



CITY OF DELANO

TRANSPORTATION DEVELOPMENT PLAN

FINAL

JUNE 2012



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EXECUTIVE SUMMARY

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CHAPTER 1 – EXECUTIVE SUMMARY

Kern Council of Governments retained the services of Moore & Associates, Inc. to prepare a Transportation Development Plan (TDP) to evaluate the City’s current public transit program, Delano Area Rapid Transit (DART). The following Plan complies with the requirements for federal funding recipients and will serve as an update to the City’s 2005 TDP, evaluating the implementation of past recommendations as well as continued relevance of the recommendations/service alternatives.

The report will comprise of the following seven sections:

- Chapter 1: Executive Summary,
- Chapter 2: Performance Measurement System,
- Chapter 3: Findings and Recommendations,
- Chapter 4: Capital and Financial Plan,
- Appendix A: Demographic and Demand Analysis,
- Appendix B: Public Involvement,
- Appendix C: Service Evaluation,
- Appendix D: Survey Questions and Results, and
- Appendix E: Ride Check Performance Data.

This chapter summarizes key findings and recommendations that arose during the development of this report as well as recommendations developed from the prior 2005 TDP. Findings and recommendations reflect evaluation of city demographic trends, public involvement and market research results, service performance assessment, City input, and consultant insight.

Prior Recommendations

The prior TDP was prepared by Jake Associates, Inc. (JAI) comprised of the following recommendations.

- 1) Delano should retain a transit supervisor to oversee all transit related activities.
- 2) Delano’s Transit Division should adopt policies that address transit operations, system design, and other essential protocols.
- 3) The Delano Department of Public Works should retain a mechanic dedicated and properly trained for the entire transit fleet.
- 4) Delano should procure an upgraded centralized communication network for all transit-related vehicles and personnel.
- 5) Delano should begin the process of expanding DART service to include a four-route system that provides coverage to planned and newly constructed activity centers.
- 6) Delano should begin a transit-specific marketing program.

Key Findings

Based on our review of Delano’s current public transit program, we identified the following key findings. Additional findings are presented in Appendices A, B, and C.

- Delano continues to fail in meeting its established Farebox Recovery Ratio standard.

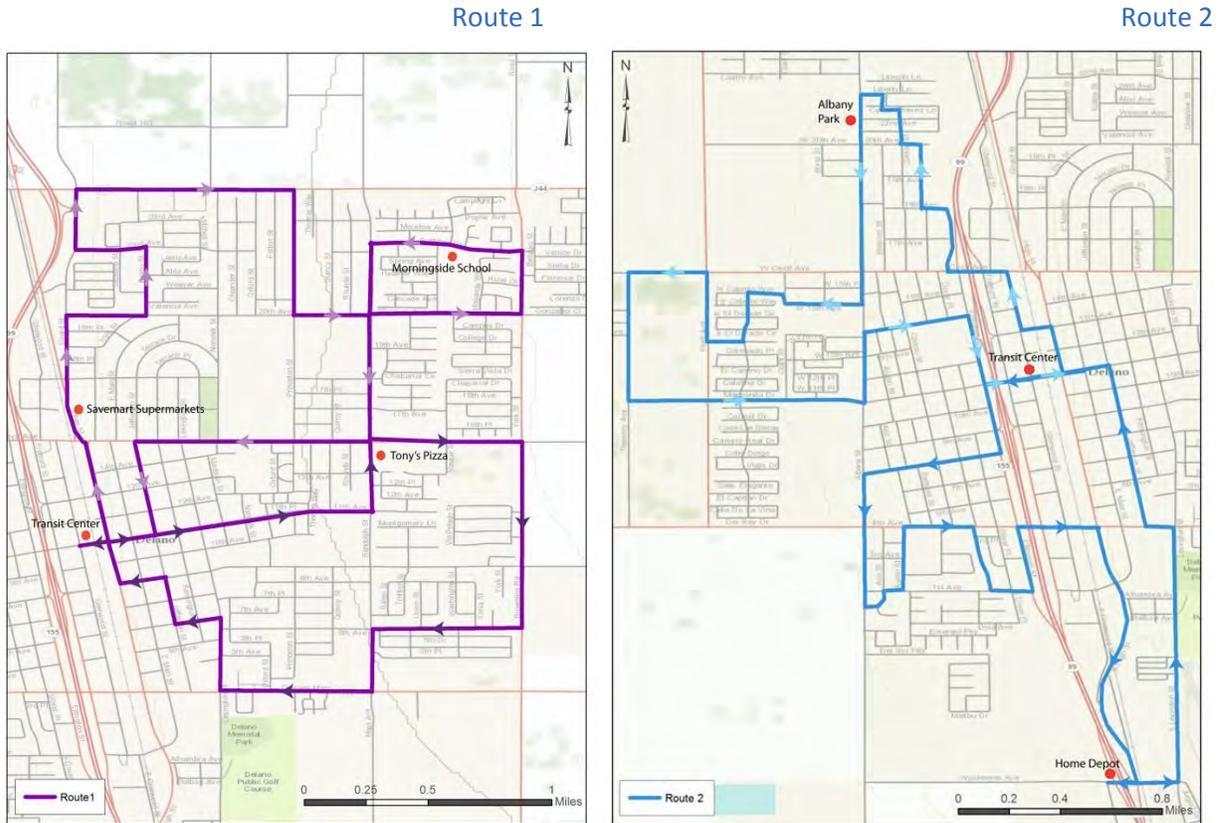
- Driver shortages and work shifts have had a significant impact on schedule adherence and fixed-route provision.
- There is a lack of community awareness/understanding of the City’s transit services.
- Observed fare evasion and lack of clarity regarding fare policy.

2012 Service Recommendations

Recommendations presented within this report are listed in order of priority and intended to address the key findings previously listed as well as those presented in Appendices A, B, and C. All recommendations are detailed in Chapter 3 – Findings and Recommendations.

- Recommendation 1: Revise or restructure the current route network and operating schedule.
 - Option 1: Modify headways to reduce Vehicle Service Hours.
 - Option 2: Modify fixed-route alignments and headways.

Exhibit 1.1 Proposed Delano Route Alignments



- Recommendation 2: Actively recruit qualified drivers.
- Recommendation 3: Investigate lower contract rate for regular maintenance.
- Recommendation 4: Contract out for the operation of the City’s transit service.

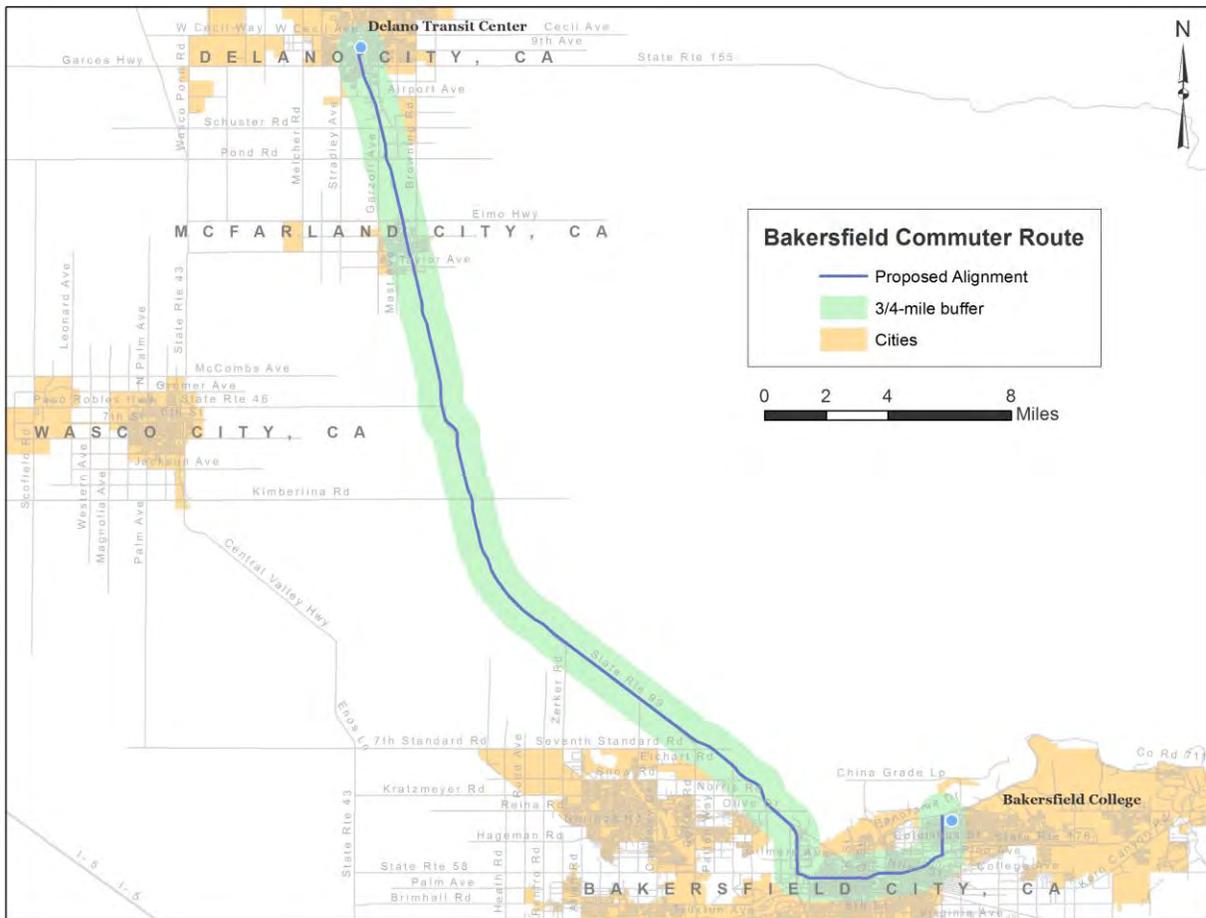
Recommendation 5: Increase fares.

Exhibit 1.2 Current and Proposed DART Fares

Fares Category	Current	Proposed
General Age (18-60) - FR	\$1.00	\$1.50
<i>Percent change</i>	-	50.0%
General Age (18-60) - DAR	\$1.75	\$2.50
<i>Percent change</i>	-	42.9%

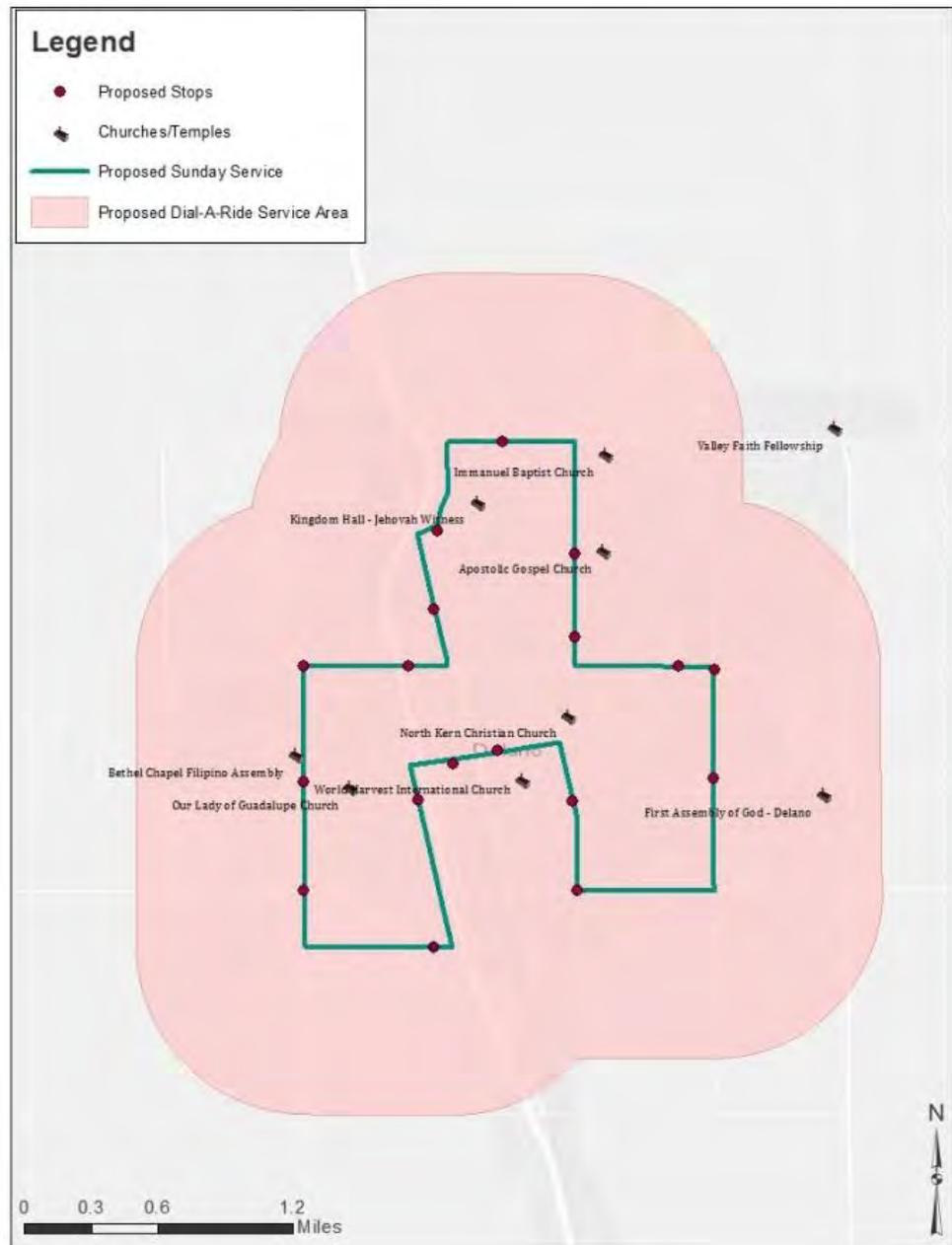
- Recommendation 6: Enforce fares and fare policy.
- Recommendation 7: Increase on-time performance through policy enforcement.
- Recommendation 8: Develop and implement a marketing program.
- Recommendation 9: Develop and enforce strategies to enhance customer experience.
- Recommendation 10: Launch new Bakersfield College route.

Exhibit 1.3 Proposed Delano to Bakersfield College Route



- Recommendation 11: Reintroduce Saturday and Sunday service as demonstration projects.

Exhibit 1.4 Proposed Sunday “Loop” Alignment



- Recommendation 11: Capital Recommendations. See Capital Plan for more details.

Capital and Financial Plan

The Capital and Financial Plan chapter presents the capital requirements and five-year operating budget projections required to support the recommendations presented within the Findings and Recommendations chapter (Chapter 3). This section includes three sub-sections:

- Capital Improvement Program presenting recommendations for improvement of transit infrastructure and expansion,
- Capital Plan forecasting capital costs associated with implementing these recommendations, and
- Financial Plan estimating the cost of implementing each recommendation outlined in Chapter 3.

Exhibit 1.5 shows the summary of operating costs to implement the recommendations presented in Chapter 3, referred to as the Expansion Scenario (Chapter 4). The table below reflects the fiscal impact of modifying the existing routes to reduce Vehicle Service Hours and Operating Costs, as well as the cost to implement the Bakersfield Route and Saturday service funded by Section 5316 Job Access and Reverse Commute (JARC) funds. Additionally, we calculate the impact of reintroducing Sunday service to Delano’s route network (if funding permits).

Exhibit 1.5 Summary of Operating Costs (Expansion Scenario)

Recommendations	Current Service Hours		Recommendations Service Hours		Difference		Cost/VSH	Annual Operating Cost		
	Weekly	Annually	Weekly	Annually	Weekly	Annual		Current	Recommendations	Difference
Route 1	63	3,213	0	0	-63	-3,213	\$88.34	\$283,836	\$0	-\$283,836
Route 2	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Route 3	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Route 4	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Proposed										
Combined (Routes 1 and 3)	0	0	57	2,907	57	2,907	\$88.34	\$0	\$256,804	\$256,804
Combined (Routes 2 and 4)	0	0	57	2,907	57	2,907		\$0	\$256,804	\$256,804
Bakersfield Route	0	0	79	4,004	79	4,004		\$0	\$353,713	\$353,713
Expand Saturday Service	0	0	35	1,768	35	1,768		\$0	\$156,185	\$156,185
Reintroduce Sunday Service	0	0	7	364	7	364		\$0	\$32,156	\$32,156
Dial-A-Ride	63	3,213	63	3,213	0	0		\$283,836	\$283,836	\$0
Total	252	12,852	297	15,163	-252	-12,852		\$1,419,182	\$1,339,499	-\$79,683

As stated in Recommendation 5, we propose the City increase its general age fixed-route fare from \$1.00 to \$1.50 one-way and from \$1.75 to \$2.50 for dial-a-ride in FY 2013/14. All other fares would be raised accordingly. This recommendation coupled with the prevention of fare evasion through driving training and fare enforcement (Recommendation 6) should increase the amount fare generated per passenger and by extension increase fare revenue and the City’s Farebox Recovery Ratio. Additional discussion regarding these calculations and their fiscal impacts can be found in the Capital and Financial Plan (Chapter 4).

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PERFORMANCE
MEASUREMENT
SYSTEM

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CHAPTER 2 – PERFORMANCE MEASUREMENT SYSTEM

This chapter advances a Performance Measurement System guiding Delano’s public transit program.

An organization’s mission or visioning statement provides a foundation for its Performance Measurement System. In the case of Delano, it serves as a focal point for the Transportation Development Plan (TDP). The following mission statement was taken from the City’s FY 2012/13 Two-Year Annual Budget:

To be the premier provider of fast, environmentally friendly and convenient public transit services to the residents and visitors of the City of Delano and surrounding unincorporated county areas that is clean, affordable, reliable, efficient, and safe, which would improve the quality of life and reduce congestion on Delano roadways.

Based on this annual budget, the City identifies five transit department goals for providing transit services within the city. Goals listed are transcribed verbatim.

1. To develop a comprehensive marketing, outreach, advertising and public information program which would attribute to a goal of at least increasing ridership by 5% each fiscal year. This program will include a new Rider’s Guide with system map, website upgrades, the development of a brand, improving customer service and provide an avenue for outreach to DART passengers efficiently.
2. To reduce costs for achieving a 10% farebox recovery ratio in accordance with the Transportation Development Act (TDA) and work towards a 20% farebox recovery ratio due to the City becoming designated as an urbanized area.
3. To review and modify the current transit routes, fares, schedules, service policies and procedures to ensure that the transit system is operating efficiently and in the most cost effective way possible.
4. To develop a request for proposals for contracting out the Transit Operations, Maintenance and Dispatching to a professional transit operations contractor experienced in operating a small urban transit system by *January 1, 2008*.
5. Continue to pursue additional local, state, and Federal funding to support the transit system and reduce the need for General Fund support.

Based on the above transit department goals, we have identified the following core values which will support the Delano’s mission and vision:

- Efficiency,
- Effectiveness,
- Responsiveness,
- Inclusiveness, and
- Environmental consciousness.

An effective Performance Measurement System is composed of goals, objectives, and performance standards.

- Goals are statements that *qualify* the desired results. They are the end toward which efforts are directed. They are general and timeless, yet theoretically attainable.
- Objectives provide *quantifiable* measures of the goals. They are more precise and capable of both attainment and measurement.
- Standards set *quantifiable* targets for achieving the adopted goals.

In Section 5 of the prior TDP report, Jake Associates, Inc. recommended policies for fixed-route design, bus stop locations, passenger amenity, and vehicle fleet in addition to goals ranging from producing bilingual marketing collateral to driver training programs. Taking it a step further, we recommend Delano set quantifiable targets or standards monitoring Delano’s public transit program performance. Currently, Delano has no adopted performance measurement standards. At the time of this report, Delano’s public transit system continued to underperform when compared with established standards such as the Farebox Recovery Ratio.

This Performance Measurement System compares system-wide performance with fixed-route and dial-a-ride performance standards. Performance standards were generated through an analysis of historic and forecasted performance as well as “like peer” performance. Performance standards were developed to mirror City transit goals to minimize the “arbitrariness” of certain performance standards. The following tables link an adopted goal to a quantifiable “yardstick” or measure; then compares actual performance from FY 2010/11 with the performance standards.

The following Performance metrics were used to demonstrate the current performance levels for Delano’s fixed-route and dial-a-ride services.

- **Ridership Growth**

This metric illustrates the ridership trend year-to-year.

- **Operating Cost/Vehicle Service Hour (VSH)**

This metric measures the cost of providing one hour of service and evaluates the service’s ability to operate efficiently.

- **Operating Cost/Vehicle Service Mile(VSM)**

Similar to the above metric, the Operating Cost/VSM measures the cost of providing a single mile of revenue service. This metric is also used to help evaluate a service’s cost-effectiveness.

- **Operating Cost/Passenger**

As with the two previous two metrics, the Operating Cost/Passenger measures a system’s or route’s efficiency. Ideally, an operator would like to see the Operating Cost/Passenger fall or remain stable over a given evaluation period.

- **Passengers/Vehicle Service Hour (VSH)**

This metric measures the number of passengers carried per hour while the system is in service.

- Passengers/Vehicle Service Mile (VSM)

This metric measures the number of Passengers transported for every VSM operated.

- Farebox Recovery Ratio

The farebox recovery ratio measures how much of the fare generated cover the cost to operate the service. This is the most common metric for identifying the subsidy needed to maintain operations as well as determine how cost-effectively a route or system is operating.

- Fare/Passenger

The Fare/Passenger represents the average fare each passenger paid for their trip. This metric helps determine the amount of fare revenue being generated per passenger.

Exhibit 2.1 Goals, Objectives, and Performance Standards

Goal I. Operate an efficient and effective system that maximizes service and minimizes cost impacts.			
Objective	Performance Measure	Performance Standard	Actual Performance (FY 2010/11)*
Minimize Operating Costs	Operating Cost/VSH		
	System-wide	\$60.00	\$88.34
	Fixed-Route		
	Dial-A-Ride		
	Operating Cost/VSM		
	System-wide	\$3.00	\$8.51
	Fixed-Route		
	Dial-A-Ride		
	Operating Cost/Passenger		
	System-wide	\$7.00	\$9.03
	Fixed-Route		
	Dial-A-Ride		
	Farebox Recovery		
	System-wide	20.0%	4.7%
Fixed-Route	20.0%	4.7%	
Dial-A-Ride	10.0%	1.8%	
Increase Transit Usage	Annual Growth in Ridership		
	System-wide	35.0%	28.9%
	Fixed-Route		39.3%
	Dial-A-Ride		59.0%
	Passengers/Vehicle Service Hour (VSH)		
	System-wide	10.00	9.78
	Fixed-Route		8.00
	Dial-A-Ride		5.48
	Passengers/Vehicle Service Mile (VSM)		
	System-wide	1.00	0.94
Fixed-Route		0.87	
Dial-A-Ride		0.36	

Goal II. Provide safe, reliable, and high quality transportation.		
Objective	Performance Measure	Performance Standard
Provide High-Quality Service	Frequency (Headways)	
	Regular	Every 60 minutes
	Travel Time	Travel time no more than three times that of car travel.
	Ratio of Passengers to Available Seats	No more than 145 percent of available seats.
Provide Safe Service	Passenger Injuries	
	Fixed-Route	Less than one passenger injury 100,000 passenger boardings.
	Dial-A-Ride	Less than one passenger injury 10,000 passenger boardings.
	Preventable Accidents	
	Fixed-Route	Minimum of 60,000 miles between preventable accidents.
	Dial-A-Ride	Minimum of 60,000 miles between preventable accidents.
Provide Reliable Transit Service	On-Time Performance	
	Fixed-Route	90 percent of all monthly trips operate on-time (defined as no later than 5 minutes and no earlier than the published schedule).
	Dial-A-Ride	90 percent of all monthly trips operate on-time (defined as within 15 minutes of the scheduled pick-up time).
	Missed Trips	
	Fixed-Route	Less than one percent of total monthly trips (defined as no later than 10 minutes past the schedule pick-up time or missed entirely).
	Dial-A-Ride	Less than one percent of the monthly trips (defined as no later than 30 minutes past the scheduled pick-up time or missed entirely).
	Transfer Wait Times	No more than 5 minutes for transfer wait times.

Provide Reliable Transit Service	Maintenance Schedule	
	Fixed-Route	All regularly scheduled maintenance completed within 500 miles or five days of scheduled date/cycle.
	Dial-A-Ride	All regularly scheduled maintenance completed within 500 miles or five days of scheduled date/cycle.
	Transit Facilities Maintenance Program	Implement Transit Facilities Maintenance Program
	Complaint Resolution	Monthly reports detailing number and type of complaint as well as resolution status.
	Professional Development	Offer Mandatory and Optional Training Opportunities to Improve Safety and Professional Development
	Road Calls	
	Fixed-Route	No less than 10,000 miles between road calls. Defined as incidence where service is interrupted longer than five minutes due to a mechanical failure (except for flat tires).
Goal III. Evaluate, monitor and improve transit services on an on-going basis.		
Objective	Performance Measure	Performance Standard
Ongoing, Mandatory Enhancement	Regularly Programmed Service Evaluations	Independent evaluations at intervals of no greater than five years.
Ongoing, Mandatory Reporting	Regularly Programmed Data Collection and Reporting	Monthly performance reports including such information as vehicle service hours, vehicle service mileage, fare revenue, ridership, accidents, and injuries.
Goal IV. Undertake effective marketing, outreach, and public participation.		
Objective	Performance Measure	Performance Standard
Development of Marketing Plan	Actual Expenditures	Not less than three percent of annual operating budget.
Encourage Citizen Participation	Provide Various Opportunities for Customer Feedback	Conduct Recurring surveys of transit customers.
		Conduct annual outreach prior to meetings to encourage public input on unmet transit needs (TDA Article 8).

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FINDINGS
AND
RECOMMENDATIONS

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CHAPTER 3 – FINDINGS AND RECOMMENDATIONS

The goal of this chapter is to present relevant findings and practical recommendations intended to enhance the performance and sustainability of the City's public transit program.

Findings

Several noteworthy findings were derived through primary research arising from direct field observations as well as an array of public involvement activities. This was supplemented by significant secondary research and analysis (i.e., Census 2010, American Community Survey, city economic data) as well as assessment of system performance and demographic and transit demand trends. Presented below are those we consider to be top priority and worthy of specific discussion. The balance of the findings, evidenced through demographics/demand and/or service performance, are presented in Appendices A, B, and C.

1. **Continued failure to meet farebox recovery standard.** The City has failed to meet the Transportation Development Act-stipulated farebox recovery standard of 10 percent across the past seven fiscal years. Farebox Recovery Ratio (FBR) calculates the amount of fare revenue generated relative to operating cost. Since Fiscal Year 2005/2006, the City's FBR has fluctuated between 4.1 percent and 4.7 percent. Under state TDA regulations, the Regional Transportation Planning Agency (i.e., Kern Council of Governments) can impose restrictions on the City's use of Local Transportation Funds (LTF) and State Transit Assistance (STA) funds should a transit operator fail to achieve the required FBR.

In 2008, the City of Delano prepared its Transit Service Action Plan, essentially a two-year strategy for increasing DART's Farebox Recovery Ratio to 10 percent by June 2010. Despite this effort, FBR remains well below the required standard.

In FY 2011/2012, the City's transit program amassed nearly 16,000 Vehicle Service Hours (VSH) at an annual operating cost of nearly \$1.4 million. Total fare revenue was approximately \$66,000 based on more than 150,000 unlinked trips (both fixed-route and dial-a-ride). Based on the findings of Census 2010, the City's designation changed from non-urbanized area to small urbanized area (reflective of a total population in excess of 50,000). Under TDA regulations, funding recipients designated as small urbanized areas must meet a 20 percent FBR. However, the TDA affords an RTPA (Kern COG) the discretion to adjust the FBR standard to 15 percent. Failure to meet the new FBR standard could result in the loss of future state transit funding.

2. **Driver shortages and work shifts impacting service provision.** Ride check data, community feedback, and on-site observations revealed ongoing driver shortages. These shortages have had a significant impact on the City's public transit overall performance, ridership, and fare revenue. On numerous occasions, we observed incidents of missed trips or on-time performance problems related directly to the shortage of qualified drivers. During ride checks,

DART service was halted at various times of the day to allow drivers to take meal breaks. Further, several trips were missed because driver work shifts did not fully cover the length of the service day (a practice supposedly intended to avoid incurring driver overtime). Underscoring our field observations were numerous transit customers voicing concerns regarding the issue of driver shortages at focus groups convened on February 7 and 8, 2012, as well as public testimony at the City's TDA Article 8 Unmet Transit Needs hearing held on February 21, 2012. Attendees conveyed the negative impact which the continuing shortage of qualified drivers has had on the City's transit service (lack of reliability and failure to operate on the published schedule).

3. **Lack of community awareness/understanding of the City's transit services.** Public discussion arising from focus groups along with the community survey clearly show residents have significant difficulty obtaining and understanding information regarding the City's public transit services. For example, focus group participants expressed a need for more effective communication regarding service changes. We believe this can be attributed directly to the recent (January 2012) elimination of Saturday fixed-route service. Community survey results (Appendix B) further support this finding as nearly 40 percent of survey respondents "disagreed" or "strongly disagreed" with the statement *information about the service was easy to find*.

During the period of our evaluation, the City's transit ridership and fare revenue has significantly under-performed both from the perspective of City-generated forecasts as well as actual performance of like-peer transit operators. The absence of on-going, targeted marketing is a clearly a major contributor.

4. **Observed fare evasion and lack of clarity regarding fare policy.** Instances of fare evasion (non-payment) were observed on all routes throughout all day-parts. On several occasions, especially during driver layovers at the transit center, customers were observed boarding vehicles without a driver being present. Beyond the safety and security issues, this often led to passengers boarding without paying the required fare. Other instances of fare evasion included drivers allowing passengers to board absent proper fare payment. When questioned about this practice, some drivers noted that it was a means of providing a "high level of customer service." In reality, the failure to collect appropriate fares places the City at risk for losing future federal and state transit funding.

Program Recommendations

The Recommendations narrative which follows summarizes both those recommendations presented in the City's 2005 Transportation Development Plan (prepared by Jake Associates, Inc.) as well as recommendations developed during the current TDP process. Actions needed to implement the proposed service alternatives are detailed in the Implementation Plan section of this report.

Recommendations include administrative, financial, and operational elements; and may require additional funding to implement (see Chapter 4 - Capital and Financial Plans). Each recommendation

reflects State Transit Planning Goals required of all FTA Section 5304 funding recipients. (See Chapter 1 - Introduction/Executive Summary for a listing of these goals.)

Prior Recommendations

Exhibit 3.1 summarizes recommendations presented in the City’s 2005 TDP. The current status of each recommendation as well as its continuing relevance is discussed therein.

Exhibit 3.1 Prior Recommendations

Prior Recommendations	Implementation Status Since Last TDP	Relevance and Recommendation
Delano should retain a transit supervisor to oversee all transit related activities.	In progress. An interim Transit Supervisor is currently employed. The most-recent Transit Supervisor retired during this report preparation period.	Relevant. Recommend hiring a full-time Transit Supervisor.
Delano's Transit Division should adopt policies that address transit operations, system design, and other essential protocols.	In progress.	Relevant. Carry forward.
The Delano Department of Public Works should retain a mechanic dedicated to and properly trained for the entire transit fleet.	Implemented.	No longer relevant.
Delano should procure an upgraded centralized communication network for all transit-related vehicles and personnel.	Partly Implemented. Delano launched Trapeze dispatching software to centralize dispatching for its DAR services. The City has since decided to switch to RouteMatch dispatching software.	Relevant. All employees should be properly trained in using the dispatching software.
Delano should begin the process of expanding DART service to include a four-route system that provides coverage to planned and newly constructed activity centers.	Implemented. Delano currently operates four fixed-routes throughout the city.	Relevant. See current recommendations regarding modifications of four fixed-routes.
Delano should begin a transit-specific marketing program.	Not yet implemented.	Relevant. Recommend moving forward with this recommendation.

2012 Recommendations

The following recommendations, presented in order of priority, are intended to address the findings presented in this chapter as well as those presented in Appendices A, B, and C. Specific steps for implementation are contained within the Implementation Plan section.

Recommendation 1: Revise or restructure the current route network and operating schedule. The City’s farebox recovery ratio has failed to surpass the five-percent mark across the last seven fiscal years. This continuing poor performance threatens future federal and/or state funding allocations; the financial lifeblood of the City’s transit service. Given the cornerstone importance of this issue, we present two options which if implemented would significantly alter the current transit service.

Option 1: Modify headways to reduce Vehicle Service Hours. To preserve route familiarity, we recommend the City modify the existing route schedules from the current 30-minute frequency to 60-minute frequency. Doing so would decrease total VSH by half. A reduction in service frequency would also reduce the number of vehicles required to operate the service. The proposed schedule

change would interline Routes 1 and 3, requiring only a single vehicle. Similarly Routes 2 and 4 would interline, also requiring a single vehicle. The proposed change would require drivers to change route headsigns upon arrival at the transit center.

Option 2: Modify fixed-route alignments and headways. Based on the ride check data, we recommend downsizing the City’s transit service from a four pulse-point system to two cross-town lines traveling in “figure eight” loops covering largely the same service area. The proposed routes in Option 2 would merge, resulting in a new Route 1 (combined Routes 1 and 3) and new Route 2 (combined Routes 2 and 4). The new route alignments would require only slight modification to the status quo, eliminating low productivity, altering the running directions of routes, and ensuring bus stops remain in proximity of key trip generators. In summary, Option 2 would reduce VSH by half, thereby decreasing annual operating expense. Furthermore, Option 2 would only require two vehicles.

Route 1

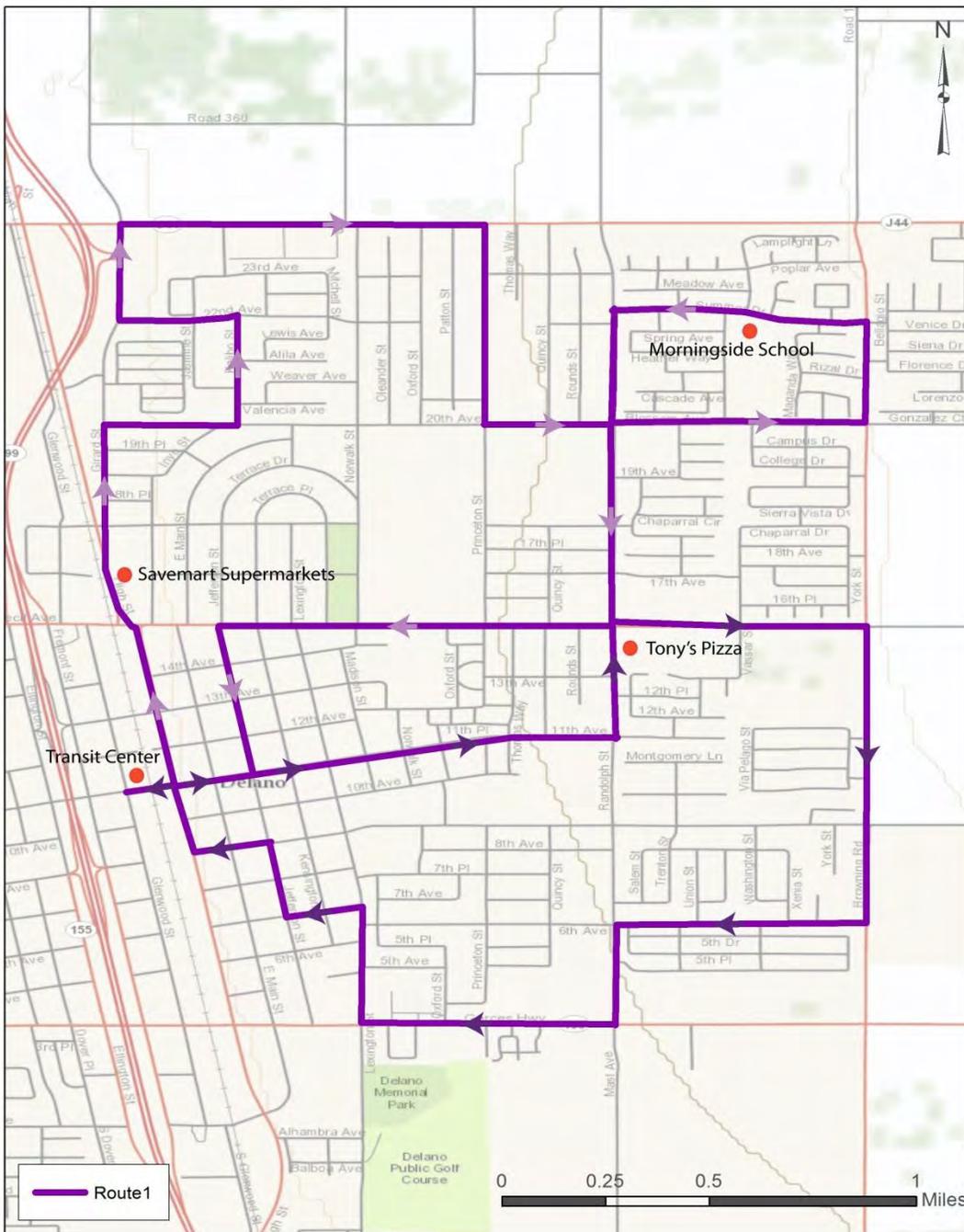
Proposed Route 1’s alignment would closely resemble the combined alignments of existing Routes 1 and 3. The combined alignment would originate at the Delano Transit Center traveling westbound on 11th Avenue before turning north onto Randolph Street past Tony’s Pizza. The route would then travel west on Cecil Avenue before turning southbound toward Garces Highway along Browning Road and 6th Avenue. From Garces Highway, the route would travel up Lexington Street and then along Jefferson Street passing Vallarta Supermarket before returning to the Transit Center. Following a three to five-minute layover at the Transit Center, the bus would run the northern portion of the route, traveling up High Street toward the Save Mart supermarket. On Girard Street, the route would head east onto 20th Avenue before traveling onto Kalibo Street and 22nd Avenue. After reaching County Line Road, the proposed route would travel south onto Norwalk Street, turn back onto 20th Avenue before reaching Morningside High School. After traveling a counter-clockwise loop, the route would proceed south onto Cecil Avenue and Jefferson Street before terminating at the Transit Center.

Route 2

Proposed Route 2 would essentially combine existing Routes 2 and 4, with an origin and terminus point of the Delano Transit Center. Upon departing the Transit Center, the route would travel westbound toward Ellington Street. Traveling south on Ellington Street, the route would then head west via 8th Avenue to Albany Street. Detouring through residential streets, it would travel west onto 4th Avenue then down to 1st Avenue until reaching Ellington Street. Heading west across Highway 99 to High Street, the proposed route would circle up Lexington Street and back along Jefferson Street to the Transit Center. After a two to four-minute layover the Transit Center, the route would run its north segment. Heading north on High Street to Glenwood Street, the route would proceed up Ellington Street to Liberty Lane. It would then pass Albany Park as it traveled down to 15th Avenue. Once at Bakersfield College, the route would then head west along Matthews Avenue/11th Avenue prior to returning to the Transit Center.

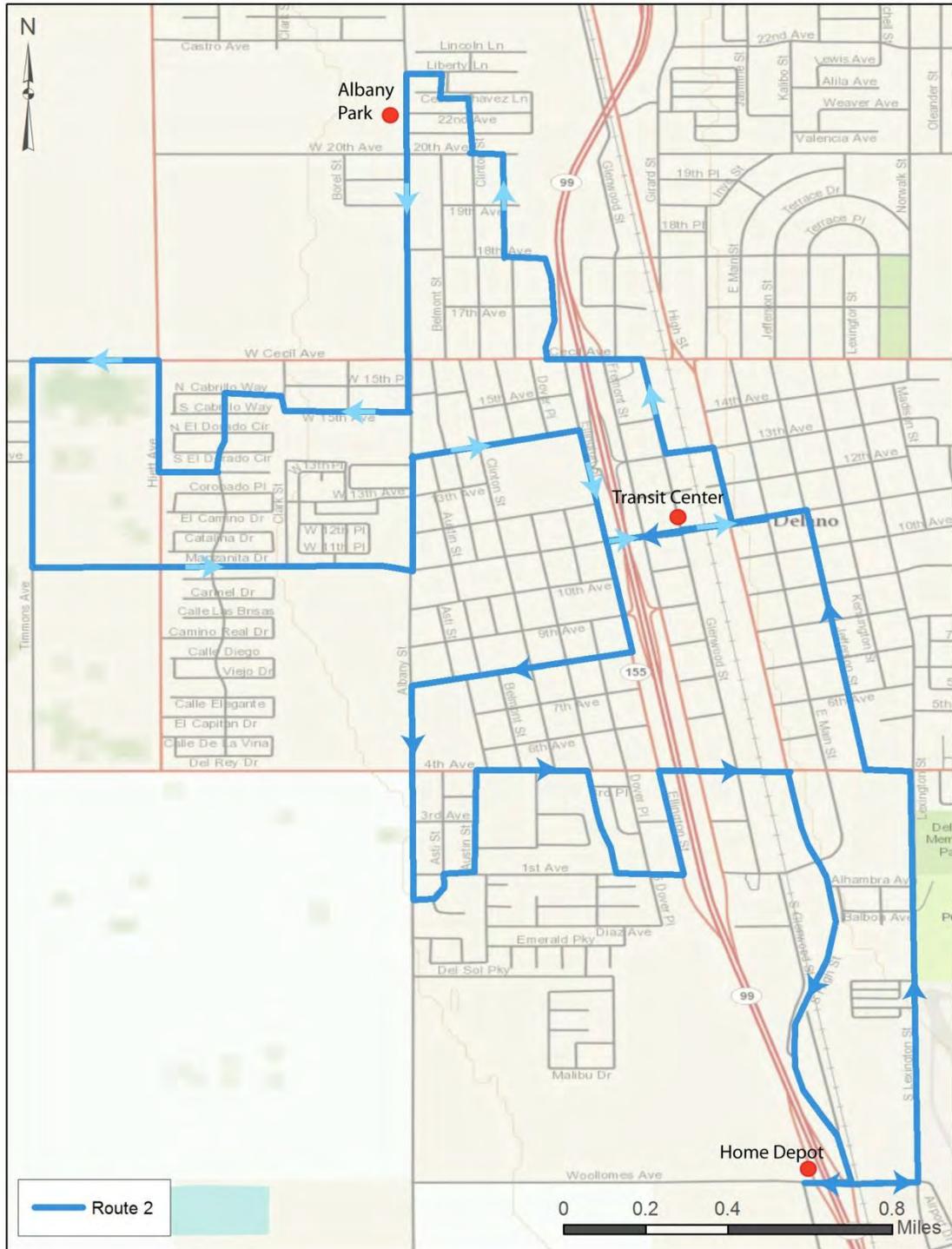
Exhibits 3.2 and 3.3 illustrate the route alignments for proposed Routes 1 and 2.

Exhibit 3.2 Proposed Delano Route 1 Alignment



Vehicle Service Hours: 2,907 VSH annually
 Cost: >\$256,000 annually (at \$88.34 Cost/VSH)
 Ridership Impact: >50,000 annually

Exhibit 3.3 Proposed Delano Route 2 Alignment



Vehicle Service Hours: 2,907 VSH annually
Cost: >\$256,000 annually (at \$88.34 Cost/VSH)
Ridership Impact: >50,000 annually

Exhibit 3.3 presents proposed schedules associated with the modified alignments. As shown, services would originate and terminate at the Delano Transit Center.

