Usage:											
Operations	2,790,205	5,705,879	7,401,062	7,021,418	8,431,137	8,856,711	7,546,784	7,732,374	7,944,604	7,768,691	7,930,937
Capital (excludes prior year allocations)	3,336,152	3,188,347	0	0	0	0	0	0	0	0	(
Reserve Balance	\$ 4,982,109	\$ 3,610,695 \$	3,093,707 \$	6,035,075 \$	4,398,781 \$	2,466,397 \$	1,969,362 \$	1,460,172 \$	916,906 \$	731,910 \$	552,909
Revenue Hours	133,834	148,920	152,091	152,839	153,634	159,018	159,835	160,678	161,545	162,439	163,359
OPERATING CHARACTERISTICS - Systemwide	1				4=0.40.1	.=					
Total Operating Expense	13,284,123	14,108,531	15,420,748	15,765,258	16,263,702	17,048,430	17,612,864	18,252,575	18,920,709	19,573,152	20,249,878
Ridership (16)	1,769,674	1,793,764	1,794,400	1,883,201	1,939,697	1,997,888	2,116,256	2,179,743	2,245,136	2,312,490	2,381,865
% Ridership Change		1%	0%	5%	3%	3%	6%	3%	3%	3%	3%
Average Fare Per Passenger	\$1.10	\$0.96	\$1.03	\$1.04	\$1.13	\$1.17	\$1.17	\$1.20	\$1.22	\$1.39	\$1.42
Passenger per Revenue Hour	13.2	12.0	11.8	12.3	12.6	12.6	13.2	13.6	13.9	14.2	14.6
Farebox Recovery Ratio (W/ Special Contract)	0.17	16%	15%	15%	16%	17%	17%	17%	17%	19%	19%
Cost per Hour	\$99.26	\$94.74	\$101.39	\$103.15	\$105.86	\$107.21	\$110.19	\$113.60	\$117.12	\$120.50	\$123.96
% Change in Cost per Hour	4%	-5%	7%	2%	3%	1%	3%	3%	3%	3%	3%

<sup>(16)</sup> Dial-A-Ride ridership based on revenue hour and a passenger productivity of 2.5 passengers per revenue hou

#### (1) OPERATING COSTS

Fixed Route											
Purchased Transportation (Contract Operator)(a)	\$6,909,950	\$7,749,706	\$8,277,708	\$8,407,985	\$8,637,631	\$9,108,566	\$9,379,639	\$9,713,829	\$10,022,321	\$10,340,665	\$10,669,179
LAVTA Administration/Operations(b)	\$4,654,284	\$4,961,412	\$5,632,342	\$5,801,312	\$5,975,352	\$6,154,612	\$6,339,251	\$6,529,428	\$6,725,311	\$6,927,070	\$7,134,882
TOTAL OPERATING COSTS	\$11,564,234	\$12,711,118	\$13,910,050	\$14,209,297	\$14,612,983	\$15,263,178	\$15,718,890	\$16,243,258	\$16,747,632	\$17,267,736	\$17,804,061
(a) Assume 3.5% annual increase in contract costs except in years w	vere new contract may be in place- As	ssume 5% increase in thse	years(every third year) base	d on prior experience that of	contract costs may increase	at that time then assumes	3.5% the following years.				
(b) Assume 3% annual increase per year.					•						
(d) Assume 2% annual increase in contract costs through the current	contract (2016) then in years were no	ew contract may be in place	- Assume 5% increase in th	nse years(every third year) I	pased on prior experience the	hat contract costs may incre	ease at that time then assur	nes 3% the following years.			
Paratransit	-					-					
Purchased Transportation (Contract Operator) (d)	\$1,176,966	\$954.215	\$1,054,204	\$668.272	\$702.086	\$737,612	\$774,935	\$814.147	\$863,728	¢014 220	
					Ψ10Z1000	\$131,012	ΨΙΙΤΙΙΟΟ		Ψ000,120	\$916,329	\$972,134
LAVTA Administration/Operations (b)	\$542,923	\$443,198	\$456,494	\$470,189	\$484,294	\$498,823	\$513,788	\$529,202	\$545,078	\$910,329 \$561,430	\$972,134 \$578,273
1 1 737				, ,	,						
LAVTA Administration/Operations (b)	\$542,923	\$443,198	\$456,494	\$470,189	\$484,294	\$498,823	\$513,788	\$529,202	\$545,078	\$561,430	\$578,273

<sup>(1)</sup> Operating cost per revenue hour increases 3% annually starting in FY 2012. Costs increase 5% in every third year.
(2) Assumes a fare increase in FY15
(12) Forecasts based on FY13 projections and increased based on the passage of Measure B1 base amount projections and escalated at the same rate as TDA (15) Assumed continuation of STA program

## **EXHIBIT 2**

Ten Year Capital Plan

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## LAVTA Ten-Year Capital Plan FY 2012-21 Summary

EXPENSES	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
Fixed-Route Vehicle Program - Fleet Reduction and Smaller Vehicle Procu	\$0	\$0	\$0	\$0	\$7,635,964	\$1,527,503	\$0	\$0	\$19,454,534	\$0	\$28,618,001
# of Vehicles	0	0	0	0	10	10	0	0	22	0	42
Support Vehicle Replacement	\$0	\$0	\$151,944	\$62,601	\$0	\$0	\$68,406	\$176,144	\$108,857	\$74,749	\$642,700
# of Vehicles	0	0	5	2	0	0	2	5	3	2	19
Major Components Rehab	\$818,006	\$1,285,733	\$1,135,184	\$2,164,389	\$92,742	\$278,728	\$604,492	\$101,342	\$104,382	\$992,114	\$7,577,113
Miscellaneous Needs	\$180,000	\$982,001	\$190,962	\$196,691	\$202,592	\$245,780	\$294,929	\$221,377	\$228,019	\$234,859	\$2,977,210
Total Capital Expenses	\$998,006	\$2,267,734	\$1,478,090	\$2,423,681	\$7,931,298	\$2,052,012	\$967,827	\$498,863	\$19,895,791	\$1,301,721	\$39,815,024

#### REVENUES

REVENUES													
FTA Section 5307	\$ -	\$ -	\$	-	\$ -	\$ 6,108,772	\$ 1,222,003	-	\$ -	\$ 15,563,62	27 \$	- \$	22,894,401
FTA Section 5307 Livermore	\$0	\$0	)	\$0	\$0	\$1,447,200	\$1,490,400	\$0	\$0	\$1,629,0	00 \$	0 \$	4,566,600
FTA Section 5307 Concord	\$0	\$0	)	\$0	\$0	\$4,661,572	-\$268,397	\$0	\$0	\$13,934,6	27 \$	0 \$	18,327,801
State/Regional Funds												\$	-
Bridge Tolls	\$ -	\$ -	\$	-	\$ -	\$ 226,260	\$ 76,375	\$ -	\$ -	\$ 972,72	27 \$	- \$	1,275,362
TDA Article 4.0	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$	- \$	- \$	-
Proposition 1B PTMISEA	\$ -	\$ -	\$	-	\$ -	\$ 991,163	\$ -	-	\$ -	\$	- \$	- \$	991,163
Funding Not Secured	\$ 998,006	\$ 2,267,734	\$ 1	,478,090	\$ 2,423,681	\$ 605,103	\$ 753,634	\$ 967,827	\$ 498,863	\$ 3,359,43	38 \$ 1,301,72	\$	14,654,099
Total Capital Revenues	\$998,006	\$2,267,734	1 \$	1,478,090	\$2,423,681	\$7,931,298	\$2,052,012	\$967,827	\$498,863	\$19,895,7	91 \$1,301,72	1	\$39,815,024

<sup>(1)</sup> All vehicle replacement program costs based on MTC's replacement vehicle cost estimates for vehicles funded with FTA Section 5307.(3) TDA Article 4.0 funds needed to balance the capital budget