Exhibit 3.4 Proposed Delano Fixed-Route Schedules

Route 1

Delano Transit Center	11th & Jefferson Ave	11th Ave & Norwalk St	Tony's Pizza	La Vina Middle School	Browning Rd & 9th Ave	Randolph Street & 6th Ave	Post Office	Homer Harrison Apartments	1519 Garces Highway	432 Lexington St	Vallarta Supermarkets	Delano Transit Center (Arrive)
7:00 AM	7:02 AM	7:04 AM	7:07 AM	7:10 AM	7:11 AM	7:14 AM	7:16 AM	7:16 AM	7:17 AM	7:18 AM	7:20 AM	7:22 AM
8:00 AM	8:02 AM	8:04 AM	8:07 AM	8:10 AM	8:11 AM	8:14 AM	8:16 AM	8:16 AM	8:17 AM	8:18 AM	8:20 AM	8:22 AM
9:00 AM	9:02 AM	9:04 AM	9:07 AM	9:10 AM	9:11 AM	9:14 AM	9:16 AM	9:16 AM	9:17 AM	9:18 AM	9:20 AM	9:22 AM
10:00 AM	10:02 AM	10:04 AM	10:07 AM	10:10 AM	10:11 AM	10:14 AM	10:16 AM	10:16 AM	10:17 AM	10:18 AM	10:20 AM	10:22 AM
11:00 AM	11:02 AM	11:04 AM	11:07 AM	11:10 AM	11:11 AM	11:14 AM	11:16 AM	11:16 AM	11:17 AM	11:18 AM	11:20 AM	11:22 AM
12:00 PM	12:02 PM	12:04 PM	12:07 PM	12:10 PM	12:11 PM	12:14 PM	12:16 PM	12:16 PM	12:17 PM	12:18 PM	12:20 PM	12:22 PM
1:00 PM	1:02 PM	1:04 PM	1:07 PM	1:10 PM	1:11 PM	1:14 PM	1:16 PM	1:16 PM	1:17 PM	1:18 PM	1:20 PM	1:22 PM
2:00 PM	2:02 PM	2:04 PM	2:07 PM	2:10 PM	2:11 PM	2:14 PM	2:16 PM	2:16 PM	2:17 PM	2:18 PM	2:20 PM	2:22 PM
3:00 PM	3:02 PM	3:04 PM	3:07 PM	3:10 PM	3:11 PM	3:14 PM	3:16 PM	3:16 PM	3:17 PM	3:18 PM	3:20 PM	3:22 PM
4:00 PM	4:02 PM	4:04 PM	4:07 PM	4:10 PM	4:11 PM	4:14 PM	4:16 PM	4:16 PM	4:17 PM	4:18 PM	4:20 PM	4:22 PM
5:00 PM	5:02 PM	5:04 PM	5:07 PM	5:10 PM	5:11 PM	5:14 PM	5:16 PM	5:16 PM	5:17 PM	5:18 PM	5:20 PM	5:22 PM

Delano Transit Center (Depart)	High St & 13th Ave	Save Mart Supermarkets	Girard St and 19th Pl	20th Ave and Kalibo St	Jasmine Heights Apartments	Social Service Administration	Kmart	Brandywine Apartments	Norwalk St & Weaver Ave	20th and Princeton St	20th Ave and Morningside Way	Browning Rd and Carillo Ave	Morningside School	Valley High School	Randolph St & 17th Pl	Cecil Ave and Randolph St	Harold Olson Rotary Village (Randolph/Cecil)	Factory 2 U	Jefferson St & 13th Ave	Delano Transit Center
7:25 AM	7:26 AM	7:27 AM	7:28 AM	7:29 AM	7:31 AM	7:32 AM	7:34 AM	7:35 AM	7:37 AM	7:39 AM	7:41 AM	7:43 AM	7:44 AM	7:47 AM	7:48 AM	7:49 AM	7:50 AM	7:53 AM	7:54 AM	7:55 AM
8:25 AM	8:26 AM	8:27 AM	8:28 AM	8:29 AM	8:31 AM	8:32 AM	8:34 AM	8:35 AM	8:37 AM	8:39 AM	8:41 AM	8:43 AM	8:44 AM	8:47 AM	8:48 AM	8:49 AM	8:50 AM	8:53 AM	8:54 AM	8:55 AM
9:25 AM	9:26 AM	9:27 AM	9:28 AM	9:29 AM	9:31 AM	9:32 AM	9:34 AM	9:35 AM	9:37 AM	9:39 AM	9:41 AM	9:43 AM	9:44 AM	9:47 AM	9:48 AM	9:49 AM	9:50 AM	9:53 AM	9:54 AM	9:55 AM
10:25 AM	10:26 AM	10:27 AM	10:28 AM	10:29 AM	10:31 AM	10:32 AM	10:34 AM	10:35 AM	10:37 AM	10:39 AM	10:41 AM	10:43 AM	10:44 AM	10:47 AM	10:48 AM	10:49 AM	10:50 AM	10:53 AM	10:54 AM	10:55 AM
11:25 AM	11:26 AM	11:27 AM	11:28 AM	11:29 AM	11:31 AM	11:32 AM	11:34 AM	11:35 AM	11:37 AM	11:39 AM	11:41 AM	11:43 AM	11:44 AM	11:47 AM	11:48 AM	11:49 AM	11:50 AM	11:53 AM	11:54 AM	11:55 AM
12:25 PM	12:26 PM	12:27 PM	12:28 PM	12:29 PM	12:31 PM	12:32 PM	12:34 PM	12:35 PM	12:37 PM	12:39 PM	12:41 PM	12:43 PM	12:44 PM	12:47 PM	12:48 PM	12:49 PM	12:50 PM	12:53 PM	12:54 PM	12:55 PM
1:25 PM	1:26 PM	1:27 PM	1:28 PM	1:29 PM	1:31 PM	1:32 PM	1:34 PM	1:35 PM	1:37 PM	1:39 PM	1:41 PM	1:43 PM	1:44 PM	1:47 PM	1:48 PM	1:49 PM	1:50 PM	1:53 PM	1:54 PM	1:55 PM
2:25 PM	2:26 PM	2:27 PM	2:28 PM	2:29 PM	2:31 PM	2:32 PM	2:34 PM	2:35 PM	2:37 PM	2:39 PM	2:41 PM	2:43 PM	2:44 PM	2:47 PM	2:48 PM	2:49 PM	2:50 PM	2:53 PM	2:54 PM	2:55 PM
3:25 PM	3:26 PM	3:27 PM	3:28 PM	3:29 PM	3:31 PM	3:32 PM	3:34 PM	3:35 PM	3:37 PM	3:39 PM	3:41 PM	3:43 PM	3:44 PM	3:47 PM	3:48 PM	3:49 PM	3:50 PM	3:53 PM	3:54 PM	3:55 PM
4:25 PM	4:26 PM	4:27 PM	4:28 PM	4:29 PM	4:31 PM	4:32 PM	4:34 PM	4:35 PM	4:37 PM	4:39 PM	4:41 PM	4:43 PM	4:44 PM	4:47 PM	4:48 PM	4:49 PM	4:50 PM	4:53 PM	4:54 PM	4:55 PM
5:25 PM	5:26 PM	5:27 PM	5:28 PM	5:29 PM	5:31 PM	5:32 PM	5:34 PM	5:35 PM	5:37 PM	5:39 PM	5:41 PM	5:43 PM	5:44 PM	5:47 PM	5:48 PM	5:49 PM	5:50 PM	5:53 PM	5:54 PM	5:55 PM

Exhibit 3.4 Proposed Delano Fixed-Route Schedules (continued)

Route 2

Delano Transit Center	11th Ave & Ellington (Komoto)	Ellington Senior Center	Albany St & 8th Ave	Casa Hernandez Apartments	302 Garces Hwy	Dover St & 1st Ave	Ellington & Kernell Ave	Garces Hwy & High St	102 High St	Home Depot	Aviator Casino	Armory Hall	600 S Lexington St	323 S Lexington St	Jefferson Senior Center	Vallarta Supermarkets	Delano Transit Center (Arrive)
7:00 AM	7:01 AM	7:02 AM	7:05 AM	7:06 AM	7:08 AM	7:09 AM	7:11 AM	7:12 AM	7:13 AM	7:17 AM	7:18 AM	7:19 AM	7:20 AM	7:22 AM	7:24 AM	7:26 AM	7:28 AM
8:00 AM	8:01 AM	8:02 AM	8:05 AM	8:06 AM	8:08 AM	8:09 AM	8:11 AM	8:12 AM	8:13 AM	8:17 AM	8:18 AM	8:19 AM	8:20 AM	8:22 AM	8:24 AM	8:26 AM	8:28 AM
9:00 AM	9:01 AM	9:02 AM	9:05 AM	9:06 AM	9:08 AM	9:09 AM	9:11 AM	9:12 AM	9:13 AM	9:17 AM	9:18 AM	9:19 AM	9:20 AM	9:22 AM	9:24 AM	9:26 AM	9:28 AM
10:00 AM	10:01 AM	10:02 AM	10:05 AM	10:06 AM	10:08 AM	10:09 AM	10:11 AM	10:12 AM	10:13 AM	10:17 AM	10:18 AM	10:19 AM	10:20 AM	10:22 AM	10:24 AM	10:26 AM	10:28 AM
11:00 AM	11:01 AM	11:02 AM	11:05 AM	11:06 AM	11:08 AM	11:09 AM	11:11 AM	11:12 AM	11:13 AM	11:17 AM	11:18 AM	11:19 AM	11:20 AM	11:22 AM	11:24 AM	11:26 AM	11:28 AM
12:00 PM	12:01 PM	12:02 PM	12:05 PM	12:06 PM	12:08 PM	12:09 PM	12:11 PM	12:12 PM	12:13 PM	12:17 PM	12:18 PM	12:19 PM	12:20 PM	12:22 PM	12:24 PM	12:26 PM	12:28 PM
1:00 PM	1:01 PM	1:02 PM	1:05 PM	1:06 PM	1:08 PM	1:09 PM	1:11 PM	1:12 PM	1:13 PM	1:17 PM	1:18 PM	1:19 PM	1:20 PM	1:22 PM	1:24 PM	1:26 PM	1:28 PM
2:00 PM	2:01 PM	2:02 PM	2:05 PM	2:06 PM	2:08 PM	2:09 PM	2:11 PM	2:12 PM	2:13 PM	2:17 PM	2:18 PM	2:19 PM	2:20 PM	2:22 PM	2:24 PM	2:26 PM	2:28 PM
3:00 PM	3:01 PM	3:02 PM	3:05 PM	3:06 PM	3:08 PM	3:09 PM	3:11 PM	3:12 PM	3:13 PM	3:17 PM	3:18 PM	3:19 PM	3:20 PM	3:22 PM	3:24 PM	3:26 PM	3:28 PM
4:00 PM	4:01 PM	4:02 PM	4:05 PM	4:06 PM	4:08 PM	4:09 PM	4:11 PM	4:12 PM	4:13 PM	4:17 PM	4:18 PM	4:19 PM	4:20 PM	4:22 PM	4:24 PM	4:26 PM	4:28 PM
5:00 PM	5:01 PM	5:02 PM	5:05 PM	5:06 PM	5:08 PM	5:09 PM	5:11 PM	5:12 PM	5:13 PM	5:17 PM	5:18 PM	5:19 PM	5:20 PM	5:22 PM	5:24 PM	5:26 PM	5:28 PM

Delano Transit Center (Depart)	Greyhound Station	Filipino Community Council Rec Center	Fresh & Easy	Ellington St & 17 St	Sunnyview Apartments	Clinton St & 22nd Ave	Albany Park	Albany St & W 19th St	1603 Stradley Ave	Clark St & N Cabrillo Way	Hiatt Ave & Franciscan Plaza	Bakersfield College	W 11th Ave & Almond Tree Way	Albany St & 14th Ave	14th Ave & Clinton St	Delano Transit Center
7:30 AM	7:31 AM	7:33 AM	7:34 AM	7:35 AM	7:36 AM	7:38 AM	7:39 AM	7:40 AM	7:41 AM	7:43 AM	7:45 AM	7:48 AM	7:50 AM	7:52 AM	7:53 AM	7:56 AM
8:30 AM	8:31 AM	8:33 AM	8:34 AM	8:35 AM	8:36 AM	8:38 AM	8:39 AM	8:40 AM	8:41 AM	8:43 AM	8:45 AM	8:48 AM	8:50 AM	8:52 AM	8:53 AM	8:56 AM
9:30 AM	9:31 AM	9:33 AM	9:34 AM	9:35 AM	9:36 AM	9:38 AM	9:39 AM	9:40 AM	9:41 AM	9:43 AM	9:45 AM	9:48 AM	9:50 AM	9:52 AM	9:53 AM	9:56 AM
10:30 AM	10:31 AM	10:33 AM	10:34 AM	10:35 AM	10:36 AM	10:38 AM	10:39 AM	10:40 AM	10:41 AM	10:43 AM	10:45 AM	10:48 AM	10:50 AM	10:52 AM	10:53 AM	10:56 AM
11:30 AM	11:31 AM	11:33 AM	11:34 AM	11:35 AM	11:36 AM	11:38 AM	11:39 AM	11:40 AM	11:41 AM	11:43 AM	11:45 AM	11:48 AM	11:50 AM	11:52 AM	11:53 AM	11:56 AM
12:30 PM	12:31 PM	12:33 PM	12:34 PM	12:35 PM	12:36 PM	12:38 PM	12:39 PM	12:40 PM	12:41 PM	12:43 PM	12:45 PM	12:48 PM	12:50 PM	12:52 PM	12:53 PM	12:56 PM
1:30 PM	1:31 PM	1:33 PM	1:34 PM	1:35 PM	1:36 PM	1:38 PM	1:39 PM	1:40 PM	1:41 PM	1:43 PM	1:45 PM	1:48 PM	1:50 PM	1:52 PM	1:53 PM	1:56 PM
2:30 PM	2:31 PM	2:33 PM	2:34 PM	2:35 PM	2:36 PM	2:38 PM	2:39 PM	2:40 PM	2:41 PM	2:43 PM	2:45 PM	2:48 PM	2:50 PM	2:52 PM	2:53 PM	2:56 PM
3:30 PM	3:31 PM	3:33 PM	3:34 PM	3:35 PM	3:36 PM	3:38 PM	3:39 PM	3:40 PM	3:41 PM	3:43 PM	3:45 PM	3:48 PM	3:50 PM	3:52 PM	3:53 PM	3:56 PM
4:30 PM	4:31 PM	4:33 PM	4:34 PM	4:35 PM	4:36 PM	4:38 PM	4:39 PM	4:40 PM	4:41 PM	4:43 PM	4:45 PM	4:48 PM	4:50 PM	4:52 PM	4:53 PM	4:56 PM
5:30 PM	5:31 PM	5:33 PM	5:34 PM	5:35 PM	5:36 PM	5:38 PM	5:39 PM	5:40 PM	5:41 PM	5:43 PM	5:45 PM	5:48 PM	5:50 PM	5:52 PM	5:53 PM	5:56 PM

TOTAL FIXED-ROUTE OPERATING COST: >\$513,000 (at \$88.34 Cost/VSH)

Recommendation 2: Actively recruit qualified drivers. As discussed in Finding #2, staffing shortages has had significant impacts on The City’s transit service delivery. Based on discussion with City staff, driver recruitment and retention have both proven problematic across the past several years. While some progress (i.e., conducting interviews with potential driver candidates) was noted during the time of this report’s preparation, it is unclear if the activities resulted in actual driver hiring.

The City should assess the current employment package to drivers to determine if it is conducive to retaining drivers or if changes should be made in order to retain drivers. It is important for the sustainability of the service that a qualified and dedicated staff (drivers and management) is retained.

Ridership Impact: Unknown/variable

Recommendation 3: Investigate lower contract rate for regular maintenance. Transit vehicle and facility maintenance is currently provided by the City’s Public Works/Fleet Maintenance staff. The cost to provide vehicle routine maintenance varies by job. The transit fleet currently includes 26 vehicles. Given the relatively high operating cost, we believe the City needs to identify alternate approach to transit vehicle and facility maintenance. For example, the current rate for an oil change is \$81.00; an amount we believe to be considerably higher than available at nearby private garages.

Cost: Negligible

Ridership Impact: Unknown/variable

Recommendation 4: Contract out for the operation of the City’s transit service. Currently, the City’s fixed-route and dial-a-ride services are operated in-house. The average Operating Cost/Vehicle Service Hours is approximately \$88.00, which is relatively high compared with other Kern County transit operators (Appendix C – Service Evaluation). Review of like-peer transit operators within Kern County as well as other Central California operators who contract out their transit services provides a yardstick for cost comparison. With that said, we anticipate the City to spend between \$40.00/VSH and \$60.00/VSH in contract costs if they use a third-party contractor. This achieves a cost saving as great as \$776,000 annually could be realized.

Cost Savings: >\$450,000

Ridership Impact: Unknown/variable

Recommendation 5: Increase fares. Given the recent increase in the TDA-stipulated FBR to 20 percent, the City is required to increase its current FBR by nearly 14 percent to continue in receiving transit funding and avoid another year of penalty. To facilitate this task, we recommend a fare increase be implemented.

Exhibit 3.5 illustrates the current and proposed general age fares for DART fixed-route and dial-a-ride. Based on the current fare structure (fare subsidies and discounts included), the City realizes only 42-cent fare/passenger. At the current service and ridership level, if fares are raised by 50 percent we anticipate

fare revenue to increase by more than \$33,000, thereby raising the system-wide FBR to seven percent. In order for the City to meet the 20 percent FBR (assuming ridership stays the same) the City would need to realize an average \$2.00 fare/passenger system-wide (dial-a-ride and fixed-route combined). However, given the nature of the service we find this scenario highly unlikely, as ridership typically declines as fares increase (aka fare elasticity). We propose the City increase its general age fixed-route fare from \$1.00 to \$1.50 one-way and from \$1.75 to \$2.50 for dial-a-ride in FY 2013/14. All other fares would be raised accordingly.

Enforcing a fare elasticity metric of -0.4 (industry standard) we foresee ridership declining by 20-percent and 10-percent (fixed-route and dial-a-ride ridership, respectively) during the implementation year (FY 2013/14). Additional discussion regarding these calculations and their fiscal impacts can be found in the Capital and Financial Plan (Chapter 4).

Exhibit 3.5 Current and Proposed DART Fares

Fares Category	Current	Proposed
General Age (18-60) - FR	\$1.00	\$1.50
<i>Percent change</i>	-	50.0%
General Age (18-60) - DAR	\$1.75	\$2.50
<i>Percent change</i>	-	42.9%

Ridership Impact: Unknown/variable

Recommendation 6: Conduct driver training and enforcement of fares and fare policies.

As discussed in Finding #4, the City continues to generate lower-than-expected fare revenue which has significantly impacted the Farebox Recovery Ratio. As it stands, the City currently garners 42-cents per passenger system-wide, broken down to 52-cents per fixed-route passenger and 28-cents per dial-a-ride passenger. Considering the high cost to operate the service and low Farebox Recovery Ratio (less than five percent) yielded annually, we recommend drivers be trained and enforce the current fares and fare policy. As stated in Finding #4, several instances of riders evading fare payment at the transit center and en route to their destination occurred. With drivers properly enforcing the current fares instituted by the City, we anticipate the amount of fares loss (50 percent), excluding discounts and free rides for children under the age of five, to be substantially reduced.

Recommendation 7: Increase on-time performance through policy enforcement.

During our evaluation period, DART’s on-time performance ranged between 67 and 81 percent. Transit industry practices recommend an on-time performance of 90- to 95-percent (along with no early departures) for a program of Delano’s size and scope. The ride check revealed 14 percent of the surveyed trips departed before their published time. Early departures coupled with late arrivals contributed to the lower-than-anticipated on-time performance, which can negatively impact the

reputation of the service as a reliable mode of travel. To remedy this issue, we recommend the following:

- a. **Conduct periodic, random on-time checks.** The City should adopt a process whereby no less than 10 runs or trips are monitored each month. In addition to identifying scheduling issues, ride checks provide an opportunity to observe first-hand the quality of customer service being provided. Additionally, conducting ride checks or “spot” checks assists with improving the reliability of the service by enhancing on-time performance.
- b. **Enforce a “no early departure” policy.** As stated, 14 percent of surveyed trips departed prior to the published schedule time. Early departures directly erode the reputation of a transit service in addition to decreasing ridership and fare revenue. This is especially true, when buses leave before the published schedule potentially leaving or missing customers at prospective bus stops. There is no justification to “hot running”.
- c. **Eliminate flag stops.** During the evaluation period, we discovered 36 different flag stops across the transit system. Route 1 alone had 17 flag stops (on a route of 16 scheduled stops). Moore & Associates recommends eliminating flag stops immediately so as improve on-time performance. In addition to eroding on-time performance, flag stops present a safety issue. The more reliable a service is considered, the more likely customers will patronize the service.
- d. **Reduce the number of published time-points.** The inclusion of more time-points than needed can hinder on-time performance. This is especially true when unforeseen incidents are factored into the service day (translating to less-than-adequate running time). Elimination of some published time-points should improve on-time performance by increasing available run time without increasing operating cost.

Cost: Negligible

Ridership Impact: Unknown/variable

Recommendation 8: Develop and implement a marketing program.

As discussed in Finding #3, the City’s transit program would benefit directly from an increased level of marketing. If crafted and implemented appropriately, the cost of marketing would be recouped through increased ridership and fare revenue. To do otherwise is to severely limit the scope and size of the City’s transit customer base. While a portion of current program dollars should be allocated to marketing, we also encourage the City to pursue future grant funding to support this recommendation. We recommend the City undertake the following activities:

- a. **Update online information.** During our evaluation, we identified inconsistencies between information available online and information available through other marketing channels (i.e., print collateral, dispatchers, etc.). This lack of consistency in message has resulted in frustration from both existing and potential transit riders. We recommend the City consider contracting its online marketing to a third-party consultant to update the City’s website and potentially develop a separate transit webpage which offers links to downloadable fixed-route and dial-a-ride maps and schedules. All service information should also be made available in Spanish.
- b. **Rebrand the transit service.** The City’s transit branding is tired, inconsistent, and not visually appealing. We recommend the City consider retaining a qualified consultant to develop a new

transit brand which would be carried through to all program elements (vehicles, signage, marketing collateral, etc.) In addition to generating local buzz regarding the program, rebranding would communicate the value which City leadership places on the program.

- c. **Standardize marketing collateral.** All printed marketing/promotional collateral should be standardized and reflect a unified look, identity, and name. At the time of our evaluation, the vehicles did not match the bus stop signs, which did not match the service brochures, which did not match the website, etc.
- d. **Display transit promotional messages/signage at senior centers, schools, and community facilities.** In addition to regularly updating transit marketing collateral, the City would work toward placement of marketing materials at community centers, schools, and key employers. We believe this activity can be accomplished within existing transit staffing. Exhibit 3.6 illustrates an existing information display at the Delano Transit Center. Its condition and accuracy are in question. Easy to understand, bilingual posters should be designed, produced, and displayed at key activity locations throughout Delano.

Exhibit 3.6 Information Display – Delano Transit Center



Cost: Three percent of annual Operating Cost

Ridership Impact: Unknown/variable

Recommendation 9: Develop and enforce strategies to enhance the customer experience. We recommend the City enact the following policies, or ensure enforcement if already adopted:

- a. **Eliminate midday fare reduction for seniors/persons with disabilities.** As stated in Findings #1 and #4, we recommend the City eliminate the midday subsidy and enforce a single consistent fare for all fixed-route trips made by seniors and/or persons with disabilities. The elimination of this fare reduction should generate additional fare revenue while also eliminating confusion regarding DART fare policies. It's a nicety the City can no longer afford to provide.

- b. **Work with the City’s Code Enforcement to increase safety at bus stops.** Transit customers, especially seniors, participating in the focus groups cited harassment by stray dogs at bus stops. We recommend the City’s Code Enforcement staff assist in resolving this issue.
- c. **Conduct sensitivity training.** During our ride check and field observations we noted several instances wherein patrons of limited English proficiency (in particular native Spanish speakers) had difficulty communicating with drivers. To address this issue we recommend the City provide recurrent sensitivity training for all transit staff, as well as create a “Language Card” including basic transit-related phrases for use by DART drivers. Examples of phrases to be translated include “exact change only” or “what is your destination?” We also recommend training in basic Spanish verbal fluency for all customer service/dispatch staff.

Cost: Negligible

Ridership Impact: Unknown/variable

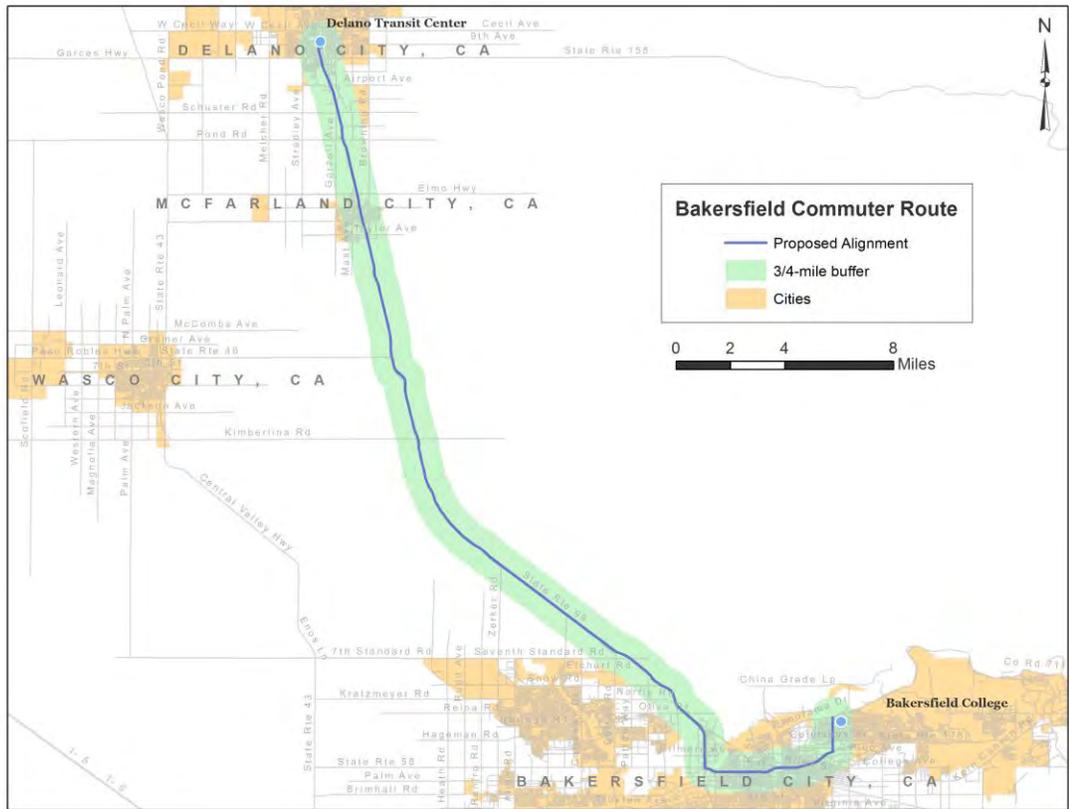
The following recommendations should be implemented once the City’s Farebox Recovery Ratio standard is met or if additional funding to implement these recommendations is identified. We consider these recommendations important to transit program performance and service quality. The following comprise administrative, operational, and capital recommendations.

Recommendation 10: Launch new Bakersfield College route. In March 2012, the City submitted an application for Job Access/Reverse Commute (JARC) grant funding to support introduction of express service linking the Delano Transit Center and Bakersfield College. At the time of this report, funding to operate this service had been awarded for the first year for operation. The proposed service expansion is intended to create an intercity commuter/student connection. Service would depart the Delano Transit Center and travel to Bakersfield College during morning, midday, and evening day-parts. Persons patronizing the proposed route could also make timed-transfers with Golden Empire Transit’s Route 1 at the College in order to access the Bakersfield Downtown Transit Center. At the transit center passengers would be able to make connections through GET to the bulk of the Bakersfield Urbanized Area.

The service would operate three roundtrips in the morning to accommodate class times starting before approximately 11:00 a.m. Midday service would depart the Delano Transit Center beginning at 12:00 p.m. for two roundtrips to accommodate students with early classes and commuters who work in the afternoon. Two final roundtrips would operate in the evening until approximately 10:00 p.m. This would allow students the flexibility and reliability of regular transportation to/from most evening classes.

In order to meet the Americans with Disabilities Act (ADA) requirements, the route will allow for route-deviations for ADA-certified individuals with 24-hour notice. The proposed project would require approximately 4,000 additional Vehicle Service Hours for three fiscal years.

Exhibit 3.7 Proposed Delano to Bakersfield College Route



Vehicle Service Hours: 4,004 VSH annually

Cost: >\$353,000 annually (at \$88.34 Cost/VSH)

Ridership Impact: >39,000 annually

Recommendation 11: Reintroduce Saturday and Sunday service on a demonstration project basis.

To address requests/comments made by current riders as well as potential riders received via the various public involvement activities, we recommend the reintroduction of Saturday and Sunday fixed-route service. Currently the only transit service available on weekends is Saturday dial-a-ride.

At the time of this report, the City had applied for JARC funding to reinstitute Saturday service and was awarded first-year funding for the increased service. The proposed service should provide a reduced service day (8:30 a.m. to 4:30 p.m.) for Routes 1, 2, 3, and 4. The City could use existing capital resources (vehicles and infrastructure) to support the proposed service which would operate on a 30-minute headway (17 circuits per route). Current Saturday dial-a-ride service level would not increase. The project would require approximately 1,768 additional VSH for Fiscal Year 2012/2013. The following schedules assume no changes to the existing service (i.e., Recommendation 1 would not be implemented). If Recommendation 1 is implemented, Saturday DAR service would be adjusted to reflect the change in service level.

Exhibit 3.8 Proposed Saturday Schedules

Route 1

ROUTE 1 BUS STOPS	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup
Transit Center	8:30AM	9:00AM	9:30AM	10:00AM	10:30AM	11:00AM	11:30AM	12:00PM	12:30PM	1:00PM	1:30PM	2:00PM	2:30PM	3:00PM	3:30PM	4:00PM
11th & Jefferson	8:33AM	9:03AM	9:33AM	10:03AM	10:33AM	11:03AM	11:33AM	12:03PM	12:33PM	1:03PM	1:33PM	2:03PM	2:33PM	3:03PM	3:33PM	4:03PM
13th& Jefferson	8:52AM	9:21AM	9:52AM	10:21AM	10:52AM	11:21AM	11:52AM	12:21PM	12:52PM	1:21PM	1:52PM	2:21PM	2:52PM	3:21PM	3:52PM	4:21PM
Tony's Pizza	8:34AM	9:04AM	9:34AM	10:04AM	10:34AM	11:04AM	11:34AM	12:04PM	12:34PM	1:04PM	1:34PM	2:04PM	2:34PM	3:04PM	3:34PM	4:04PM
Rite Aid	8:35AM	9:05AM	9:35AM	10:05AM	10:35AM	11:05AM	11:35AM	12:05PM	12:35PM	1:05PM	1:35PM	2:05PM	2:35PM	3:05PM	3:35PM	4:05PM
Morningside School	8:38AM	9:08AM	9:38AM	10:08AM	10:38AM	11:08AM	11:38AM	12:08PM	12:38PM	1:08PM	1:38PM	2:08PM	2:38PM	3:08PM	3:38PM	4:08PM
Browning & Carrillo	8:39AM	9:09AM	9:39AM	10:09AM	10:39AM	11:09AM	11:39AM	12:09PM	12:39PM	1:09PM	1:39PM	2:09PM	2:39PM	3:09PM	3:39PM	4:09PM
Browning & 17th Ave.	8:40AM	9:10AM	9:40AM	10:10AM	10:40AM	11:10AM	11:40AM	12:10PM	12:40PM	1:10PM	1:40PM	2:10PM	2:40PM	3:10PM	3:40PM	4:10PM
Browning & 9th Ave.	8:42AM	9:12AM	9:42AM	10:12AM	10:42AM	11:12AM	11:42AM	12:12PM	12:42PM	1:12PM	1:42PM	2:12PM	2:42PM	3:12PM	3:42PM	4:12PM
Randolph & 6th	8:44AM	9:14AM	9:44AM	10:14AM	10:44AM	11:14AM	11:44AM	12:14PM	12:44PM	1:14PM	1:44PM	2:14PM	2:44PM	3:14PM	3:44PM	4:14PM
Post Office	8:45AM	9:15AM	9:45AM	10:15AM	10:45AM	11:15AM	11:45AM	12:15PM	12:45PM	1:15PM	1:45PM	2:15PM	2:45PM	3:15PM	3:45PM	4:15PM
1910 Garces Hwy	8:46AM	9:16AM	9:46AM	10:16AM	10:46AM	11:16AM	11:46AM	12:16PM	12:46PM	1:16PM	1:46PM	2:16PM	2:46PM	3:16PM	3:46PM	4:16PM
1519 Garces Hwy	8:48AM	9:18AM	9:48AM	10:18AM	10:48AM	11:18AM	11:48AM	12:18PM	12:48PM	1:18PM	1:48PM	2:18PM	2:48PM	3:18PM	3:48PM	4:18PM
432 Lexington	8:49AM	9:19AM	9:49AM	10:19AM	10:49AM	11:19AM	11:49AM	12:19PM	12:49PM	1:19PM	1:49PM	2:19PM	2:49PM	3:19PM	3:49PM	4:19PM
Transit Center	8:55AM	9:25AM	9:55AM	10:25AM	10:55AM	11:25AM	11:55AM	12:25PM	12:55PM	1:25PM	1:55PM	2:25PM	2:55PM	3:25PM	3:55PM	4:25PM

Route 2

ROUTE 2 BUS STOPS	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup
Transit Center	8:30AM	9:00AM	9:30AM	10:00AM	10:30AM	11:00AM	11:30AM	12:00PM	12:30PM	1:00PM	1:30PM	2:00PM	2:30PM	3:00PM	3:30PM	4:00PM
11th & Ellington	8:31AM	9:01AM	9:31AM	10:01AM	10:31AM	11:03AM	11:33AM	12:03PM	12:33PM	1:03PM	1:33PM	2:03PM	2:33PM	3:03PM	3:33PM	4:03PM
Ellington Senior Center	8:31AM	9:01AM	9:31AM	10:01AM	10:31AM	11:04AM	11:34AM	12:04PM	12:34PM	1:04PM	1:34PM	2:04PM	2:34PM	3:04PM	3:34PM	4:04PM
Albany & 8th	8:34AM	9:04AM	9:34AM	10:04AM	10:34AM	11:05AM	11:35AM	12:05PM	12:35PM	1:05PM	1:35PM	2:05PM	2:35PM	3:05PM	3:35PM	4:05PM
Casa Hernandez Apts	8:35AM	9:05AM	9:35AM	10:05AM	10:35AM	11:08AM	11:38AM	12:08PM	12:38PM	1:08PM	1:38PM	2:08PM	2:38PM	3:08PM	3:38PM	4:08PM
302 Graces Hwy	8:38AM	9:08AM	9:38AM	10:08AM	10:38AM	11:09AM	11:39AM	12:09PM	12:39PM	1:09PM	1:39PM	2:09PM	2:39PM	3:09PM	3:39PM	4:09PM
Garces Hwy & Drover Pl	8:39AM	9:09AM	9:39AM	10:09AM	10:39AM	11:10AM	11:40AM	12:10PM	12:40PM	1:10PM	1:40PM	2:10PM	2:40PM	3:10PM	3:40PM	4:10PM
Garces Hwy & High St.	8:40AM	9:10AM	9:40AM	10:10AM	10:40AM	11:12AM	11:42AM	12:12PM	12:42PM	1:12PM	1:42PM	2:12PM	2:42PM	3:12PM	3:42PM	4:12PM
323 Lexington St.	8:41AM	9:11AM	9:41AM	10:11AM	10:41AM	11:14AM	11:44AM	12:14PM	12:44PM	1:14PM	1:44PM	2:14PM	2:44PM	3:14PM	3:44PM	4:14PM
Armory Hall/Lexington	8:44AM	9:14AM	9:44AM	10:14AM	10:44AM	11:15AM	11:45AM	12:15PM	12:45PM	1:15PM	1:45PM	2:15PM	2:45PM	3:15PM	3:45PM	4:15PM
Aviator Casino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The Home Depot	8:45AM	9:15AM	9:45AM	10:15AM	10:45AM	11:16AM	11:46AM	12:16PM	12:46PM	1:16PM	1:46PM	2:16PM	2:46PM	3:16PM	3:46PM	4:16PM
102 High Street	8:47AM	9:17AM	9:47AM	10:17AM	10:47AM	11:18AM	11:48AM	12:18PM	12:48PM	1:18PM	1:48PM	2:18PM	2:48PM	3:18PM	3:48PM	4:18PM
Jefferson Senior Center	8:48AM	9:18AM	9:48AM	10:18AM	10:48AM	11:19AM	11:49AM	12:19PM	12:49PM	1:19PM	1:49PM	2:19PM	2:49PM	3:19PM	3:49PM	4:19PM
Ranch Market	8:51AM	9:21AM	9:51AM	10:21AM	10:51AM	11:21AM	11:52AM	12:21PM	12:52PM	1:21PM	1:52PM	2:21PM	2:52PM	3:21PM	3:52PM	4:21PM
Transit Center	8:55AM	9:25AM	9:55AM	10:25AM	10:55AM	11:25AM	11:55AM	12:25PM	12:55PM	1:25PM	1:55PM	2:25PM	2:55PM	3:25PM	3:55PM	4:25PM

Route 3

ROUTE 3 BUS STOPS	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup
Transit Center	8:30AM	9:00AM	9:30AM	10:00AM	10:30AM	11:00AM	11:30AM	12:00PM	12:30PM	1:00PM	1:30PM	2:00PM	2:30PM	3:00PM	3:30PM	4:00PM
Glenwood St & Cecil Ave	8:31AM	9:01AM	9:31AM	10:01AM	10:31AM	11:01AM	11:31AM	12:01PM	12:31PM	1:01PM	1:31PM	2:01PM	2:31PM	3:01PM	3:31PM	4:01PM
Cecil Ave & Madison St	8:33AM	9:03AM	9:33AM	10:03AM	10:33AM	11:03AM	11:33AM	12:03PM	12:33PM	1:03PM	1:33PM	2:03PM	2:33PM	3:03PM	3:33PM	4:03PM
Save Mart/Inyo St.	8:35AM	9:05AM	9:35AM	10:05AM	10:35AM	11:05AM	11:35AM	12:05PM	12:35PM	1:05PM	1:35PM	2:05PM	2:35PM	3:05PM	3:35PM	4:05PM
Save Mart/ High St.	8:36AM	9:06AM	9:36AM	10:06AM	10:36AM	11:06AM	11:36AM	12:06PM	12:36PM	1:06PM	1:36PM	2:06PM	2:36PM	3:06PM	3:36PM	4:06PM
Jasmine Heights Apts	8:39AM	9:09AM	9:39AM	10:09AM	10:39AM	11:09AM	11:39AM	12:09PM	12:39PM	1:09PM	1:39PM	2:09PM	2:39PM	3:09PM	3:39PM	4:09PM
Social Security/Girard	8:40AM	9:10AM	9:40AM	10:10AM	10:40AM	11:10AM	11:40AM	12:10PM	12:40PM	1:10PM	1:40PM	2:10PM	2:40PM	3:10PM	3:40PM	4:10PM
K Mart/CO Line	8:41AM	9:11AM	9:41AM	10:11AM	10:41AM	11:11AM	11:41AM	12:11PM	12:41PM	1:11PM	1:41PM	2:11PM	2:41PM	3:11PM	3:41PM	4:11PM
Brandywine Apts/CO. Line	8:42AM	9:12AM	9:42AM	10:12AM	10:42AM	11:12AM	11:42AM	12:12PM	12:42PM	1:12PM	1:42PM	2:12PM	2:42PM	3:12PM	3:42PM	4:12PM
Princeton St & 20th Ave	8:44AM	9:14AM	9:44AM	10:14AM	10:44AM	11:14AM	11:44AM	12:14PM	12:44PM	1:14PM	1:44PM	2:14PM	2:44PM	3:14PM	3:44PM	4:14PM
Randolph & 20th	8:46AM	9:16AM	9:46AM	10:16AM	10:46AM	11:16AM	11:46AM	12:16PM	12:46PM	1:16PM	1:46PM	2:16PM	2:46PM	3:16PM	3:46PM	4:16PM
Randolph & Cecil	8:47AM	9:17AM	9:47AM	10:17AM	10:47AM	11:17AM	11:47AM	12:17PM	12:47PM	1:17PM	1:47PM	2:17PM	2:47PM	3:17PM	3:47PM	4:17PM
State Market/Kensington	8:50AM	9:20AM	9:50AM	10:20AM	10:50AM	11:20AM	11:50AM	12:20PM	12:50PM	1:20PM	1:50PM	2:20PM	2:50PM	3:20PM	3:50PM	4:20PM
Factory 2 U/ Jefferson	8:51AM	9:21AM	9:51AM	10:21AM	10:51AM	11:21AM	11:51AM	12:21PM	12:51PM	1:21PM	1:51PM	2:21PM	2:51PM	3:21PM	3:51PM	4:21PM
Transit Center	8:55AM	9:25AM	9:55AM	10:25AM	10:55AM	11:25AM	11:55AM	12:25PM	12:55PM	1:25PM	1:55PM	2:25PM	2:55PM	3:25PM	3:55PM	4:25PM

Route 4

ROUTE 4 BUS STOPS	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup	Pickup
Transit Center	8:30AM	9:00AM	9:30AM	10:00AM	10:30AM	11:00AM	11:30AM	12:00PM	12:30PM	1:00PM	1:30PM	2:00PM	2:30PM	3:00PM	3:30PM	4:00PM
Greyhound/ High St.	8:31AM	9:01AM	9:31AM	10:01AM	10:31AM	11:01AM	11:31AM	12:01PM	12:31PM	1:01PM	1:31PM	2:01PM	2:31PM	3:01PM	3:31PM	4:01PM
FRESH & EASY	8:32 AM	9:02AM	9:32 AM	10:02AM	10:32AM	11:02AM	11:32AM	12:02PM	12:32PM	1:02PM	1:32PM	2:02PM	2:32PM	3:02PM	3:32PM	4:02PM
Ellington St & 17th	8:33AM	9:03AM	9:33AM	10:03AM	10:33AM	11:03AM	11:33AM	12:03PM	12:33PM	1:03PM	1:33PM	2:03PM	2:33PM	3:03PM	3:33PM	4:03PM
Dover & 18th	8:35AM	9:05AM	9:35AM	10:05AM	10:35AM	11:05AM	11:35AM	12:05PM	12:35PM	1:05PM	1:35PM	2:05PM	2:35PM	3:05PM	3:35PM	4:05PM
Clinton St & 22nd Ave	8:37 AM	9:07AM	9:37 AM	10:07AM	10:37AM	11:07AM	11:37AM	12:07PM	12:37PM	1:07PM	1:37PM	2:07PM	2:37PM	3:07PM	3:37PM	4:07PM
Albany Park	8:38AM	9:08AM	9:38AM	10:08AM	10:38AM	11:08AM	11:38AM	12:08PM	12:38PM	1:08PM	1:38PM	2:08PM	2:38PM	3:08PM	3:38PM	4:08PM
Albany St & 19th	8:39AM	9:09AM	9:39AM	10:09AM	10:39AM	11:09AM	11:39AM	12:09PM	12:39PM	1:09PM	1:39PM	2:09PM	2:39PM	3:09PM	3:39PM	4:09PM
1313 Albany St.	8:40AM	9:10AM	9:40AM	10:10AM	10:40AM	11:10AM	11:40AM	12:10PM	12:40PM	1:10PM	1:40PM	2:10PM	2:40PM	3:10PM	3:40PM	4:10PM
W. 11th Ave & Almond Tree Way	8:42AM	9:12AM	9:42AM	10:12AM	10:42AM	11:12AM	11:42AM	12:12PM	12:42AM	1:12PM	1:42PM	2:12PM	2:42PM	3:12PM	3:42PM	4:12PM
Timmons & Contessa	8:44AM	9:14AM	9:44AM	10:14AM	10:44AM	11:14AM	11:44AM	12:14PM	12:44PM	1:14PM	1:44PM	2:14PM	2:44PM	3:14PM	3:44PM	4:14PM
Hiett & Franciscan	8:47AM	9:17AM	9:47AM	10:17AM	10:47AM	11:17AM	11:47AM	12:17PM	12:47PM	1:17PM	1:47PM	2:17PM	2:47PM	3:17PM	3:47PM	4:17PM
Clark & N. Cabrillo	8:49AM	9:19AM	9:49AM	10:19AM	10:49AM	11:19AM	11:49AM	12:19PM	12:49PM	1:19PM	1:49PM	2:19PM	2:49PM	3:19PM	3:49PM	4:19PM
14th Ave & Clinton St	8:51AM	9:21AM	9:51AM	10:21AM	10:51AM	11:21AM	11:51AM	12:21PM	12:51PM	1:21PM	1:51PM	2:21PM	2:51PM	3:21PM	3:51PM	4:21PM
Transit Center	8:55AM	9:25AM	9:55AM	10:25AM	10:55AM	11:25AM	11:55AM	12:25PM	12:55PM	1:25PM	1:55PM	2:25PM	2:55PM	3:25PM	3:55PM	4:25PM

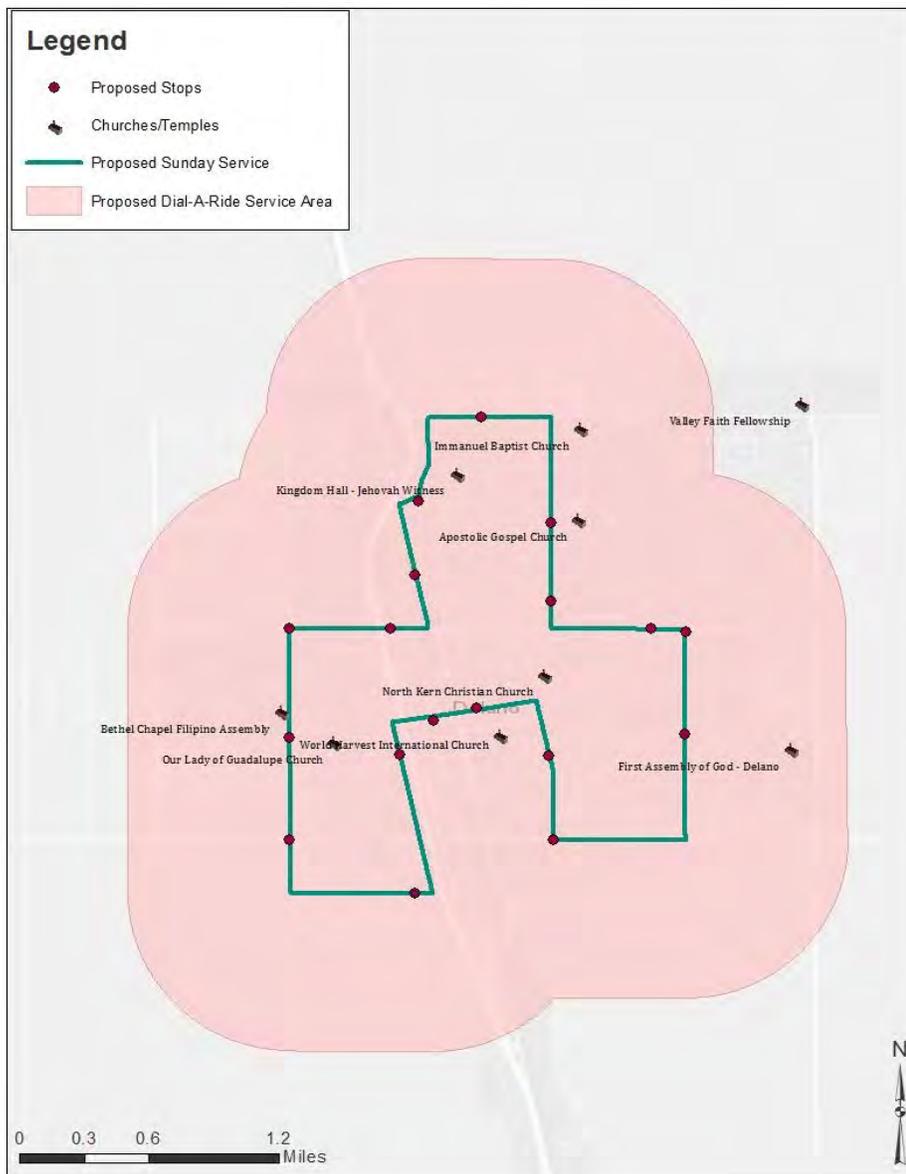
Vehicle Service Hours: 1,768 VSH annually

Saturday Service Cost: >\$156,000 annually (at \$88.34 Cost/VSH)

Ridership Impact: >17,000 annually

We also recommend the reintroduction of Sunday fixed-route service. Doing so would require use of two to three cutaways per route on a reduced service day basis – morning and evening travel only. The Sunday service “loop” would provide access to local churches as well as community facilities typically open on Sundays. Exhibit 3.8 illustrates the proposed Sunday service routing. To fund this proposed project, we recommend the City apply for New Freedom funds (Section 5317) or JARC funds (Section 5316).

Exhibit 3.9 Proposed Sunday “Loop” Alignment



Vehicle Service Hours: 364 VSH annually
 Sunday Service Cost: >\$32,000 annually (at \$88.34 Cost/VSH)
 Ridership Impact: >3,500 annually

Recommendation 12: Capital Recommendations. Presented below are recommended capital expenditures intended to enhance the City's transit program. Details regarding each alternative including recommended implementation timeline are presented along with relative fiscal impact in Chapter 4 - Capital and Financial Plan.

- Conduct semi-annual power washing of transit fleet.
- Conduct bus stop amenity maintenance (benches and shelters) at least annually. Replace aging and/or damaged infrastructure.
- Install handrails on all buses (as needed) as a safety measure.
- Utilize larger vehicles free senior center shuttle on weekday mornings.
- Sell two older trolleys. Consider purchase of one newer trolley.
- Evaluate construction of dedicated transit maintenance facility (two bays and office space).

Costs: Vary. See Capital Plan.

Ridership Impact: Unknown/variable

4

CAPITAL AND FINANCIAL PLAN

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CHAPTER 4 – CAPITAL AND FINANCIAL PLAN

This section presents capital requirements and five-year operating budget projections required to support the recommendations presented within the Findings and Recommendations chapter (Chapter 3). This section includes three sub-sections – the Capital Improvement Program presenting recommendations for improvement of transit infrastructure and expansion, a Capital Plan forecasting capital costs associated with implementing these recommendations, and a Financial Plan estimating the cost of implementing each recommendation outlined in Chapter 3.

CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program (CIP) presents a framework for the ongoing development of the infrastructure necessary for the efficient provision of public transit service throughout the City of Delano. This element includes an inventory of all vehicles, amenities, and facilities currently in use, as well as a strategy for the development of additional capital resources across the next five years to support transit service enhancements and ultimately increase Delano Area Rapid Transit's (DART) share of total trips made in the City of Delano.

The CIP is divided into three elements: fleet, bus stops, and facilities. Each plays a critical role in the efficient provision of public transit services within the City. Within each element we outline existing conditions followed by discussion of the steps needed to support recommended service changes as well as respond to community input arising throughout the Transit Development Plan (TDP) process.

Revenue Fleet

Effective fleet development is crucial to the continued success of DART. The cleanliness and reliability of rolling stock plays a vital role in retaining and attracting customers. While ride-dependent customers may exhibit a greater tolerance for an outdated fleet, “choice riders”, those who voluntarily use transit in spite of having access to a personal vehicle, expect newer vehicles incorporated with the latest amenities. Maintenance and proper timing of vehicle replacement is critical in resource management and sustainability of the transit program. The following is a discussion of each mode's vehicle fleet, which Delano's fixed-route and demand-response uses.

The following tables (Exhibits 4.1, 4.2, and 4.3) show detailed information for each active vehicle in Delano's fleet, which is composed of 18 vehicles: 5 fixed-route, 7 dial-a-ride (DAR), 2 contingency, and 4 support vehicles for maintenance and other purposes (i.e., City-Vehicles).

The Federal Transit Administration (FTA) recognizes two types of vehicles: active and contingency. According to the FTA, buses may be stockpiled in an inactive contingency fleet in preparation for emergencies. No bus may be stockpiled before it has reached the end of its service life. Buses assigned to a contingency fleet must be properly stored, maintained, and documented within a contingency plan. The plan should be updated as necessary to support the continuation of a contingency fleet. These vehicles do not factor in the calculation of an operator’s vehicle spare ratio. Exhibit 4.1 presents Delano’s fixed-route fleet.

Exhibit 4.1 Fixed-Route Fleet

	Vehicle Number	Vehicle Identification Number	Manufacturer	Model	Fuel Type	Purchase Year	Planned Replacement Year	Mileage	Seating Capacity	Wheelchair Capacity	Use
13	3502	1GBJG31K281125464	Chevrolet	Van Conversion Bus	Unleaded	2008	2014	71,359	12	2	Fixed-Route
14	3504	1GBJG31K081125544	Chevrolet	Van Conversion Bus	Unleaded	2008	2014	85,614	12	2	Fixed-Route
15	3505	1GBESV1G88F403236	Chevrolet	C5500	Unleaded	2007	2014	94,084	22	2	Fixed-Route
16	3506	1GBE5V1G28F403345	Chevrolet	C5500	Unleaded	2007	2014	102,732	22	2	Fixed-Route
26	3516	1FDFE4FSXADB01872	Ford	E-450 Bus	CNG	2011	2021	18,651	18	2	Fixed-Route
8	B-5	1BAGGBMA4XF086004	Blue Bird	Bus	CNG	1998	2014	183,215	25	2	Fixed-Route (Spare)
9	B-6	1BAGCBMA4XF091008	Blue Bird	33-Passenger Bus	CNG	1999	2014	235,749	33	2	Fixed-Route (Spare)

Delano’s dial-a-ride fleet is comprised of a cutaway conversion bus and six vans. All six vans were purchased in 2010 requiring replacement or retiring of these vehicles across the next two to four years. The useful life of these vans is four years or 100,000 miles.

Exhibit 4.2 Dial-a-Ride Fleet

	Vehicle Number	Vehicle Identification Number	Manufacturer	Model	Fuel Type	Purchase Year	Planned Replacement Year	Mileage	Seating Capacity	Wheelchair Capacity	Use
12	3501	1GBJG31K681122759	Chevrolet	Van Conversion Bus	Unleaded	2008	2014	77,257	12	2	Dial-A-Ride
19	3509	2D4RN4DE0AR296539	Dodge	Grand Caravan	Unleaded	2010	2020	6,226	7	2	Dial-A-Ride
20	3510	2D4RN4DE2AR296543	Dodge	Grand Caravan	Unleaded	2010	2020	7,717	7	2	Dial-A-Ride
21	3511	2D4RN4DE6AR296545	Dodge	Grand Caravan	Unleaded	2010	2020	10,670	7	2	Dial-A-Ride
22	3512	2D4RN4DE8AR296546	Dodge	Grand Caravan	Unleaded	2010	2020	20,670	7	2	Dial-A-Ride
23	3513	2D4RN4DE9AR296555	Dodge	Grand Caravan	Unleaded	2010	2020	19,951	7	2	Dial-A-Ride
24	3514	2D4RN4DE3AR296549	Dodge	Grand Caravan	Unleaded	2010	2020	20,933	7	2	Dial-A-Ride

Delano’s fleet is also comprised of four vehicles for in-town (City-Vehicle) use. One vehicle was purchased in 1998 (support sedan), two coach trolleys purchased in 2000, and a support vehicle was purchased in 2011. The useful life of the sedans is four years or 100,000 miles, and the trolleys have a useful life of seven years or 200,000 miles.

Exhibit 4.3 City-Vehicle Fleet

	Vehicle Number	Vehicle Identification Number	Manufacturer	Model	Fuel Type	Purchase Year	Planned Replacement Year	Mileage	Seating Capacity	Use
3	808	1G1ND52T5WY174776	Chevrolet	Malibu	Unleaded	1998	2013	96,868	4	City-Vehicle
25	3515	JTDKN3DU4M1364900	Toyota	Prius Two Model	Hybrid	2011	2021	-	4	City-Vehicle
17	3507	1C9S2CCS8W535114	Chance Coach	Coach Trolley	Unleaded	2000	2016	61,489	22	City-Vehicle
18	3508	1C9CSS5XXW535115	Chance Coach	Coach Trolley	Unleaded	2000	2016	44,868	22	City-Vehicle

Peak-Hour Scenarios and Vehicle Requirements

The alternatives proposed in Chapter 3 require varying levels of investment in Delano’s operating fleet. In total, Delano operations require six vehicles during peak-hour operations (four fixed-route, and two dial-a-ride), with two vehicles as spares. This translates to two spare vehicles per peak vehicles in operation, or a 20 percent spare ratio. The basic spare ratio calculation is:

$$\text{Spare Ratio} = \frac{\text{Total active fleet} - \text{Peak vehicle requirement}}{\text{Peak vehicle requirement}}$$

According to FTA Circular 9030.1C, for grantees with 50 or more fixed-route buses, a reasonable spare ratio should not exceed 20 percent of the vehicles operated in peak service. Peak or max service is the revenue vehicle count during the peak season of the year on the week and day that maximum service is provided. It excludes atypical days and one-time special events. For fleets with fewer than 50 fixed-route vehicles, judgment must be applied to determine what is considered a reasonable number of spare vehicles. Given Delano’s total fleet is fewer than 50 vehicles, the maximum 20 percent spare ratio is not a requirement but merely a guideline that can be used as a basis for evaluating Delano’s fleet.

To maintain current fixed-route and dial-a-ride service during peak travel, the six vehicles required, with two spare vehicles, equates to a spare ratio of 20 percent. Delano meets the FTA-recommended spare ratio as described above.

Fleet Replacement Strategy

The fleet replacement strategy presented in Exhibits 4.4 was generated based on anticipated service levels. In general, replacement strategies are based mainly on FTA-stipulated “useful life” standards adopted for specific vehicle types. These standards must be adhered to by transit organizations purchasing vehicles using federal capital funds. Vehicles must be in service for a stipulated period of time (years) and/or number of miles prior to said vehicle’s retirement to ensure effective use of federally funded assets.

As specified in FTA Circular 9030.1B, there are five different service-life categories which vary depending on vehicle specifications and other characteristics. Other factors contributing to vehicle expansion or replacement include adjustments in spare ratios as well as expansions or reductions in service levels. Given that the recommendations proposed reduce Vehicle Service Hours and headways, implementation of the Plan will most likely reduce vehicle requirements. Therefore, Delano may not need to replace vehicles as they become eligible for replacement.

FTA regulations stipulate large, heavy-duty vehicles—such as those in Delano’s fleet—must be operated in revenue service for at least 12 years (or 500,000 miles, whichever comes first) to be eligible for replacement funding. Replacing vehicles on the 12-year cycle would ultimately reduce maintenance costs as the average age of the fleet would be reduced.

FTA regulations also stipulate light-duty vehicles that include small bus cutaways and mini-vans—such as those in Delano’s dial-a-ride program—be kept in service at least five years (or 150,000 miles, whichever comes first) to be eligible for replacement funding. Four of the seven vehicles currently assigned to dial-a-ride will need to be replaced by FY 2015.

The replacement strategy in Exhibit 4.4 illustrates each active vehicle in the Delano fleet and the year of replacement. The following schedule does not reflect procurements for fleet expansion. Details regarding fleet expansion are presented in the Capital Plan. Note, both spare Blue Birds buses will not be replaced with the same vehicles, rather they will be replaced with two older cutaways scheduled to be replaced in 2014.

Exhibit 4.4 Fleet Replacement Schedule

Vehicle	Purchase Year	Manufacturer	Model	Fuel Type	Mileage	Primary Mode	Replacement Year*	FY								
								2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
13	2008	Chevrolet	Van Conversion Bus	Unleaded	71,359	Fixed-Route	2014									
14	2008	Chevrolet	Van Conversion Bus	Unleaded	85,614	Fixed-Route	2014									
15	2007	Chevrolet	C5500	Unleaded	94,084	Fixed-Route	2014									
16	2007	Chevrolet	C5500	Unleaded	102,732	Fixed-Route	2014									
26	2011	Ford	E-450 Bus	CNG	18,651	Fixed-Route	2021									
8	1998	Blue Bird	Bus	CNG	183,215	Fixed-Route (Spare)	2014									
9	1999	Blue Bird	33-Passenger Bus	CNG	235,749	Fixed-Route (Spare)	2014									
12	2008	Chevrolet	Van Conversion Bus	Unleaded	77,257	Dial-A-Ride	2014									
19	2010	Dodge	Grand Caravan	Unleaded	6,226	Dial-A-Ride	2017									
20	2010	Dodge	Grand Caravan	Unleaded	7,717	Dial-A-Ride	2017									
21	2010	Dodge	Grand Caravan	Unleaded	10,670	Dial-A-Ride	2017									
22	2010	Dodge	Grand Caravan	Unleaded	20,670	Dial-A-Ride	2015									
23	2010	Dodge	Grand Caravan	Unleaded	19,951	Dial-A-Ride	2015									
24	2010	Dodge	Grand Caravan	Unleaded	20,933	Dial-A-Ride	2015									
3	1998	Chevrolet	Malibu	Unleaded	96,868	City-Vehicle	2013									
25	2011	Toyota	Prius Two Model	Hybrid	-	City-Vehicle	2021									
17	2000	Chance Coach	Coach Trolley	Unleaded	61,489	City-Vehicle	2016									
18	2000	Chance Coach	Coach Trolley	Unleaded	44,868	City-Vehicle	2016									

*Replacement year is based on FTA-stipulated "useful life" standards and varies by vehicle type.

Bus Stop Infrastructure

This portion of the Capital Plan includes an inventory of current bus stop amenities as well as strategies for enhancement.

DART has three different types of bus stops:

1. Stops with sign poles only,
2. Stops with benches, and
3. Stops with shelters.

Bus shelters play a critical role in the success of a public transit program. Shelters build awareness of the service and can generate advertising revenue, yet first and foremost they contribute to transit rider safety and comfort. Industry research has confirmed bus shelters also play a vital role in attracting additional ridership. The absence of adequate amenities at bus stops can deter both potential and current patrons from using transit given the relative comfort and convenience inherent in a personal vehicle.

Delano currently offers 54 published bus stop locations. During the ride check evaluation period, several unique “flag” stop locations were observed illustrating the most common areas patrons requested for drop off/pick-up. Based on this data and the proposed rerouting/interlining of Delano’s current route network design we propose the installation of 18 new stops (Exhibit 4.5). Some stops are located adjacent to existing stop locations which are to be moved to match the proposed route alignments. Exhibit 4.6 shows 12 stops to be eliminated from the existing stop list. Reasons from elimination of these stops include low productivity, the relocation of another stop within the quarter-mile buffer (noted distance a pedestrian is willing to walk to a stop) from this current stop, and/or the route no longer travels down this route segment. Based on customer feedback, there was generally a lack of awareness of what the service offered. This may be addressed through an increase in service information made available at various stops.

Exhibit 4.5 Proposed Bus Stops

Proposed Stop Locations
11th Ave & Norwak
1603 Stradley Ave
20th and Princeton St
20th Ave and Kalibo St
20th Ave and Morningside Way
600 S Lexington St
Albany St & 14th Ave
Cecil Ave & Randolph St
Dover St & 1st ave
Ellington & Kernell Ave
Girard St and 19th Pl
High Street & 13th
Homer Harrison Apartments
La Vina Middle School
Norwalk St & Weaver Ave
Randolph St & 17th Pl
Sunnyview Apartments (pass the entrance)
Valley High School

Exhibit 4.6 Eliminated Bus Stops

Eliminated Stops
1313 Albany St.
1910 Garces Hwy
Cecil Ave & Madison St
Dover & 18th
Garces Hwy & Drover Pl
Princeton St & 20th Ave
Randolph & 20th
Randolph & 6th
Randolph & Cecil
Rite Aid
Save Mart/Inyo St.
State Market/Kensington

Facilities Element

Delano Corporate Yard is located at 725 South Lexington Street in Delano. The facility is suitable and well equipped for the size and operations of Delano Area Rapid Transit. The facility includes the City’s maintenance facility as well as the Compressed Natural Gas (CNG) Pump Station. The CNG Pump Station includes a quick fill station (available for public use) located in the front of the yard and a slow fill station located towards the back of the yard for City use only.

Located at 1120 Glenwood Street in Delano, the **Delano Transit Center** offers inter- and intra-city connections via Kern Regional Transit and Delano Area Rapid Transit. The facility is equipped with eight bus bays for both transit operators and is home to the City’s transit department and dispatch unit. Street and lot parking is available onsite.

CAPITAL PLAN

The Capital Plan (Exhibit 4.7) identifies cost figures for anticipated future improvements or capital purchases, recommendations included within the Capital Improvement Program, as well as improvements/capital purchases recommended to support proposed recommendations. For purposes of showing replacements in later years, we've extended the Capital Plan to show expenditures up to FY 2020.

To support the operational recommendations presented in the Capital Improvement Program, the consultant team prepared a comprehensive fleet replacement strategy which reflects a staggered approach toward replacing vehicles beyond the industry useful life standards.

Five-year capital expenses have been developed using the following assumptions:

- Implementation of recommendations would occur in Fiscal Year 2013;
- A two-percent annual inflation rate for vehicle costs and bus stop signage/equipment (baseline unit cost shown under FY 2012);
- Purchases of replacement vehicles would occur during the fiscal year identified in the Capital Improvement Plan (see Exhibit 4.4); and
- Additional capital expenses would be covered through grant funding.

Exhibit 4.7 Capital Plan

	FY 2011			FY 2012			FY 2013			FY 2014			FY 2015			FY 2016			FY 2017			FY 2018			FY 2019			FY 2020		
	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost	Number	Cost/Unit	Total Cost
Fleet																														
CNG Bus	1	\$300,000	\$300,000		\$304,500	\$0		\$309,068	\$0		\$313,704	\$0		\$318,409	\$0		\$323,185	\$0		\$328,033	\$0		\$332,953	\$0		\$337,948	\$0		\$343,017	\$0
Cutaway		\$75,000	\$0		\$76,125	\$0		\$77,267	\$0	5	\$78,426	\$392,129		\$79,602	\$0		\$80,796	\$0		\$82,008	\$0		\$83,238	\$0		\$84,487	\$0		\$85,754	\$0
Van (DAR and Fixed-Route)	6	\$42,774	\$256,645		\$43,416	\$0		\$44,067	\$0	1	\$44,728	\$44,728	3	\$45,399	\$136,197		\$46,080	\$0	3	\$46,771	\$140,313		\$47,473	\$0		\$48,185	\$0	6	\$48,908	\$293,445
Trolley		\$150,000	\$0		\$152,250	\$0		\$154,534	\$0		\$156,852	\$0		\$159,205	\$0	2	\$161,593	\$323,185		\$164,016	\$0		\$166,477	\$0		\$168,974	\$0		\$171,508	\$0
Director Vehicle/City Vehicles	1	\$18,000	\$18,000		\$18,270	\$0	1	\$18,544	\$18,544		\$18,822	\$0		\$19,105	\$0	2	\$19,391	\$38,782		\$19,682	\$0		\$19,977	\$0		\$20,277	\$0		\$20,581	\$0
Other Capital																														
Global Positioning System (GPS)		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Bus Surveillance		\$0	\$0	1	\$27,000	\$27,000		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Security Bus Camera		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Air Conditioning Recharging Units		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Bus Coverings		\$0	\$0	1	\$35,600	\$35,600		\$36,134	\$0		\$36,676	\$0		\$37,226	\$0		\$37,785	\$0		\$38,351	\$0		\$38,927	\$0		\$39,510	\$0		\$40,103	\$0
Portable Speedy Wash System		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Onboard Hand Rails		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Regular Power-Washing		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Subtotal	8	\$574,645	\$574,645	2	\$62,600	\$62,600	1	\$18,544	\$18,544	6	\$436,857	\$436,857	3	\$136,197	\$136,197	4	\$361,967	\$361,967	3	\$140,313	\$140,313	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0
Bus Stop Improvements																														
Bus Stop Signs		\$200	\$0		\$204	\$0		\$208	\$0		\$212	\$0		\$216	\$0		\$221	\$0		\$225	\$0		\$230	\$0		\$234	\$0		\$239	\$0
Info-Posts		\$250	\$0		\$255	\$0		\$260	\$0		\$265	\$0		\$271	\$0		\$276	\$0		\$282	\$0		\$287	\$0		\$293	\$0		\$299	\$0
Benches		\$300	\$0		\$306	\$0		\$312	\$0		\$318	\$0		\$325	\$0		\$331	\$0		\$338	\$0		\$345	\$0		\$351	\$0		\$359	\$0
Bench overhead covers		\$0	\$0		\$0	\$0		\$45,000	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Shelters		\$15,000	\$0		\$15,300	\$0		\$15,606	\$0		\$15,918	\$0		\$16,236	\$0		\$16,561	\$0		\$16,892	\$0		\$17,230	\$0		\$17,575	\$0		\$17,926	\$0
Bus Stop Location Maintenance		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Subtotal	0	\$0	\$0	0	\$0	\$0	0	\$45,000	\$45,000	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0
Technology																														
Laptops for transit		\$0	\$0		\$0	\$0	2	\$1,500	\$3,000		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Route Match for transit dispatch		\$0	\$0		\$0	\$0		\$49,000	\$49,000		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0
Subtotal	0	\$0	\$0	0	\$0	\$0	2	\$52,000	\$52,000	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0
Total	8	\$574,645	\$574,645	2	\$62,600	\$62,600	3	\$115,544	\$115,544	6	\$436,857	\$436,857	3	\$136,197	\$136,197	4	\$361,967	\$361,967	3	\$140,313	\$140,313	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0

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FINANCIAL PLAN

The Financial Plan forecasts those expenditures needed to implement the recommendations included within the Findings and Recommendations chapter (Chapter 3). These recommendations vary in scope from administrative, policy, and marketing amendments to capital purchases and the introduction of new routes. Therefore, they vary in cost significantly. The Plan also includes anticipated changes in user fees (fare revenue) as well as estimated funding from grant programs supporting the implementation of each proposed service alternative.

The Financial Plan is organized to follow the structure of the Findings and Recommendations chapter. Timeframes for implementation will be presented in addition to the fiscal impact and effects on performance metrics for the system.

Financial Plan (Status Quo – no changes to operating expenses)

Five-year operating expenses have been developed using the following assumptions:

1. Operational costs are based on agency-provided data (i.e., Operating Budget and TDA Fiscal Audit).
2. Fixed-route and dial-a-ride operating costs are forecast to increase at two percent per annum, based on historic performance.
3. Fixed-route ridership and fare revenue are projected to increase four percent per annum.
4. Dial-a-ride ridership and fare revenue are projected to increase three percent per annum.
5. Any operating expenses not covered through farebox recovery or grants (i.e., FTA Sections 5307) would be covered through local subsidy (i.e., Local Transportation Funds).

The subsequent financial plan represents the status quo for operations, as no changes to operating expenses are recommended. As illustrated by the following exhibits, we assume no change in farebox with an inflation rate of two-percent across the next five years. This is reflected in dial-a-ride figures as well, with the dial-a-ride table showing a less than two percent Farebox Recovery Ratio (FBR) over the next five years. As discussed in the Findings and Recommendations chapter, DART has failed to meet its FBR requirement of 10 percent across the past five years. As of the 2010 census, the City was designated a small urbanized area. This change in designation will require the City to meet a 20 percent FBR to meet the TDA-stipulated standard for small-urban funding recipients. The City will need to apply for Section 5307 funding instead of Section 5311 starting FY 2012/13.

Exhibit 4.8 Farebox Recovery (Fixed-Route)

	Cost	Passengers	Fare Revenue	Farebox Recovery
FY 2011/12	\$1,135,346	102,816	\$53,000	4.7%
FY 2012/13	\$1,158,053	104,872	\$54,000	4.7%
FY 2013/14	\$1,181,214	106,970	\$55,080	4.7%
FY 2014/15	\$1,204,838	109,109	\$56,182	4.7%
FY 2015/16	\$1,228,935	111,291	\$57,305	4.7%
FY 2016/17	\$1,253,513	113,517	\$58,451	4.7%

Exhibit 4.9 Farebox Recovery (Dial-A-Ride)

	Cost	Passengers	Fare Revenue	Farebox Recovery
FY 2011/12	\$283,836	17,607	\$5,000	1.8%
FY 2012/13	\$289,513	17,959	\$5,200	1.8%
FY 2013/14	\$295,303	18,319	\$5,304	1.8%
FY 2014/15	\$301,209	18,685	\$5,410	1.8%
FY 2015/16	\$307,234	19,059	\$5,518	1.8%
FY 2016/17	\$313,378	19,440	\$5,629	1.8%

All revenue sources are listed at the top of Exhibit 4.10, which include customer fares, federal operating grants, federal capital grants, and local subsidy from other revenue resources. As presented in Exhibit 4.10, in the event forecast revenue exceeds costs in a given year, the difference is included within the “Carryover” line item for the following year. All expenses are listed at the bottom of Exhibit 4.10, which include operations and capital outlay (i.e., vehicles, bus stop amenities, and facilities).

Exhibit 4.10 Financial Plan (Status Quo)

	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Revenues						
Rider Fares						
Fixed-Route (DART Bus fares and tickets)	\$53,000	\$54,000	\$55,080	\$56,182	\$57,305	\$58,451
Dial-A-Ride (to operator, ticket sales)	\$5,000	\$5,200	\$5,304	\$5,410	\$5,518	\$5,629
Total Rider Fares	\$58,000	\$59,200	\$60,384	\$61,592	\$62,824	\$64,080
Investment Earnings	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Revenue from the County - Transit Development Act	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
TDA Funds 1/4 cent sales tax (TDA)	\$1,108,130	\$1,583,300	\$1,630,799	\$1,679,723	\$1,730,115	\$1,782,018
TDA STAF OPP 6.5 (STA)	\$233,323	-	-	-	-	-
FTA Section 5311 - Operator Assist	\$118,000	-	-	-	-	-
FTA Section 5307	-	-	-	-	-	-
Proposition 1B (PTMISEA) - California Emergency Management Agency	-	-	-	-	-	-
Proposition 1B (PTMISEA) - Dept. of Transportation	-	-	-	-	-	-
Building Rentals	\$16,500	\$18,000	\$12,000	\$12,240	\$12,485	\$12,734
Passenger fare - County	\$600	\$600	\$600	\$600	\$600	\$600
Other Current Service Charges	-	-	-	-	-	-
Miscellaneous Revenues	-	-	-	-	-	-
Transfer in CDBG Fund	-	-	-	-	-	-
Subtotal	\$1,502,553	\$1,627,900	\$1,669,399	\$1,718,563	\$1,769,199	\$1,821,353
<i>Carryover</i>	-	\$2,003	\$225,400			
<i>Needed Discretionary Funds</i>	-	-				
Total Revenue	\$1,560,553	\$1,689,103	\$1,955,183	\$1,780,155	\$1,832,023	\$1,885,433
Expenditures						
<i>Operating Expenses</i>						
Total Operations	\$1,419,182	\$1,447,566	\$1,476,517	\$1,506,047	\$1,536,168	\$1,566,892
Capital Outlay	\$62,600	\$115,544	\$436,857	\$136,197	\$361,967	\$140,313
Debt Service	-	-	-	-	-	-
Total Expenditures	\$1,481,782	\$1,563,110	\$1,913,374	\$1,642,244	\$1,898,135	\$1,707,205

Source: City of Delano

Financial Plan (Expansion Scenario)

Five-year operating expenses have been developed using the following assumptions:

1. All recommendations outlined would be implemented beginning in FY 2012/13.
2. Operational costs are based on agency-provided data (i.e., Operating Budget and TDA Fiscal Audit).
3. Fixed-route and dial-a-ride operating costs are forecast to increase at two percent per annum, based on historic performance.
4. Fixed-route ridership and fare revenue are projected to increase four percent per annum.
5. Dial-a-ride ridership and fare revenue are projected to increase two percent per annum following the fare increase in FY 2013/14.
6. Fare increase to fixed-route and dial-a-ride fares would occur in FY 2013/14.
7. Any operating expenses not covered through farebox recovery or grants (i.e., FTA Sections 5307) would be covered through local subsidy (i.e., Local Transportation Funds).

Exhibit 4.11 summarizes the effects implementing these strategies would have on annual Vehicle Service Hours and operating cost. To show the fiscal impact, we provide the Impact on Farebox Recovery tables to display cost implications across the next five planning years.

Exhibit 4.11 Summary of Operating Costs (Expansion Scenario)

Recommendations	Current Service Hours		Recommendations Service Hours		Difference		Cost/VSH	Annual Operating Cost		
	Weekly	Annually	Weekly	Annually	Weekly	Annual		Current	Recommendations	Difference
Route 1	63	3,213	0	0	-63	-3,213	\$88.34	\$283,836	\$0	-\$283,836
Route 2	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Route 3	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Route 4	63	3,213	0	0	-63	-3,213		\$283,836	\$0	-\$283,836
Proposed										
Combined (Routes 1 and 3)	0	0	57	2,907	57	2,907	\$88.34	\$0	\$256,804	\$256,804
Combined (Routes 2 and 4)	0	0	57	2,907	57	2,907		\$0	\$256,804	\$256,804
Bakersfield Route	0	0	79	4,004	79	4,004		\$0	\$353,713	\$353,713
Expand Saturday Service	0	0	35	1,768	35	1,768		\$0	\$156,185	\$156,185
Reintroduce Sunday Service	0	0	7	364	7	364		\$0	\$32,156	\$32,156
Dial-A-Ride	63	3,213	63	3,213	0	0		\$283,836	\$283,836	\$0
Total	252	12,852	297	15,163	-252	-12,852		\$1,419,182	\$1,339,499	-\$79,683

The figures shown in Exhibits 4.12 and 4.13 are modest projections for fare revenue and ridership. Assuming all administrative recommendations (Recommendation 6) regarding reduction of fare evasion and enforcement of fare policies are implemented, we anticipate higher fare revenue and ridership generated than presented in the tables below, especially in FY 2013/14 when fare increases are scheduled to take place. Currently, the City yields 42-cent fare/passenger. This is relatively low when compared with like-peer operators. With the increase in fares, we expect at least a \$1.00 generated per passenger. As shown in the Exhibit 4.12, a 20-percent (fixed-route) and 10-percent (dial-a-ride) decline in ridership might occur from raising fares 50 percent and 43 percent, respectively. To ensure

the ridership decline remains modest effective marketing and promotion of the new routes (introduced in FY 2012/13) and use of fixed-route service is essential.

As shown in Exhibit 4.12, the Farebox Recovery Ratio is anticipated to increase starting in FY 2012/13 with the launch of the proposed Bakersfield Route and reinstatement of Saturday service, as well as the reduction in operating costs due to the interlining of Routes 1 and 3, and 2 and 4. The system should experience a decline of 50 percent in operating costs in response to the reduction of Routes 1, 2, 3, and 4. However, with the introduction of the new routes, we see operating costs increase. Note operating costs for these routes will not be incurred by the City as the City has received JARC federal monies to fund these proposed services (i.e., Bakersfield College service and Saturday Service).

Exhibit 4.12 Impact on Farebox Recovery (Fixed-Route)

	Cost	Passengers	Fare Revenue	Farebox Recovery
FY 2011/12	\$1,135,346	102,816	\$53,000	4.7%
FY 2012/13	\$899,478	95,600	\$54,000	6.0%
FY 2013/14	\$917,467	79,730	\$81,000	8.8%
FY 2014/15	\$935,817	82,920	\$84,240	9.0%
FY 2015/16	\$954,533	86,236	\$87,610	9.2%
FY 2016/17	\$973,624	89,686	\$91,114	9.4%

Exhibit 4.13 Impact on Farebox Recovery (Dial-A-Ride)

	Cost	Passengers	Fare Revenue	Farebox Recovery
FY 2011/12	\$283,836	17,607	\$5,000	1.8%
FY 2012/13	\$286,675	19,278	\$5,200	1.8%
FY 2013/14	\$292,408	17,697	\$7,426	2.5%
FY 2014/15	\$298,256	18,051	\$7,648	2.6%
FY 2015/16	\$304,222	18,412	\$7,878	2.6%
FY 2016/17	\$310,306	18,780	\$8,114	2.6%

All revenue sources are listed at the top of Exhibit 4.14. Revenue sources include customer fares, federal operating grants, federal capital grants, and local subsidy among other revenue resources. As presented in the following exhibit, in the event forecast revenue exceeds cost in a given year, the difference is included within the “Carryover” line item for the following year. All expenses are listed at the bottom of Exhibits 4.14. Factors contributing to increased operating cost include the implementation of the Bakersfield Route, reinstatement of Saturday service, and the reintroduction of Sunday service. However, this increase in operating cost is offset by the reduction in operating costs reflective of reductions in service frequency. Note “needed discretionary funds” represent a deficit of higher costs than revenue generated. We recommend the City apply for Sections 5307, CMAQ, JARC (FTA Section 5316), and New Freedom (FTA Section 5317) funding to minimize this gap and operate the new services. All expenses are listed at the bottom of Exhibit 4.14, which include operations and capital outlay (i.e., vehicles, bus stop amenities, and facilities). See Capital Plan (Exhibit 4.7) for more details.

Exhibit 4.14 Financial Plan (Expansion Scenario)

	FY 2011/12	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Revenues						
Rider Fares						
Fixed-Route (DART Bus fares and tickets)	\$53,000	\$54,000	\$81,000	\$84,240	\$87,610	\$91,114
Dial-A-Ride (to operator, ticket sales)	\$5,000	\$5,200	\$7,426	\$7,648	\$7,878	\$8,114
Total Rider Fares	\$58,000	\$59,200	\$88,426	\$91,888	\$95,487	\$99,228
Investment Earnings	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Revenue from the County - Transit Development Act	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
TDA Funds 1/4 cent sales tax (TDA)	\$1,108,130	\$1,583,300	\$1,630,799	\$1,679,723	\$1,730,115	\$1,782,018
TDA STAF OPP 6.5 (STA)	\$233,323	-	-	-	-	-
FTA Section 5311 - Operator Assist	\$118,000	-	-	-	-	-
FTA Section 5307	-	-	-	-	-	-
Proposition 1B (PTMISEA) - California Emergency Management Agency	-	-	-	-	-	-
Proposition 1B (PTMISEA) - Dept. of Transportation	-	-	-	-	-	-
Building Rentals	\$16,500	\$18,000	\$12,000	\$12,240	\$12,485	\$12,734
Passenger fare - County	\$600	\$600	\$600	\$600	\$600	\$600
Other Current Service Charges	-	-	-	-	-	-
Miscellaneous Revenues	-	-	-	-	-	-
Transfer in CDBG Fund	-	-	-	-	-	-
FTA Section 5316 (JARC)	-	\$247,298	-	-	-	-
Subtotal	\$1,502,553	\$1,875,198	\$1,669,399	\$1,718,563	\$1,769,199	\$1,821,353
Carryover	-	\$2,003	\$225,400			
Needed Discretionary Funds	-	-				
Total Revenue	\$1,560,553	\$1,936,401	\$1,983,225	\$1,810,451	\$1,864,687	\$1,920,581
Expenditures						
Operating Expenses						
Total Operations	\$1,419,182	\$1,186,153	\$1,209,876	\$1,234,073	\$1,258,755	\$1,283,930
Capital Outlay	\$62,600	\$115,544	\$436,857	\$136,197	\$361,967	\$140,313
Capital Improvements	-	-	-	-	-	-
Total Expenditures	\$1,481,782	\$1,301,697	\$1,646,733	\$1,370,270	\$1,620,722	\$1,424,243
Surplus/(Deficit)	\$78,771	\$634,704	\$336,492	\$440,181	\$243,965	\$496,338

Source: City of Delano

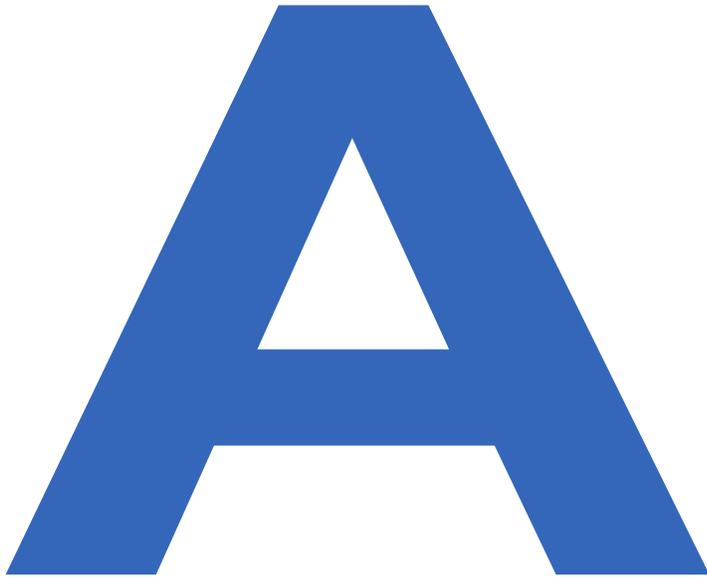
IMPLEMENTATION PLAN

The Implementation Plan presents a recommended schedule of those tasks anticipated to support introduction of the recommendations presented in Chapter 3, Findings and Recommendations. Each step offers a brief narrative detailing the required resources and probable allocation of the resources. This implementation plan highlights the Expansion Scenario, as the Status Quo recommends no operational, administrative, or capital improvements.

Exhibit 4.15 illustrates a projected timeline for implementation of these strategies. The timeline includes ongoing tasks such as marketing of the service and monitoring on-time performance.

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DEMOGRAPHIC
AND
DEMAND ANALYSIS

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APPENDIX A – DEMOGRAPHIC AND DEMAND ANALYSIS

This section presents an analysis of population, demographic, and economic data so as to form an objective profile of Delano’s resident population. The profile will be utilized to codify current and forecast future demand for public transit, as well as illustrate local and regional travel patterns. The section is divided into a number of related discussions including population, social, housing and economic profiles, and trip generators and land use.

Population

Located 31 miles north of Bakersfield, Delano is in the heart of California’s agriculture industry. It is home to over 53,000 residents, of which more than 10,000 are incarcerated at either North Kern State Prison or Kern Valley State Prison. Although Kern County’s population increased by 29 percent across the past decade, it was outpaced by Delano’s growth of 38 percent. Exhibit A.1 shows the population growth for California, Kern County, and the City of Delano from 2000 to 2010. The City’s population gain of 14,217 residents from 2000 to 2010 can be partially attributed to an increase in the incarcerated population from 4,982 to 10,719, a net gain of 5,737. The population increase may also reflect the significant number of seasonal agricultural workers recorded in Delano during the 2010 census. Calculating growth where X is population (2000 and 2010) and Y is years, we forecast growth at a percent change of 36.6 percent. Assuming the population growth trend remains the same across the next ten years, we forecast Delano’s 2020 population at 72,464. Post Census 2010, Delano is now a small urbanized area per the Federal Transit Administration (FTA).