## **EXHIBIT 3**

0	24 - 1	D !	
Cap	ntai	Pro	ects

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#### LAVTA Ten-Year Capital Plan FY 2012-21

Fixed-Route Vehicle Program - Fleet Reduction and Smaller Vehicle Procurement

EXPENDITURES	Replacement Vehicles	# of Vehicles	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
2000 Gillig Coaches (40 ft)	40 ft standard hybrid coaches	5					\$3,928,432						\$3,928,432
2002 Gillig Coaches (40 ft)	29 ft standard hybrid coaches	8											\$0
2003 Gillig Coaches (29 ft)	29 ft standard hybrid coaches	10						\$1,527,503					\$1,527,503
2003 Gillig Coaches (40 ft)	40 ft standard hybrid coaches	24					\$3,707,532				\$19,454,534		\$23,162,066
2006 El Dorado Cutaways (22 ft)	22 ft cutaways or similar	9											\$0
2007 Gillig Coaches (29 ft)	29 ft standard hybrid coaches	2											\$0
2008 El Dorado Cutaways (22 ft)	22 ft cutaways or similar	4											\$0
2009 Gillig Rapid Coaches (29 & 4	0 29 & 40 ft standard hybrid coad	ch 14											\$0
TOTAL CAPITAL EXPENSES		76	\$0	\$0	\$0	\$0	\$7,635,964	\$1,527,503	\$0	\$0	\$19,454,534	\$	0 \$28,618,077
							10 - 40'	10 - 29'					
# of vehicles							vehicles	vehicles			22 - 40' vehicles	S	

REVENUES											
FTA Section 5307					\$6,108,772	\$1,222,003			\$15,563,627	\$0	\$22,894,401
FTA Section 5307 Livermore					\$1,447,200	\$1,490,400			\$1,629,000	\$0	\$4,566,600
FTA Section 5307 Concord					\$4,661,572	-\$268,397			\$13,934,627		\$18,327,801
FTA Section 5309											\$0
Other Federal Funds											\$0
State/Regional Funds											\$0
Bridge Tolls					\$226,260	\$76,375		\$0	\$972,727	\$0	\$1,275,362
TDA Article 4.0											\$0
Proposition 1B PTMISEA					\$991,163						\$991,163
Funding Not Secured					\$309,770	\$229,126			\$2,918,180		\$3,457,075
TOTAL CAPITAL REVENUES	\$0	\$0	\$0	\$0	\$7,635,964	\$1,527,503	\$0	\$0	\$19,454,534	\$0	\$28,618,001
Local Match Needed	\$0	\$0	\$0		\$1,527,193	\$305,501	\$0	\$0	\$3,890,907	\$0	\$1,275,362

<sup>\*5307</sup> Funding and Bridge Toll assumed for replacement purchases. TDA additional local match may be required when purchasing replacements as shown in table.

MTC VEHICLE PRICE											
40' bus Hybrid											
Federal	\$562,786	\$579,669	\$597,059	\$614,971	\$633,420	\$652,423	\$671,996	\$692,156	\$712,920	\$734,308	\$756,337
Local	\$135,286	\$139,345	\$143,525	\$147,831	\$152,266	\$156,834	\$161,539	\$166,385	\$171,377	\$176,518	\$181,814
Total	\$698,072	\$719,014	\$740,585	\$762,802	\$785,686	\$809,257	\$833,535	\$858,541	\$884,297	\$910,826	\$938,151
30' bus Hybrid											
Federal	\$531,140	\$547,074	\$563,486	\$580,391	\$597,803	\$615,737	\$634,209	\$653,235	\$672,832	\$693,017	\$713,807
Local	\$127,679	\$131,509	\$135,455	\$139,518	\$143,704	\$148,015	\$152,456	\$157,029	\$161,740	\$166,592	\$171,590
Total	\$658,819	\$678,583	\$698,941	\$719,909	\$741,506	\$763,752	\$786,664	\$810,264	\$834,572	\$859,609	\$885,398
22' cutaway											
Federal	\$124,500	\$128,235	\$132,082	\$136,045	\$140,126	\$144,330	\$148,660	\$153,119	\$157,713	\$162,444	\$167,318
Local	\$25,500	\$26,265	\$27,053	\$27,865	\$28,700	\$29,561	\$30,448	\$31,362	\$32,303	\$33,272	\$34,270
Total	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891	\$179,108	\$184,481	\$190,016	\$195,716	\$201,587

Notes: LAVTA is actively reducing its fleet size due to an excessive spare ratio and defering some replacements as part of a capital exchange of 5307 funding.

#### LAVTA Ten-Year Capital Plan FY 2012-21 Major Components Rehab

Engines	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
2003 Gillig Coaches (29 & 40 ft)			\$735,606	\$921,537	\$1,047,766								\$2,704,909
2007 Gillig Coaches (29 ft)				\$197,937									\$197,937
2009 Gillig BRT Coaches						\$1,469,943							\$1,469,943
2011 Gillig Coaches (29ft)									\$458,927				
2000 Gillig Commuter Replacements	3											\$626,853	\$626,853
2002 Gillig Commuter Replacements	6												\$0
2003 Gillig Replacements													\$0
TOTAL ENGINES EXPENSES		\$0	\$735,606	\$1,119,474	\$1,047,766	\$1,469,943	\$0	\$0	\$458,927	\$0	\$0	\$626,853	\$5,458,570
# of vehicles			8	12	12	14			4			5	55

Other Major Components	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
Transmissions			\$82,400	\$84,872	\$87,418	\$90,041	\$92,742	\$95,524	\$98,390	\$101,342	\$104,382	\$107,513	\$944,624
Quantity			4	4	4	4	4	4	4	4	4	4	40
Batteries for Hybrids				\$81,387		\$604,406		\$183,204	\$47,175			\$257,747	\$1,173,919
Quantity				2		14		4	1			5	26
TOTAL OTHER EXPENSES		\$0	\$82,400	\$166,259	\$87,418	\$694,447	\$92,742	\$278,728	\$145,565	\$101,342	\$104,382	\$365,261	\$2,118,543
													<u>,                                      </u>
TOTAL MAJOR COMPONENTS		\$0	\$818,006	\$1,285,733	\$1,135,184	\$2,164,389	\$92,742	\$278,728	\$604,492	\$101,342	\$104,382	\$992,114	\$7,577,113

Major Components Cost escalatir	ng at 3% annual	ly											
	Engine Price	Price with Tax											
	from RFPs	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	10 Year Total
Engine Replacement (2002 Fleet [8]	\$ 55,734	\$ 61,168	\$ 63,003	\$ 64,894	\$ 66,840	\$ 68,846	\$ 70,911	\$ 73,038	\$ 75,229	\$ 77,486	\$ 79,811	\$ 82,205	\$783,432
Engine Repower (2003 40' Fleet [24	\$ 85,000	\$ 93,288	\$ 96,086	\$ 98,969	\$ 101,938	\$ 104,996	\$ 108,146	\$ 111,390	\$ 114,732	\$ 118,174	\$ 121,719	\$ 125,371	1,194,807
Transmissions		\$ 20,000	\$ 20,600	\$ 21,218	\$ 21,855	\$ 22,510	\$ 23,185	\$ 23,881	\$ 24,597	\$ 25,335	\$ 26,095	\$ 26,878	\$256,156
Hybrid Batteries (6 year replacemen	nt)*	\$ 38,358	\$ 39,508	\$ 40,694	\$ 41,914	\$ 43,172	\$ 44,467	\$ 45,801	\$ 47,175	\$ 48,590	\$ 50,048	\$ 51,549	491,277

Prices inflated at 3% annually \*Battery price based on a quote of \$34,950 provided by Gillig in October 2010 plus sales tax of 9.75%

REVENUES	·	, ,	·										
FTA Section 5307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FTA Section 5307 Livermore													\$0
FTA Section 5307 Concord													\$0
State/Regional Funds													\$0
Bridge Tolls													\$0
TDA Article 4.0													\$0
Proposition 1B PTMISEA	\$147,511	\$546,377											\$0
Funding Not Secured	\$0	\$0	\$818,006	\$1,285,733	\$1,135,184	\$2,164,389	\$92,742	\$278,728	\$604,492	\$101,342	\$104,382	\$992,114	\$7,577,113
TOTAL CAPITAL REVENUES	\$147,511	\$546,377	\$818,006	\$1,285,733	\$1,135,184	\$2,164,389	\$92,742	\$278,728	\$604,492	\$101,342	\$104,382	\$992,114	\$7,577,113

Estimated Rebuild/Rehab	Cost escalating at 3.5% ar	inually								
Federal	\$39,336	\$40,713	\$42,138	\$43,613	\$45,139	\$46,719	\$48,354	\$50,047	\$51,798	\$53,611
Local	\$9,834	\$10,178	\$10,534	\$10,903	\$11,285	\$11,680	\$12,089	\$12,512	\$12,950	\$13,403
Total	\$49,170	\$50,891	\$52,672	\$54,516	\$56,424	\$58,399	\$60,443	\$62,558	\$64,748	\$67,014

### LAVTA Ten-Year Capital Plan FY 2012-21 Support Vehicle Replacement

EXPENDITURES
Support Vehicle Replacement

EXPENDITURES	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total	Vehicle
2008 Chrysler Town & Country (6306)			\$30,389					\$35,229			\$65,618	3
1999 Dodge Ram (6317)								\$35,229			\$35,229	2
1999 Dodge Caravan (6318)			\$30,389					\$35,229			\$65,618	3
2002 Low Floor Activan (6401)	Disposed							\$35,229			\$35,229	3
2002 Low Floor Activan (6402)	Disposed							\$35,229			\$35,229	3
2003 Ford F550 Truck (6403)							\$34,203				\$34,203	2
2007 Chrysler Town & Country (6404)			\$30,389						\$36,286		\$66,674	3
2007 Chrysler Town & Country (6405)			\$30,389						\$36,286		\$66,674	3
2008 Chevy Uplander (6406)				\$31,300						\$37,374	\$68,675	3
2007 Honda Civic Hybrid (6407)			\$30,389						\$36,286		\$66,674	3
2008 Chevy Truck (6408)							\$34,203				\$34,203	2
2005 Prius Hybrid (6420)				\$31,300						\$37,374	\$68,675	3
TOTAL VEHICLE EXPENSES	\$0	\$0	\$151,944	\$62,601	\$0	\$0	\$68,406	\$176,144	\$108,857	\$74,749	\$642,700	
# of vehicles	0	0	5	2	0	0	2	5	3	2		19
FTA Section 5307 Livermore											\$0	
FTA Section 5307 Concord											\$0	
State/Regional Funds											\$0	
Bridge Tolls											\$0	
TDA Article 4.0						\$0					\$0	
Proposition 1B PTMISEA											\$0	
Funding Not Secured	\$0	\$0	\$151,944	\$62,601	\$0	\$0	\$68,406	\$176,144	\$108,857	\$74,749	\$642,700	
TOTAL CAPITAL REVENUES	\$0	\$0	\$151,944	\$62,601	\$0	\$0	\$68,406	\$176,144	\$108,857	\$74,749	\$642,700	

MTC VEHICLE PRICE											
General Auto											
Federal	\$23,901	\$24,618	\$25,356	\$26,117	\$26,901	\$27,708	\$28,539	\$29,395	\$30,277	\$31,185	\$32,121
Local	\$4,743	\$4,886	\$5,032	\$5,183	\$5,339	\$5,499	\$5,664	\$5,834	\$6,009	\$6,189	\$6,375
Total	\$28,644	\$29,504	\$30,389	\$31,300	\$32,239	\$33,207	\$34,203	\$35,229	\$36,286	\$37,374	\$38,496

#### LAVTA Ten-Year Capital Plan (includes first year budgeted and 9 years projected) Maintenance and Operations Facility Project

Facility Administration, Operations Maintenance Facility	FY2022	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	10 Year Total \$0
REVENUES											
FTA Section 5307											\$0
FTA Section 5307 Livermore											\$0
FTA Section 5307 Concord											\$0
FTA Section 5309											\$0
Other Federal Funds											\$0
State/Regional Funds											\$0
Bridge Tolls											\$0
TDA Article 4.0											\$0
Sale of Existing Facility											\$0
TOTAL CAPITAL REVENUES	0	C	C	0	)	0	0 (	)	0 (	) (	0 0
Unfunded/overfunded Amount	\$0	\$0	\$0	\$0	\$0	\$(	0 \$0	\$0	\$0	\$0	\$0

Analysis does not include purchase of additional land or sale of existing facility.

Analysis does not include any additional operating costs associated with operating a larger facility.

Analysis does not include potential lease revenue received from CCCTA (this could offset higher operating costs).

#### LAVTA Ten-Year Capital Plan FY 2012-21 Miscellaneous Needs

Facilities Needs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
New Shop Floor		\$105,000									\$105,000
Lift Replacement		\$40,000									\$40,000
Shop Door Motor Replacement		\$10,000									\$10,000
Miscellaneous Facility/Office Equipment	\$80,000	\$82,400	\$84,872	\$87,418	\$90,041	\$129,853	\$95,524	\$98,390	\$101,342	\$104,382	\$954,221
Other Facility Needs	\$51,160	\$54,169	\$71,759	\$46,900	\$66,855	\$20,000	\$62,855	\$62,920	\$85,684	\$88,255	\$610,558
Computers	\$12,360	\$12,731	\$13,113	\$13,506	\$13,911	\$14,329	\$14,758	\$15,201	\$15,657	\$16,127	\$141,694
Servers	\$16,480			\$27,012	\$9,274	\$95,524		\$20,268			\$168,559
Windows 7 and Office Upgrade		\$15,500					\$17,911				\$33,411
Bus Stop Improvements	\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927	\$119,405	\$122,987	\$126,677	\$130,477	\$1,146,388
TOTAL FACILITY NEEDS	\$180,000	\$340,400	\$190,962	\$196,691	\$202,592	\$245,780	\$214,929	\$221,377	\$228,019	\$234,859	\$2,255,609

Vehicle Needs	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	10 Year Total
Radio Vehicle Upgrades											
Radios		\$424,362									\$424,362
Start Up Fee (EBRCS)		\$140,000									\$140,000
Trapeze Upgrade		\$77,239									\$77,239
Vehicle Replacement											
Rigging for Shop & Shelter replacement trucks							\$80,000				\$80,000
TOTAL VEHICLE NEEDS	\$0	\$641,601	\$0	\$0	\$0	\$0	\$80,000	\$0	\$0	\$0	\$721,601

TOTAL MISCELLANEOUS NEEDS	\$180,000	\$982,001	\$190,962	\$196,691	\$202,592	\$245,780	\$294,929	\$221,377	\$228,019	\$234,859	\$2,977,210

Components Cost escalating at 3% annually										
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Computer	\$ 1,545	\$ 1,591	\$ 1,639	\$ 1,688	\$ 1,739	\$ 1,791	\$ 1,845	\$ 1,900	\$ 1,957	\$ 2,016
Server	\$ 8,240	\$ 8,487	\$ 8,742	\$ 9,004	\$ 9,274	\$ 9,552	\$ 9,839	\$ 10,134	\$ 10,438	\$ 10,751

Prices inflated at 3% annually

<sup>\*</sup> Replacement Shop and Shelter vehicles will need to be outfitted with specialized equipment not included in MTC's pricing schedule. Rigging cost extrapolated from original vehicle purchases (6403 & 6408)

REVENUES											
FTA Section 5307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FTA Section 5307 Livermore											\$0
FTA Section 5307 Concord											\$0
State/Regional Funds											\$0
Bridge Tolls											\$0
TDA Article 4.0											\$0
Proposition 1B PTMISEA											\$0
Funding Not Secured	\$180,000	\$982,001	\$190,962	\$196,691	\$202,592	\$245,780	\$294,929	\$221,377	\$228,019	\$234,859	\$2,977,210
TOTAL CAPITAL REVENUES	\$180,000	\$982,001	\$190,962	\$196,691	\$202,592	\$245,780	\$294,929	\$221,377	\$228,019	\$234,859	\$2,977,210