Exhibit A.1 Population Growth

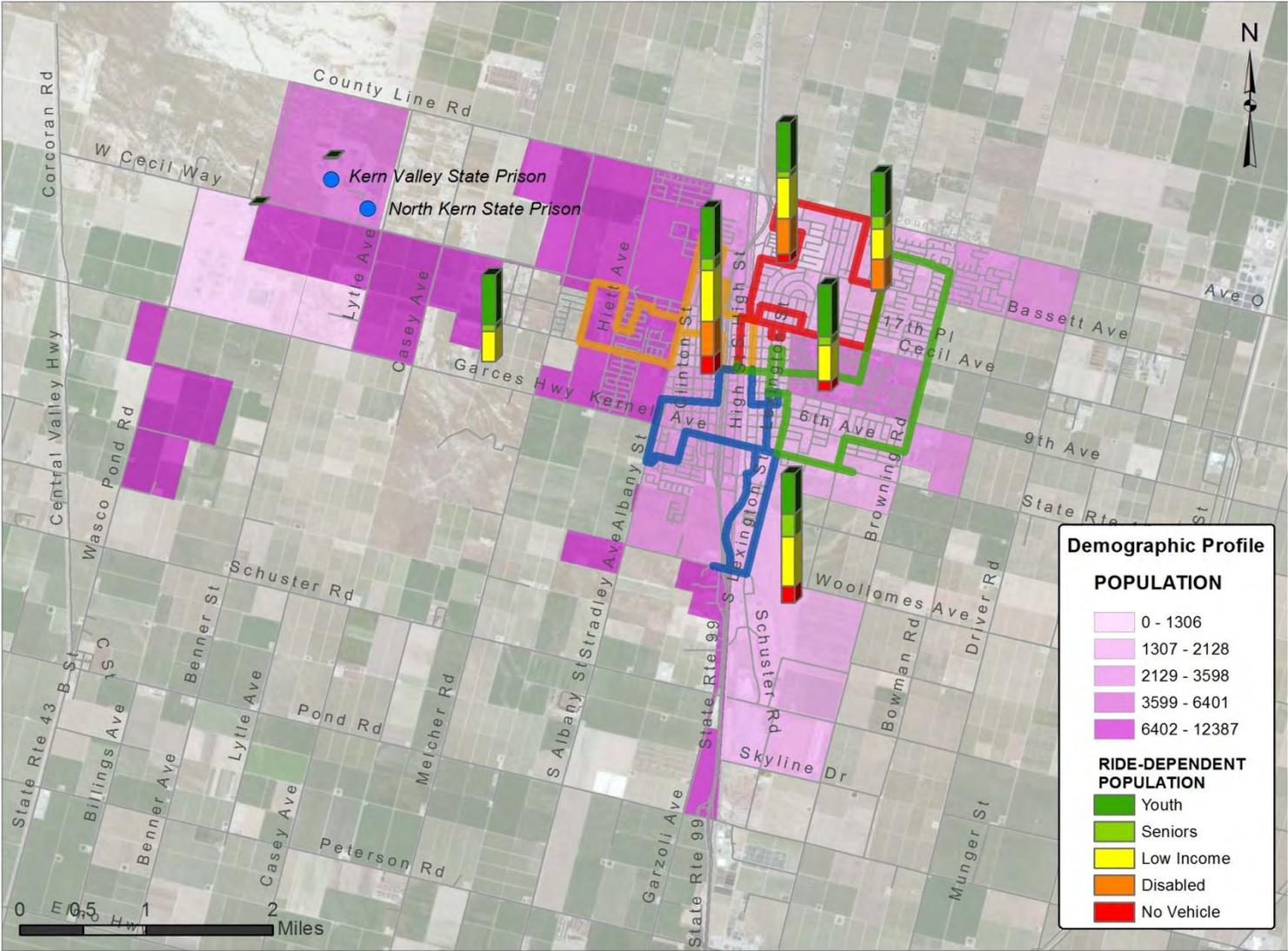
	2000	2010	2020	Percent Change
Delano	38,824	53,041	72,464	36.6%
Kern County	661,645	839,631	1,065,496	26.9%
California	33,871,648	37,253,956	40,974,010	10.0%

Source: U.S. Census Bureau.

Exhibit A.2 illustrates Census 2010 population by census tract with an overlay of the current fixed-route transit alignments. Census tracts are small, relatively permanent statistical subdivisions of a county. Census tracts are delineated for most metropolitan areas (MA’s) and other densely populated counties. As shown on the map, these populations are evenly distributed throughout the city, with the exception of the western census tracts. This discrepancy is largely a result of the prison population (more than 10,000 inmates between Kern Valley State Prison and North Kern State Prison) which skews demographic data within the respective census tract. The city center, or area surrounding Delano’s historic downtown includes the largest non-institutionalized population, and is served by the four transit fixed-routes as well as the dial-a-ride service.

The southern and eastern areas reflect lesser population levels as they are zoned for single-family homes as well as agricultural and industrial land-uses. These areas are served by the City’s transit Routes 2 and 4.

Exhibit A.2 Population by Census Block Groups



Sources: U.S. Census Bureau

Population Profile and Existing Service

Exhibit A.3 highlights service area population figures as well as total unlinked trips (ridership), trips/capita, and Vehicle Service Hours (VSH) for Delano and its peers. The peer review provides a relative measure for evaluating Delano’s public transit performance versus demography in comparison to its neighbors. As shown below, Delano Area Rapid Transit (DART) has the highest system-wide ridership, yet produces fewer trips/capita than its counterpart Taft, whose population is less than half of Delano’s. Similar to Delano, Taft provides fixed-route intracity services as well as dial-a-ride service within its city boundaries. Ridgecrest and Shafter both offer intracity dial-a-ride services with additional fixed-route service provided by Kern Regional Transit, the County’s public transit service operator. As shown in Exhibit A.3, Ridgecrest’s ratio of trips per capita is one-to-one, while Shafter yields roughly two trips per person. This is slightly higher than Delano, whose population is almost three times greater than Shafter’s, suggesting either a higher demand for service exists in Shafter or a greater need for enhanced transit service in Delano.

Exhibit A.3 Peer Review Characteristics

Measure	Delano	Arvin	Ridgecrest	Taft	Shafter	Average
Service Area Population (2011)*	53,041	19,596	27,768	9,321	17,283	25,402
Total Unlinked Trips (2009-11)	102,825	41,750	27,478	38,273	34,230	57,029
Trips/Capita	1.9	2.1	1.0	4.1	2.0	2.2
Total Vehicle Service Hours	12,720	5,161	6,524	7,454	3,416	7,055

* Service Area Population data taken from 2011 California Department of Finance E-1 data sets. Unlinked Trip figures reflect data from 2009 to 2011.

Ride-Dependent Populations

Ride-dependent populations can be defined as individuals who, for one reason or another, do not have the ability to transport themselves and therefore rely on other persons or means (i.e., public transit) for basic mobility. Ride-dependent groups historically include low-income individuals (households of four earning an income less than \$23,018), seniors (60 years and older), youth (6 to 17 years old), persons with disabilities, and individuals with limited or no access to a personal vehicle. Based on Census’ delineation of age brackets, youth will be considered persons between the ages of 5 and 17.

Exhibit A.4 presents Census 2000 and 2010 data for ride-dependent populations within Delano. As shown below, two population groups experienced growth throughout the ten-year period: youth and seniors. The youth population more than doubled (155 percent) across the last decade and comprised approximately 20 percent of the total population. According to 2010 Census, the senior population increased more than six percent, while persons with disabilities, low-income households, and persons with limited access to a personal vehicle decreased. During this time period, it appears most Delano households acquired at least one vehicle, as observed by the almost 25 percent decrease in households without a vehicle. While this shift in vehicle ownership may reflect the possible uptick in the economy, it is surprising given the substantial increase in unemployment experienced during the 10-year period possibly affecting annual incomes earned. The declining trend for these three population groups in addition to the decrease in “no vehicle” households substantiates the need for enhancing public transit

within Delano in order to motivate residents to use transit as a reliable alternative to the single-occupant vehicle.

As to be discussed in Appendix C of the report, ride checks (i.e., on-time performance and ridership assessments onboard DART vehicles) conducted during this project identified high rider activity at or near schools (especially on Route 4). Based on this data, it can be inferred that students account for a substantial amount of riders on these routes. Considering the dramatic increase in youth population reported by the 2010 Census, Delano should consider reviewing their current services to ensure student/youth mobility needs are being met. If marketed appropriately Delano should expect to see a rise in ridership for this demographic.

Exhibit A.4 Ride-Dependent Population Estimates

Population Group	2000		2010		Percent Change
	Number	Share of Population	Number	Share of Population	2000-2010
Youth (ages 6 to 17)	4,256	10.96%	10,866	20.49%	155.3%
Seniors (60 and over)	4,523	11.65%	4,808	9.06%	6.3%
Persons with a disability	7,369	18.98%	4,319	8.14%	-41.4%
Low-Income Households	3,760	9.68%	3,540	6.67%	-5.9%
Persons with no vehicle access	1,228	3.16%	925	1.74%	-24.7%
Delano Total	38,824	100.00%	53,041	100.00%	36.6%

Source: 2010 Census and ACS data (2008-2010 estimates)

Note that the American Community Survey (ACS) is an ongoing statistical survey conducted annually by the Census Bureau to provide communities with current population, demographics, and housing unit estimates for planning investments and/or services within their communities.

Social Profile

According to the 2010 American Community Survey, the median age in Delano of 28 is notably lower than the median age of both the county and state (Exhibit A.4). Although Delano has experienced high levels of unemployment, this age group is typically associated with being more career-focused. With Delano’s economy on the upswing, transit services should focus on providing services which follow a more commuter-centric trend to attract this audience of riders. Therefore the City should focus on increasing accessibility to vocational training, employment centers, and business parks to ensure that job-seeking professionals have ample access to employment opportunities. Additionally, the City might consider expanding its services to neighboring communities to promote intercity travel and increase employment opportunities for its residents.

A comparison of the education level to the county and state shows Delano has a considerably larger percentage of residents without a high school degree over the age of 25. Lower educational attainment typically translates to lower-income earned. As shown by Census estimates, the number of low-income

households has decreased slightly across the past ten years. However, the Census also indicates a large proportion of individuals living below the poverty level (12,525 individuals).

Exhibit A.5 Social Demographics

Median Age		Education		
		Percentage Over 25 without High School Diploma	Percentage High School Graduate	Percentage Bachelors Degree or Higher
Delano	28.5	46.1%	26.8%	6.6%
Kern County	30.7	28.5%	25.2%	14.7%
California	35.2	18.4%	20.2%	30.9%

Source: 2010 Census and ACS 2008-2010 estimates

Housing Profile

Exhibit A.6 compares Delano’s housing profile with that of the county and state. As shown in the table, housing and rental costs are slightly lower in Delano than the rest of the county. However, they are significantly lower than the average state costs. Housing expenditures show a similar trend as residents contribute more of their total monthly income to mortgage or rental costs. This could be a result of the high population of low-income individuals within Delano. Families have little latitude when budgeting for housing costs as these are market-driven. Transportation expenditures are often reduced to offset housing costs by reducing the number of vehicles and utilizing alternative transportation options such as transit, walking, and ridesharing. Given the relatively high housing cost as a percentage of income within Delano, existing transit service provides a feasible solution to reducing monthly costs incurred with travel expenses (i.e., fuel, vehicle maintenance, etc.).

Exhibit A.6 Housing Characteristics

Median Rooms per Structure		Owner-Occupied		Renter-Occupied	
		Median Value	Mortgage Costs Greater Than 35% of Monthly Income	Median Rent	Rental Costs Greater Than 35% of Monthly Income
Delano	5.3	161,300	51.9%	722	61.2%
Kern County	5.2	164,200	43.0%	821	56.9%
California	5.1	370,900	51.2%	1163	57.2%

Source: ACS 2008-2010 estimates

Economic Profile

Based on ACS estimates Delano’s unemployment rate was comparable to county and state unemployment averages in 2010. However, as of January 2012 the Bureau of Labor Statistics reports that Delano’s unemployment rate stands at 15 percent. For data-computing accuracies and consistency with County and State estimates, analysis will reflect 2010 ACS estimates. Given the number of seasonal agricultural employees in the area, the unemployment rate may actually be higher than presented in the

data. These positions typically yield lower wages than full time year-round employment, which may be reflected by higher percentage of individuals receiving public assistance and lower median household income presented Exhibit A.7.

The number of Delano residents carpooling is significantly higher than the county and state averages. This could be due to the large number of agricultural workers (35.4 percent of the labor force) employed in Delano. These individuals tend to work in areas either outside the city core or with infrequent transit service. This same reason could explain the low number of residents utilizing public transit as reported by the 2010 Census. Although the number of individuals driving alone is high, it is still much lower than the county and state. However, this figure indicates a high single-occupant vehicle dependency and corroborates the need for enhancing public transit within Delano to attract this demographic. With more residents choosing to use their personal vehicle as their primary means of transportation, importance should be placed on developing or increasing the reliability of transit services to mitigate single-occupant vehicle use. To be discussed in the Service Evaluation section (Appendix C), reliable transportation (considered as being on-time, convenient, and cost-effective) is significant to ensuring that the mobility needs of Delano’s ride-dependent populations and the public at-large are being met.

Exhibit A.7 Economic Characteristics

	Percentage Unemployed	Commute				Income				
		Drive Alone	Carpool	Public Transit	Walked	Median Household Income	Social Security Income	Public Assistance Income	Median Family Income	Per Capita Income
Delano	12.7%	63.5%	30.3%	0.6%	2.2%	34,096	22.6%	9.1%	34,433	9,920
Kern County	14.6%	75.1%	15.7%	1.0%	2.4%	45,524	27.2%	7.5%	49,403	19,077
California	12.8%	73.2%	11.5%	5.2%	2.7%	57,708	25.1%	4.0%	65,481	27,353

Source: ACS 2008-2010 estimates

Major employment centers in Delano are presented in Exhibit A.8 with the largest employer being the Kern Valley State Prison with 1,700 employees, followed closely by the North Kern State Prison with 1,606 employees. Aside from the prisons, major employer industries include agriculture, healthcare, retail trade, and education. According to the 2010 Census, 2,730 persons employed in Delano work in the Agriculture, Forestry, Fishing and Hunting industry while 1,344 work in the Healthcare and Social Assistance industry. The Retail Trade industry was found to employ 1,339 people in Delano while Educational Services employed 1,213 people. Understanding employment trends assists with determining travel patterns of Delano’s labor force, hence providing valuable insight as to where demand and need exist.

Exhibit A.8 Top Employers in Delano

Company	Employment	Product/Service
Kern Valley State Prison	1,700	Correctional Facility
North Kern State Prison	1,606	Correctional Facility
Delano Union Elementary School District	750	Education
Delano Regional Medical Center	535	Hospital
Paramount Citrus Association	525	Processing Center
Delano Joint Union High School District	450	Education
Vallarta Supermarkets	349	Grocery Store
City of Delano	336	Government
Sears Logistics	328	Distribution Center
Delano District Skilled Nursing Facility	173	Convalescent Home
Kmart	150	Retail
Railex	117	Transload Distribution Center

Source: City of Delano Economic Development, 2011

Trip Generators and Route Assessment

Exhibit A.9 illustrates the key trip generators in the city as well as an overlay of existing transit service coverage. Some trip generators include the top employers identified in the previous discussion, as well as popular retail and shopping centers, education and healthcare facilities, government offices, and recreation destinations.

Neither of the city’s two largest employers, Kern Valley State Prison and North Kern State Prison, is served by DART. The prisons, both located in the far northwest corner of the city, are nearest to the area served by Route 4. The route travels 2.5 miles from North Kern State Prison and 3.5 miles from Kern Valley State Prison. Extending the route to service both facilities would require approximately nine miles of additional vehicle service per roundtrip.

Each of the four major educational centers (Delano High School, Cesar E. Chavez High School, Robert F. Kennedy High School, and the Delano campus of Bakersfield College) is directly served by a DART route.

The Delano Regional Medical Center, which is a major employer and a trip generator for patrons, is served by Route 1.

Important government facilities, including Delano City Hall, the Delano Police Department, Kern County Superior Court, and the Department of Motor Vehicles, are within two blocks of transit service.

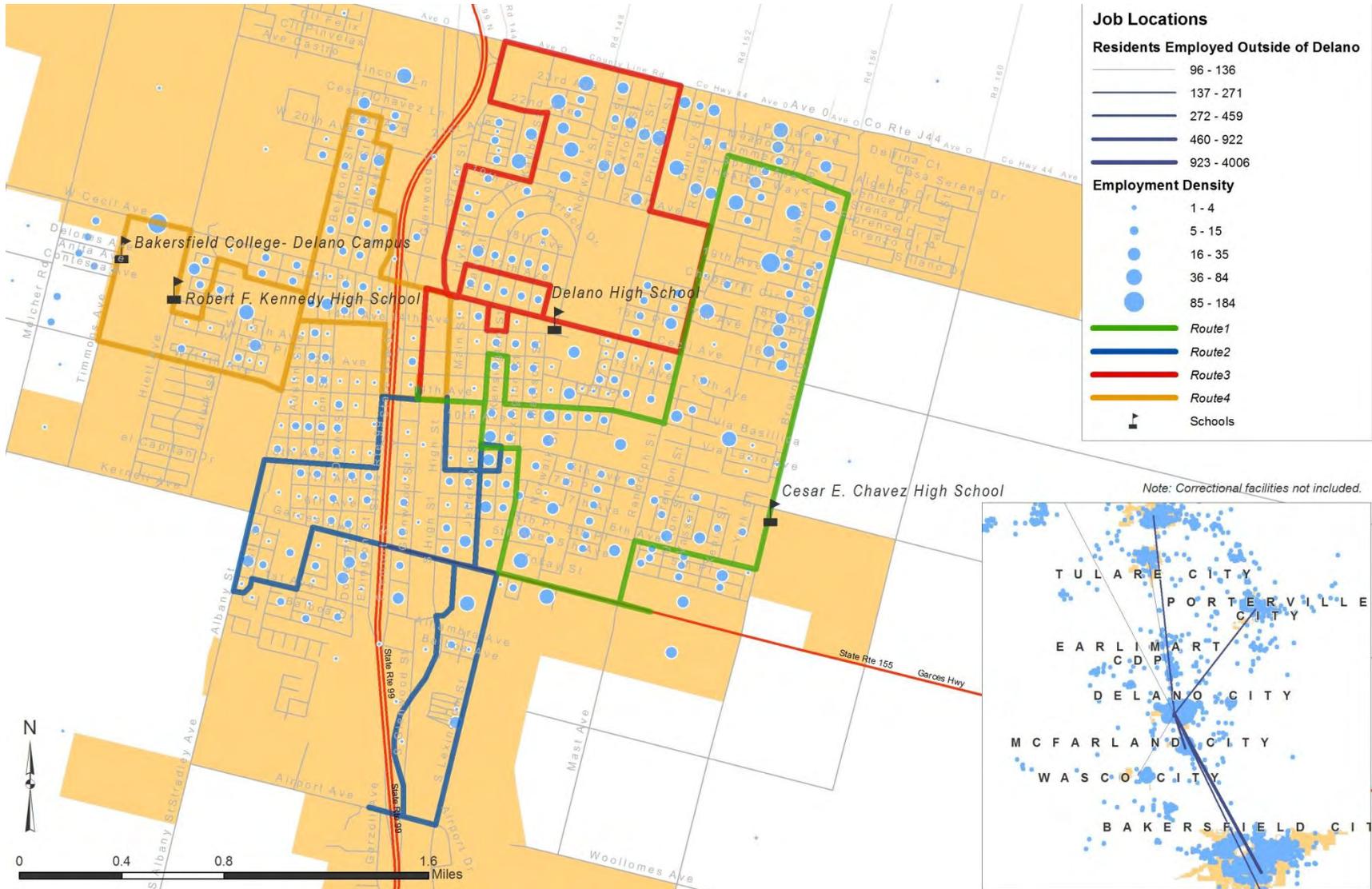
Community gathering places are generally well served by transit. The Delano Community Center, Filipino Community Council Recreation Center, and Jefferson Senior Center all have bus stops directly adjacent to a DART route.

Popular retail and shopping centers are generally served by transit as well. Cecil Avenue, which is lined with commercial establishments including supermarkets and other retail from Route 99 to Randolph

Street, is serviced by lines 3 and 4. Other popular retail destinations such as K-Mart and the Vallarta Supermarket location on Jefferson St are served as well. The planned “Delano Marketplace”, a 45 acre shopping center anchored by a Wal-Mart Supercenter and adjacent to a Home Depot with existing DART service, will become a major trip generator upon opening.

Additionally, the inset in Exhibit A.9 illustrates the job distribution at a county scale. According to 2009 Longitudinal Employer-Households Dynamics data, 39.3-percent of Delano residents work within the city, while 9.1- and 4.5-percent work in Bakersfield and McFarland, respectively. This indicates a demand for intercity commuter service, since current connections to Bakersfield and McFarland are made via Kern Regional Transit (KRT).

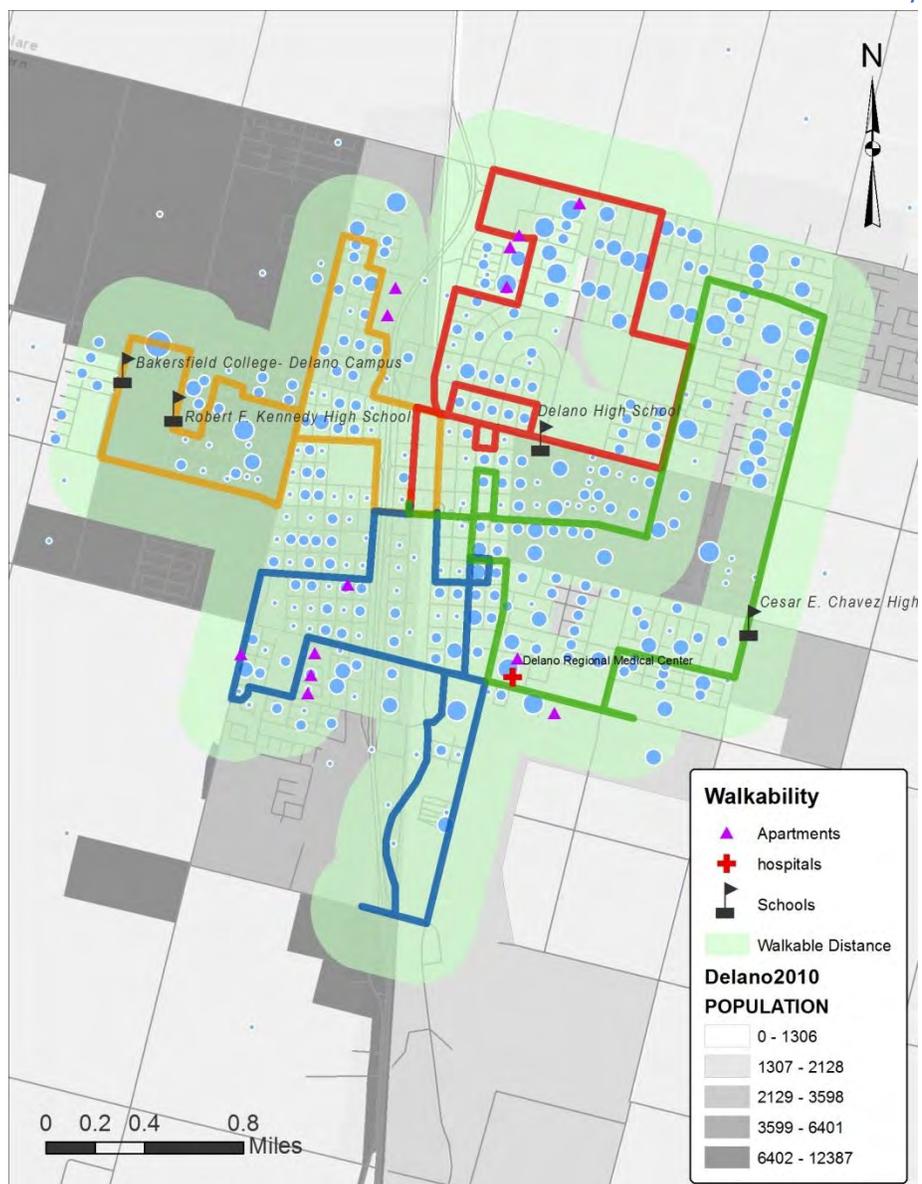
Exhibit A.9 Major Trip Generators



Walkability

Exhibit A.10 illustrates walkability within Delano as it relates to public transit. The map depicts current route alignments as well as local businesses, schools, hospitals, and multi-family residences. This exhibit builds upon Exhibit 3.9 in that it provides a quarter-mile buffer (industry standard for walkable distance) around each route as well as the 2010 population by census block group. Based solely on geographic location, DART provides service to most major residential and commercial uses within the city, excluding the prisons. However, given low ridership, it appears the service is lacking in some aspects, which deters potential riders. Based on service evaluations performed for this Plan (see Appendix C) we found the system can be unreliable and may benefit from fundamental improvements to operating procedures.

Exhibit A.10 Walkability

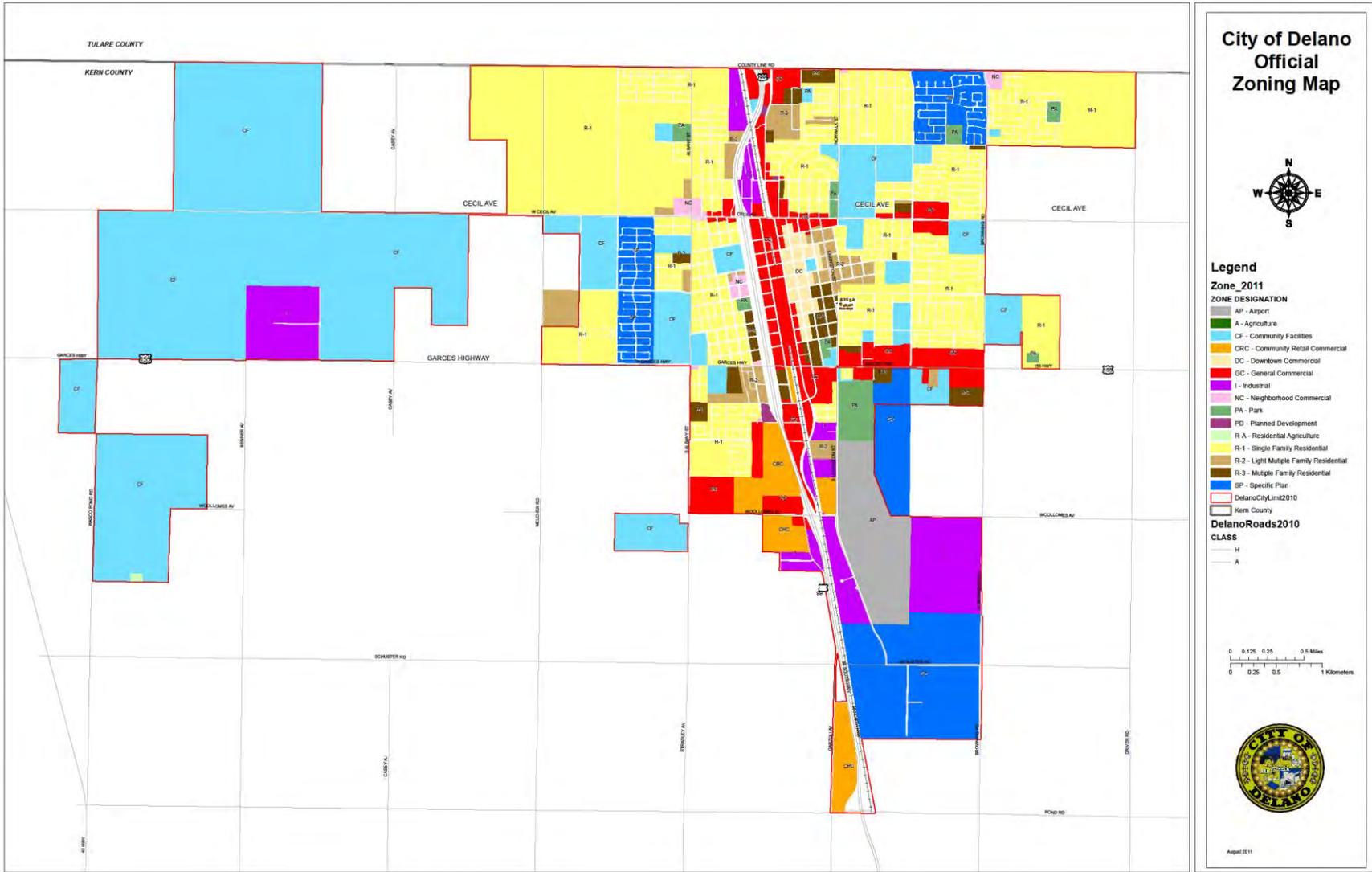


Zoning

Transit is often dictated by a city's land-use patterns, focusing on residential and commercial centers in order to provide the most efficient and effective service possible. As illustrated in Exhibit A.11 which outlines the City's current zoning, the majority of residential and commercial uses are focused along State Route 99, with much of the residential spreading both east and west at the northern limits of Delano. Currently, these areas are relatively well served by transit; however, future development is planned along Woollomes Avenue and Dover Parkway. Among the initial tenants are Wal-Mart, Lowes, and Home Depot (already active), as well as a number of restaurants and approximately 269 single-family homes. The proposed development represents sizeable future demand for transit service. As businesses and homes are completed, we recommend assigning routes to the area to ensure residents have access to the site.

The regions to the west, which are primarily zoned for Community Facilities, contain the water treatment facility as well as both the Kern Valley State Prison and the North Kern State Prison. Although currently there is a lack of transit serving these facilities, potential demand was identified through employer outreach. The Kern Valley State Prison alone provides employment to more than 1,000 workers, and expansion of transit services to the prisons has the potential of increasing Delano's fixed-route ridership substantially. Moving forward, route alternatives (i.e., expansion of Route 4) or the addition of a new route to this west region in Delano should be explored.

Exhibit A.11 Zoning



B

PUBLIC
INVOLVEMENT

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APPENDIX B – PUBLIC INVOLVEMENT

In planning, the importance of public involvement cannot be understated. Input from the general public gives transit providers insight into those locations in the city that warrant demand, and present transit agencies with an indication of where shortcomings of the overall system exist. For the purpose of the Transportation Development Plan (TDP), numerous public outreach efforts were pursued. Key stakeholders were identified and targeted to provide insight for the development of public transportation in Delano. Outreach efforts were conducted at various points throughout the project to gain a more representative sample of public input.

This section discusses the methodology used and outcome of all community outreach efforts conducted for the Plan. There are five sections presented, each reflecting a different outreach effort. Sections are as follows:

1. Onboard Customer Survey Analysis,
2. Community Survey Analysis,
3. Dial-A-Ride Survey Analysis,
4. Employer Survey, and
5. Focus Groups and Stakeholder Interview.

B.1 ONBOARD CUSTOMER SURVEY ANALYSIS

Methodology

This section is an analysis of the results of the onboard customer survey collected from January 10 through January 13, 2012. The surveys were collected concurrently with ride checks onboard Delano Area Rapid Transit's (DART) four fixed-routes. In total, 165 valid responses were collected.

The survey was administered during school days and throughout all service day-parts (morning, mid-day, and afternoon). Both English and Spanish versions of the survey were printed to accommodate Spanish speakers. Surveyors were positioned near the front of the bus to collect boarding and alighting counts as well as facilitate survey distribution and collection. Each passenger over the age of 16 who took the survey was provided a clipboard and pen. Passengers were also offered a postage-paid envelope to return the survey at a later date if time spent onboard the bus was insufficient for survey completion. In addition, surveyors offered to assist passengers with filling out the survey form (i.e., interview) in the event bus riders were unable to complete the survey on their own, either because of language barriers or illiteracy. To ensure all riders had an opportunity to participate in the survey, most surveyors were bilingual (English/Spanish) speakers.

Once all survey data was gleaned, Moore & Associate's staff validated all surveys and entered the data into a Statistical Package for the Social Sciences (SPSS) software database. After the data was cleaned, simple frequencies and initial cross-tabulations were generated. Lastly, all processed data was exported to Microsoft Excel to generate charts and graphs for data analysis.

Findings

The following summarizes the results from the onboard customer surveys. The detailed data are illustrated in Appendix D.

Respondent Profile. The survey included voluntary questions regarding respondent demographic, economic, and household characteristics. These characteristics make up the profile of typical DART bus riders.

- Approximately 29 percent of survey respondents were of the age group *26-44 years*. Age groups *17-25 years* and *60 years or older* each made up approximately 23 percent, while 45-59 and 16 or younger accounted for 15.4 and 8.5 percent of the respondents respectively.
- Nearly 13 percent of respondents were *employed full-time*, 19 percent were employed *part-time* and 12.1 percent were *full-time students*, while over 30 percent were *unemployed*.
- More than 92 percent of respondents lived in a low-income household earning less than \$25,000 annually.

Exhibit B.1.1 illustrates the level of ride-dependency of the surveyed DART fixed-route riders. For the purpose of this report, ride-dependency is defined as persons who lack the ability to transport themselves and therefore must rely primarily on other people or services (i.e., public transit) for their mobility needs. Industry research has found ride-dependent populations historically include persons with disabilities, seniors, youth, low-income individuals, and those lacking access to a personal vehicle.

To analyze the ride-dependency of current bus riders, respondent information was compiled from several questions on the survey instrument. Exhibit B.1.1 shows the demographic breakdown of survey respondents.

Exhibit B.1.1 Transit-Dependency Matrix

Category	Percent of Respondents
Low-income	92.2%
No access to a personal vehicle	78.0%
Lack of other travel options	60.3%
Students	15.8%
Seniors and Persons with Disabilities	18.4%
Unemployed	30.5%
Youth	1.9%

Use of Transit Services. The survey questionnaire included a set of questions regarding the respondent’s length of time riding DART services, frequency of use, reason for riding or choosing the bus, and alternative mobility options if bus was not available.

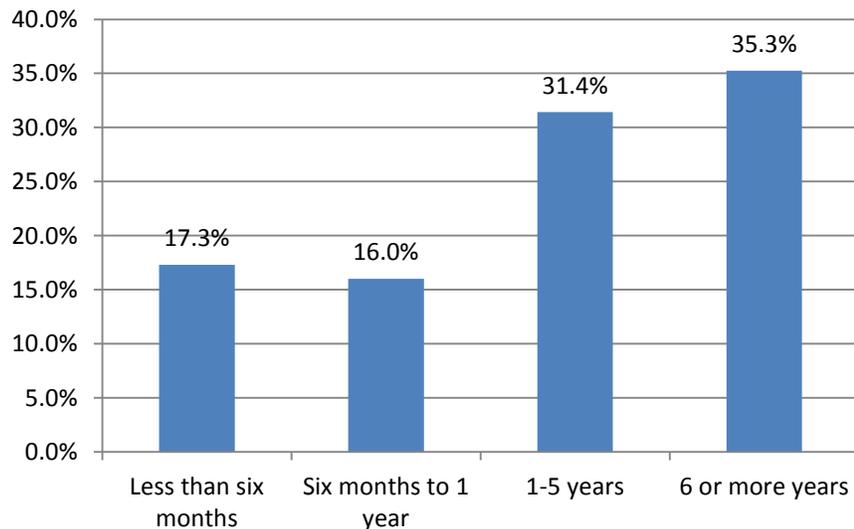
- Most respondents stated they have been riding DART services for six or more years (35.3 percent), while 17.3 percent had been riding less than six months.
- Approximately 42 percent of respondents ride the bus more than five times per week.

- Most respondents chose to ride the bus because of *lack of other travel options* (60.3 percent) or the *cost of service* (23.1 percent).
- If the bus were not available, 57.2 percent of respondents stated they would *walk or bicycle* to complete the surveyed trip, while about 32 percent of respondents would either *not make the trip* (17.6 percent), or take a *taxi* (14.5 percent).

The ridership demographics as noted by respondents indicate a relatively ride-dependent ridership base given the high percentage of low-income riders as well as those with no access to a personal vehicle. These findings are surprising however, given the extremely low level of public transit ridership reported in the 2007-2010 American Community Survey (ACS) (Exhibit A.7). This indicates there are few “choice riders” (those who have means of transportation outside of public transit), using the system.

The majority of surveyed riders (35.3 percent) have been DART customers for more than six years, while more than 17 percent are new riders. Although new riders comprise a smaller share of surveyed respondents, this figure suggests DART’s ridership-base is attracting new riders as the service currently stands. Data presented in Service Evaluation section further supports this claim, as fixed-route ridership grew nearly 40 percent in FY 2010/2011.

Exhibit B.1.2 Length of Patronage



Trip Characteristics. Questions pertaining to the surveyed trip included fare media used, mode of travel to/from bus stop, and trip purpose (i.e., school, work, social, recreational, etc.). These responses are intended to describe the average rider’s typical trip on DART buses.

- *Adult* was the fare category stated most often at 63.9 percent, followed by *senior* and *person with disability*, and *student* at 18.4 and 15.8 percent, respectively.
- As shown in Exhibit B.1.3, the most common trip purpose was *shopping* (29.6 percent), followed by *other* (22.1 percent), and then *school* (14.7 percent).

Exhibit B.1.3 Trip Purpose

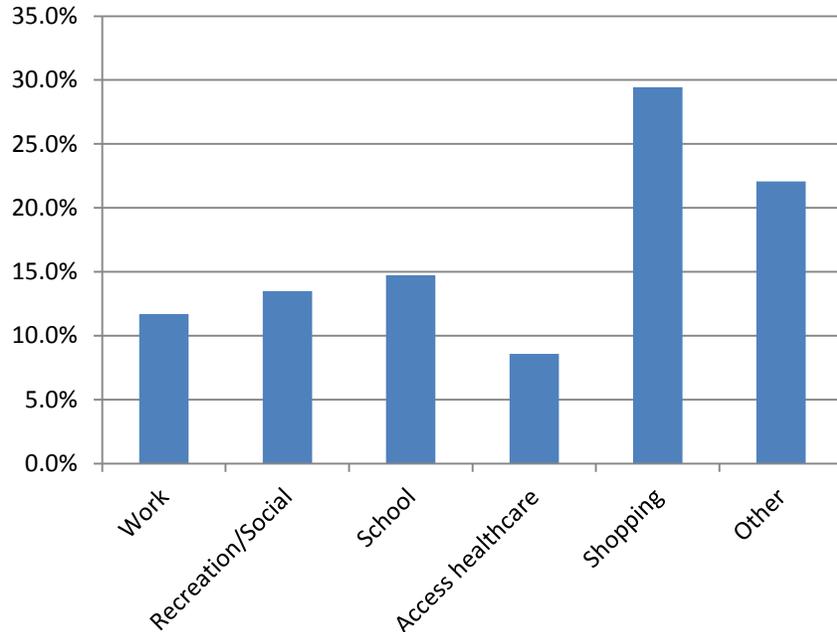
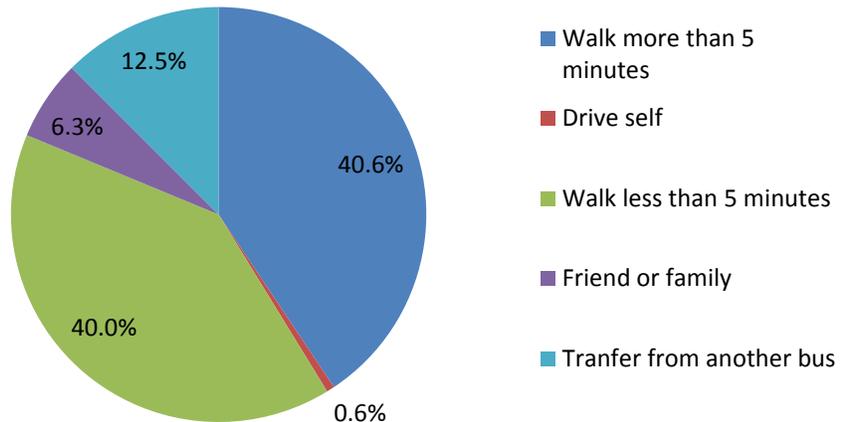


Exhibit B.1.4 illustrates respondent’s reported mode of travel to bus stops. Both *walking more than five minutes* and *less than five minutes* were the most common modes selected at roughly 40 percent each. *Transferring from another bus* was the next most common selection at 12.5 percent. Similar to the mode of travel to the bus stop, most respondents cited walking (76.9 percent) to get to their final destination after alighting the bus.

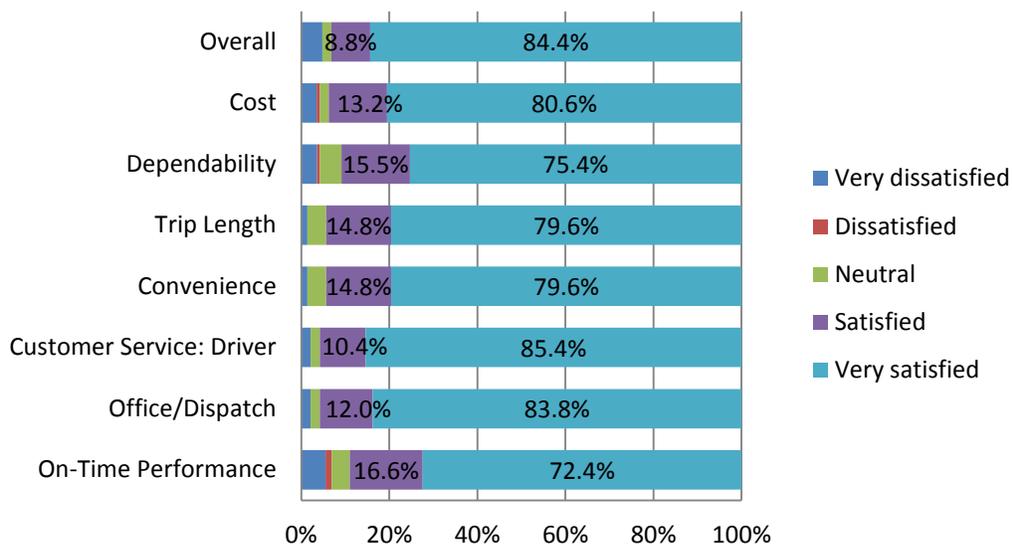
Exhibit B.1.4 Mode of Travel to Bus Stop



Customer Satisfaction. Respondents were asked to rank (on a scale from 1 to 5, where 1 is *very dissatisfied* and 5 is *very satisfied*) several service attributes from *very satisfied* to *very dissatisfied*. Respondents were then asked to select a transit service improvement and whether they would support a fare increase to implement that improvement.

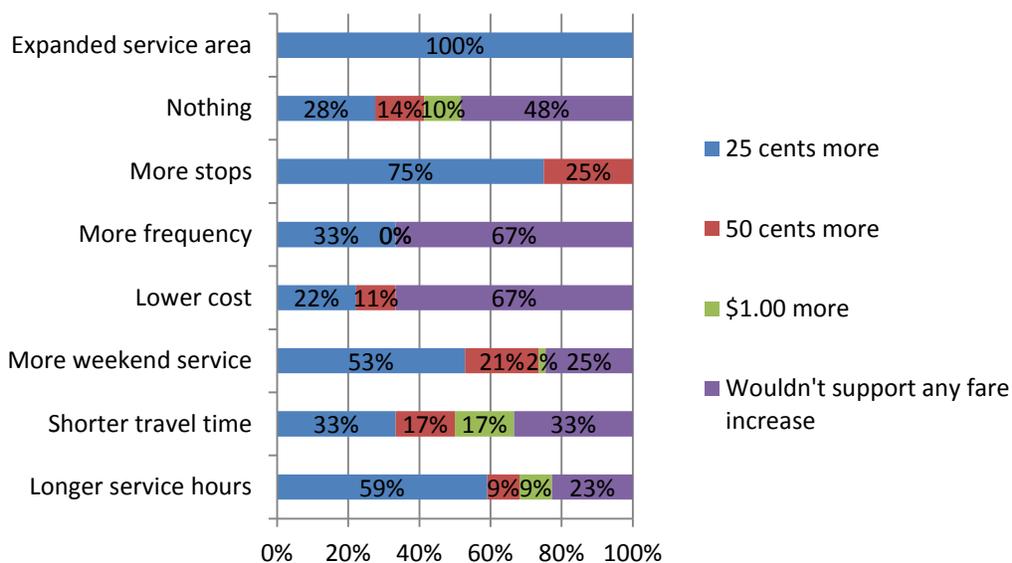
- As illustrated in Exhibit B.1.5, respondents were generally *very satisfied* with DART services, with more than 72 percent ranking the listed service attributes four or five on the satisfaction scale. *Customer service: Driver*, or driver courtesy, was marked highest in satisfaction.
- The highest level of dissatisfaction was with *on-time performance*. Conversely, more than 89 percent of respondents were *satisfied or very satisfied* with this service attribute. Although dissatisfied customers comprised less than 20 percent of surveyed riders, ride checks revealed DART's system-wide on-time performance was 67 percent. At best, DART's on-time performance peaked at 71 percent during the morning hours. As discussed in Appendix C – Service Evaluation, industry standards suggest a 90 to 95-percent on-time performance for peak-hour service. The current DART system does not meet this standard.