Estimated Rebuild/Rehab Cost esca	alating at 3.5% annually								
Federal	\$40,713	\$42,138	\$43,613	\$45,139	\$46,719	\$48,354	\$50,047	\$51,798	\$53,611
Local	\$10,178	\$10,534	\$10,903	\$11,285	\$11,680	\$12,089	\$12,512	\$12,950	\$13,403
Total	\$50,891	\$52,672	\$54,516	\$56,424	\$58,399	\$60,443	\$62,558	\$64,748	\$67,014

<sup>\*</sup>Radio information from Trapeze and EBRCS

## **EXHIBIT 4**

Fleet Inventory and Replacement Schedule

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Exhibit 4-1. Fixed Route Fleet

Number of Vehicles	Manufacturer	Year Mfg.	Year Mfg. Length (ft)	Vehicle Type	Seating Capacity	Wheelchair Capacity	Power Mode	Rehabilitation Performed? Life Extended?	Year to be Retired?	Typical Service
7	New Flyer	1996	40	Low Floor Motorbus	39	2	Diesel	Yes (No)	:	Contingency/Local Fixed-Route
5	Gillig	2000	40	Standard Motorbus	41	2	Diesel	No	2012	Local Fixed-Route
4	Gillig	2002	40	Standard Motorbus	37	2	Diesel	No	2014	Regional Express
4	Gillig	2002	40	Low Floor Motorbus	40	2	Diesel	No	2014	Local Fixed-Route
24	Gillig	2003	40	Low Floor Motorbus	39	2	Diesel	No	2016	Local Fixed-Route
10	Gillig	2003	29	Low Floor Motorbus	23	5	Diesel	No	2016	Local Fixed-Route
6	El Dorado	2006	22	Cutaway Van	12	2	Diesel	No	2013	Local Fixed-Route
2	Gillig	2007	59	Low Floor Motorbus	23	2	Diesel Electric Hybrid	N O	2019	Local Fixed-Route
9	El Dorado	2008	22	Cutaway Van	12	2	Diesel	No	2015	Local Fixed-Route
2	Gillig	2009	59	Low Floor Motorbus	23	2	Diesel Electric Hybrid	No	2021	Bus Rapid Transit
12	Gillig	2009	40	Low Floor Motorbus	39	2	Diesel Electric Hybrid	No	2021	Bus Rapid Transit
2	Gillig	2011	59	Low Floor Motorbus	22	2	Diesel Electric Hybrid	No	2023	Local Fixed-Route
2	Gillig	2011	29	Low Floor Motorbus	22	2	Diesel Electric Hybrid	No	2023	Bus Rapid Transit

16 0 1 89		Active Bus Rapid Transit	Demand Response	Total Active Fleet
	/3 Active Regular Fixed Koute	16 Ac	0 De	

Exhibit 4-2. Non-Revenue Fleet

Number of				Year In	Retirement	Replacement Vehicles In	Seating	Wheelchair			
Vehicles	Fleet ID	Manufacturer	Mfg Year	Service	Year	Service	Capacity	Capacity	Туре	Power Mode	Typical Service
-	9300	Dodge Ram	1999	1999	:	;	7	0	Staff Van	Gasoline	Administration
1	6317	Dodge Ram	1999	1999	2019	2019	2	0	Service Truck	Gasoline	Maintenance
<b>-</b>	6318	Dodge Caravan	1999	1999	2014	2014	7	<del>-</del>	Low Floor, ADA Accessible Vans	Gasoline	Administration
<b>—</b>	9089	Chrysler T&C Van	2008	2008	2015	2015	7	0	Staff Car	Gasoline	Administration
1	6403	Ford	2003	2003	2013	2013	2	0	Service Truck	Diesel	Maintenance
2	6404-05	Chrysler T&C Van	2007	2008	2014	2014	7	0	Shift Change Vehicle	Gasoline	Operations
<del>-</del>	6406	Chevy Uplander	2008	2008	2015	2015	7	<i>-</i>	Low Floor, ADA Accessible Vans	Gasoline	Operations
<b>—</b>	6408	Chevy 3500 HD	2008	2008	2015	2015	2	0	Service Truck	Diesel	Maintenance
1	6420	Toyota	2005	2005	2015	2015	2	0	Staff Car	Gasoline / Electric Hybrid	Administration
1	6407	Honda Civic	2007	2007	2014	2014	5	0	Staff Car	Gasoline / Electric Hybrid	Operations
1	6407	Honda Civic	2007	2007	2014	2014	5	0	Staff Car	Gasoline / Electric Hybrid	Operations
12	Non Revenu	Non Revenue Total Fleet									

Exhibit 4-3. Replacement Fixed Route Fleet Schedule

		क		
	Typical Service	Regional Fixed-Route	Local Fixed-Route	Local Fixed-Route
	Fund Sources	Section 5307	Section 5307	Section 5307
	Power Mode	Diesel Electric Hybrid	Diesel Electric Hybrid	Diesel Electric Hybrid
	Wheelchair Capacity	5	2	2
	Seating Capacity	40	23	40
	Vehicle Type	Low Floor Motorbus	Low Floor Motorbus	Low Floor Motorbus
Anticipated	Year In Service	2016	2017	2016
	Vehicle Length	40'	29'	40
	Anticipated Mfg Year	2016	2017	2020
	Number of Vehicles	10	10	22

Total 40' Replacements	Total Replacements
32	42

## **APPENDIX A**

**Title VI Report** 

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# Livermore Amador Valley Transit Authority (LAVTA) Title IV Update / June 2012

#### **TITLE VI PROGRAM**

#### 1. TITLE VI ANNUAL CERTIFICATIONS AND ASSURANCES

LAVTA shall submit its annual Title VI assurance as part of our annual Certifications and Assurance submission to FTA.

#### 2. TITLE VI COMPLAINT PROCEDURES

#### Background

LAVTA has a file established for all title VI complaints. This file is stored at the Agency's office at 1362 Rutan Drive Suite 100 Livermore, Ca 94551. The file is available for review by anyone making such a request. All complaints will be investigated by LAVTA's third party claims adjuster or legal counsel. A record of the investigation will accompany a copy of the original complaint in the file. Additionally any notification of legal action as well as the results of any legal action will be filed with the original complaint and investigation documents.

#### Procedure

Upon receipt of a complaint regarding a violation of civil rights a copy must be made and placed in a folder labeled with the name of the filer and date of filing. This folder shall be filed in the Title VI folder. The original will be submitted to LAVTA's third party claims adjuster or legal counsel for an investigation. Any additional correspondence from the filer will be handled in the same manner with a copy being filed with the copy of the claim in the Title VI claim folder.

Any correspondence from the third party claims adjuster or legal counsel pertaining to the claim will also be filed with the copy of the original claim.

If the third party claims adjuster determines it necessary, they will forward the claim onto legal counsel, and any correspondence received from them will be handled in the manner described above.

#### 3. REQUIREMENT TO RECORD TITLE VI INVESTIGATIONS, COMPLAINTS, AND LAWSUITS

LAVTA has had one Title VI complaints since the last title VI submission. The complaint was filed by Mrs. Essie Smith who reside who resides at 890 A 69<sup>th</sup> Ave., Oakland, CA 94621. Mrs. Smith, an African American woman, filed a Title VI complaint on March 28, 2012 alleging she was the victim of discrimination based on her color/race on March 27, 2012. After performing an investigation into her complaint, LAVTA concluded that there was no evidence of any racial discrimination directed against Mrs. Smith. The driver, Lakhvir Singh Sandhu, had followed standard operating procedures. Mrs. Smith currently is preparing an appeal to the final investigations report. This Title VI complaint is still in the process of settlement.

## 4. REQUIREMENT TO PROVIDE MEANINGFUL ACCESS TO LEP (LIMITED ENGLISH PROFICIENCY) PERSONS

See Attachment 1 for LAVTA's LEP Plan.

#### 5. REQUIREMENT TO NOTIFY BENEFICIARIES OF PROTECTION UNDER TITLE VI

The LAVTA's notice to the public with instructions on how to find out additional information on LAVTA's Title VI Program, and how to file a claim of discrimination, is below. This notice is posted on the LAVTA website, in public areas at LAVTA's Administration & Operations Facility on Rutan Court, and at LAVTA's Livermore Transit Center.

#### **PUBLIC NOTICE**

# TITLE VI OF THE 1964 CIVIL RIGHTS ACT

"No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance"

The Livermore Amador Valley Transit Authority is committed to ensuring that no person is excluded from participation in, or denied the benefits of its services on the basis of race, color or national origin as protected by Title VI of the Civil Rights Act of 1964, as amended ("Title VI"). If you believe you have been subjected to discrimination under Title VI, you may file a written complaint with LAVTA. The complaint must be filed no later than 180 calendar days of the alleged discriminatory incident.

The preferred method is to file your complaint in writing using the Title VI Complaint Form, and sending it to:

Title VI Coordinator Livermore Amador Valley Transit Authority 1362 Rutan Court, Suite 100 Livermore, CA 94551

Verbal complaints will be accepted and transcribed by the Title VI Coordinator. To make a verbal complaint <u>or to receive more information</u> on LAVTA's Title VI Program, call (925) 455-7500 and ask for the Title VI Coordinator.

The notice is also posted on the LAVTA website as follows:

#### **LAVTA Title VI Complaint Process**

The Livermore Amador Valley Transit Authority (LAVTA) operates its services without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. Any person who believes she or he has been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with LAVTA.

For more information on LAVTA's civil rights program, and the procedures to file a complaint, contact 925-455-7555 or visit our administrative office at 1362 Rutan Court, Suite 100, Livermore CA 94551.

#### Title VI Complaint Procedures

If you believe that you have received discriminatory treatment based on race, color or national origin with regard to transit services delivery, you have the right to file a Title VI complaint with the Authority's Title VI Coordinator. Federal and State laws require complaints to be filed within one-hundred and eighty (180) calendar days of the last alleged incident. You may download a complaint form below or you may also call customer service and ask for a Title VI Complaint Form to be mailed to you. You may also submit a written statement that contains all the information listed below. Complaints should be mailed or delivered to:

Title VI Coordinator Livermore Amador Valley Transit Authority 1362 Rutan Drive, Suite 100 Livermore, CA 9455

All complaints should include the following information:

- 1. Name, address, and telephone number of the complainant.
- 2. The basis of the complaint; (e.g., race, color, or national origin).
- 3. The date(s) on which the alleged discriminatory event occurred.
- 4. The nature of the incident that led the complainant to feel discrimination was a factor.
- 5. Names, addresses and telephone numbers of persons who may have knowledge of the event.
- 6. Other agencies or courts where complaint may have been filed and a contact name.

Click here for Title VI Complaint Form[PDF]

<u>Haga clic aquí para español</u>[PDF]

Click here for accessible version of Title IV Complaint Form[TXT]

Verbal complaints will be accepted and transcribed by the Title VI Coordinator. To make a verbal complaint, call (925) 455-7500 and ask for the Title VI Coordinator.

You also have the right to file a complaint with an external entity such as the Department of Transportation (DOT), a federal or state agency, or a federal or state court.

Should a complaint be filed with LAVTA and an external entity simultaneously, the external complaint shall supersede the LAVTA complaint and LAVTA's complaint procedures will be suspended pending the external entity's findings.

#### Investigations

Within 10 working days of receipt of the formal complaint, the Title VI Coordinator will notify the complainant and begin an investigation (unless the complaint is filed with an external entity first or simultaneously).

The investigation will address complaints against any LAVTA department(s). The investigation will be conducted in conjunction with and under the advice of LAVTA's third party claims adjuster.

The investigation may include discussion(s) of the complaint with all affected parties to determine the problem. The complainant may be represented by an attorney or other representative of his/her own choosing and may bring witnesses and present testimony and evidence in the course of the investigation.

The investigation will be conducted and completed within 60 days of the receipt of the formal complaint.

Based upon all the information received, an investigation report will be written by the Third Party Claims Adjuster for submittal to the Executive Director.

The complainant will receive a letter stating the final decision of the Executive Director by the end of the 60-day time limit.

The complainant shall be notified of his/her right to appeal the decision. Appeals may be made to the DOT, the EEOC, or the DFEH.

#### REQUIREMENT TO PROVIDE ADDITIONAL INFORMATION UPON REQUEST.

LAVTA is prepared to provide additional information upon request to aid in the investigation of complaints of discrimination or to resolve concerns about possible non-compliance with Title VI.

#### 7. REQUIREMENT TO PREPARE AND SUBMIT A TITLE VI PROGRAM.

The FTA requires LAVTA to report certain general information to determine compliance with Title VI. The collection and reporting of this program (and this report) constitute LAVTA's Title VI Program.

#### 8. CONDUCTING AN ANALYSIS OF CONSTRUCTION PROJECTS

The only construction project in FY 12 which required compliance with the National Environmental Policy Act has been the development of Atlantis project, a bus wash and fuel facility located at Atlantis Court, Livermore CA.

LAVTA was granted a Categorical Exclusion (CE) for the project, which included a section on community disruption and environmental justice.

#### 9. GUIDANCE ON PROMOTING INCLUSIVE PUBLIC PARTICIPATION

#### PUBLIC OUTREACH ACTIVITIES SINCE LAST TITLE VI SUBMISSION

All of the following public outreach events were held in locations easily accessible by public transit:

#### August 2011:

- Wells Middle School Registration Day
- Dollar Store Service Change Outreach
- Livermore Farmers Market
- Livermore Senior Center Clipper Card Outreach
- Livermore School District Health Fair

#### September 2011:

- Pleasanton Wednesday Night Street Party
- Safeway Corporation Benefits Fair
- Wheels Transit Center 25<sup>th</sup> Anniversary\*

#### October 2011:

- Hacienda Green Scene & Transportation Fair
- Cape Head Start Presentation

#### November 2011:

• Ridgeview Commons Senior Housing Travel Training Presentation

#### December 2011:

• Wheels Holiday Food Drive

#### January 2012:

- Employer New Rider Mass Mailing
- Large Apartment Complexes Mass Mailing
- Ridgeview Commons Clipper Card Outreach