Exhibit B.1.5 Customer Satisfaction



The following exhibit illustrates the percent of patrons willing to pay above the current fare structure to implement a preferred service enhancement. Surveyed riders indicated a willingness to pay as much as \$1.00 for *shorter travel time* (17 percent), *longer service hours* (nine percent), and/or *more weekend service* (two percent). This finding reflects a mobility need currently not being met or satisfied by DART for current riders. A hundred percent of surveyed riders were willing to pay an additional 25 cents to *expand service to areas* currently underserved or unserved.

Exhibit B.1.6 Service Enhancement by Fare Increase



Analysis of Key Findings

The majority of customers of the DART fixed-route and commuter services are in the adult age range, low-income, and unemployed. An assessment of ride-dependent demographics suggests a large percentage of DART riders either do not have other mobility options or rely on transit services due to personal financial conditions. This could result in increasing or decreasing ridership levels depending on the current economic climate and other factors such as the cost of fuel.

Findings show most respondents frequent the service *five or more times per week* and have patronized DART for the past six years. Of this share of riders, 33.5 percent request *more weekend service* and *longer service hours*. A significant share indicated the service meets their mobility needs, with fewer than 23 percent indicating the service needs no enhancements. When asked their level of satisfaction with seven service attributes, each scored above a 72 percent ranking a *very satisfied* or five in satisfaction.

Reflective of the high number of unemployed riders, the majority of riders indicated using DART for *shopping*, followed by *other*. The City has recently approved the development of a major shopping center, which given the current travel trends should positively impact ridership. A large share of respondents indicated a willingness to pay at least 25 cents for expansion to other areas, which suggests demand exists to areas currently not served and should be further explored by Delano to identify these requested destinations.

B.2 COMMUNITY SURVEY ANALYSIS

Methodology

To garner feedback from the general public at-large, our project team distributed community surveys to residents of the City of Delano, irrespective of whether they used transit or not. It is important to survey the general community to develop service recommendations that may enhance transit's position as a mobility option among "choice riders". Community surveys were conducted from January 11 through January 13, 2012. Additional data collection occurred on December 6, 2011 at City's annual Christmas Parade, at focus groups held on February 7 and 8, 2012, and the Unmet Transit Needs public hearing that took place on February 21, 2012. Locations canvassed include:

- Delano Library,
- Randolph Village Shopping Center,
- Delano Village Shopping Center,
- Memorial Park,
- Delano High School,
- Vallarta Supermarkets (2),
- Fresh and Easy Neighborhood Market,
- Senior Center on Jefferson Street,
- Community Center on Ellington Street,

- Shops on Main Street,
- Rite-Aid,
- and Fast Gas on Cecil Avenue.

The community survey was made available in three languages: English, Spanish, and Tagalog. As part of our strategy to collect a representative sample of the community, our survey team was comprised of two sets of bilingual speakers: English/Spanish and English/Tagalog. The materials used to collect the community survey were similar to those used for the onboard survey (clipboard, pen, survey sheet). To facilitate cooperation among survey respondents, an incentive (\$50 VISA Gift Card) was offered for completion of the survey. The community survey was designed with the following objectives:

- Identify percent of City of Delano residents using transit,
- Identify customer satisfaction of various system aspects, and
- Identify and prioritize potential transit service enhancements that would increase ridership.

Community surveys were conducted in-person. During the main survey period, January 11 through January 13, surveys were conducted as early as 9:00 a.m. to as late as 8:00 p.m., to ensure the working population had an opportunity to participate. In total, 451 surveys were collected.

Community Survey Findings

The following summarizes the results from the community surveys. The detailed data are illustrated in Appendix D.

Respondent Demographics

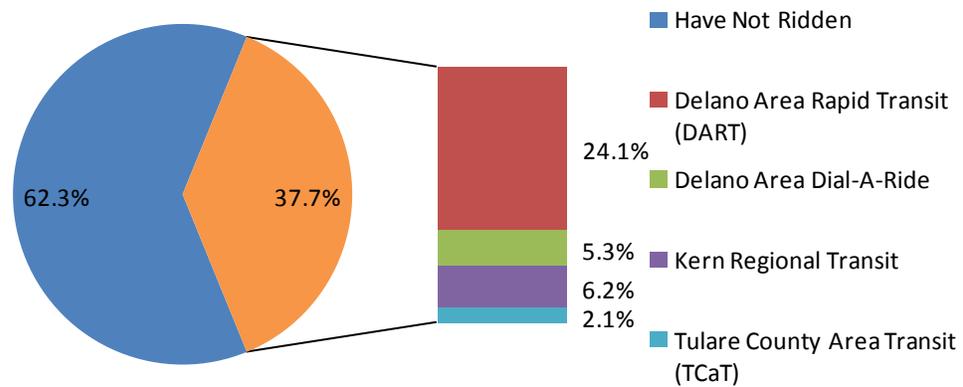
The survey included voluntary questions regarding respondent demographic characteristics, including age, gender, primary spoken language, employment status, and primary means of transportation. The following figures represent the demographic profile of the City of Delano survey respondents.

- 34.2 percent of respondents were between the ages of 18 and 29, which was the highest chosen response of the age groups presented.
- Approximately 82 percent of respondents took the survey in English, 18.2 percent in Spanish, and only 0.2 percent in Tagalog.
- 52.2 percent of respondents claimed to be employed. Of the 52.2 percent that claimed employment, 54.3 percent work within the City of Delano.
- Not surprisingly, 59.8 percent of respondents use private vehicles as their primary means of transportation, while 16.4 percent walk or bike. Only eight percent rely solely on transit.

Use of Public Transportation

To determine how to provide the most efficient public transit service that meets the needs of the community, we first needed to identify the percentage of the community currently using public transit. The following exhibit illustrates the percentage of respondents that have used public transit in the last 90 days and their preferred method of travel.

Exhibit B.2.1 Transit Riders Versus Non-Riders and Type of Service Used

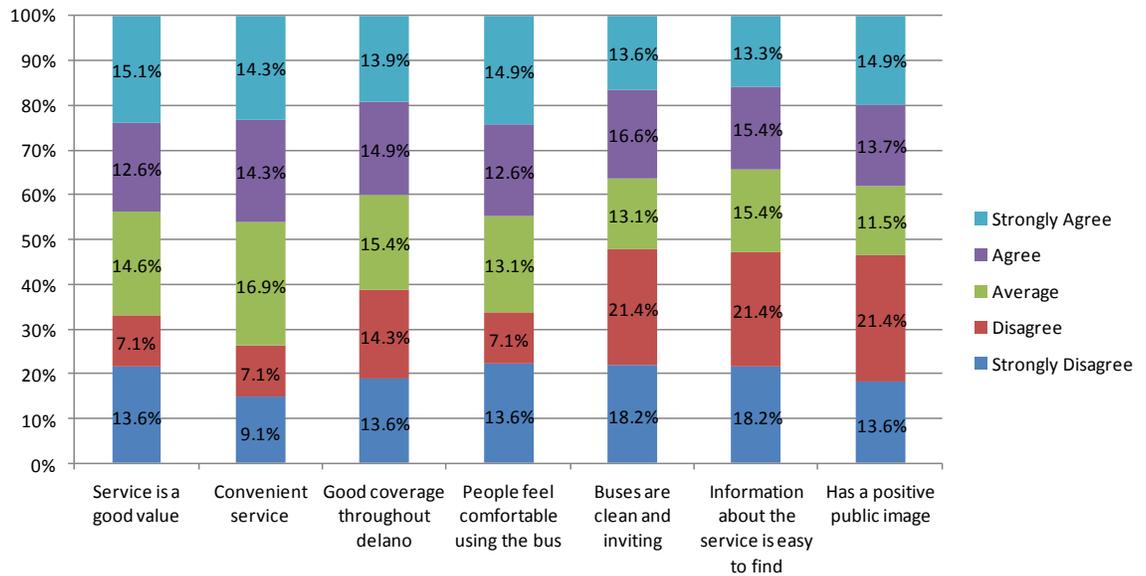


About 38 percent of respondents used public transit in the 90 days leading to survey completion. This is significant to the study as the results demonstrate an existing demand for public transit service within the community. Approximately 24 percent of respondents utilize Delano’s local fixed-route service as their chosen method of transportation.

Customer Satisfaction

The community survey also included a series of questions geared toward revealing customer satisfaction of DART service. Respondents were asked to provide their opinions about various service aspects by agreeing or disagreeing with a set of phrases about the service. The scale used was from one to five, in which 1 equals “Strongly Disagree” and five equals “Strongly Agree.” Exhibit B.2.2 shows these results.

Exhibit B.2.2 Satisfaction With DART Service



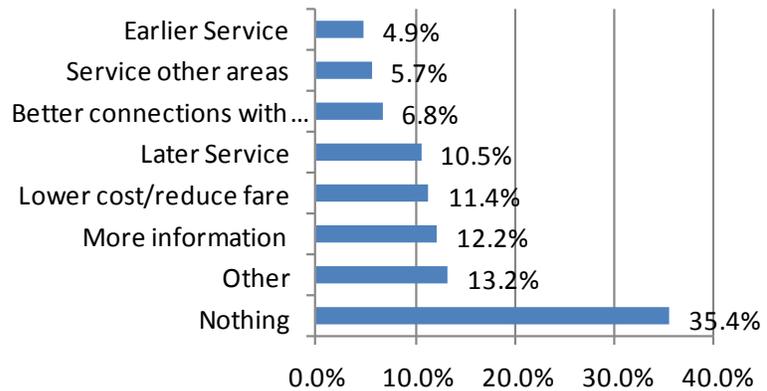
In general, respondents appear to be split on most of the service aspects with roughly the same amount of people agreeing and disagreeing. However, a large share of respondents indicated a difficulty in locating transit information. Likewise, approximately the same number of respondents agreed that cleanliness of buses is an issue and that DART service does not have a positive public image.

The issues raised can be attributed to various factors. With respect to public image, poor on-time performance can be detrimental, as the system can be perceived as unreliable. Data gathered during our observation period indicates DART’s on-time performance has suffered and displays shortcomings in service delivery. Further elaboration on this can be found in the Service Evaluation section (Appendix C).

Service Enhancements

The fundamental question asked as part of the community survey was: *What, if anything, would encourage you to increase your use of public transit?* This question revealed desired service enhancements that could entice choice riders and regular riders to increase their use of DART service. The results are illustrated in Exhibit B.2.3.

Exhibit B.2.3 Desired Service Enhancement



Most respondents, 35.4 percent, indicated nothing would encourage them to increase their use of public transit. Since this survey is a community survey and not a rider-only survey, it can be inferred that the majority of respondents claiming nothing would increase their use of public transit, are likely not regular riders therefore have other means of transportation.

B.3 DIAL-A-RIDE CUSTOMER SURVEY ANALYSIS

Methodology

This section features analysis of the Dial-A-Ride customer survey conducted concurrent with the community surveys (January through February 2012). The surveys were distributed in two waves via direct mail to the DAR registrant database. The waves were sent on January 23 and January 30, and consisted of 291 and 200 surveys, respectively. Seventy-six valid responses were received, which is not a statistically-valid sample for the target population and therefore may not reflect the typical DAR customer. However, while the response is not statistically-valid, it can accurately reflect the needs of the typical DAR rider as it represents slightly more than 15 percent of the DAR customer base.

Findings

The following summarizes the results from the Dial-A-Ride customer surveys. Detailed data is illustrated in Appendix D.

Rider Profile. The survey included optional questions regarding respondent demographic, economic, and household characteristics, as well as the community in which they reside.

- 43 percent of riders have a *physical condition which impairs their personal mobility*.
- Nearly 90 percent of riders have used the service in the last 90 days (87.8 percent).
- More than 75 percent of riders are 46 years old and older.
- The majority of riders (90.9 percent) earn an income of less than \$25,000.
- Nearly 20 percent of riders have access to a personal vehicle.

Use of DAR Service and Trip Characteristics. The survey incorporated questions to assess rider use of services such as type of trips and destinations, reasons for riding, frequency of use, length of patronage, and alternative mobility options.

- 43.4 percent of riders have *no or limited access to a personal vehicle*.
- More than 51 percent use DAR because they are *unable to drive/no longer can drive*.
- Nearly 32 percent of riders infrequently use the service (*less than once weekly*), while 30.6 percent ride *one to two times/week*.
- Frequent riders (more than three times/week) comprise nearly 38 percent of riders.
- The top two destinations traveled by Delano DAR riders include *healthcare* (53.9 percent) and *shopping* (38.2 percent).
- Slightly more than 30 percent of respondents chose *Other* specifying *Church, Post Office, Senior Center, and Casino* as DAR travel destinations.
- If Delano DAR were not available, most respondents stated they would either get a ride from *friend or family* or would not travel. Few stated they would use alternative modes of transportation (i.e., *walk or bicycle, taxi, or Kern Regional Transit*) to reach their destination.

Customer Experience and Reservations Process. Several survey questions were included to solicit feedback as to the customers experience from the trip reservations to their final destination.

- The majority (more than 54 percent) of respondents rated the service as *Excellent or 5* in all areas of performance (i.e., on-time performance, customer service: *office/dispatch, customer service: drivers, convenience, ease of making reservations, trip length, dependability, cost, and overall quality*).
- The top two areas in need of improvement include *customer service: office/dispatch* and *ease of making reservations*.
- Nearly 49 percent of riders indicated the need for *longer service hours*. *More weekend service* (34.2 percent) and *improved reservation process* (23.7 percent) were the next highest chosen responses.
- More than 47 percent of riders are willing to pay 25 cents to implement their preferred enhancement/improvement to the service.
- Approximately 22 percent of riders reported a willingness to pay 50 cents or more for the cited improvement.
- 30 percent were not in favor of a fare increase.
- Nearly 90 percent of respondents indicated reaching a Customer Service Representative when placing a ride request.
- The majority (94.7 percent) of riders indicated the DAR service arrived on-time to their scheduled pick-up.
- The balance (5.3 percent) of respondents indicated poor on-time performance was likely the result of early arrivals.

Analysis of Key Findings

The typical dial-a-ride rider is more than 46 years of age, has a physical condition that impairs their mobility, earns less than \$25,000 annually, and lacks access to a personal vehicle. These riders represent the traditional “ride-dependent” population. They largely depend on DAR to meet their mobility needs, citing their main reason for using the service as being unable or no longer able to drive themselves.

Many survey participants cited healthcare and shopping as their main travel destinations when using DAR. More than a third of riders use the service three or more times/week while slightly fewer patronize the service less than once a week. Most riders are happy with the service, rating the service high in all areas of performance.

Based on survey responses, there appears to be some dissatisfaction with customer service, primarily office/dispatching, and the process of making reservations. However, this still remained secondary to the high ranking of the overall quality and cost of the service. Given the satisfaction with cost of the service, many noted a willingness to pay as much as 25 cents more than the current fares to ensure their preferred service enhancement was implemented. As to be expected, the majority preferred longer service hours, more weekend service, and an improved reservation process.

B.4 EMPLOYER SURVEY

To further solicit public input regarding transit services within Delano, an employer questionnaire/survey was distributed via direct-mail to twenty-five local employers (varying in company size). Of those who received the survey, nine employers responded. Although the respondent pool was modest, those who participated cover a large share of Delano’s labor force (more than 3,000 workers) living or traveling to Delano for work.

The goal of the survey was to gather insight from employers to understand worker-demand and/or their need for public transit service. Surveys queried employers regarding their employee’s work schedules, company days/hours of operations, employee transportation subsidy programs (if they exist), and the impact transportation or lack thereof had on their employees ability to get to work. Employers were also asked to provide their suggestions as to what improvements to the City’s public transit program would positively impact their company’s operation. Below summarizes their responses.

Employer Survey Findings

- Company size varied by employer, ranging from 12 to 1,700 employees. More than 3,600 workers were represented in the survey.
- Most companies operate daily, with the exception of three employers who operate six days a week (Saturday or Sunday) and one who operates weekdays only.

- Almost all employers offer shifts beyond the traditional 8:00 a.m. to 5:00 p.m. work hours with the exception of one.
- Four companies noted their employees are impacted by a lack of reliable transportation. These companies employ 564 workers.
- Of the companies surveyed, two offer flex-time hours.
- Only one company provides a transportation subsidy program that provides employees with vanpool incentives and reimbursement for travel expense claims.
- Improvements that would positively impact their company's operations included expanding routes to Paramount, SLS, Railex, Sears Logistics, and state prison locations, as well as requests for extended transit service hours (beyond 5:00 p.m.) and a low-cost taxi service or shuttle to accommodate workers with mobility-impairments (i.e., those need a wheelchair or walker).

Analysis of Key Findings

Many employers offer their employees the opportunity to work shifts beyond the traditional 8:00 a.m. to 5:00 p.m. work day. DART currently operates 7:00 a.m. to 5:30 p.m. on weekdays and 8:30 to 4:30 p.m. on Saturday, which limits the use of DART as a home-to-work travel option for these company's employees. Additionally, with the exception of two employers, most of these companies operate on Sunday, a day that DART does not operate its neither fixed-route nor dial-a-ride service.

B.5 FOCUS GROUPS AND STAKEHOLDER INTERVIEWS

In addition to the various surveys conducted during the project, stakeholder or targeted outreach was conducted at various social and human service agency organizations to garner public input. These outreach efforts were conducted following the completion of the ride checks and onboard surveys, but concurrently with the community surveys. Through stakeholder interviews and focus groups, our project team was able to solicit input from ride-dependent populations, such as seniors, persons with disabilities, and youth.

Focus Groups

The goals of the focus groups were to gather feedback regarding need, perceptions, opinions, and attitudes toward transit services in Delano, mainly by ride-dependent demographics (i.e., seniors and persons with disabilities). Questions were asked in an interactive group setting where participants were free to talk with other group members. Each participant was also provided with the opportunity to fill out a community survey and give their feedback anonymously. Exhibit B.5.1 summarizes the focus group meetings for this project.

Exhibit B.5.1 Summary of Focus Groups/Interviews

Organization	Location Address	Date	Time	Population Group	
				Seniors	Disabled
Senior Center	436 Jefferson St.	2/7/2012	10:30 a.m. to 11:30 a.m.	X	X
Community Center	925 Ellington St.	2/7/2012	2:00 p.m. to 4:00 p.m.	X	X
Delano Association for the Developmentally Disabled (Interview)	612 Main St.	2/8/2012	10:30 a.m. to 11:30 a.m.	X	X

Two focus groups were held: one on February 7, 2012 at Delano’s Senior Center on Jefferson Street and the other on February 8, 2012 at the Community Center located on Ellington Street. There were 20 attendees at the Jefferson Senior Center and 31 attendees at the Ellington Community Center. Input received from group members ranged from operations and performance concerns to accessibility of transit information. Comments relevant to DART operations and services are summarized below.

Focus Group Findings

Operations and Performance

Fixed-Route

- On-time performance issues (buses leaving early and arriving late to the published time) caused patron to miss her appointments.
- Patron was upset that DART is not hiring full time drivers simply because they don’t want to pay for employee benefits. Patron believes this is becoming a problem because drivers don’t want to work part-time and it is affecting people’s transportation needs.
- Customers noted the negative impact the shortage of drivers is having on their service, quoting that they are suffering due to this shortcoming.
- Bus service is unreliable due to shortage of drivers; routes aren’t operated according to the published schedule.
- Most attendees expressed they wanted a return of weekend/Sunday service.
- A desire was expressed for Sunday service in order to travel to local churches.
- Buses need to stay on schedule.
- A desire for a stop in front of Delano Gardens was expressed.

Dial-A-Ride

- Some attendees mentioned wanting same day reservation for DAR.
- Most attendees were not aware of the DAR service.
- An incident occurred where the senior bus did not stop for seniors seated at published stop.
- DAR service needs to make the reservation process easier and also must accommodate same-day reservations.
- Recommended coordination of medical offices with DAR dispatch.
- Patron noted that sometimes DAR is unable to provide return trip due to capacity issues.
- Attendees highlighted the fact that DART replaced the senior bus with a 4-seat van.

Transit Information

- Attendees indicated the need to be better informed as to why service cuts have been implemented.
- Recommend information about the service provided via mail would be helpful.

Other

- There was a perception of drivers being unhappy with their work schedules/shifts.
- Claim that drivers do not assist passengers with packages.
- Recommendation for handrails to be installed on buses.
- Recommendation for drivers to assist patrons using walkers.
- Fifty-cent fare was considered satisfactory.
- Praise was provided for a particular DART driver.
- Concern of loose dogs on the street. Patrons do not feel safe while waiting at the bus stop.

Analysis of Key Findings

There is an absence of effective and ongoing marketing of DART services to social and human service agency clients as well as agency employees throughout the City of Delano. This is consistent with the community survey findings, in that information about the service is difficult to find. There were numerous counts of poor on-time performance. Many people know DART exists, but lack understanding of service specifics. There is an immediate and ongoing need for DART marketing.

Stakeholder Interview Findings

To gain further insight regarding transportation needs for these demographics, an interview was conducted with the Transportation Manager of the Delano Association for the Developmentally Disabled (DADD), Jojo Mathews, on February 8, 2011. DADD currently provides non-emergency medical transportation assistance to its current clients. The goal of the stakeholder interview was to solicit candid input regarding transportation services provided by the stakeholder organization, as well as mobility needs of their constituents and client-use of DART services.

The interview generated a number of key findings specific to DART operations and services:

- DADD used to get passes for DART and DAR, but DAR was inconvenient and reservation process was not explained nor followed.
- Budget cuts are hurting DADD transportation. Some costs are being subsidized by private grants, donations, and insurance claims.
- Subscription service for DAR or regular transportation may assist DADD's transportation struggles.
- Although DADD makes trips to Porterville, Wasco, Tulare, and Bakersfield, travel costs to Tulare are too expensive.



SERVICE
EVALUATION

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APPENDIX C – SERVICE EVALUATION

Objectives of Evaluation

The objective of this section is two-fold: evaluate areas of Delano Area Rapid Transit's (DART) internal and external operations that impact day-to-day delivery of public transit service and present findings to support improvement of service delivery. Our analysis includes operational, maintenance, and administrative functions.

The ultimate goal is to maximize the efficiency of DART services using the resources and funds currently available. Maximizing service efficiency holds the potential to boost total ridership to reverse faltering farebox revenues when coupled with the refinement of various aspects of service delivery

Evaluation Approach

Throughout the course of this project, Moore & Associates communicated with DART staff to compile information regarding program priorities, retrieve program data, and discuss data collection procedures and responsibilities. To assess existing services, our project team reviewed past reports (i.e., 2009 Triennial Performance Audit) as well as previously gathered performance data for recent years. Data compiled from field observations supplemented quantitative data as well as provided insight into day-to-day operations. Through numerous site visits, engagement with the community, and interaction with transit riders, Moore & Associates has been able to identify key aspects of the overall system in need of revamping. Recommendations for the key findings will be presented in Chapter 3, Findings and Recommendations.

Delano Area Rapid Transit Program Overview

The City of Delano operates intracity fixed-route bus service known as Delano Area Rapid Transit (DART) and a general public demand-response service referred to as Delano Dial-A-Ride. Serving as the primary mode of public transportation within the City of Delano, DART offers four interconnected fixed-route alignments covering various parts of the city: Route 1 to the east, Route 2 to the south, Route 3 to the north, and Route 4 to the west. Service operates Monday through Friday between 7:00 a.m. and 5:25 p.m. Saturday service operates from 8:30 a.m. to 4:30 p.m. on all routes. At the time of this report, Saturday fixed-route service was discontinued due to a staffing shortage. DART does not offer Sunday services.

Currently, all four routes run on 30-minute headways offering moderate wait times for patrons. The City plans to change this to one-hour headways, essentially cutting the total number of overall system trips from 84 to 44. Individually, each route makes 21 trips per day on 30-minute headways: five during the morning peak hours (7:00 a.m. to 9:00 a.m.), 13 during the middle of the day (9:01 a.m. to 3:30 p.m.), and three during the afternoon peak hours (3:31 p.m. to 5:30 p.m.). Implementation of one-hour headways will adjust the number of trips offered to three morning trips, six midday trips, and two afternoon trips for each route. Hours of operation would not be affected. The system will continue to operate from 7:00 a.m. to 5:25 p.m.

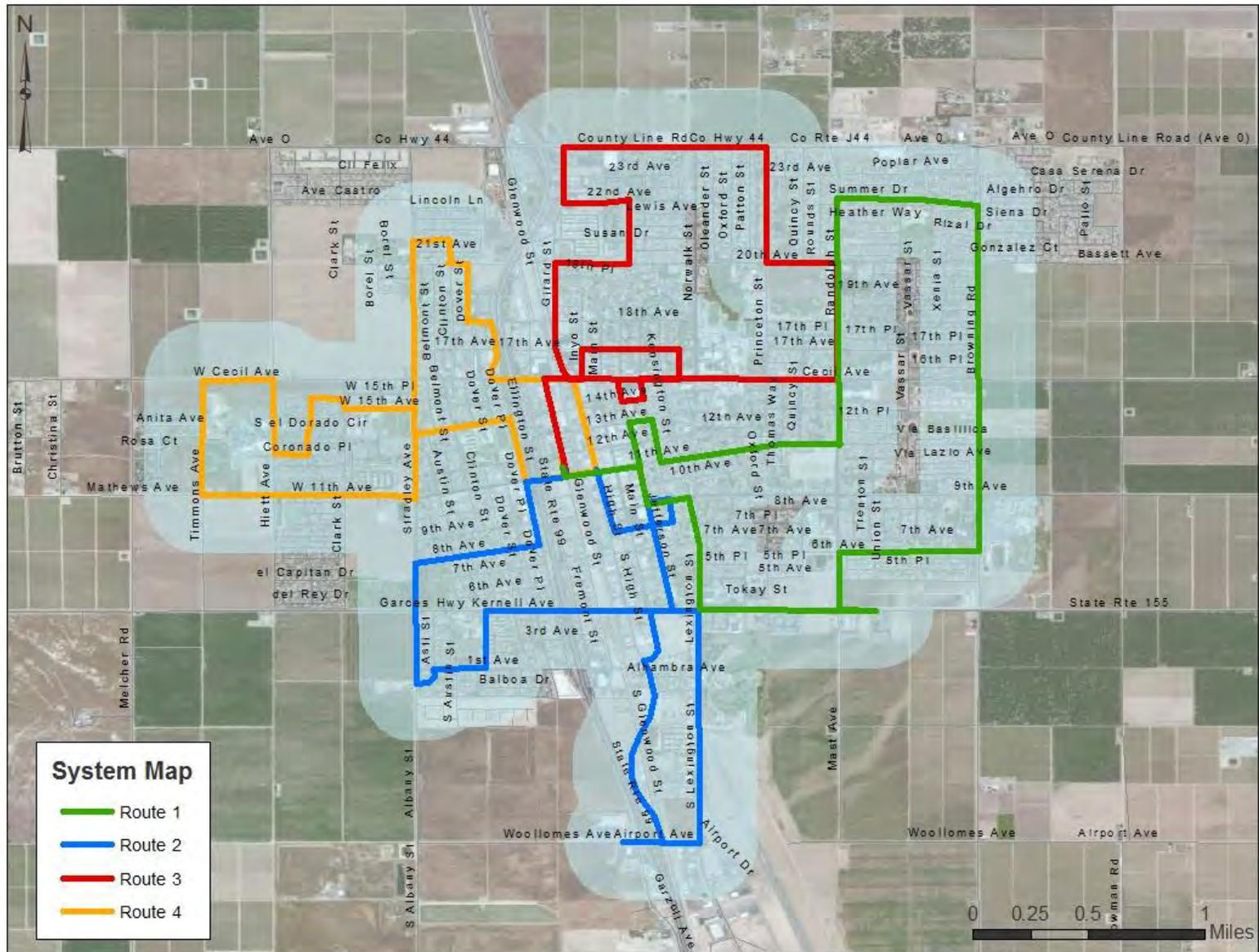
Route 1 begins and ends at the Delano Transit Center, located at 1120 Glenwood Street. Upon leaving the station, Route 1 travels east on 11th Avenue toward High Street and continues further to cover the eastern-most portion of the system, traveling as far as Browning Road. Route 1 provides service along 13th Avenue, Randolph Street, Summer Drive, Browning Road, Garces Highway, Lexington Street, and 9th Avenue, offering passage to numerous points of interest such as Kern County Superior Court, Vallarta Supermarket, Morningside Elementary School, Cesar E. Chavez High School, and Delano Regional Medical Center. Route 1 also has a connection with Route 3 along Randolph Street just north of Cecil Avenue. In total, Route 1 contains 16 individual bus stop locations primarily covering eastern Delano.

Service to the southern-most areas of Delano is provided via **Route 2**. Like Route 1, Route 2 originates and terminates at Delano Transit Center. Route 2 travels west along 11th Avenue toward Dover Place covering 8th Avenue, Albany Street, Garces Highway, and Lexington before traveling to its southern-most destination at Woollomes Avenue. Passengers on this route can reach Ellington School, Delano Community Center, Cesar E. Chavez Park, Casa Hernandez Community Services, Valle Vista Park, Home Depot, Memorial Park, and Ranch Market. Route 2 contains 14 different bus stop locations mostly in the southern part of the city.

Route 3 provides service to the northern portion of Delano. Similar to previous two routes, Route 3 starts out of Delano Transit Center and heads north on Glenwood Street towards 13th Avenue traveling as far as County Line Road. This alignment covers Girard Street, 20th Avenue, Kalibo Street, County Line Road, Princeton Street, Randolph Street, Cecil Avenue, and 17th Avenue. As previously mentioned, Route 3 connects to Route 1 along Randolph Street and also connects to Route 4 along Cecil Avenue; the latter however is located less than half a block away. Route 3 gives passengers access to Save Mart Supermarket, Kalibo Park, Jasmine Heights Apartments, Kmart, Brandywine Apartments, Delano High School, and Cecil Avenue Park. There are 14 stop locations along this alignment.

Route 4 begins and travels north out of Delano Transit Center along High Street and then travels west on Cecil Avenue. Covering mostly the west side of Delano, Route 4 offers service along 11th Avenue, 14th Avenue, Albany Street, Timmons Avenue, Almond Tree Way, 15th Avenue, Dover Street, Cecil Avenue, and Girard Street. Among the destinations accessible via Route 4 are: Fresh and Easy Market, Sunny View Apartments, Albany Park, Almond Tree Middle School, Robert F. Kennedy High School, and Fremont Elementary School. While there are some commercial areas along the route, Route 4 covers mostly residences. Route 4 contains 14 individual stops providing service coverage to the western part of the city.

Exhibit C.1 Delano Area Rapid Transit System Map



Delano Dial-A-Ride

In compliance with the Americans with Disabilities Act (ADA), the City of Delano offers a door-to-door paratransit service known as Delano Dial-A-Ride. Delano Dial-A-Ride (DAR) shares the same weekday hours of operation as DART fixed-route service, Monday through Friday, 7:00 a.m. to 5:25 p.m., and Saturday, 8:57 a.m. to 4:40 p.m. No Sunday service is offered. The service area covers all locations within Delano city boundaries and some unincorporated areas of Kern County adjacent the city.

Certified by the City of Delano through an ADA application process, the Dial-A-Ride program is a two-tiered system that functions as a complementary-paratransit service accommodating Delano's mobility-impaired population. Although DAR is also open to the general public, it caters to those individuals who are incapable of using DART fixed-route or find it difficult to do so. Dial-A-Ride reservations can be made up to an hour prior to the desired trip. Riders are encouraged to reserve their trip at least one day in advance as the City currently operates under a "first come first served" policy.

A subscription service is also available as part of the Dial-A-Ride program, which allows riders to schedule reoccurring trips for an extended period of time without the inconvenience of calling in to schedule each trip separately. This service is ideal for individuals who receive dialysis or other trip purposes requiring recurring reservations. Subscriptions are only granted when they account for no more than 50 percent of the overall service capacity. If a subscription cannot be scheduled due to the aforementioned rule, the rider will be placed on a waiting list.

Upon assessment of the current Dial-A-Ride service, Moore & Associates has found inconsistencies with the information available online through the City website and actual services operated. According to the information available, DAR service is open to the general public to provide services to destinations that fall within three-quarters-of-a-mile outside of a DART fixed-route line. However, in conversations with dispatch staff it was noted that DAR service for the general public is not limited to the three-quarters-of-a-mile rule but rather destinations can occur anywhere within city limits. In addition, the "first come first served" policy conflicts with the ADA-rule that ADA certified riders take precedence over the general public. This is detailed in Appendix B.

Fare Structure

DART fares vary across the program by rider age category and service. Both fixed-route and Dial-A-Ride services provide regular single-trip fares, day passes, ten-ride passes, and monthly passes. Passengers considered in the category of Adult (ages 18 to 60) pay a different fare than Youth (ages 8 to 17) and Senior/ADA/Medicare passengers. Both fixed-route and Dial-A-Ride services also contain the same categorical structure, however those in Dial-A-Ride's Adult and Youth categories (ages 8 to 60) pay the same fare.

Exhibits C.2 and C.3 show the fare structure for DART fixed-route and dial-a-ride services.

Exhibit C.2 DART Fares

Fares		
Category	Fixed-Route	Dial-A-Ride
General Ages (18-60)	\$1.00	\$1.75
Youth (8-17)	\$0.75	\$1.75
Sr/ADA/Medicare	\$0.50	\$1.00
Sr/ADA/Medicare (10am - 2pm)	\$0.25	N/A
Child (Under 7)	Free (1st Child)	
Each Additional Child	\$0.50	\$0.50

Exhibit C.3 DART Passes

Passes		
Category	Fixed-Route	Dial-A-Ride
Adult (18-60) 10-Ride Pass	\$9.00	\$15.75
Youth (8-17) 10-Ride Pass	\$6.75	-
Sr/ADA/Medicare 10-Ride Pass	\$4.50	\$9.00
Child (Under 7)	Free (1st Child)	
Each Additional Child	\$0.50	\$0.50
Monthly General Pass	\$35.00	-
Monthly Youth Pass	\$25.00	-
Day Pass	\$5.00	-

Passengers who fall within the Adult and Youth categories must pay \$2.50 for one-way trips outside the city boundaries, whereas seniors, Medicare passengers, and ADA-eligible patrons pay \$1.25 per one-way trip. Accompanying persons traveling with Dial-A-Ride passengers must pay a fare of \$1.75 within city limits and \$2.50 to the unincorporated county areas, and they must travel to the same destination as the Dial-A-Ride patron. Personal Care Attendants ride free only when either declared by the passenger or appearing on the passenger’s Dial-A-Ride eligibility card. Additionally, current DART fare policy offers a “midday” (between 10:00 a.m. and 2:00 p.m.) discount for seniors, persons with disabilities, and persons eligible for Medicare.

Operations

Actual operation of DART is conducted in-house using four cutaway buses for fixed-route service and two minivans for Dial-A-Ride. Maintenance of DART vehicles is conducted by City staff.

Staffing

All personnel associated with DART are considered City employees. As such, they must adhere to the policies and regulations attributed with employment in the municipality. As of November 8, 2011, drivers working 30-plus hours per week are paid as full-time employees and eligible for benefits. At the time of our observation (January 10 to January 13, 2012), there was no part-time staff apparent.

We observed numerous situations miring the quality of delivery for fixed-route service due to driver work schedules and a shortage of staff. On January 11, 2012, service was stalled at various times of the day to allow meal breaks for drivers. This caused at least one trip on each of the four fixed-routes to be missed due to a shortage of available staff to cover those breaks. Hence, the service did not operate during every trip as published in its transit schedule.

Another missed trip incident also occurred on January 11. Noted again as a staffing shortage, the Route 4 driver ended her shift early at 4:00 p.m. indicating she was unable to finish the last two trips since drivers are not allowed to work overtime. As a result, the last two trips (4:30 p.m. and 5:30 p.m.) were not covered.

Given these occurrences, the City should review its current policy toward employee work shifts. It is industry best practice to cover every trip on the published schedule so as to maintain a high level of customer satisfaction and build a reputation as a reliable service. In any case, the City should be prepared with sufficient staff to cover all of the trips on the published schedule.

Training

In the past, driver-training was conducted bi-annually through the City utilized the Kern Superintendent of Schools. These training sessions cost \$51.00 per person for each hour of training. Based on the 2009 Triennial Performance Audit, this cost was considered as an impractical expense given the size of staff. Drivers currently make double this figure (gross income) for an eight hour shift. With the current issues regarding staffing shortages, Delano's move toward conducting training in-house proves cost-beneficial.

Dispatch Procedures

All dispatch is handled in-house using Trapeze software, however the City will soon switch to RouteMatch dispatching software because staff believes Trapeze has proven too expensive and complex. At the time of this report, the City was in transition to install the new software.

All vehicles are equipped with Mobile Data Computers (MDCs), global positioning system (GPS) devices, and onboard cameras. The City utilizes two full-time dispatchers for its fixed-route and DAR programs. The Road Supervisor and another driver have been cross-trained to be able to dispatch in the event one of the regular dispatchers is unavailable.

ADA Compliance

The entire DART fleet is ADA-accessible in that each cutaway bus offers two spaces for wheelchairs and contains fully functioning wheelchair lifts. The same can be said with vehicles used for Dial-A-Ride.

Ride Check Analysis

To assess the actual performance of DART fixed-route service, a ride check was conducted. A ride check tracks activity at the vehicle level, includes ridership counts by stop and by trip (boarding and

alighting), and provides a detailed profile of exactly where and when ridership is occurring on each route or service. A ride check also collects information on passenger loads, running times, and schedule adherence (on-time performance). Moore & Associates conducted a ride check of all fixed-route alignments in order to properly assess performance, capture current ridership activity, and to observe first-hand DART's daily operations.

Ride checks were conducted between January 10 and January 13, 2012. Initially, ride checks were intended to document weekday activity as well as Saturday activity; however, due to the suspension of Saturday service during our fielding period, only weekday service was documented. Additionally, ride checks were conducted during days when schools were in session so as to capture a holistic ridership sample.

On-Time Performance

This section evaluates on-time performance by day-part and route to assess adherence to the published schedule. On-time performance is not only vital to maintaining customer satisfaction among existing riders, but also important in attracting additional or "choice riders" (persons with multiple mobility options). The data was collected via ride checks onboard all DART routes operating during the survey period (January 10 to January 13, 2012).

On-time performance was evaluated for DART using the following criteria:

- **On-time** – Defined as trip departure occurring up to five minutes after the published schedule time.
- **Early** – defined as any departure from an established time-point occurring in advance of the published schedule time.
- **Late** – Defined as any departure from an established time-point occurring six or more minutes after the published schedule time.
- **Missed** – Defined as any departure from an established time-point occurring eleven or more minutes after the published schedule time.

On-time performance was segregated by day-part in the following time blocks:

- 7:00 a.m. to 9:00 a.m. (AM Peak),
- 9:01 a.m. to 3:30 p.m. (Mid-day), and
- 3:31 p.m. to 5:30 p.m. (PM Peak).

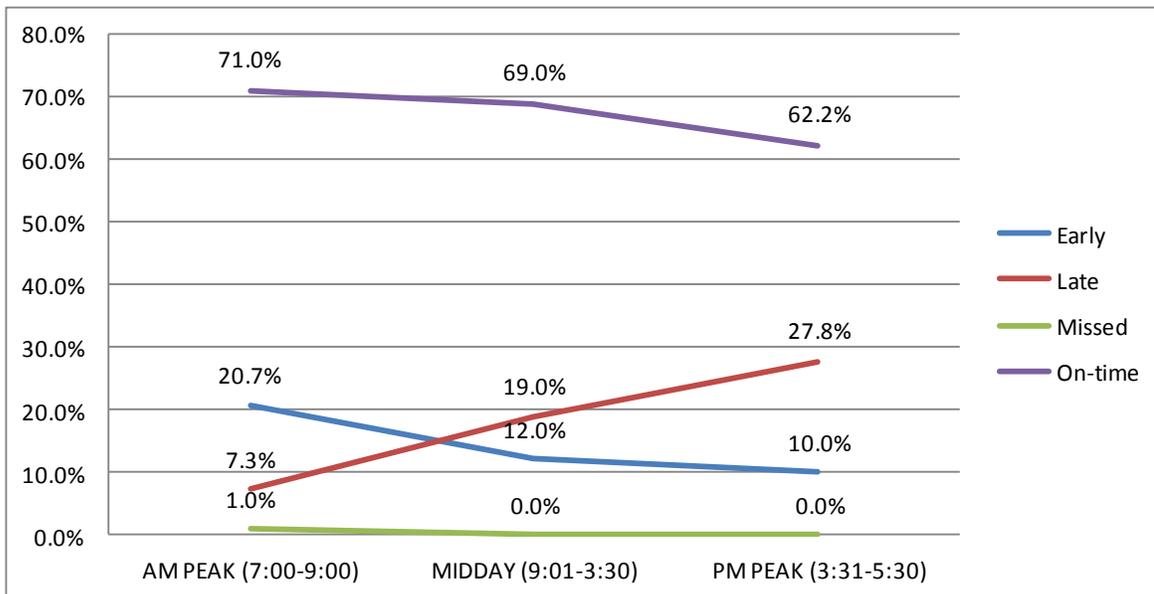
The subsequent exhibit (Exhibit C.3) demonstrates on-time performance for the entire DART system segregated by day-part. The information displays data collected from the ride checks on all routes for a typical service weekday. Data reflects a 100-percent sample size of DART's current service offerings (84 fixed-route trips). Industry standards suggest on-time performance should be at 90- to 95-percent for headways above 10 minutes with no early departures.¹ On average, the data show

¹ Florida Department of Transportation Research Center. Best Practices in Transit Service Planning. (Florida: 2009) 28-29.

DART’s system-wide on-time performance was 67 percent. At best, DART’s on-time performance peaked at 71 percent during the morning (AM Peak) hours.

With respect to early departures, the data showed an average of 14 percent for the entire system. A majority of the early departures occurred during morning (AM Peak) hours. Another visible trend appears across the system with respect to late trips: as the number of early departures begins to decline, the number of late trips begins to rise. Exhibit C.4 demonstrates this trend.

Exhibit C.4 System On-Time Performance



The data reveals on-time performance has suffered at various points during the day for all routes. Exhibit C.5 illustrates on-time performance by route and day-part. In general, Route 4 had the best on-time performance especially during the morning (AM Peak) hours. Route 1 demonstrated the worst on-time performance of all routes. Throughout the duration of the weekday service span, Route 1 averaged only 46 percent on-time performance and saw its worst performance during the afternoon (PM Peak) hours with 75.6 percent late performance.

Exhibit C.5 On-Time Performance: Route by Day-Part

Route	AM PEAK				MIDDAY				PM PEAK			
	Early	Late	Missed	On-Time	Early	Late	Missed	On-Time	Early	Late	Missed	On-Time
1	0.0%	29.3%	4.0%	66.7%	1.0%	53.3%	0.0%	45.6%	0.0%	75.6%	0.0%	24.4%
2	29.3%	0.0%	0.0%	70.7%	20.0%	7.7%	0.0%	72.3%	35.6%	0.0%	0.0%	64.4%
3	49.3%	0.0%	0.0%	50.7%	18.9%	12.8%	0.0%	68.4%	4.4%	0.0%	0.0%	95.6%
4	4.0%	0.0%	0.0%	96.0%	8.2%	2.1%	0.0%	89.7%	0.0%	35.6%	0.0%	64.4%
Average	20.7%	7.3%	1.0%	71.0%	12.0%	19.0%	0.0%	69.0%	10.0%	27.8%	0.0%	62.2%

Performing below on-time performance standard
 Close to meeting on-time performance standard
 Performing at or above on-time performance standard

Overall, there were numerous reasons identified that impacted on-time performance during the observation period. One of the primary reasons for poor performance is due to the high number of published time-points. By assigning so many time-points, the bus drivers are more likely to fall behind schedule as it will require a run with little to no delays (such as red lights, train crossings, etc.) to stay on time. Also, a problem with establishing too many time-points is any unavoidable factor can throw off the timing of the run, such as a traffic collision. By eliminating some of the published time-points from the schedule, on-time performance should improve by creating more room in each trip for such delays.