#### February 2012:

Pleasanton Farmer's Market – New Stroller Policy Outreach

#### March 2012:

• Dublin St. Patrick's Day Celebration – New Stroller Policy Outreach

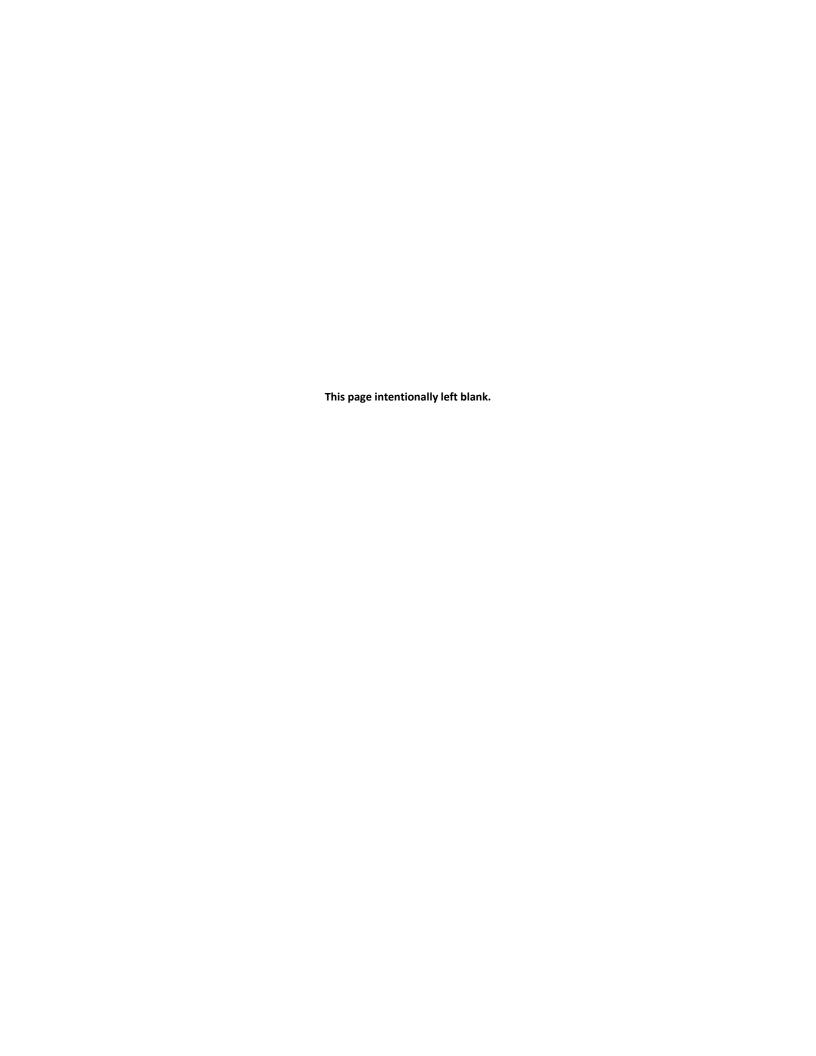
#### April 2012

- Wells Middle School Latino Parent Night
- Dublin Library Transit Workshop
- Pleasanton Library Transit Workshop
- LAVTA Administration Office Transit Workshop

#### May 2012:

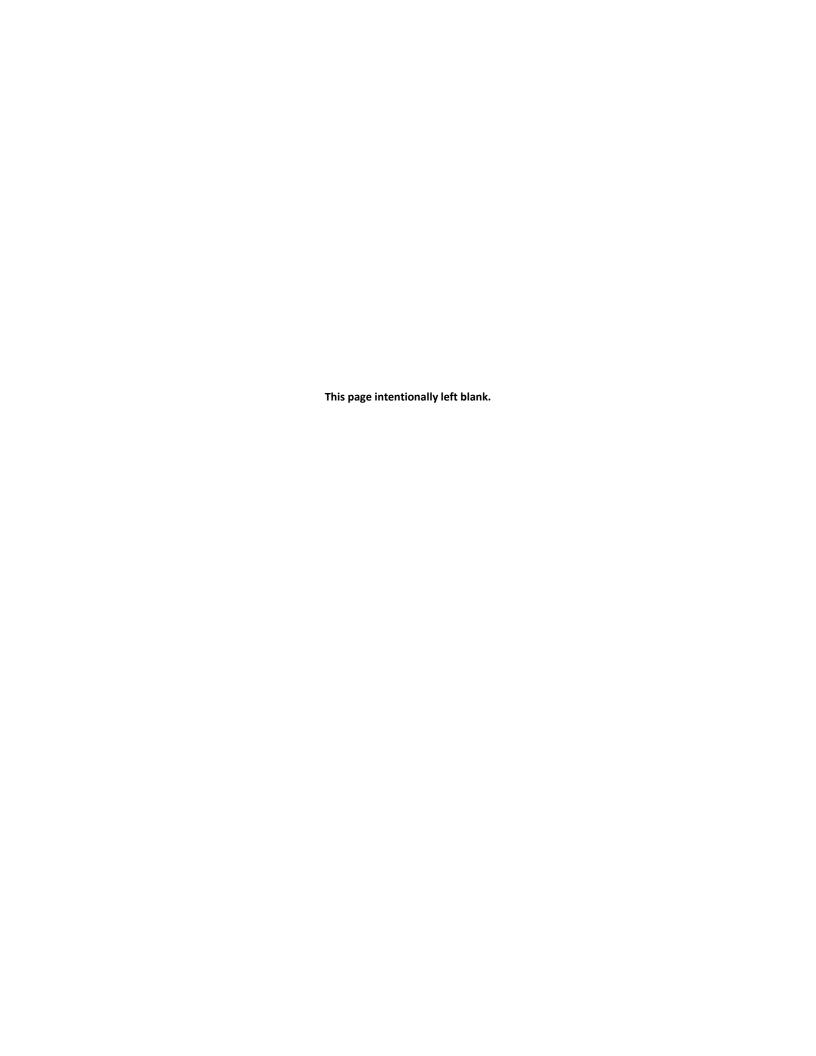
- Livermore Wine Festival
- Clorox Transportation Fair
- Dublin Farmer's Market
- LAVTA Public Hearing on Proposed Service Changes for Fall 2012

All events, with the exception of the Dublin Farmers Market, were attended by a Spanish speaking staff member.



## **ATTACHMENT 1:**

# Livermore Amador Valley Transit Authority Limited English Proficiency Plan



## **Limited English Proficiency (LEP) Plan**

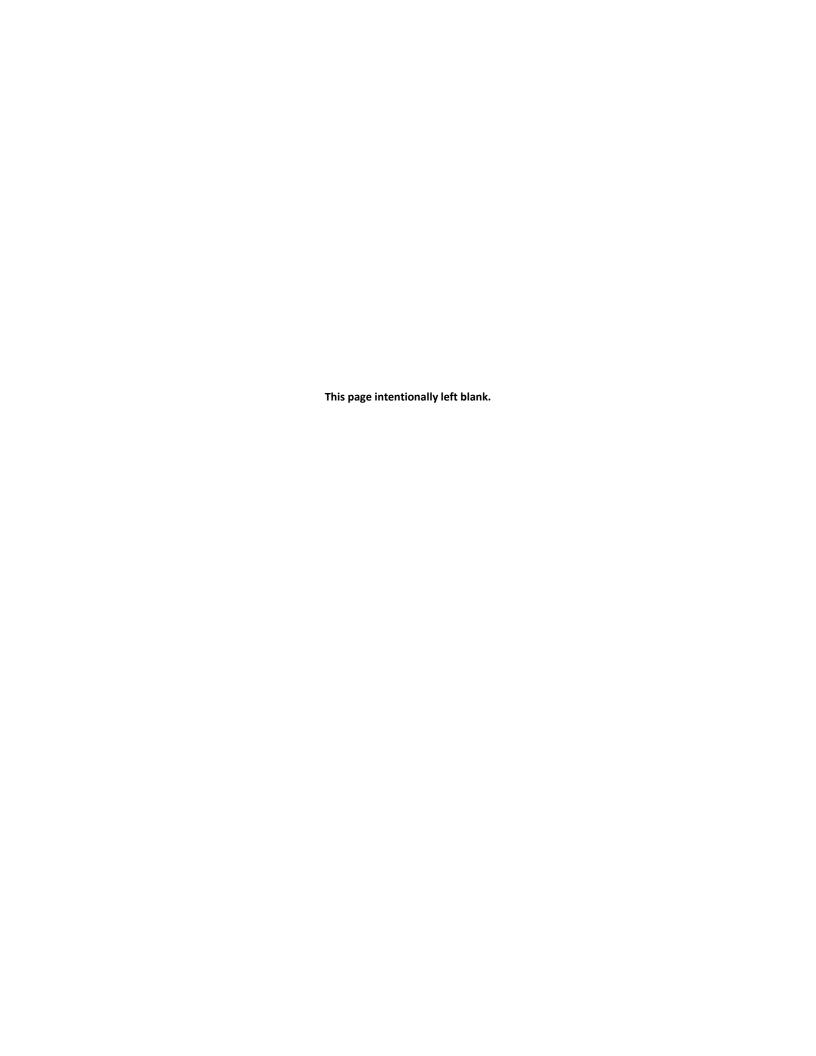
Improving Access to Services for Persons with Limited English Proficiency

### June 2012



Livermore Amador Valley Transit Authority 1362 Rutan Court, Suite 100 Livermore, CA 94551

(925) 455-7555 Fax (925) 443-1374 www.wheelsbus.com



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#### 1. Introduction

This Limited English Proficiency (LEP) Plan has been prepared to address the responsibilities of the Livermore Amador Valley Transit Authority (LAVTA) as a recipient of federal financial assistance as they relate to the needs of individuals with limited English language skills. The plan has been prepared in accordance with Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d, et se, and its implementing regulations, which state that no person shall be subjected to discrimination on the basis of race, color or national origin.

Executive Order 13166, titled Improving Access to Services for Persons with Limited English Proficiency, indicates that differing treatment based upon a person's inability to speak, read, write or understands English is a type of national origin discrimination. It directs each federal agency to publish guidance for its' respective recipients clarifying their obligation to ensure that such discrimination does not take place. This order applies to all state and local agencies which receive federal funds, including the LAVTA which receives federal assistance through the U.S. Department of Transportation (U.S. DOT).

#### 2. Plan Summary

LAVTA has developed this LEP Plan to help identify reasonable steps for providing language assistance to persons with limited English proficiency who wish to access services provided by the transit authority. As defined in Executive Order 13166, LEP persons are those who do not speak English as their primary language and have limited ability to read, speak, write or understand English.

This plan outlines how to identify a person who may need language assistance, the ways in which assistance may be provided, staff training that may be required, and how to notify LEP persons that assistance is available.

#### 3. LEP Four Factor Analysis

In order to prepare this plan, LAVTA undertook the U.S. DOT four-factor LEP analysis which considers the following factors:

- 1. The number or proportion of LEP persons in the service area who may be served or are likely to encounter a LAVTA program, activity or service.
- 2. The frequency with which LEP persons come in contact with LAVTA programs, activities or services.
- 3. The nature and importance of programs, activities or services provided by LAVTA to the LEP population.
- 4. The resources available to LAVTA and overall cost to provide LEP assistance.

A summary of the results from the four-factor analysis are in the following section.

# 3.1 The number or proportion of LEP persons in the service area who may be served or are likely to encounter a LAVTA program, activity or service

The Census Bureau has defined two classifications of how well people speak English. The classifications are 1.) people that speak English "very well" and 2.) people that speak English "less than very well."

Within the LAVTA service area, 12% of the population speaks English less than very well. On a percentage basis, Dublin and Pleasanton have an equal distribution of less than proficient English speakers while Livermore has slightly less. Table 1 shows the distribution of English proficiency within the population, aged 5 years or older.

Table 1: English Language Spoken at Home within the LAVTA Service Area -Persons 5 years of Age and Older

				LAVTA Se	rvice Area			
English Speaking Proficiency Classification	Dul	blin	Pleas	anton	Liver	more	Total Ser	vice Area
Glacomounem	Estimated Population	Pecent of Population						
Speaks English very well	26,863	67%	46,131	71%	58,931	79%	131,925	73%
Speaks English less than very well	5,153	13%	8,767	13%	6,997	9%	20,917	12%
Total	39,821	100%	65,433	100%	75,066	100%	180,320	100%

Source: 2006-2010 American Community Survey 5-Year Estimates

Population data in Table 2 shows the languages spoken at home for all persons, aged five years old and older, within the LAVTA service area. Of the total population, 20,917 people (11.60%) speak a language other than English. The three most prevalent languages spoken at home are Spanish with 7,376 people (4.09%), Chinese with 6,425 people (3.56%), and Korean with 1,766 people (0.98%).

The people speaking a language other than English at home (11.6%) may also constitute the group who do not speak English very well (12%). For planning purposes, LAVTA considers the Spanish, Chinese, and Korean speaking people within its service area as LEP persons.

Table 2: Language Spoken at Home for the Population within the LAVTA Service Area -Persons 5 Years of Age and Older

				LAVTA Se	rvice Area			
Language Spoken at Home	Dul	blin	Pleas	anton	Liver	more	Total Sei	vice Area
	Estimated Population	Pecent of Population						
English	26,863	67.46%	46,131	70.50%	58,931	78.51%	131,925	73.16%
Spanish or Spanish Creole	971	2.44%	2,065	3.16%	4,340	5.78%	7,376	4.09%
French (incl. Patois, Cajun)	55	0.14%	32	0.05%	37	0.05%	124	0.07%
French Creole	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Italian	12	0.03%	19	0.03%	66	0.09%	97	0.05%
Portuguese or Portuguese Creole	30	0.08%	34	0.05%	77	0.10%	141	0.08%
German	0	0.00%	71	0.11%	17	0.02%	88	0.05%
Yiddish	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other West Germanic languages	0	0.00%	16	0.02%	0	0.00%	16	0.01%
Scandinavian languages	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Greek	46	0.12%	0	0.00%	19	0.03%	65	0.04%
Russian	58	0.15%	110	0.17%	162	0.22%	330	0.18%
Polish	0	0.00%	64	0.10%	0	0.00%	64	0.04%
Serbo-Croatian	45	0.11%	0	0.00%	0	0.00%	45	0.02%
Other Slavic languages	11	0.03%	0	0.00%	0	0.00%	11	0.01%
Armenian	0	0.00%	0	0.00%	26	0.03%	26	0.01%
Persian	404	1.01%	270	0.41%	134	0.18%	808	0.45%
Gujarati	42	0.11%	41	0.06%	0	0.00%	83	0.05%
Hindi	74	0.19%	152	0.23%	68	0.09%	294	0.16%
Urdu	42	0.11%	16	0.02%	0	0.00%	58	0.03%
Other Indic languages	75	0.19%	133	0.20%	73	0.10%	281	0.16%
Other Indo-European languages	7	0.02%	26	0.04%	0	0.00%	33	0.02%
Chinese	1,720	4.32%	3,762	5.75%	943	1.26%	6,425	3.56%
Japanese	124	0.31%	112	0.17%	53	0.07%	289	0.16%
Korean	625	1.57%	1,010	1.54%	131	0.17%	1,766	0.98%
Mon-Khmer, Cambodian	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Hmong	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Thai	14	0.04%	57	0.09%	0	0.00%	71	0.04%
Laotian	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Vietnamese	223	0.56%	125	0.19%	248	0.33%	596	0.33%
Other Asian languages	201	0.50%	422	0.64%	27	0.04%	650	0.36%
Tagalog	265	0.67%	151	0.23%	419	0.56%	835	0.46%
Other Pacific Island languages	63	0.16%	43	0.07%	64	0.09%	170	0.09%
Navajo	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other Native North American languages	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Hungarian	0	0.00%	11	0.02%	26	0.03%	37	0.02%
Arabic	46	0.12%	25	0.04%	37	0.05%	108	0.06%
Hebrew	0	0.00%	0	0.00%	0	0.00%	0	0.00%
African languages	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other and unspecified languages	0	0.00%	0	0.00%	30	0.04%	30	0.02%

Source: 2006-2010 American Community Survey 5-Year Estimates

# 3.2 The frequency with which LEP persons come in contact with LAVTA programs, activities or services

LAVTA assessed the frequency with which staff and drivers have, or could have, contact with LEP persons. The following "touch points" and frequencies have been identified:

PRIMARY TOUCH POINTS	FREQUENCY
Bus	Frequently
Drivers	Frequently
Transit Center information line	Occasionally – Often
Transit Guide	Often – frequently
Dispatchers (after-hours customer service)	Occasionally
DAR reservationists	Occasionally
Interior car cards	Frequently
On-street signage	Frequently
Website	Occasionally
Interior fare car cards	Frequently
SECONDARY TOUCH POINTS	
Receptionist	Occasionally
Ticket vendors	Occasionally – often
Road Supervisors	Occasionally
Print media	Occasionally
Broadcast media	Occasionally
Public relations media	Occasionally
Transit fairs	Occasionally

# 3.3 The nature and importance of programs, activities or services provided by LAVTA to the LEP population

The largest concentrations of LEP individuals in the LAVTA service area are people who speak Spanish, Chinese, and Korean. Services provided by LAVTA that are most likely to encounter LEP individuals are the fixed route system which serves the general public and the demand-response (Dial-A-Ride) system which serves primarily senior and disabled persons. It is also likely that LAVTA will encounter LEP individuals at the Livermore Transit Center where discount tickets are sold and community outreach events.