Another factor attributing to DART’s poor on-time performance is the allowance of flag stops on the fixed-route service. Flag stops are unscheduled stops that occur en route. During the observation period Moore & Associates discovered 36 different flag stops across the entire system, with Route 1 having the most with 17 flag stops on a route which only has 16 scheduled stops. While not all 17 flag stops occurred during the same trip, even a few flag stops are enough to impact on-time performance on any single trip. Moreover, with Route 1 being the most patronized route, it would be prudent to limit or completely disallow flag stops to adhere to the schedule and build a reputation as a reliable public transportation system.

Boarding and Alighting Activity

This section focuses on boarding and alighting counts for each bus stop during a 100-percent sample of weekday service. Our field survey personnel collected boarding and alighting data using trip sheets segregated by route, stop, and day-part. These counts allowed our project team to develop a clear picture of exactly where and when ridership activity is occurring.

Upon examination of the collected data, Moore & Associates identified those stops that saw the highest activity during the observation period. Exhibit C.6 illustrates the stops with the highest boarding.

Exhibit C.6 Top System Boardings

Top 10 Boardings		
Rank	Location	Daily Activity
1	Transit Center	243
2	302 Garces Hwy	29
3	K Mart/County Line	18
4	Clark & N. Cabrillo	18
5	Randolph & Cecil	14
6	Tony's Pizza	13
7	Belmont & 1st Ave	13
8	Ranch Market	13
9	14th Ave & Clinton St	12
10	13th & Jefferson	11

Noting the top boarding stop locations is important in identifying where the majority of trips take place.

Exhibit C.7 demonstrates the stops with the highest alighting. As with boardings, it is important to note alighting trends as they indicate the destinations most sought after by riders.

Exhibit C.7 Top System Alightings

Top 10 Alightings		
Rank	Location	Daily Activity
1	Transit Center	218
2	Tony's Pizza	23
3	Ranch Market	19
4	K Mart/County Line	18
5	Randolph & Cecil	17
6	Hiett & Franciscan	15
7	432 Lexington	13
8	826 Jefferson	13
9	Princeton St & 20th Ave	13
10	11th & Jefferson	12

Lastly, Exhibit C.8 demonstrates the stops with the highest activity (total boarding and alighting.)

Exhibit C.8 Top System Activity

Top 10 Activity		
Rank	Location	Daily Activity
1	Transit Center	461
2	302 Garces Hwy	40
3	Tony's Pizza	36
4	K Mart/County Line	36
5	Ranch Market	32
6	Randolph & Cecil	31
7	Clark & N. Cabrillo	27
8	Hiett & Franciscan	26
9	Princeton St & 20th Ave	23
10	14th Ave & Clinton St	22

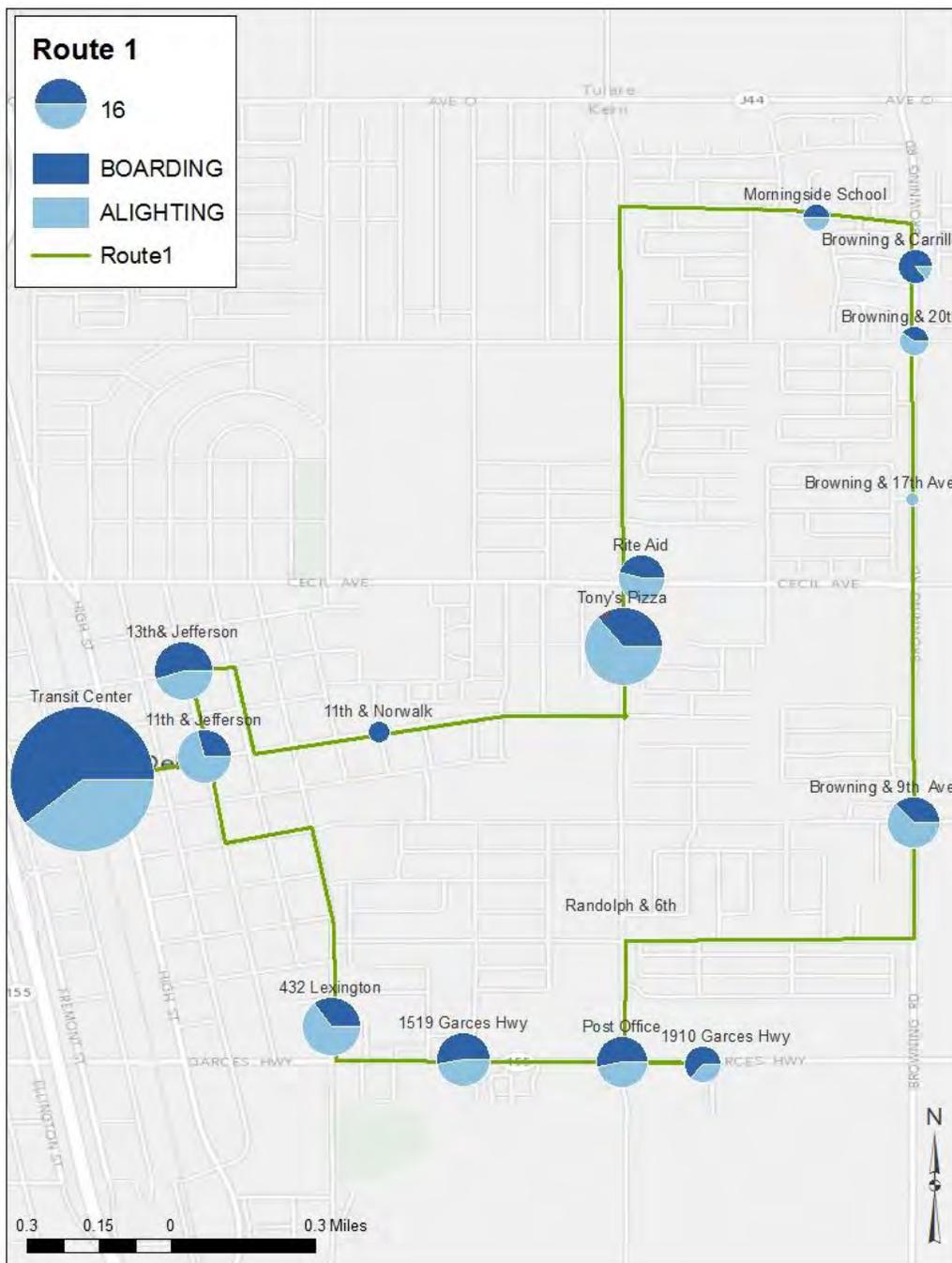
As expected, the stop with the most activity across the entire system is the Delano Transit Center. As the hub of the City’s transportation network, Delano Transit Center sees high activity throughout the day. Not only is the Delano Transit Center the originating and terminating point for each of the four fixed-route alignments, it also serves as the connection between other transit providers such as Kern Regional Transit and Tulare County Area Transit.

Across all routes, ridership was highest during the middle of the day between the hours of 9:30 a.m. and 3:30 p.m. Route 1 experienced the highest activity, but only by a slim margin as the other routes saw slightly less activity. For a more detailed description of activity by day-part see Appendix E.

Route by Route Analysis

Boarding and alighting data were analyzed at the route level so as to identify key bus stops and points of significant activity. Maps demonstrating boarding and alighting activity were developed using ESRI ArcMap Geographic Information System (GIS) software.

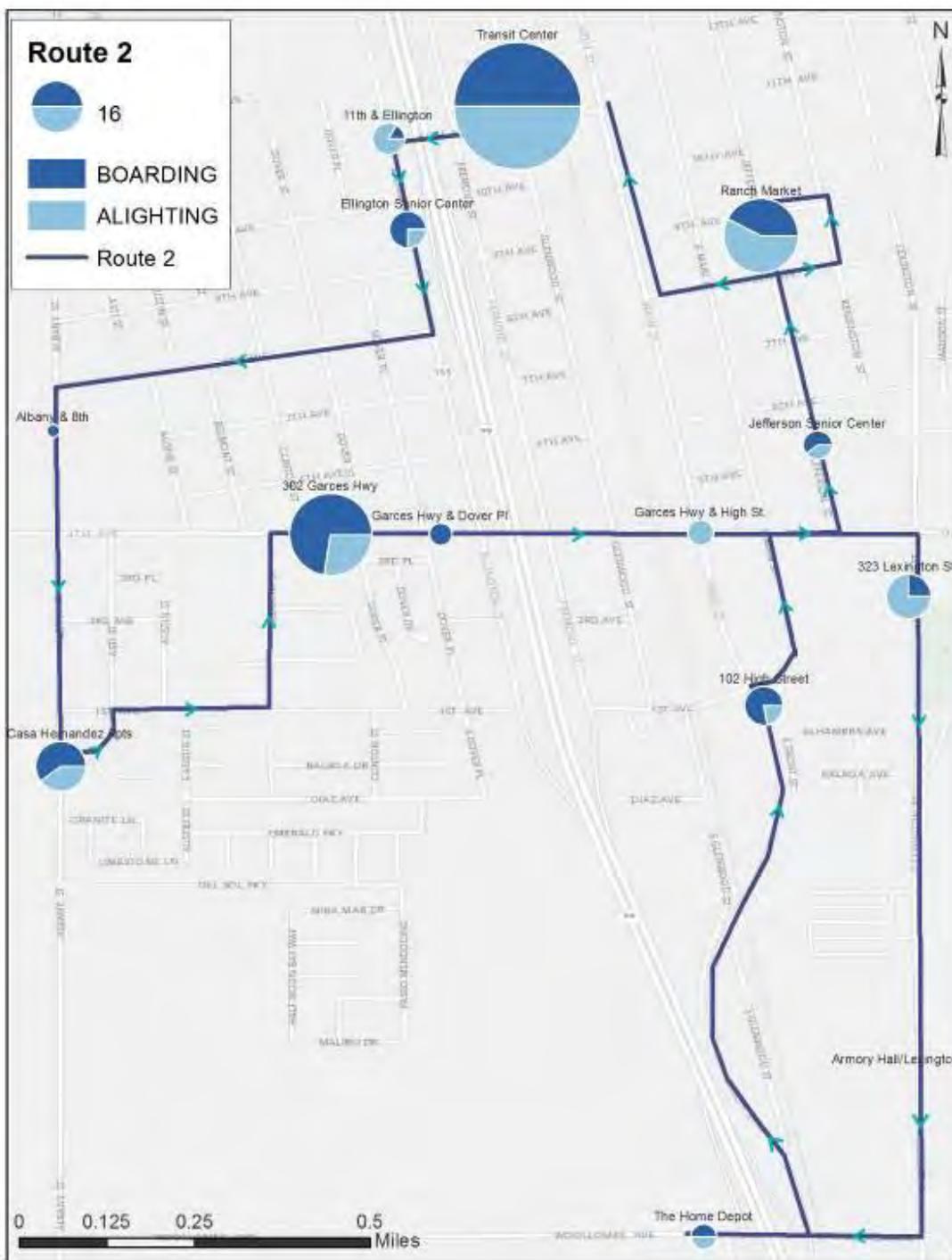
Exhibit C.9 Route 1 Boarding and Alighting Summary



Trips Sampled: 21

Exhibit C.9 illustrates boarding and alighting activity for Route 1. Delano Transit Center remains the most heavily patronized stop. Tony’s Pizza is the second most patronized stop and clearly shows a high number of alightings, making it the top destination on this route. This can be attributed to the stop’s proximity to Vallarta Supermarket, Rite Aid, and several other commercial establishments.

Exhibit C.10 Route 2 Boarding and Alighting Summary



Trips Sampled: 21

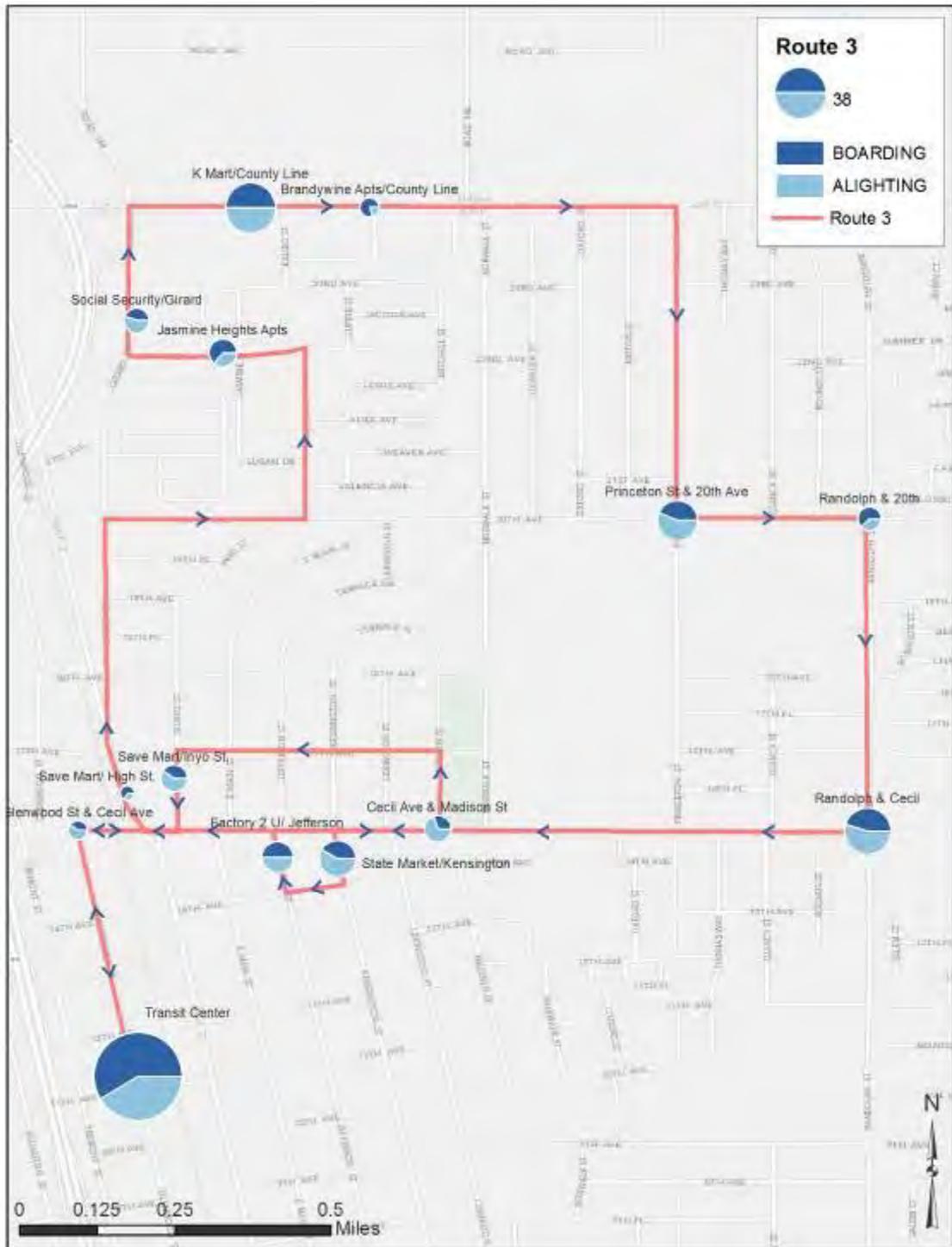
Exhibit C.10 shows boarding and alighting data for Route 2. Again, Delano Transit Center appears as the stop with the highest activity. The next stop with significant activity is 302 Garces Highway. Given its location proximate to several multi-family housing units, it is no surprise this stop sees high activity; the units serve as effective trip generators since boardings remained high throughout the observation period. As DART seeks to improve its ridership, special attention must be paid to stops such as this one, where multi-family housing bolsters ridership and can serve as the focal point for future service enhancements.

Another major stop illustrated by Exhibit C.10 is the Ranch Market stop located on 9th Avenue and Jefferson Street. Ranch Market is one of the last stops on the Route 2 alignment, but is also one of the most important. This stop experienced high alighting activity, much of which can be attributed to the available connections between numerous transit providers. Both Kern Regional Transit (KRT) and Tulare County Area Transit (TCAT) operate routes that stop at this location: KRT with the North Kern Express and TCAT with the South County Route 20. As one of the few stops that connect to other transit providers in the entire system, Ranch Market serves an important role in facilitating transfers entering and exiting the city.

One significant aspect of Route 2 to note is that it will be the most logical route to serve the Delano Market Place as it already travels near the site. Delano Market Place is set to be completed by 2013 and will be the City's largest shopping center. With Wal-Mart as the heart of the shopping center, Delano Market Place will also include restaurants, office space, and other retail stores that will surely serve as major trip generators. Given the volume of visitors expected to visit the shopping center plus the employees who will work there, Delano Market Place serves as a potential target for increasing ridership and fare revenue.

Exhibit C.11 demonstrates boarding and alighting activity on Route 3. The most patronized stops on this route are: Delano Transit Center, Kmart at County Line Road, and Randolph Street at Cecil Avenue. The two most frequent destinations on this route were the Kmart on County Line Road and the Rite Aid on Cecil Avenue. Both of the previously mentioned stops are among the top 10 highest activity stops for the entire system. This route also travels through various schools with its highest activity occurring at 20th Avenue and Princeton Street. In examining the results of the data, the figures indicate this route sees moderate activity.

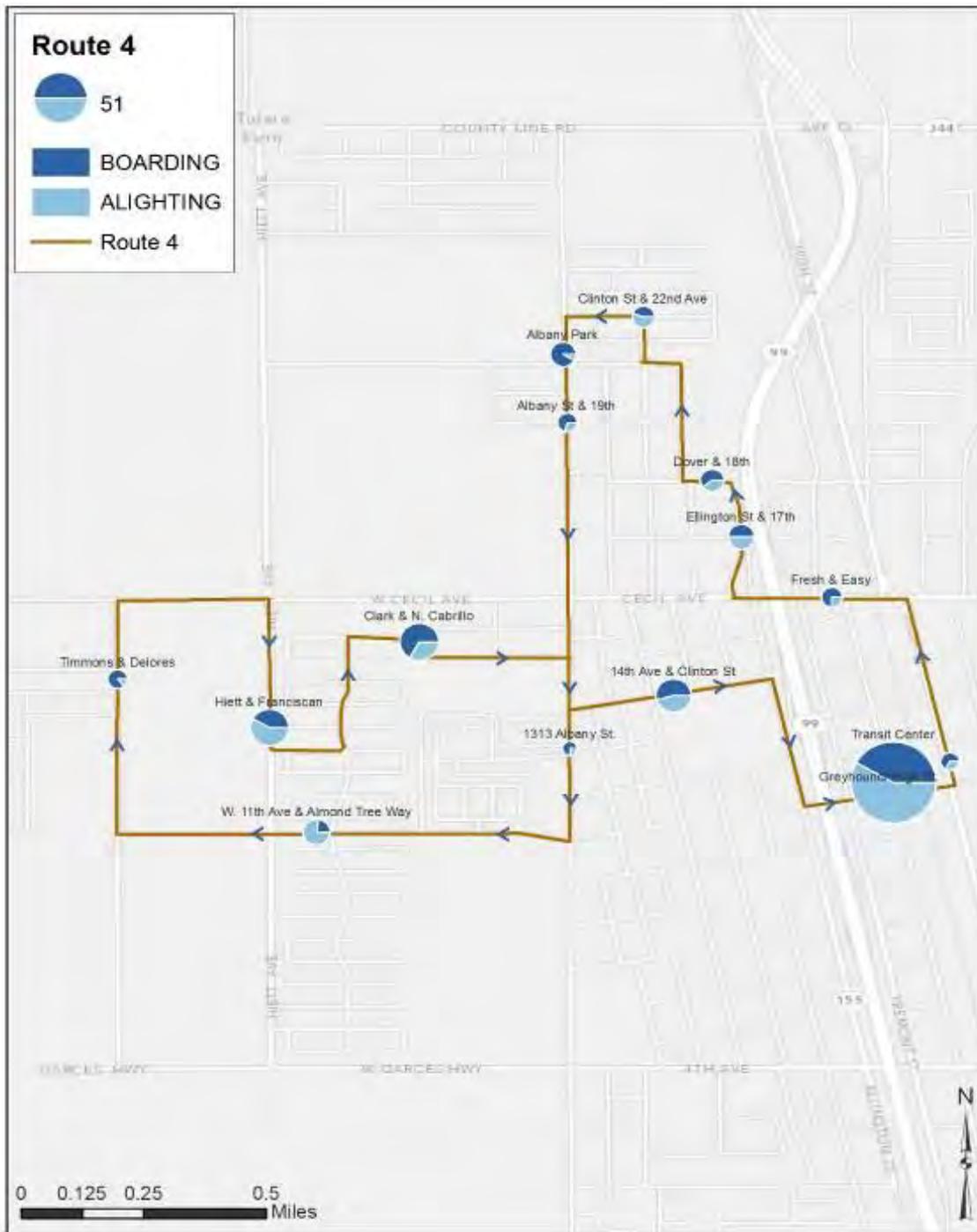
Exhibit C.11 Route 3 Boarding and Alighting Summary



Trips Sampled: 21

Exhibit C.12 shows boarding and alighting activity for Route C. The highest alighting for this route, other than the Delano Transit Center, occurred at Hiett Avenue and Franciscan Plaza near Kennedy High School. Overall most of the activity on this route occurred near schools, meaning that students account for a substantial amount of the ridership.

Exhibit C.12 Route 4 Boarding and Alighting Summary



Performance Indicators

To measure system performance, Moore & Associates gathered data such as annual operating cost, fare revenue, ridership data, Vehicle Service Hours (VSH), and Vehicle Service Miles (VSM) in order to track progress through time. During the course of the project, project staff requested the most recent data from the transit program to incorporate in this section of the report. However, updated data was only provided for ridership and VSM. Therefore, data was supplemented using the following sources: Two-Year Biennial Budget for the City of Delano for operating costs and fare revenue, and estimates made by our own staff based on prior data for VSH. As such, the figures presented are estimates.

Exhibit C.13 System Performance (Fixed-Route and Dial-A-Ride)

Performance Measure	System		
	FY 2008/09	FY 2009/10	FY 2010/11
Operating Cost (Actual \$)	\$1,414,096	\$1,402,643	\$1,419,105
<i>Annual Change</i>		-0.8%	1.2%
Fare Revenue (Actual \$)	\$65,332	\$64,600	\$66,538
<i>Annual Change</i>		-1.1%	3.0%
Vehicle Service Hours (VSH)	12,720	16,065	16,065
<i>Annual Change</i>		26.3%	0.0%
Vehicle Service Miles (VSM)	178,836	162,820	166,855
<i>Annual Change</i>		-9.0%	2.5%
Passengers	125,122	121,861	157,074
<i>Annual Change</i>		-2.6%	28.9%
Performance Indicators			
Operating Cost/VSH (Actual \$)	\$111.17	\$87.31	\$88.34
<i>Annual Change</i>		-21.5%	1.2%
Operating Cost/VSM	\$7.91	\$8.61	\$8.51
<i>Annual Change</i>		8.9%	-1.3%
Operating Cost/Passenger (Actual \$)	\$11.30	\$11.51	\$9.03
<i>Annual Change</i>		1.8%	-21.5%
Passengers/VSH	9.84	7.59	9.78
<i>Annual Change</i>		-22.9%	28.9%
Passengers/VSM	0.70	0.75	0.94
<i>Annual Change</i>		7.0%	25.8%
VSM/VSH	14.06	10.14	10.39
<i>Annual Change</i>		-27.9%	2.5%
Farebox Recovery	4.6%	4.6%	4.7%
<i>Annual Change</i>		-0.3%	1.8%
Fare/Passenger	\$0.52	\$0.53	\$0.42
<i>Annual Change</i>		1.5%	-20.1%

Source: City of Delano

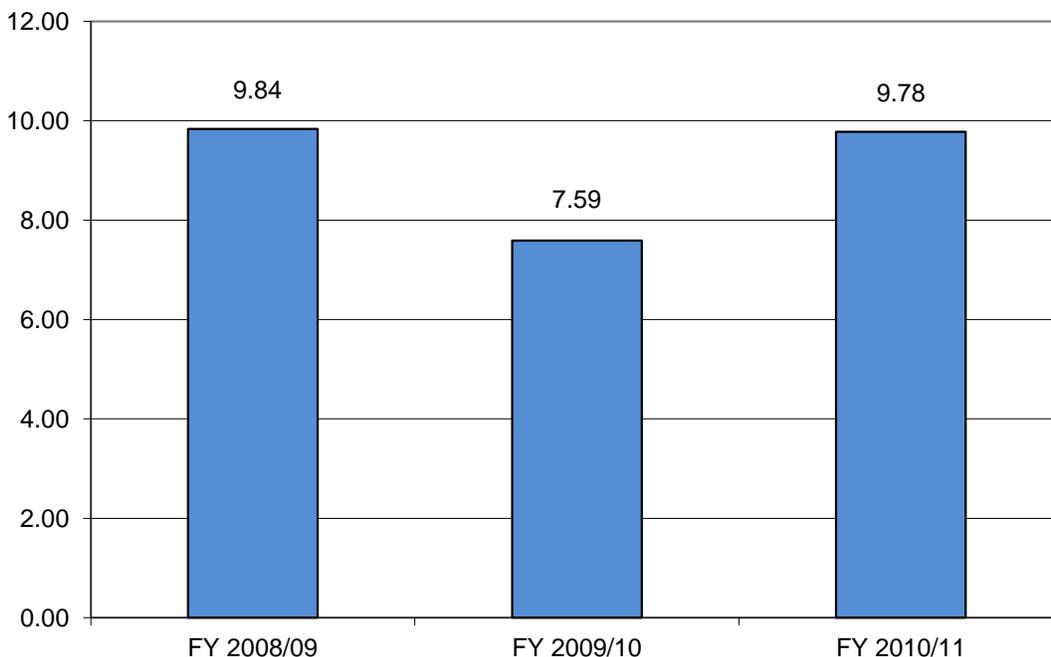
Ridership

In the last three years DART has maintained a steady pace in total annual unlinked trips, which accounts for all DART transfers, non-paying, and Dial-A-Ride trips made in the year. From FY 2008/2009 to FY 2009/2010 total annual ridership averaged approximately 123,000 passengers; however, in FY 2010/2011 total annual ridership increased by approximately 34,000 passengers bringing the total to about 157,000 passengers. This increase can be accredited to service changes made in 2010. Exhibit C.8 demonstrates total annual ridership in the last three years. Yet, despite the incline in total annual ridership from FY 2009/2010 to FY 2010/2011, DART has fallen short of meeting minimum farebox standards.

Passengers/Vehicle Service Hour

Passengers/VSH is one of the most commonly used metrics for measuring public transit service performance. This indicator quantifies the average number of passengers onboard the bus during each vehicle service, or revenue hour. Exhibit C.14 demonstrates system-wide passengers/VSH for the period of FY 2008/2009 through FY 2010/2011.

Exhibit C.14 Passengers/Vehicle Service Hour



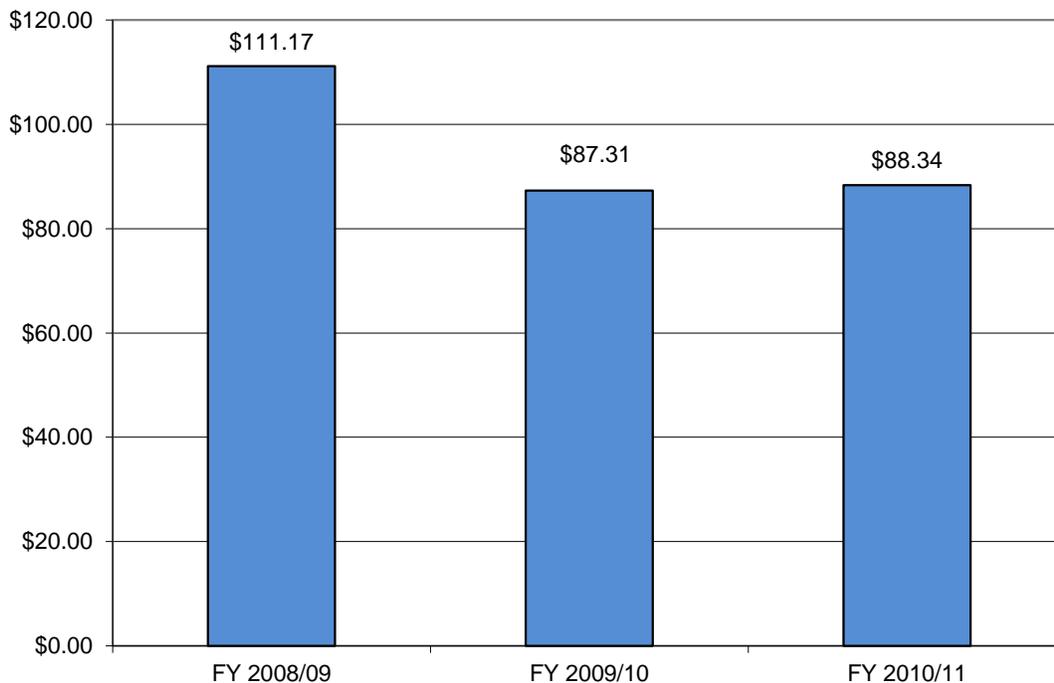
The results of the data demonstrate a dip from FY 2008/2009 to FY 2009/2010. This dip coincides with the actual total annual ridership for the same period. Following the decline, service metrics increase returning closely to the FY 2008/09 level.

Operating Cost/Vehicle Service Hour

This indicator serves as a measure of cost effectiveness by calculating how much it costs to provide a single hour of revenue service. From FY 2008/2009 to FY 2010/2011 the operating cost/VSH

indicator decreased by \$22.83. This decrease is likely due to service changes that occurred during that period such as reductions in service hours and staffing levels. Exhibit C.15 illustrates this drop.

Exhibit C.15 Operating Cost/Vehicle Service Hour



Farebox Recovery

Simply stated, farebox recovery is the ratio of fare revenue to operating cost. Farebox recovery ratio is not only the quickest way of assessing transit service performance but also one of the primary criteria for receiving federal operating and capital funds.

The Transportation Development Act (TDA) and the FTA require public transit operators to meet a minimum farebox recovery in order to qualify for future funding. For rural operators, the minimum requirement is ten percent. The minimum for operators within an Urbanized Area (populations of 50,000 or greater) is 20 percent. Currently designated as a rural operator, the DART program has been struggling against meeting this minimum requirement since 2003 and is in danger of facing penalties such as fees equal to the amount of funds necessary to attain a ten-percent farebox recovery. Further, Delano will be recognized as an Urbanized Area in the coming year and as such DART will need to meet a system-wide farebox recovery requirement of 20 percent, unless a lower rate is set by the Kern Council of Governments (Kern COG). Kern COG may lower the farebox recovery requirement for Urbanized Areas at its discretion.

We recommend Kern COG set the farebox recovery ratio for Delano at no more than 15 percent because of the relatively high percentage of low-income residents, seniors, and persons with disabilities, who altogether comprise a significant portion of DART ridership, and the previously noted difficulties the system has faced in achieving a 10-percent farebox recovery.

In 2008 the City adopted a Transit Service Action Plan intended to achieve the minimum farebox requirements. Certain elements of the Plan appear to not have been implemented, yet they remain valid. These items include the following (verbatim):

- Annual Fare Increases
- Contract the Operations and Maintenance of the Transit System
- Partner with Other Transportation Service Providers
- Develop a Marketing and Outreach Plan to Increase Ridership
- Reduce Maintenance Expenses
- Improve Transit Service to Increase Ridership
- Pursue Grant Funding
- Reduce Expenses
- Develop a Structured Training Program

Detailed strategies and service alternatives designed to improve farebox recovery appear in this report in the Findings and Recommendations chapter (Chapter 2).

Key Findings

Throughout the evaluation of the DART system, we found several fundamental issues that need to be addressed if DART is to achieve maximum system efficiency and increase farebox revenue.

The following is a list of key findings that will assist us in making recommendations for improving the DART system. Recommendations are presented in Chapter 2.

1. Too many time-points in published fixed-route schedules.
2. Numerous instances of flag stops impacting schedule adherence.
3. Current policies regarding operator work shifts create inadequacies in meeting published schedule.
4. Fare collection policy not enforced equally among operator staff.



SURVEY
QUESTIONS
AND RESULTS

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APPENDIX D – SURVEY INSTRUMENTS AND RESULTS

D.1 ONBOARD SURVEY QUESTIONS AND RESULTS

1) Where did you board the bus for this trip (Specify cross-streets and/or local landmark)

10th and Comoto	1
11th and Hiatt	1
19th	2
1st and Belmont	2
20th and Princeton	1
21st	2
22nd	1
22nd and Jasmine	1
22nd and Kalibo	1
8th and E	1
Albany	1
Albany and 13th	2
Almond	2
Belmont	1
Belmont and 1st	1
Belmont and Garces	1
Browning and 20th	1
Browning and Carillo	1
Central	2
Clark and N. Carillo	1
Clinton	1
Comoto	3
County Line	1

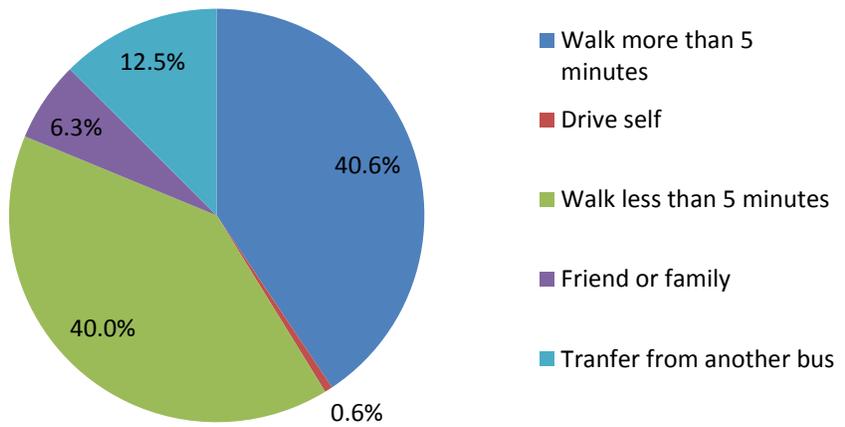
County Line and Patton	1
Dover and 18th	1
Dover and 20th	1
Dover and Garces	1
Ellington	1
Franciscan	1
Fremont	1
Garces	1
Garces and Hiatt	1
Garces and Vernon	1
Gilbert St	1
Hiatt and 11th	1
High	1
High St	3
Inyo	1
Jasmine and 22nd	3
Jefferson and 8th	1
Lexington	1
Lexington and Garces	1
Oxford and Garces	1
Princeton	1
Princeton and Jefferson	1
Randolph	1
Randolph and Cecil	1

2) Where did you exit the bus for this trip (Specify cross-streets and/or local landmark)

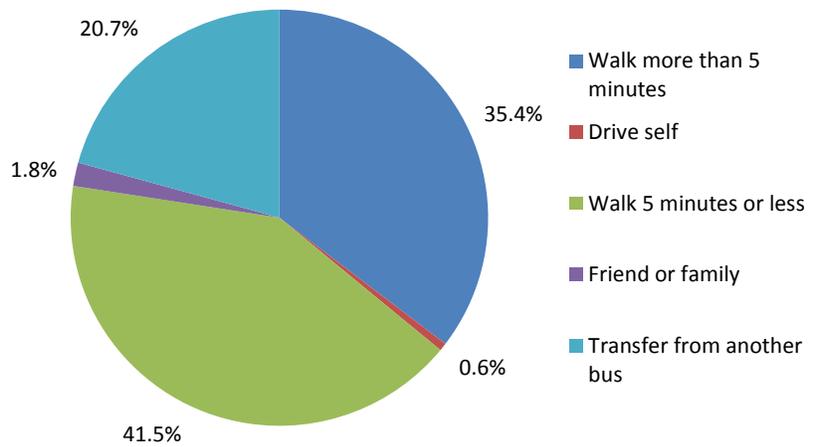
11th and Main Street	1
14th and Clinton	1
1st and Belmont	1
20th and Princeton	2
Albany	2
Almond Tree and 14th	1
Browning and 17th	1
Cecil	6
Cecil and Browning	1
Central	2
Clinton and 22nd	1
Comoto	1

Delfina	1
Garces	4
Garces and Clinton	1
Garces and High Street	1
Glenwood and 14th	1
High Street	1
Jefferson	2
La Este	1
Main and 8th	1
Princeton	3
Princeton and 20th	1
Randolph and Cecil	2

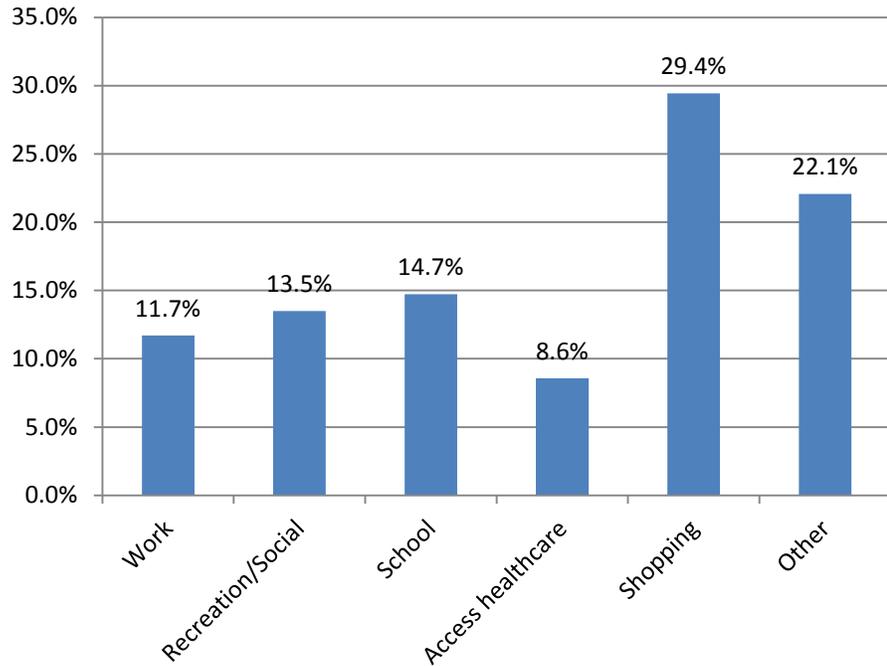
3) How did you travel to the bus stop today?



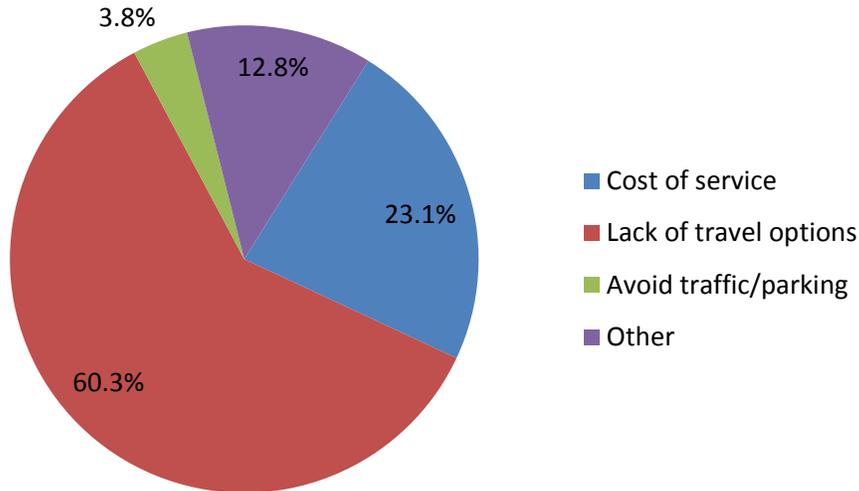
4) How will you get to your final destination once you leave the bus?



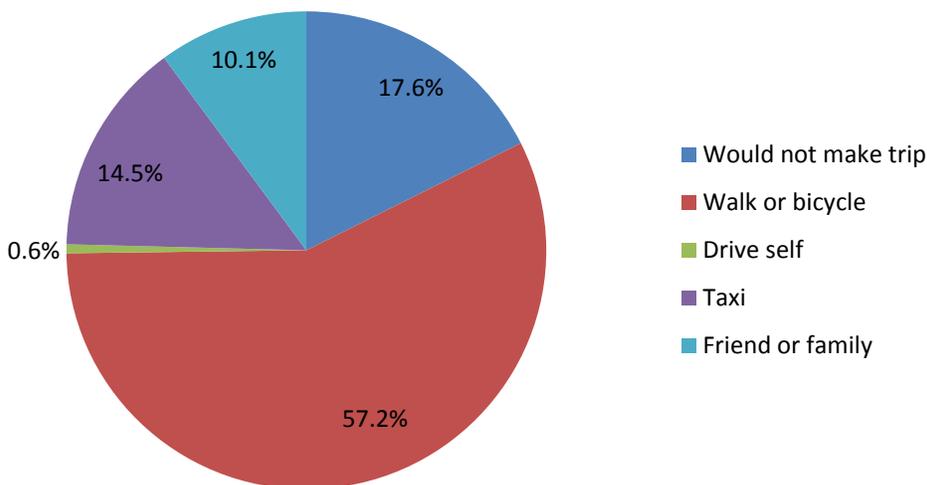
5) What is the primary purpose of your trip today?



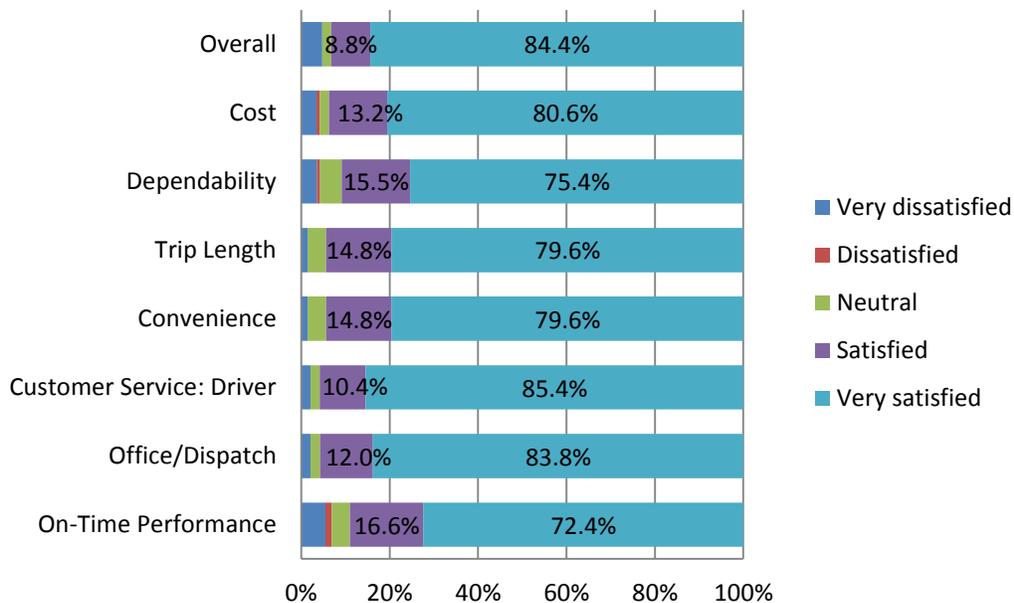
6) Why did you choose the bus for this trip?