#### 3.4 The resources available to LAVTA and overall cost to provide LEP assistance

LAVTA assessed the available resources that could be used to provide LEP assistance including determining the costs of professional interpreters and translation and taking an inventory of available organizations with whom resources could be shared. LAVTA used this information to determine which of its documents and materials would be the most valuable to be available in multiple languages.

#### 4. LEP Plan

Based on the four-factor analysis, LAVTA developed its LEP Plan into five areas as follows:

- 1. Identifying LEP individuals who need language assistance
- 2. Language assistance measures
- 3. Training Staff
- 4. Providing Notice to LEP persons
- 5. Monitoring and updating the LEP Plan

#### 4.1 Identifying LEP individuals who need language assistance

#### How LAVTA may identify an LEP person who needs language assistance

- Examine customer service records for language assistance have been received in the past, either at meetings or over the phone, to determine whether language assistance might be needed at future events;
- When LAVTA sponsors an event, have a staff person greet participants as they
  arrive. By informally engaging participants in conversation it is possible to
  informally gauge each attendee's ability to speak and understand English;
- Have Census Bureau Language Identification Flashcards available at LAVTA events near the registration table. Individuals self-identifying as persons not proficient in English may not be able to be accommodated with translation assistance at the event, but it will assist in identifying language assistance needs for future events;
- Have Language Identification Flashcards on all transit vehicles to assist coach operators in identifying specific language assistance needs of passengers. If such individuals are encountered, vehicle operators will be instructed to try to obtain contact information to give to the transit system manager for follow-up. Dispatchers and schedulers will also be instructed to obtain contact information from LEP individuals they encounter, either in person or over the phone, recording passengers request for language assistance in customer service database.

#### 4.2 Language Assistance Measures

There are numerous language assistance measures available to LEP persons, including both oral and written language services. There are also various ways in which LAVTA staff responds to LEP persons, whether in person, by telephone or in writing).

#### How LAVTA will assist an LEP person who needs language assistance

- LAVTA Hispanic Outreach Program will continue to provide vital information to LEP groups on LAVTA programs and services;
- LAVTA will work with local senior centers to provide vital information to LEP groups on LAVTA programs and services;
- Network with local human service organizations that provide services to LEP individuals and seek opportunities to provide information on LAVTA programs and services;
- Provide a statement in notices and publications that interpreter services are available for public hearings and Board of Director meetings, with seven day advance notice;
- When an interpreter is needed, for a language other than Spanish, in person or on the telephone, staff will attempt to access language assistance services from a professional translation service or qualified community volunteers;
- Survey coach operators and other front-line staff, like dispatchers, dial-a-ride schedulers, and service development planners, annually on their experience concerning any contacts with LEP persons during the previous year;
- Provide Language Identification Flashcards at the Transit Center, onboard the LAVTA fleet, in Road Supervisor vehicles and at transit systems administrative offices;
- Post the LAVTA Title VI Policy and LEP Plan on the agency website, <u>www.wheelsbus.com</u>;
- Provide group travel training to LEP persons with the assistance of Spanish speaking staff;
- Encourage the skill to speak multiple languages in the recruitment of customer service representative and bus drivers;
- Host an online translation service on the LAVTA website, which includes the Spanish, Chinese, and Korean languages.

#### 4.3 Staff Training

How LAVTA will train staff on its role and responsibilities in providing meaningful access to services for LEP persons

 Develop curriculum and a corresponding PowerPoint to educate LAVTA staff on the Title VI LEP requirements for providing meaningful access to services for LEP persons;

- Provide staff with a description of language assistance services offered by LAVTA;
- Provide staff with specific procedures to be followed when encountering an LEP person, including how to handle a potential Title VI/LEP;
- Instruct staff on the use of FTA Language Identification Flashcards.

#### 4.4 Providing Notice to LEP Persons

#### How LAVTA will provide Notice to LEP Persons, both oral and written communications

#### *Oral communications:*

- Offer general information, such as operation hours of the Transit Center/ Administrative Offices, fares, Lost and Found, etc., on the LAVTA customer service line in English and Spanish;
- Provide a statement affirming that LAVTA will make reasonable accommodations to provide an interpreter at public hearings and meetings with advance notice.
- Implement the use an automated greeting in both Spanish and English, directing callers to select which language they prefer;
- Use the services of a professional translation provider to ensure that vital documents are accurate (vital documents are defined as those documents without which a person would be unable to access services).

#### Written communications:

- Information about LAVTA's non-discrimination policies and information on the local/federal complaint process are provided in Spanish, Chinese, and Korean;
- The introduction section of the Wheels Bus Book which contains information on fares, accessibility, locations where discount tickets and passes are sold and general riding information is included in all Bus Books in Spanish and available upon request in Chinese and Korean;
- The www.lavta.org website can be viewed in Spanish, Chinese and Korean;
- Onboard "take one" flyers containing information about route changes, rider alerts, fare increases and public hearings are provided in Spanish, Chinese, and Korean;
- Temporary signs at bus stops and transit centers informing customers of any detours or route changes include Spanish;
- Interior bus cards displaying cash fare, cost of monthly discount passes and special promotions/campaigns include Spanish;

- Interior bus stickers and posters at Transit Center that display safety or system policy information are provided in Spanish;
- Onboard surveys are provided in Spanish.

#### 4.5 Monitoring and Updating the LEP plan

This plan is designed to be flexible, and should be viewed as a work in progress. As such, it is important to consider whether new documents and services need to be made accessible for LEP persons, and also to monitor changes in demo-graphics and types of services.

#### How LAVTA will examine and update its' LEP Plan

LAVTA will update the LEP as required by U.S. DOT. At a minimum, the plan will be reviewed and updated when it is clear that higher concentrations of LEP individuals are present in the LAVTA service area. The following details the methodology that will be used:

- Record and report how on the number of LEP persons were encountered annually through LAVTA's Hispanic Education and Outreach Program and working with local Senior Centers;
- Determine how the needs of LEP persons have been addressed;
- Determine the current LEP population in the service area and whether the need for translation services has changed;
- Determine whether local language assistance programs have been effective and sufficient to meet the need;
- Determine whether transit system's financial resources are sufficient to fund language assistance resources needed;
- Determine whether the LAVTA and its Contractor have fully complied with the goals of this LEP Plan;
- Determine whether complaints have been received concerning the agency's failure to meet the needs of LEP individuals;
- Obtain input from customers and the general community via LAVTA's Market Segmentation Study which is conducted every 3 years.

#### <u>Dissemination of the LAVTA LEP Plan</u>

The LAVTA LEP Plan will be disseminated to customers and the community as follows:

 A link to the LAVTA LEP Plan and the Title VI Plan will be included on the LAVTA website, www.lavta.org.

- LAVTA's LEP Plan will also be shared with human service organizations in its service area.
- Any person or agency with internet access will be able to access and download
  the plan from the LAVTA website. Alternatively, any person or agency may
  request a copy of the plan via telephone, fax, mail, or in person, and shall be
  provided a copy of the plan at no cost. LEP individuals may request copies of the
  plan in translation which LAVTA will provide, if feasible.

#### **5. Contact Information**

Questions or comments regarding the LEP Plan may be submitted to the LAVTA Executive Director as follows:

Paul Matsuoka, Executive Director Livermore Amador Valley Transit Authority 1362 Rutan Court, Suite 100 Livermore, CA 94551

Phone: (925) 455-7555 Fax: (925) 443-1375