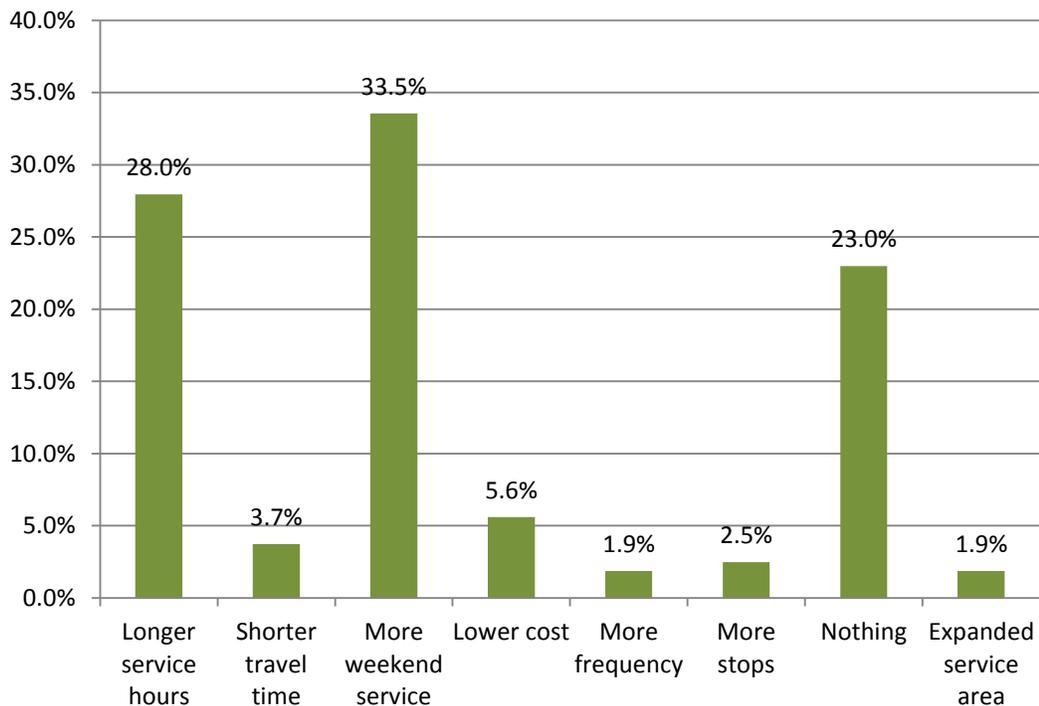
7) How would you make this trip if the bus had not been available?



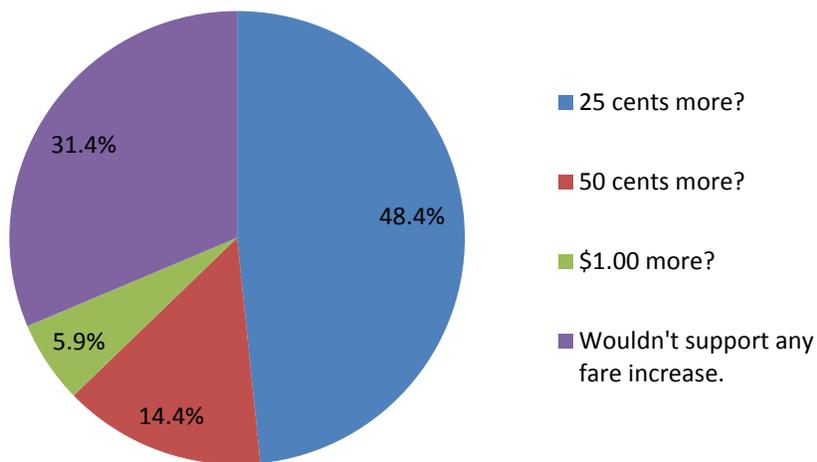
8) On a scale from 1 to 5 (1=Very dissatisfied, 5=Very satisfied) please indicate your satisfaction with the service attributes listed below.



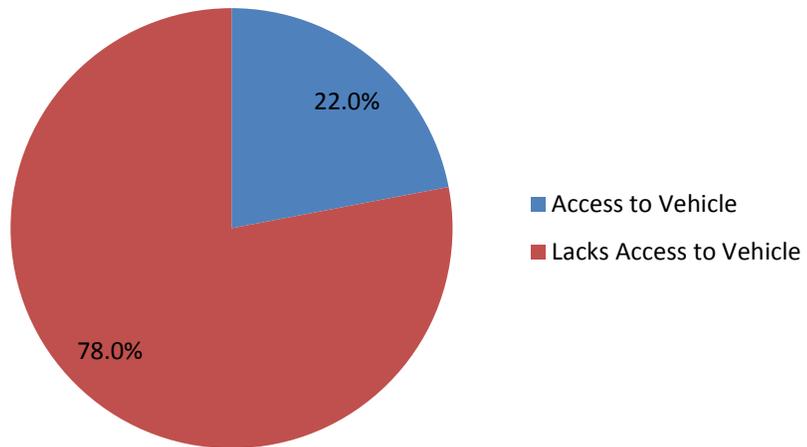
9a) What service improvement would you most like to see made regarding fixed-route bus service for DART?



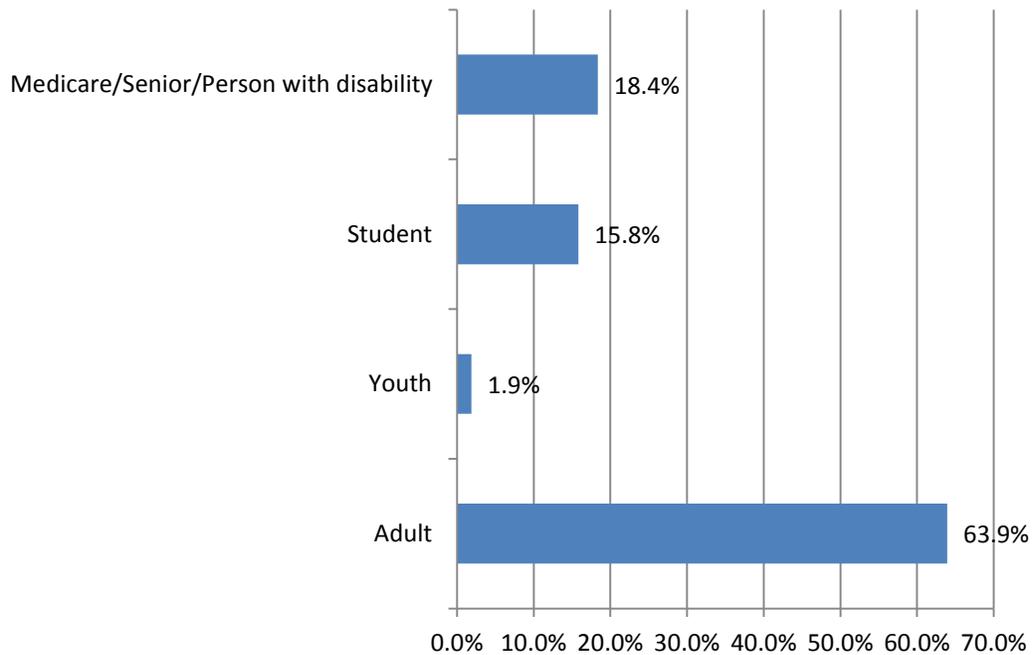
9b) If it became necessary to increase the bus fare in order to introduce the change you identified in Question 9a, would you be willing to pay:



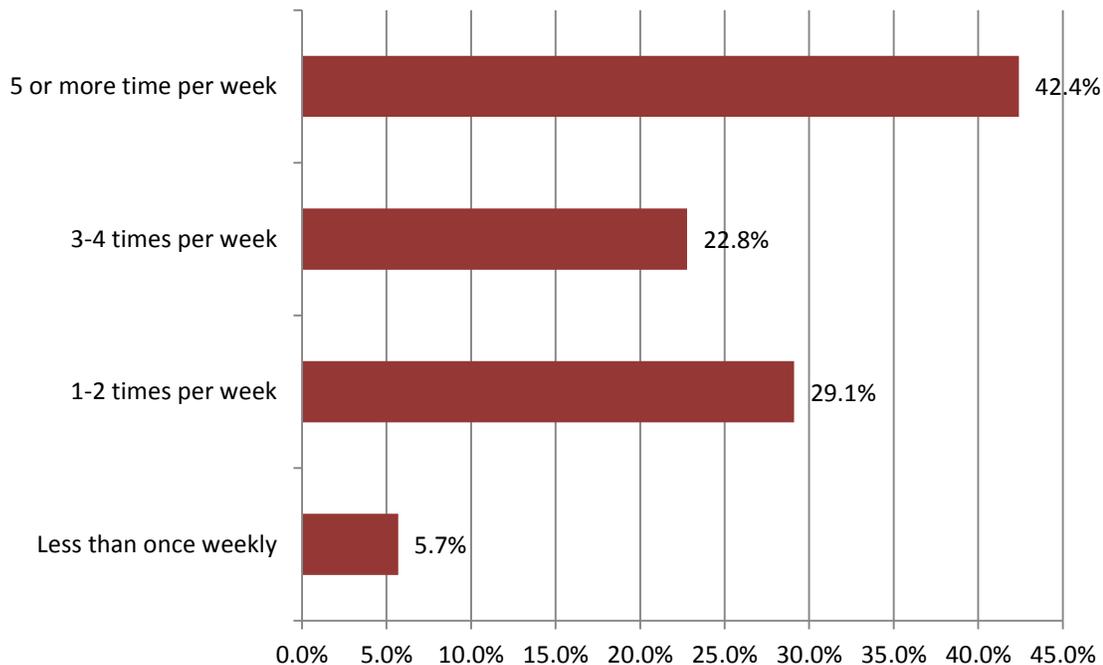
10) Do you have access to a personal vehicle?



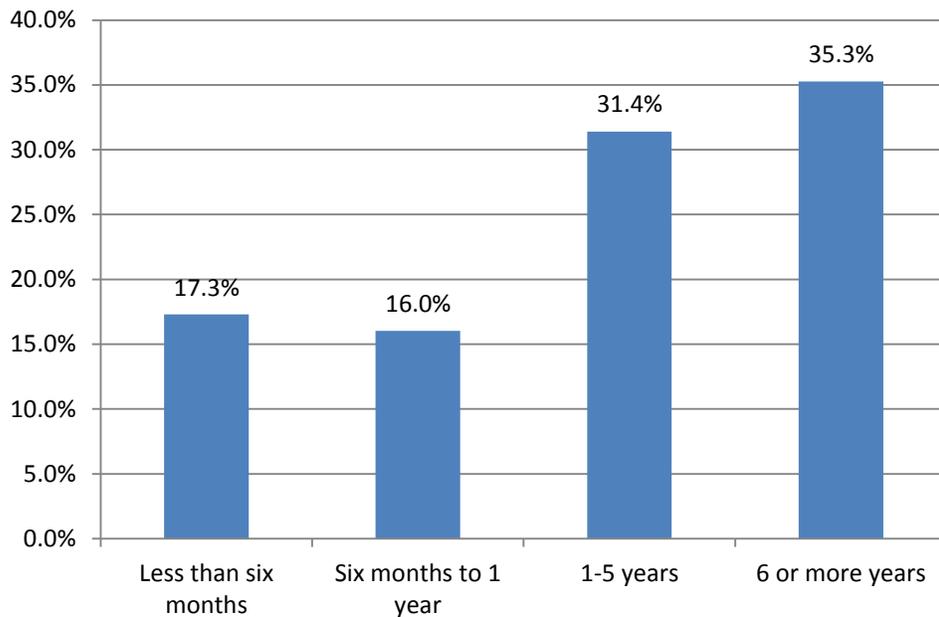
11) What fare category applies to you?



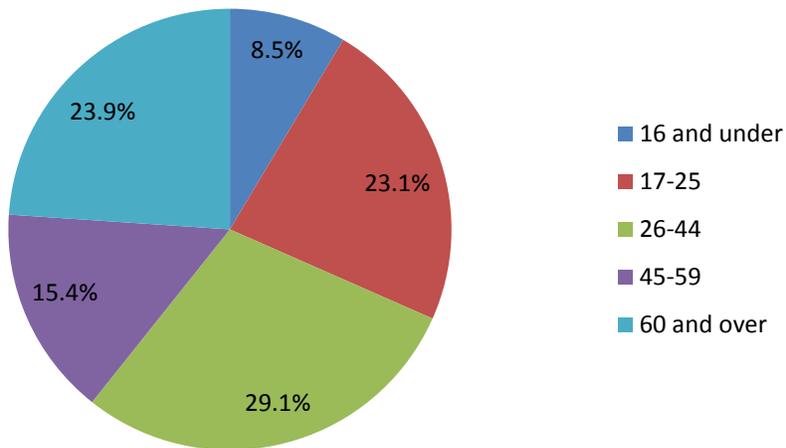
13) How many trips do you make via DART in a typical week?



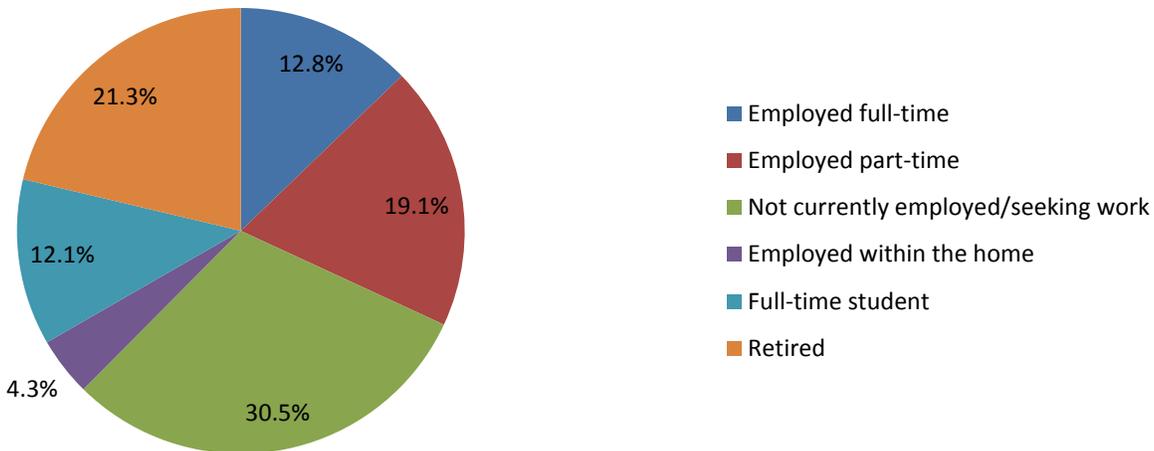
14) How long have you been riding the bus in Delano?



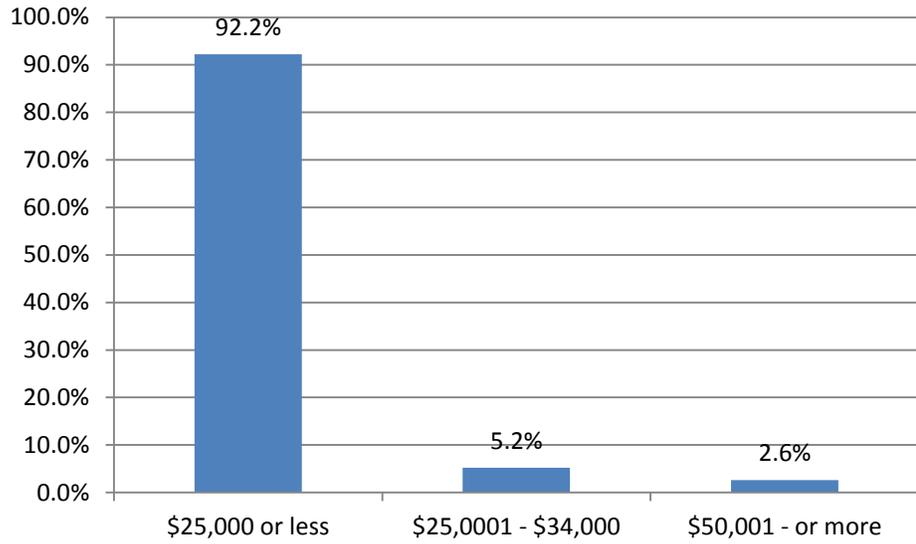
15) What is your age?



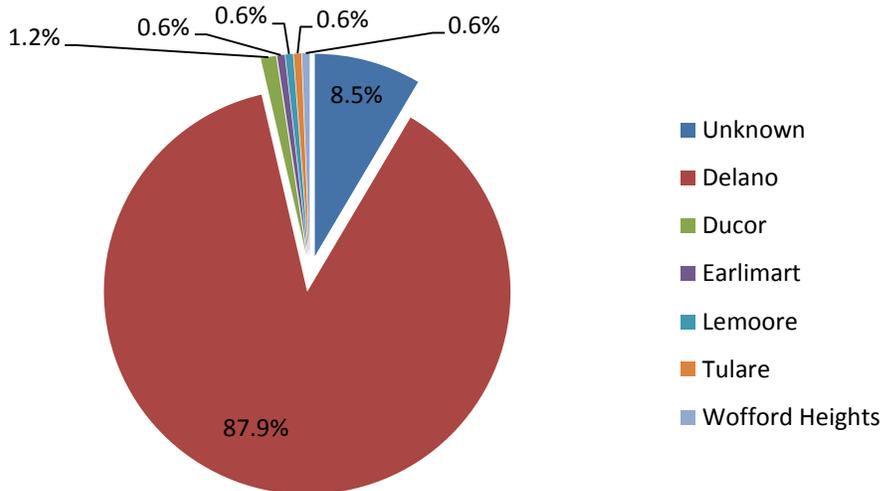
16) Which of the following best describes you?



17) What is your annual household income?

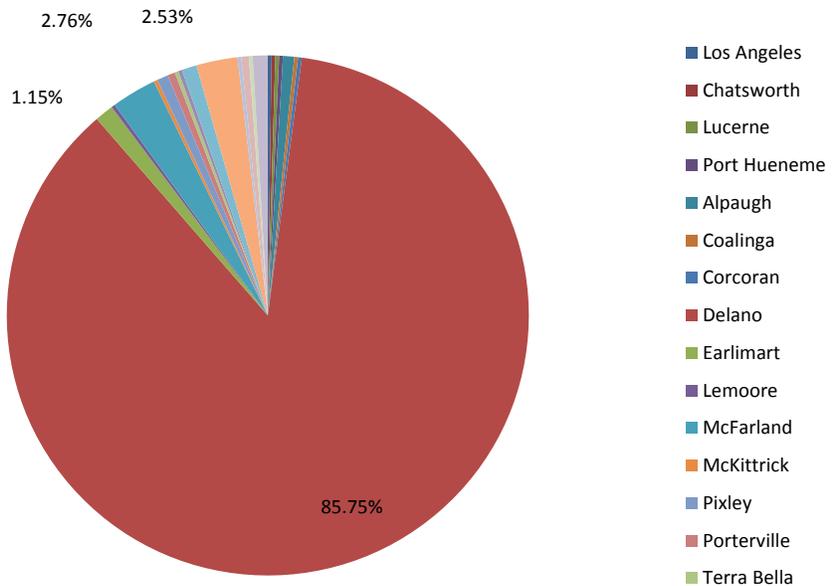


18) What is your home zip code?

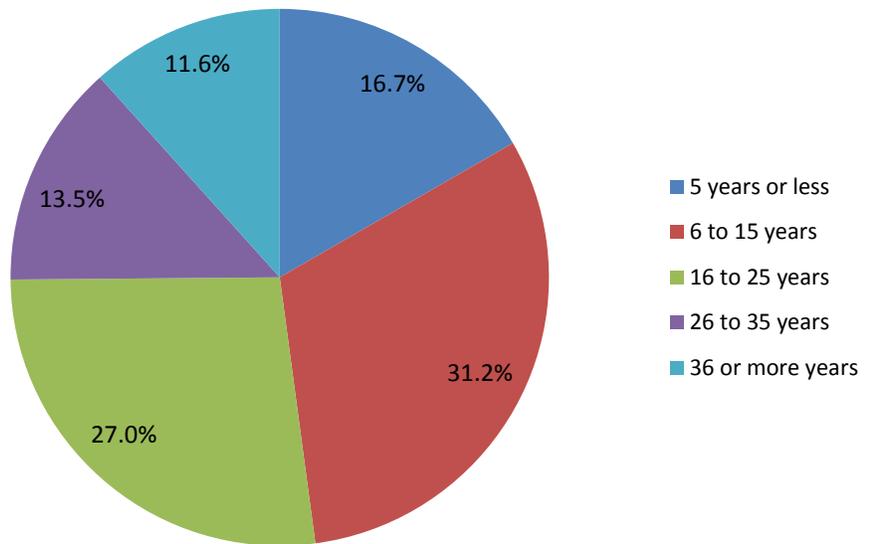


D.2 COMMUNITY SURVEY QUESTIONS AND RESULTS

1) What is your home zip code?

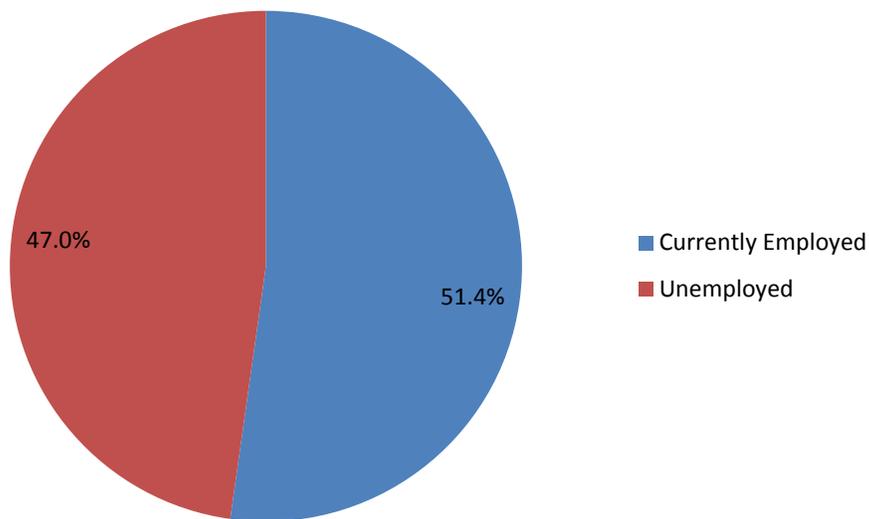


(If a Delano resident) How many years have you lived in Delano?



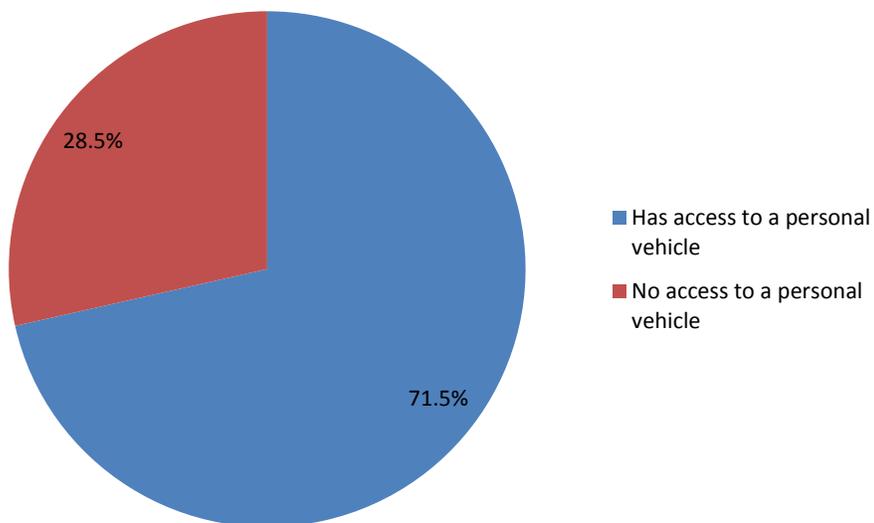
2) Are you currently employed?

2a) If yes, do you work in Delano?

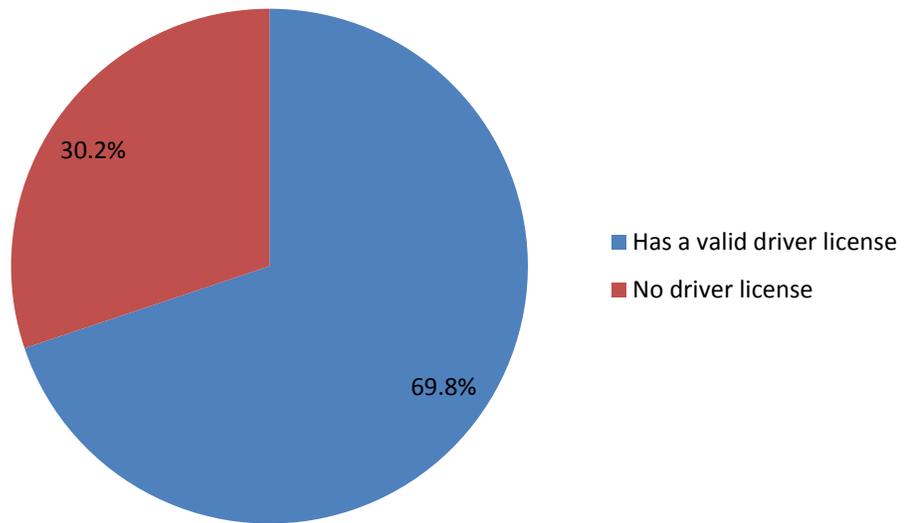


Place of Employment	
Works in Delano	54.3%
Works outside of Delano	45.7%

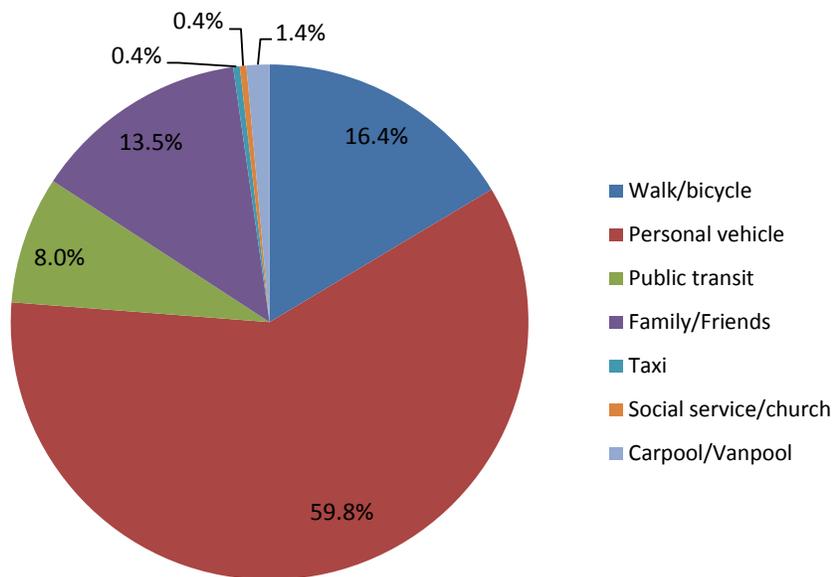
3) Do you have access to a personal vehicle?



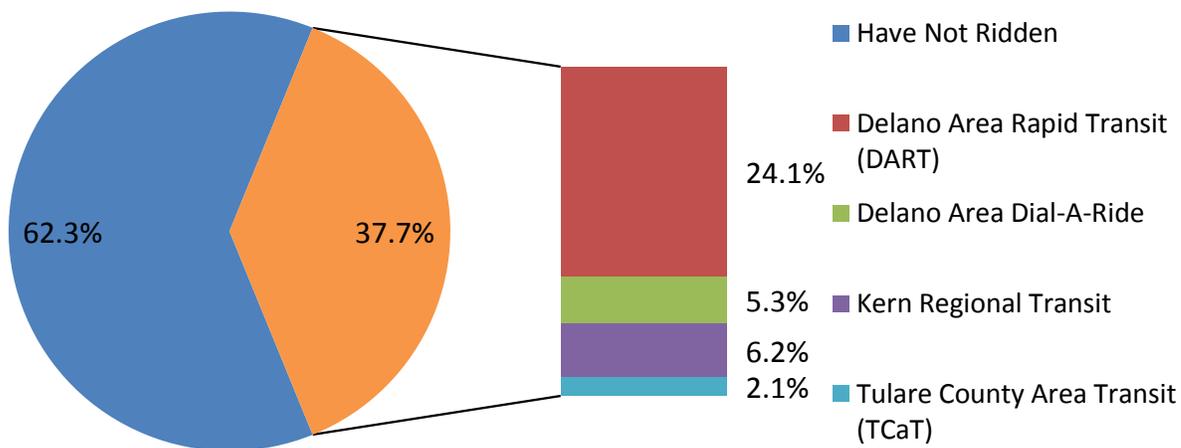
4) Do you have a valid driver license?



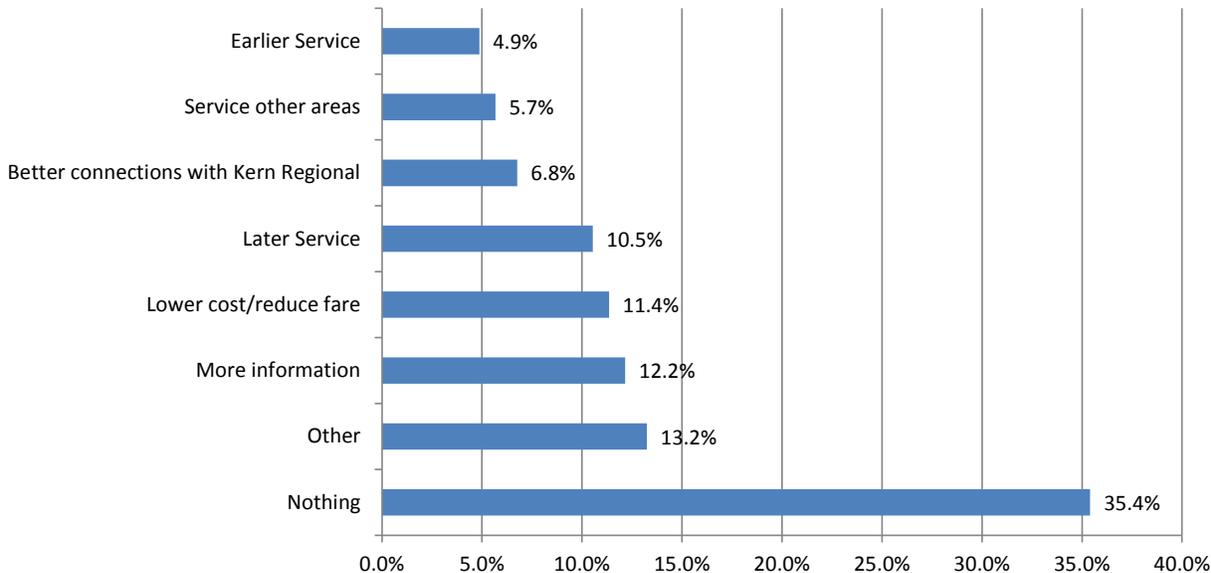
5) What is your primary means of transportation?



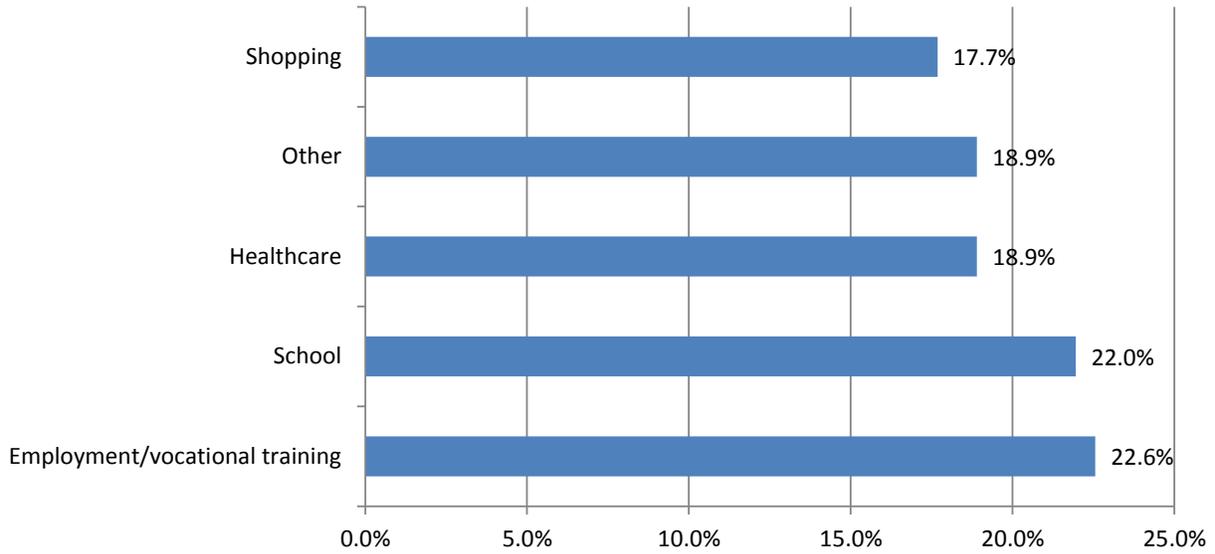
6a) Have you used the City's public transit (DART or Dial-A-Ride) service within the past 90 days?



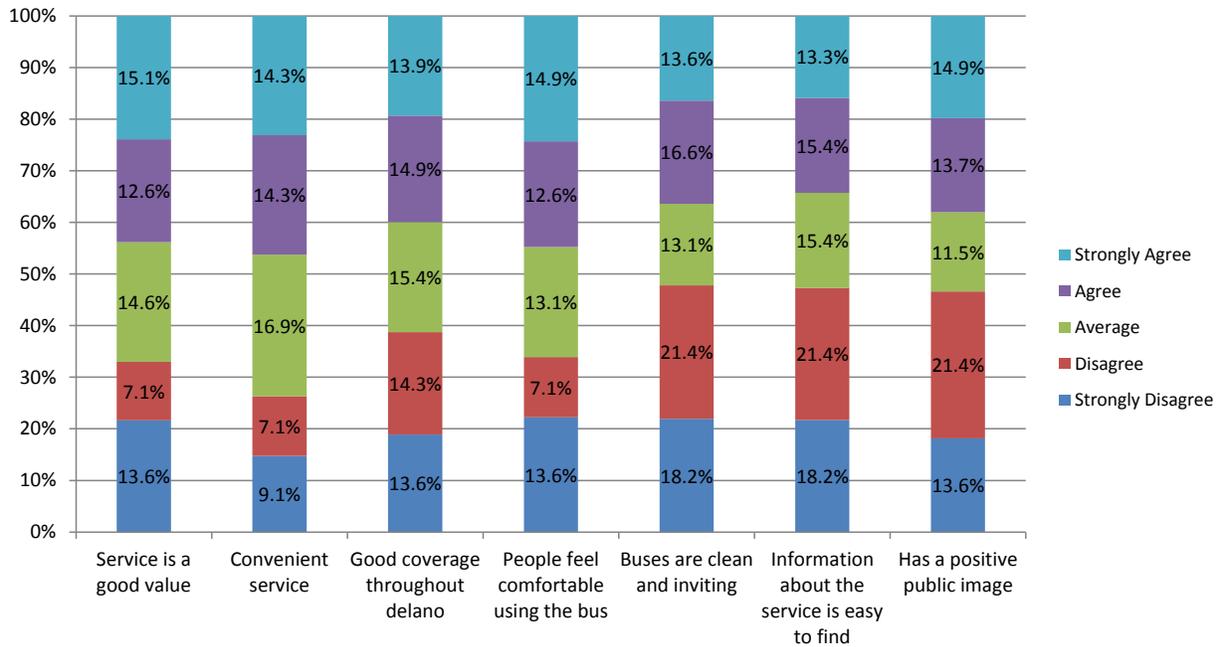
6b) What if anything, would encourage you to increase your use of public transit?



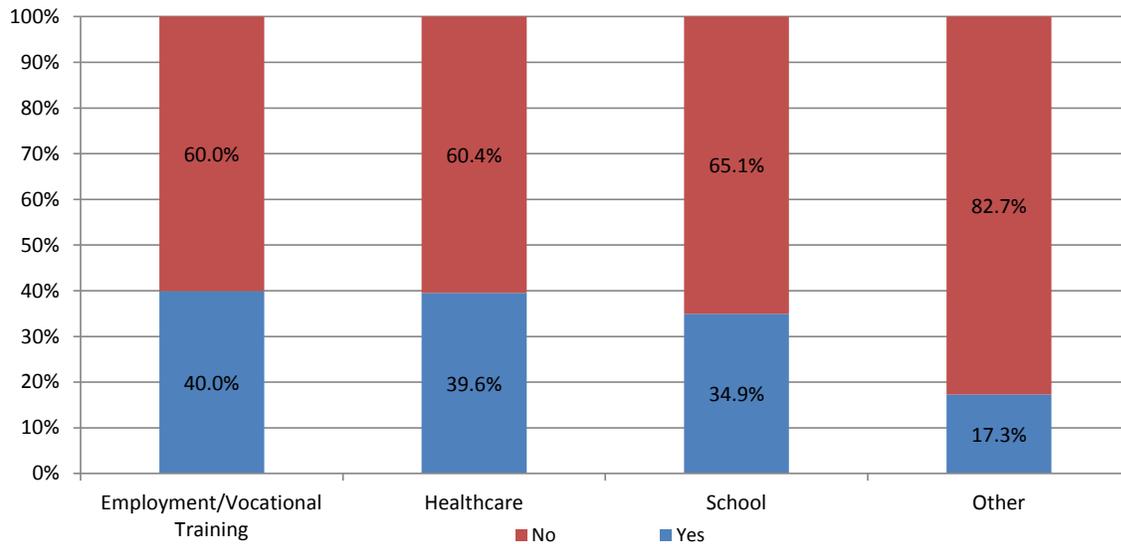
6c) When riding public transit what is your most common trip purpose?



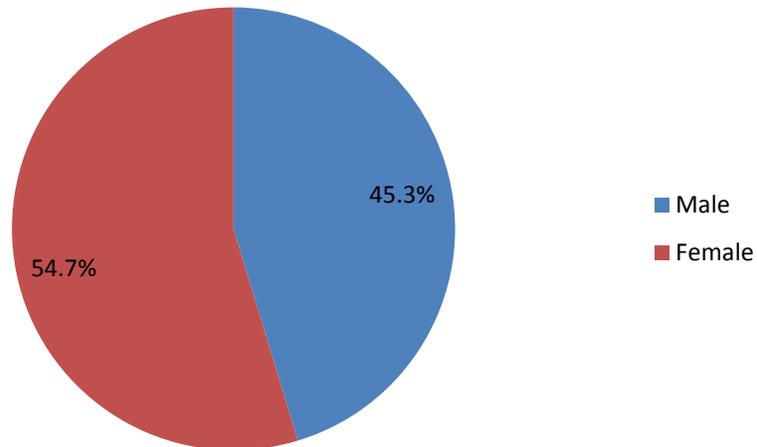
7) If you used public transit service within the past 90 days, please indicate your opinion regarding the following statements: (1 = Strongly Disagree to 5 = Strongly Agree)



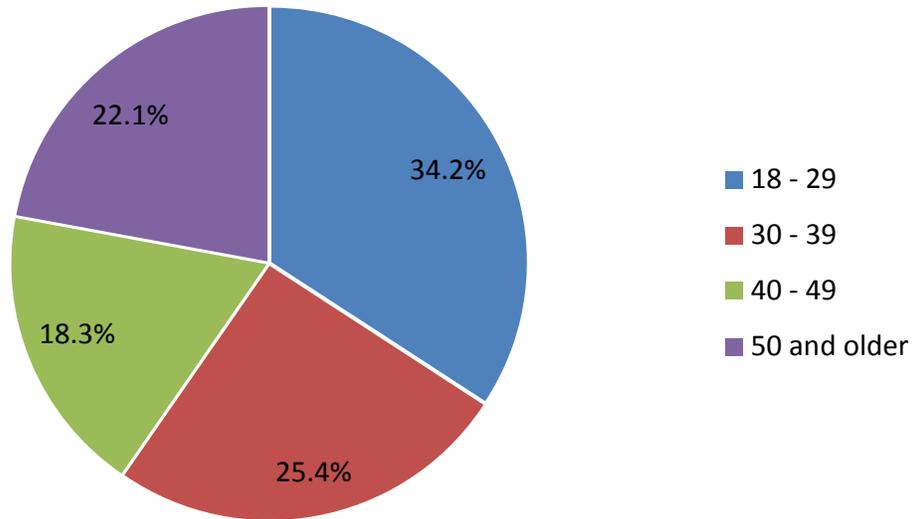
8) Has the absence of affordable and reliable transportation (i.e., public transit, private auto, ridesharing, etc.) impacted your ability to access?



Respondent gender

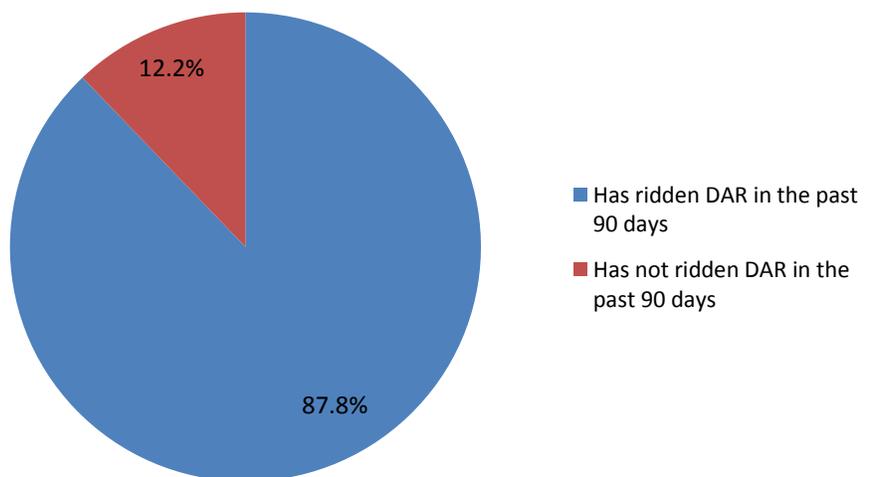


Approximate age

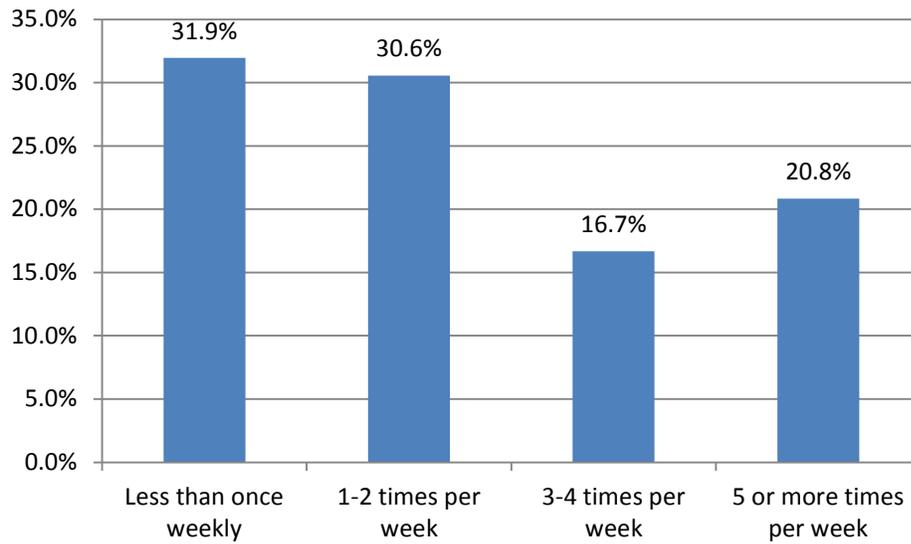


D.3 DIAL-A-RIDE SURVEY QUESTIONS AND RESULTS

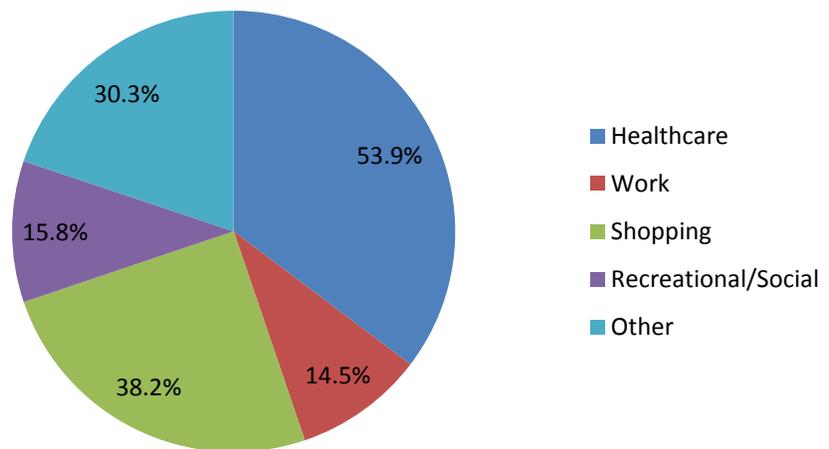
1) Have you ridden the City's Dial-A-Ride in the past 90 days?



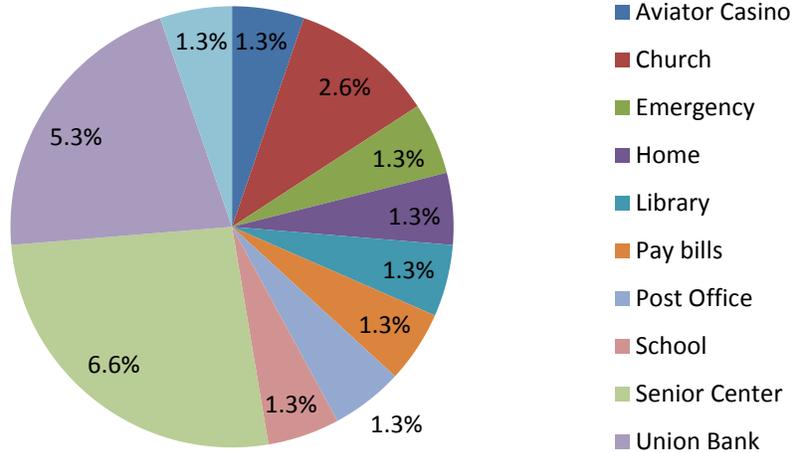
2) In a typical week, how many roundtrips do you make using the City's Dial-A-Ride service?



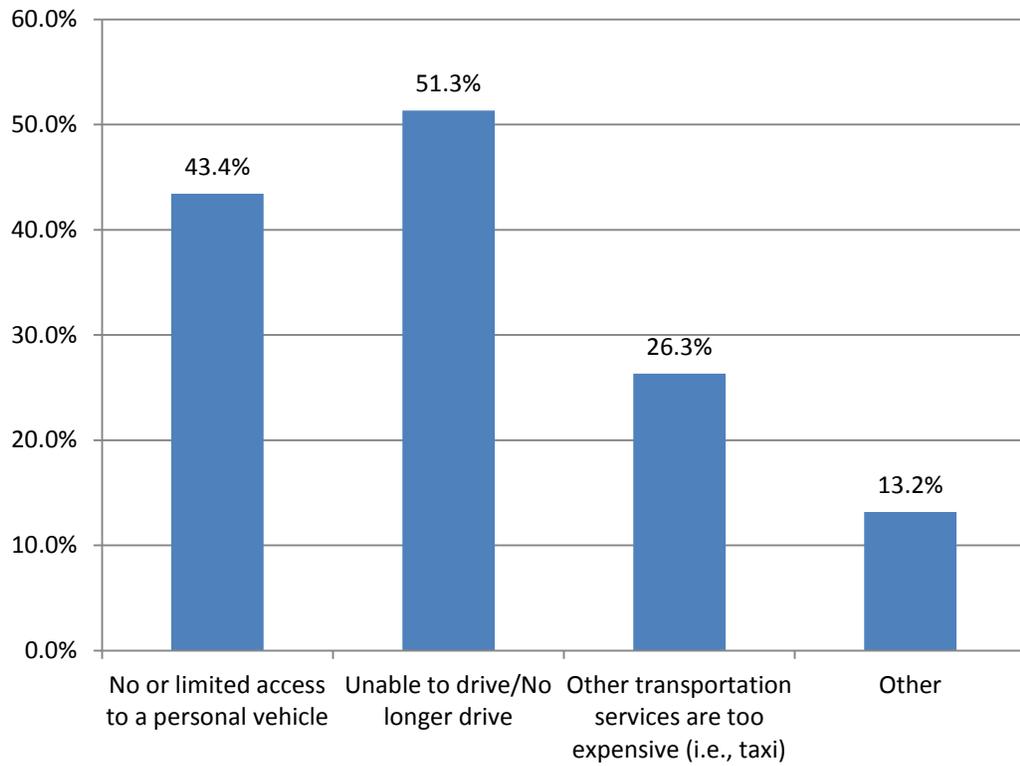
3) What is your most common travel destination?



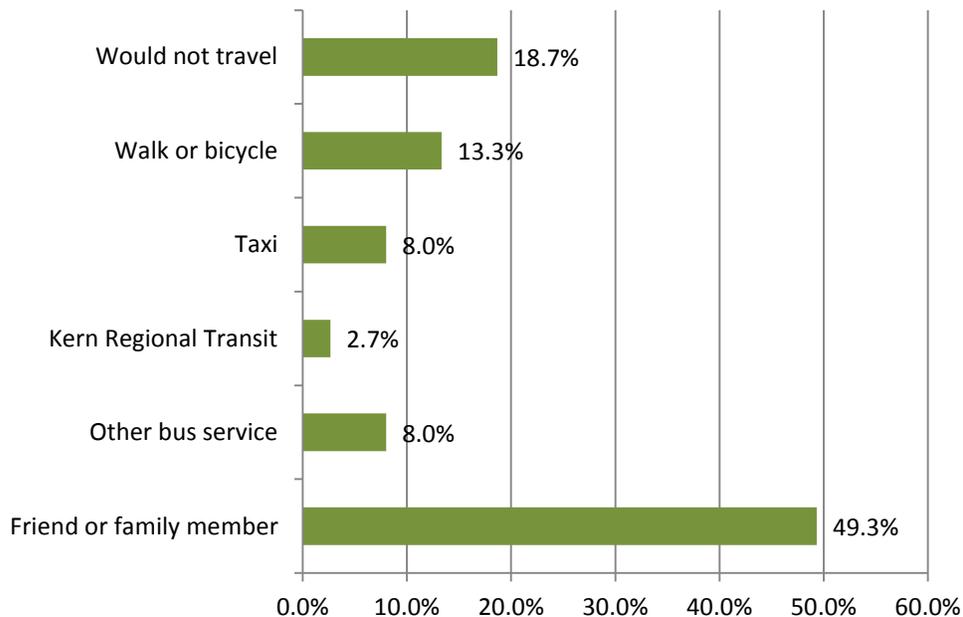
3a) What is your most common travel destination? Other (Specify)



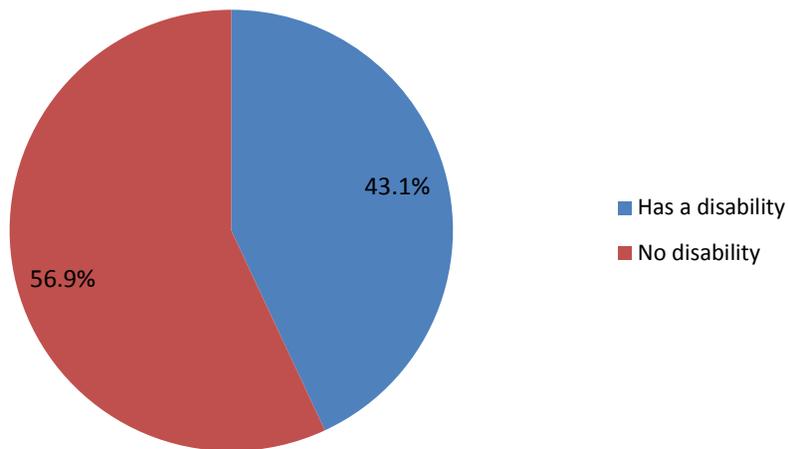
4) What is your primary reason for using Delano Dial-A-Ride?



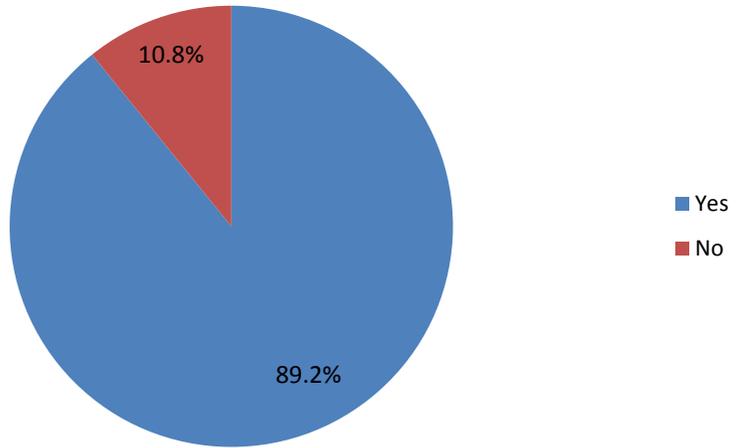
5) If the City's Dial-A-Ride service was unavailable, how would you have made your most recent trip?



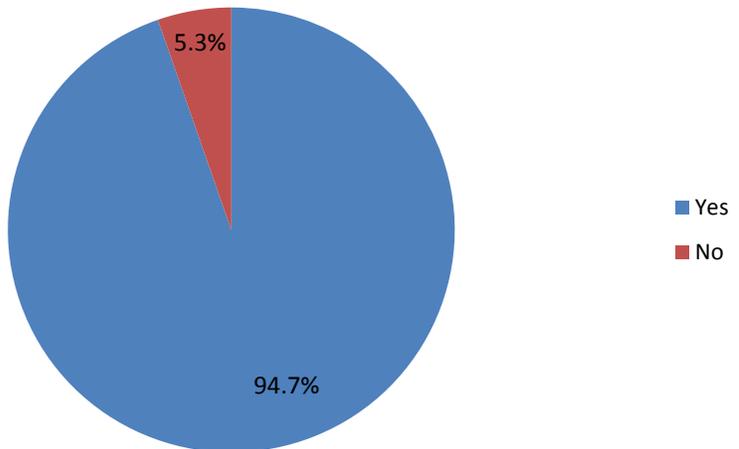
6) Do you have a disability which impacts your personal mobility?



7) When calling to place your ride request, are you able to promptly reach a Customer Service Representative?

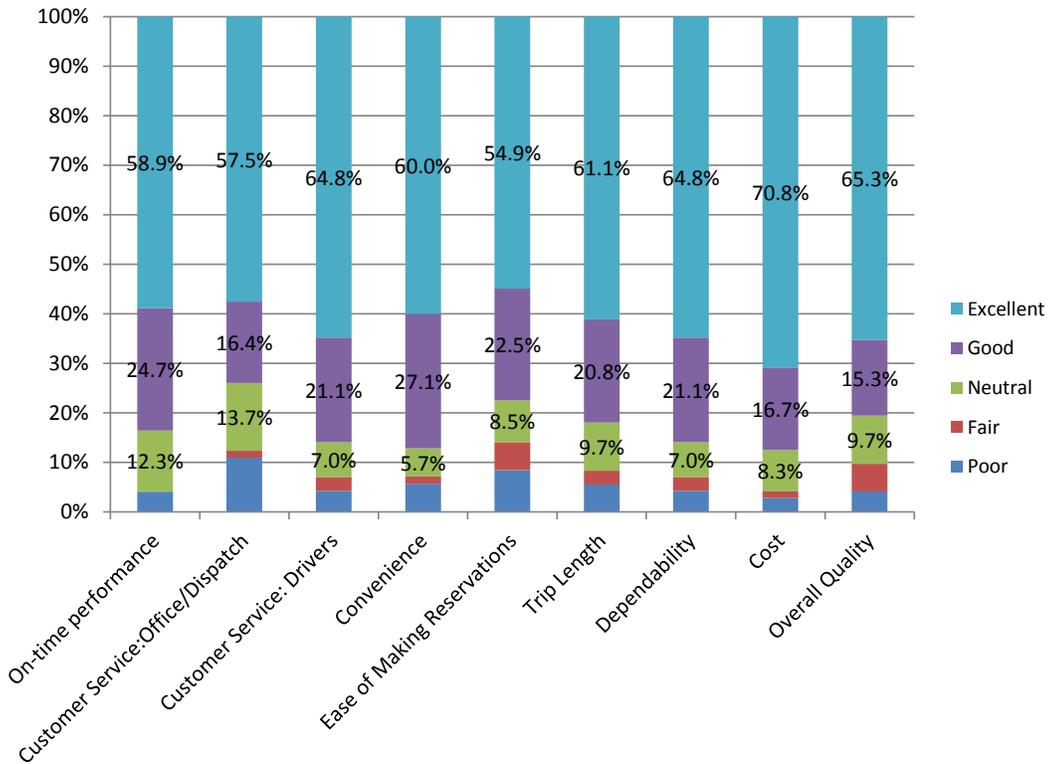


8) Does the Dial-A-Ride vehicle normally arrive at the agree upon pick-up time? If No, it is usually...?

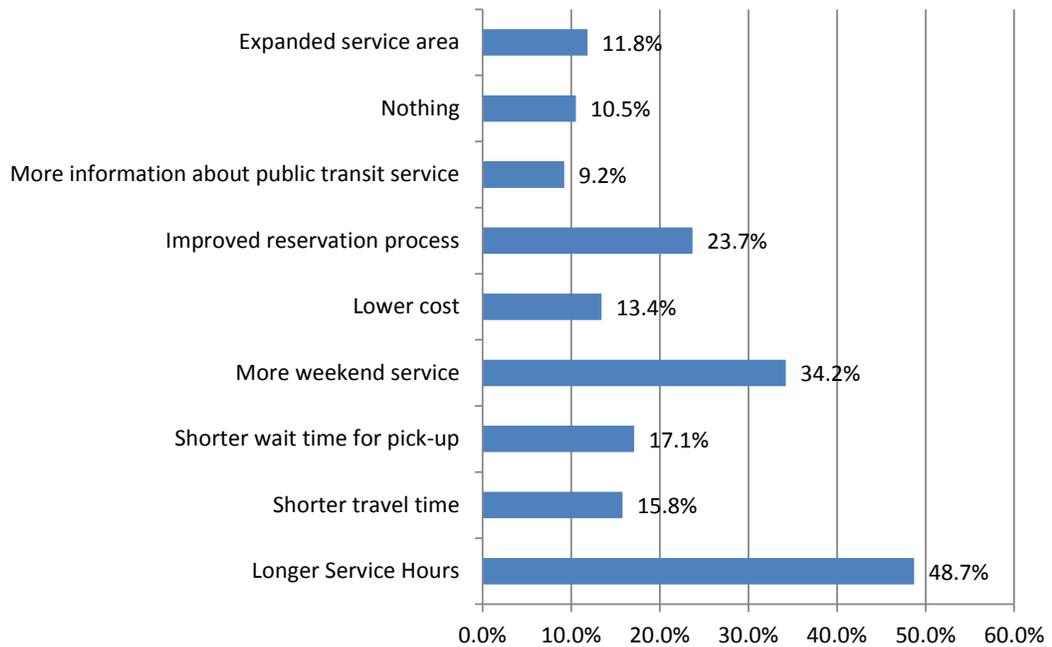


Early	84.0%
Late	16.0%

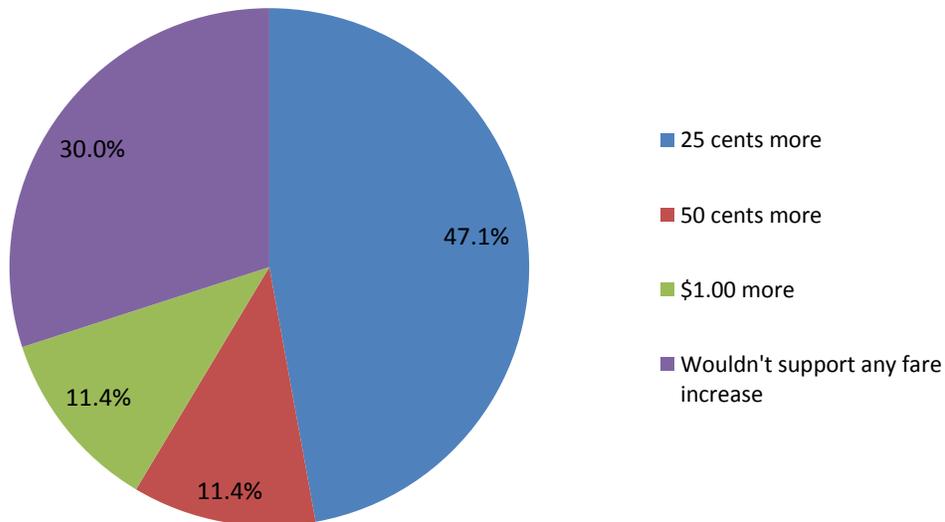
9) On a scale of 1 to 5 (1 being poor, 5 being excellent) please rate the following service factors based on your most recent DAR trip:



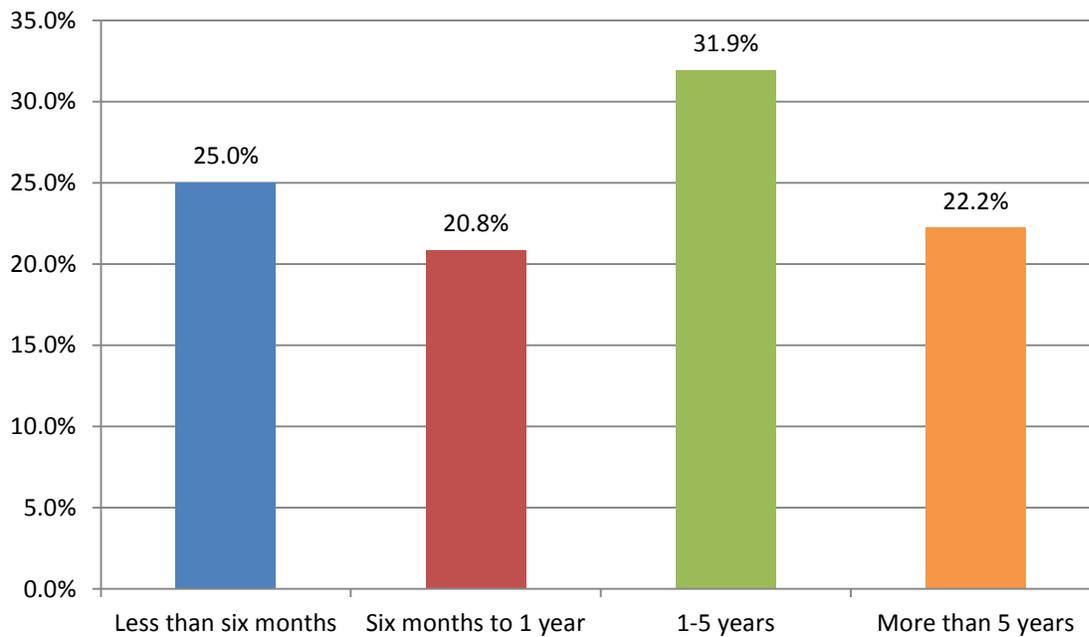
10) What service improvement would you most like to see regarding the City's Dial-A-Ride?



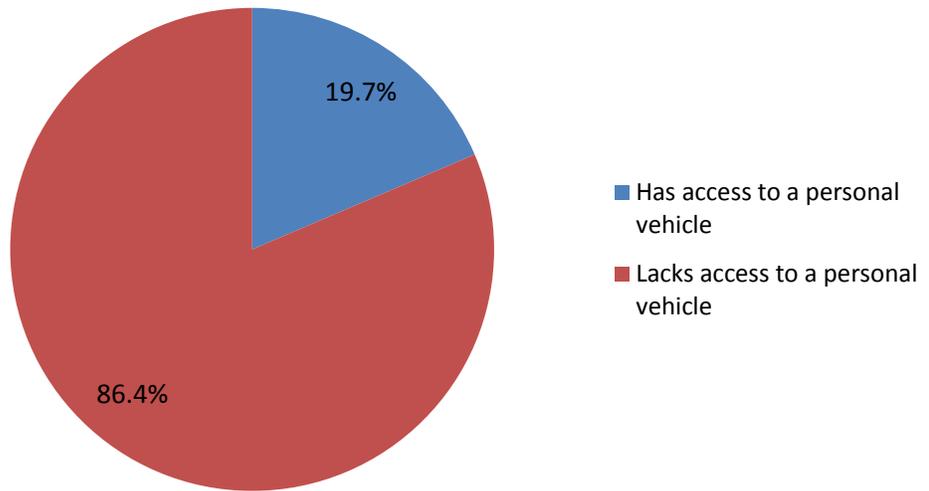
11) If a fare adjustment is needed to introduce your preferred service improvement (Question 10), would you be willing to pay:



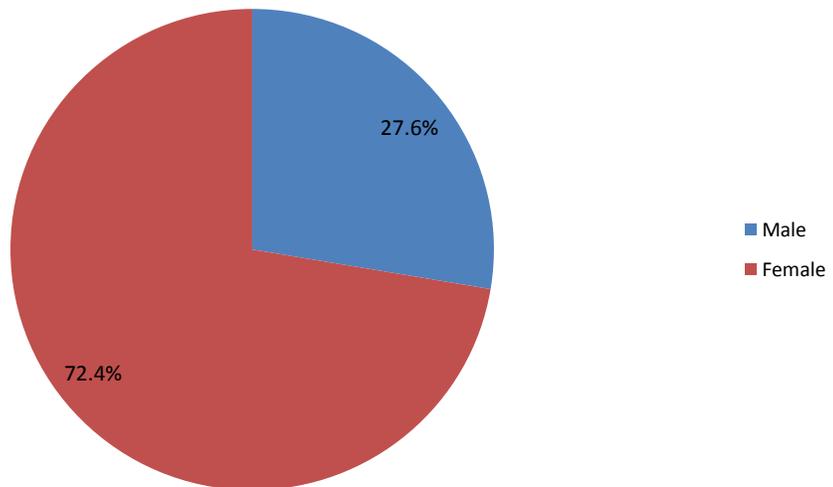
12) How long have you been riding the City's Dial-A-Ride service?



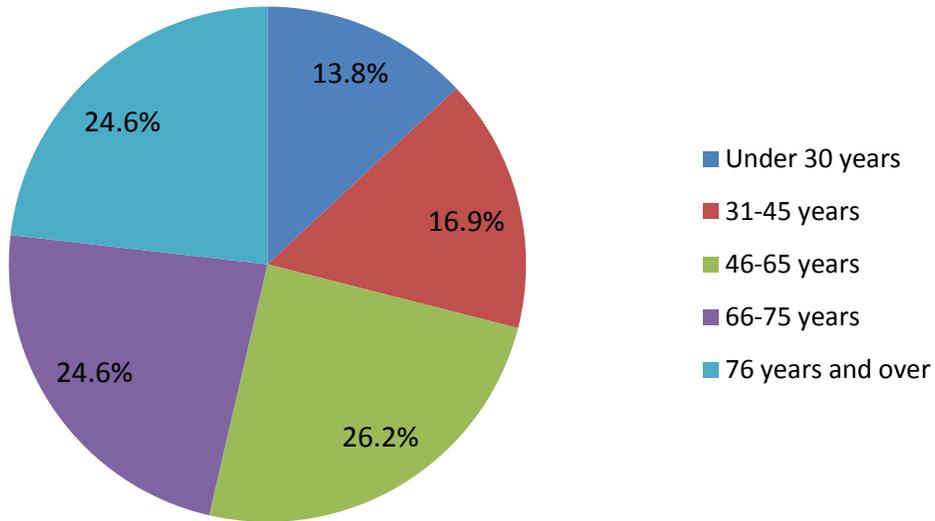
13) Do you have access to a personal vehicle?



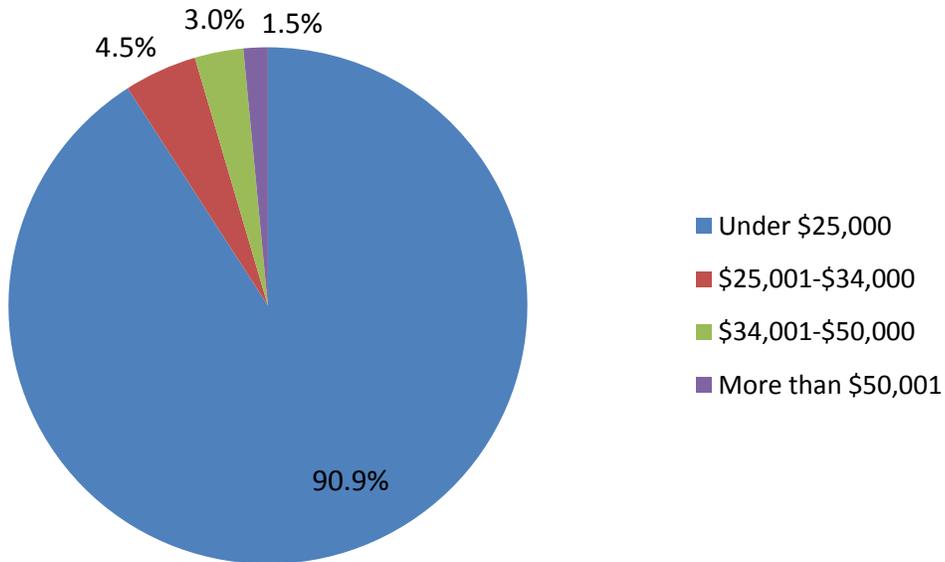
14) What is your gender?



15) What is your age?



16) What is your annual income?



D.4 EMPLOYER SURVEY LETTER

City of Delano
Transit Development Plan
Employer Survey

The City of Delano received funding from the Kern Council of Governments to conduct an assessment of its public transit program. The cornerstone goal of the project is to identify and quantify demand for public transit service (aka bus and Dial-A-Ride), and to advance practical and sustainable strategies for meeting said demand. As a local employer, your input is an important aspect of this project.

Kindly complete this short questionnaire and return it in the enclosed prepaid envelope no later than March 7, 2012.

If you would like to speak with a member of the project team, please call Jose Perez at (888) 743-5977. Thank you in advance for your participation.

- 1. Approximately how many persons are employed at your company’s Delano location(s)?

- 2. Which days of the week does your company operate at this location? (circle those which apply)

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

- 3. Does your firm’s typical work-week include “shifts” (i.e., work hours beyond the traditional 8:00 a.m. to 5:00 p.m.)? Yes No

- 4. Has the absence of reliable transportation impacted your employees’ ability to travel to the workplace? Yes No

- 5. Does your company offer the option of flex-time work hours to employees at this location? Yes No

- 6. Does your company participate in any employee transportation subsidy program (i.e., federal commuter tax benefit and/or bus pass subsidy)? Yes No

a. If Yes, specify: _____

- 7. In your opinion, what improvement to the City’s public transit program could have the largest positive impact on your company’s operation?

Company name: _____

Contact phone/email: _____

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RIDE CHECK
PERFORMANCE
DATA

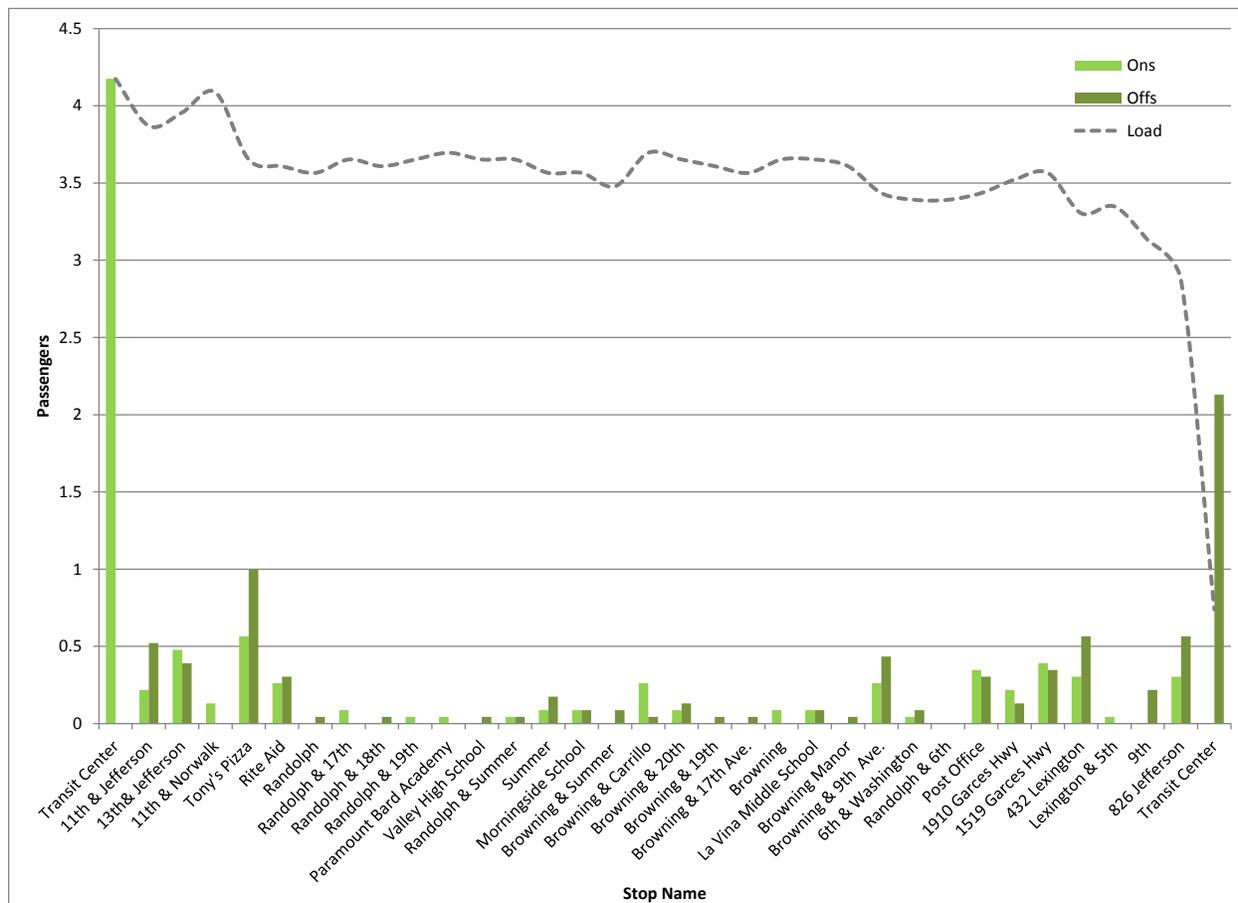
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APPENDIX E – RIDE CHECK PERFORMANCE DATA

Route 1 Boarding and Alighting by Day-Part

DAY-PART	Passenger		Wheelchair		Bike	
	ONS	OFFS	ON	OFF	ON	OFF
AM OTHER	-	-	-	-	-	-
AM PEAK	35	34	0	0	0	0
MIDDAY	130	135	0	0	0	0
PM PEAK	13	13	0	0	0	0
PM OTHER	-	-	-	-	-	-

Route 1 Maximum Load Chart



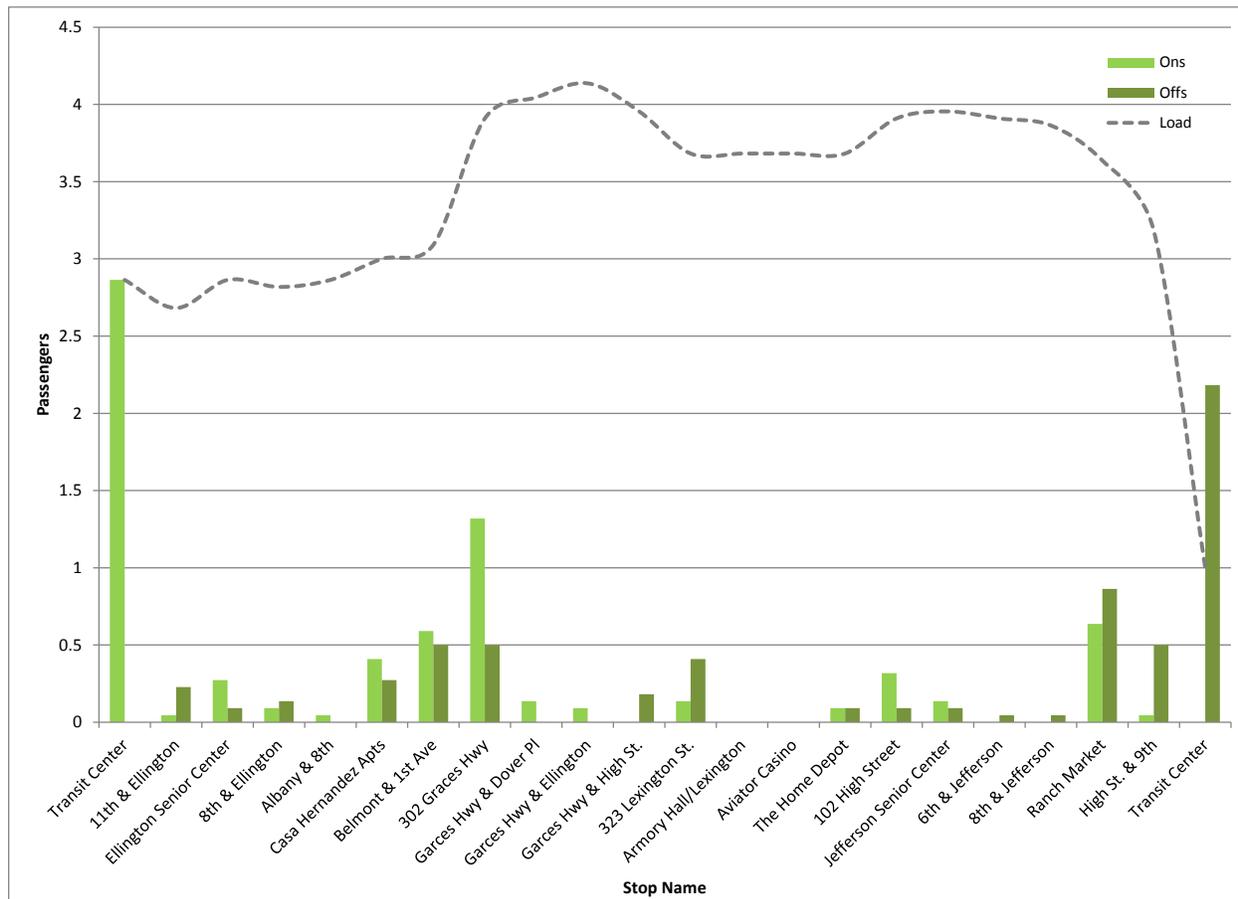
Route 1 On-time Performance

Early	Late	Missed	On-time
0.7%	49.1%	1.1%	49.1%

Route 2 Boarding and Alighting by Day-Part

DAY-PART	Passenger		Wheelchair		Bike	
	ONS	OFFS	ON	OFF	ON	OFF
AM OTHER	-	-	-	-	-	-
AM PEAK	30	30	0	0	0	0
MIDDAY	112	104	0	0	0	0
PM PEAK	2	3	0	0	0	0
PM OTHER	-	-	-	-	-	-

Route 2 Maximum Load Chart



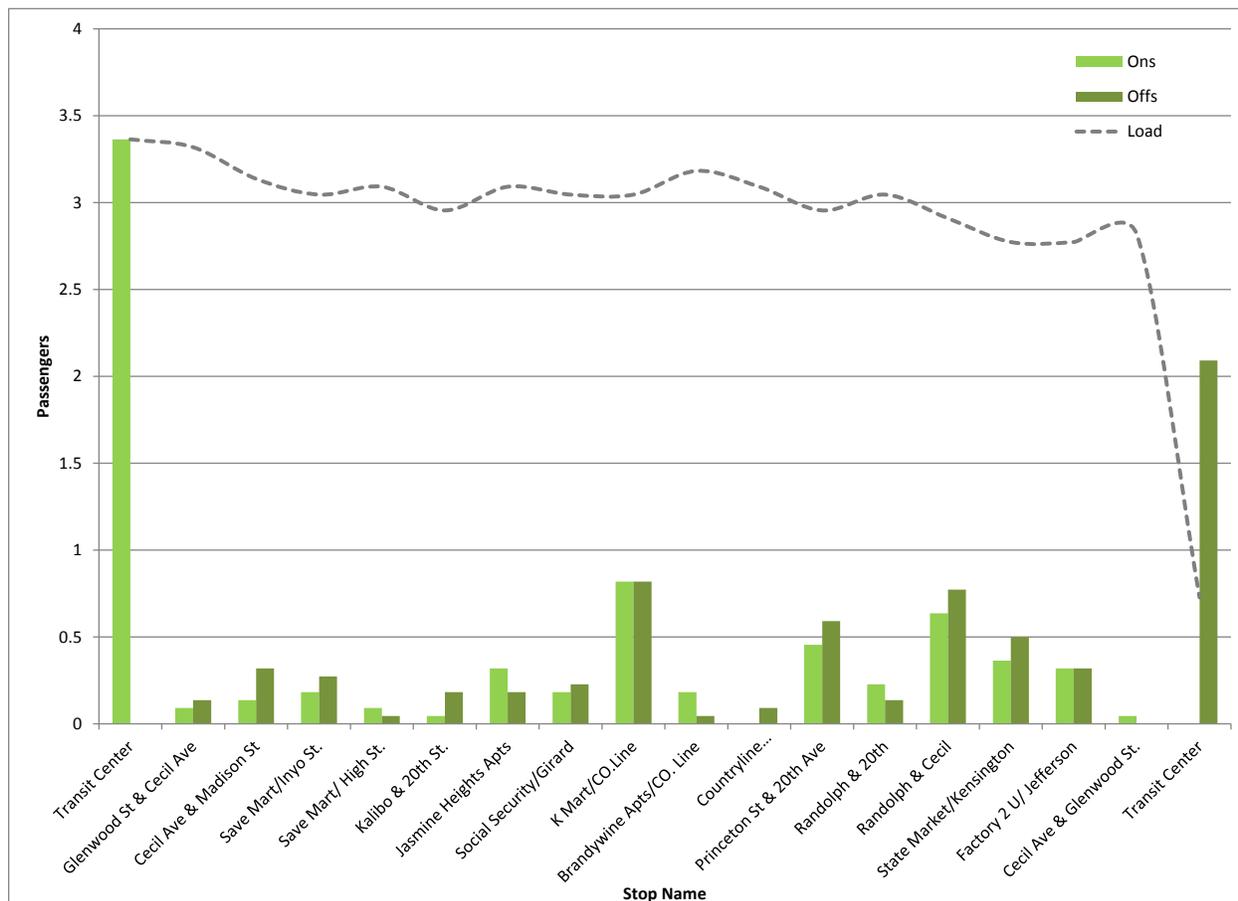
Route 2 On-time Performance

Early	Late	Missed	On-time
24.4%	4.8%	0.0%	70.8%

Route 3 Boarding and Alighting by Day-Part

DAY-PART	Passenger		Wheelchair		Bike	
	ONS	OFFS	ON	OFF	ON	OFF
AM OTHER	-	-	-	-	-	-
AM PEAK	21	21	0	0	0	0
MIDDAY	130	123	0	0	0	0
PM PEAK	4	4	0	0	0	0
PM OTHER	-	-	-	-	-	-

Route 3 Maximum Load Chart



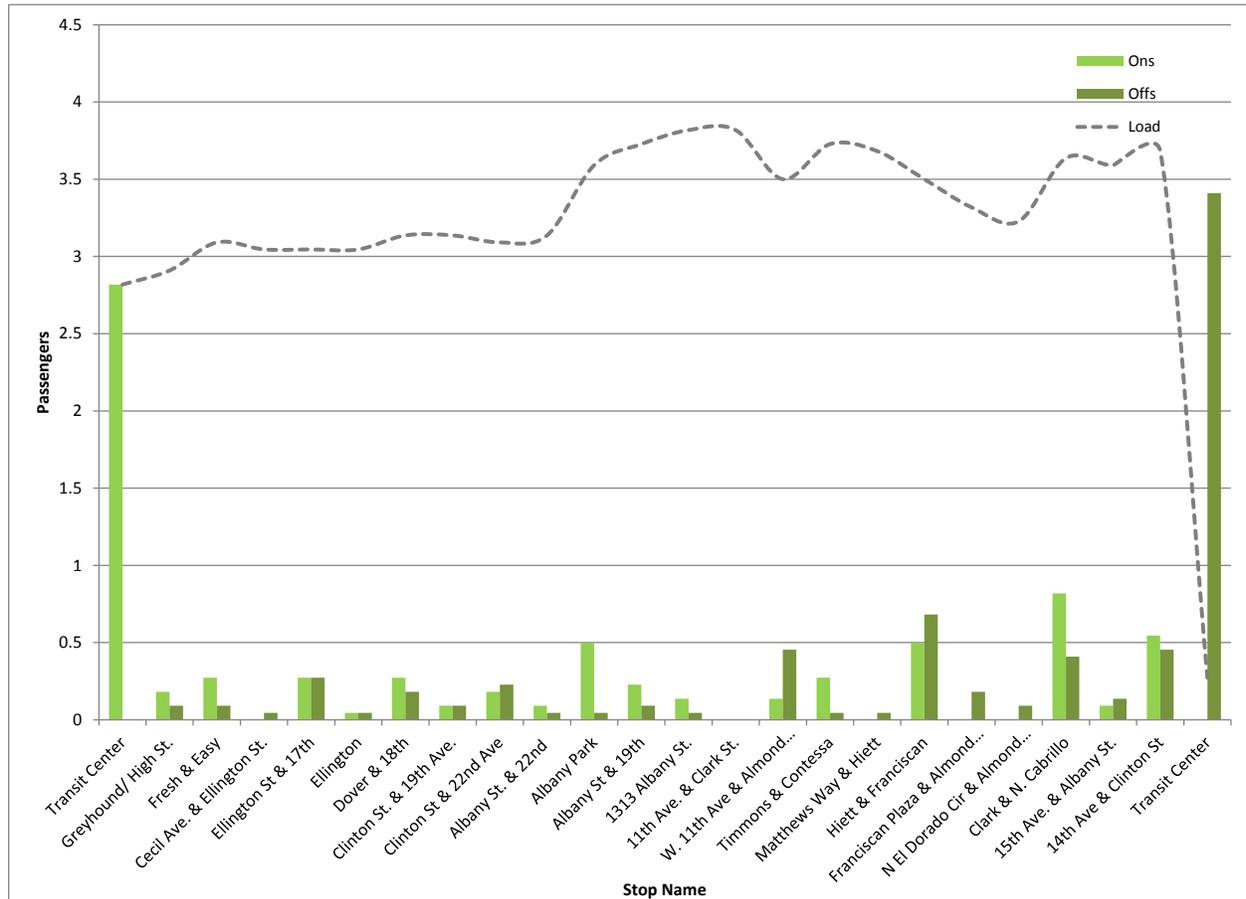
Route 3 On-time Performance

Early	Late	Missed	On-time
25.9%	8.7%	0.0%	65.4%

Route 4 Boarding and Alighting by Day-Part

DAY-PART	Passenger		Wheelchair		Bike	
	ONS	OFFS	ON	OFF	ON	OFF
AM OTHER	-	-	-	-	-	-
AM PEAK	35	35	0	0	0	0
MIDDAY	101	100	0	0	0	0
PM PEAK	20	23	0	0	0	0
PM OTHER	-	-	-	-	-	-

Route 4 Maximum Load Chart



Route 4 On-time Performance

Early	Late	Missed	On-time
6.7%	1.4%	0.0%	91.9%