

## STAFF REPORT

**SUBJECT:** Comprehensive Operations Analysis – Preferred Alternative

**FROM:** Christy Wegener, Director of Planning & Communications

**DATE:** March 7, 2016

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### Action

Review and open the public comment period and set the public hearing date for the Wheels Forward Comprehensive Operations Analysis (COA) preferred alternative.

### Background

The Wheels Forward Planning Team has developed a final preferred service alternative. The draft preferred alternative was presented to the Projects and Services Committee on January 25, 2016 and the Board on February 1, 2016. The feedback received at those meetings has been incorporated into the final preferred alternative, which was presented to the Projects and Services Committee on February 22, 2016 and is detailed in this staff report. Two maps of the preferred alternative are included in Attachment 1, one map of the route network and one map of the route network frequencies, and the route by route details are included in Attachment 2.

### Discussion

Wheels Forward will provide a multi-phase blueprint for improvements to Wheels through 2040, with the highest priority being a more user friendly transit system that achieves greater efficiencies and an increasing number of riders. Convenient and cost-effective transit service requires an appropriate balance of coverage, frequency, and service span. Prior to developing any recommendations, existing ridership, on-time performance, travel patterns, and demographic data were analyzed. Public meetings, stakeholder meetings, an on-line survey, and a non-user household telephone survey all indicated that later service, more frequent service, and better connections to BART are some of the improvements desired most by riders and non-riders.

Initially, three scenarios were developed to illustrate how Wheels fixed-route services could operate in the future. Each of the initial scenarios that were developed were designed to address existing mobility challenges, find new markets, and address operational issues. Four common themes are introduced that guided the development of the scenarios:

- **Improve Ridership and Farebox Recovery Ratio of the Rapid** – The Metropolitan Transportation Commission (MTC) has a mandated 20% farebox recovery ratio (the percentage of costs covered by fares). The Rapid currently only has a farebox

recovery ratio of 14-15%. Reducing duplication of service with other routes, changing the alignment to focus on more productive areas, and adding new ridership destinations are all strategies recommended in the scenarios.

- **Improve Access to BART** – The market research and household telephone survey clearly indicated that BART was a primary destination for Tri-Valley residents. Parking at the BART stations is at capacity, and residents are looking for other options. Improving access was a primary goal of the scenarios.
- **Reduce Duplication of Service** – An examination of the existing system map shows significant overlaps of service. One route in a given corridor is easier for potential riders to understand and reduces the chances that multiple routes are chasing the same market. The scenarios reduce duplication of service between the Rapid, local routes, and County Connection service.
- **Simplify the Service** – The existing service consists of many routes that are one-way loops and include deviations. In addition, several routes have one alignment on weekdays and another on weekends, which is confusing to potential customers. The scenarios focus on reducing one-way loops, making service more direct, and operating consistently seven days a week.

### Public Comments

The preferred alternative was developed based on input in response to the initial three service scenarios. A total of 425 comments about the three service scenarios were received during the open comment period; these include 289 responses to the online (and printed) survey, as well as 96 comments received via email. A memorandum summarizing the comments received during the open comment period October 26 - December 4 is provided in Attachment 3. As a reminder, the first three scenarios that were developed for public comment are provided in Attachment 4.

The most frequent comment received was from Stoneridge Creek retirement facility, where the residents strongly favored Route 14 in scenario #3. Additional comments were received from 70X riders, from Vocational Flight Resources (VFR) on Airway Blvd, and from existing Route 2 passengers who were not in favor of losing bus service in any scenario.

The preferred alternative does not match exactly with any of the initial scenarios, but instead is a hybrid with elements of each, along with new elements. The overall goal of the preferred alternative is to improve ridership and utilization of the service. The outreach and market assessment indicate that there is more demand for service than there are existing resources. These recommendations are intended to offer options for improving service within the existing budget. Accordingly, not all comments can be addressed in the preferred alternative.

### Service Design Guidelines

In November 2015, the Board approved a series of service design guidelines intended to provide a framework for future route planning decisions. The following design guidelines were used in developing the preferred alternative:

- **Headways/Frequency:** There is a clear role for a frequent BART feeder network within the Wheels Bus system. An effort should be made to maximize frequency on

major arterials that act as extensions to the BART system (Dublin Blvd., Santa Rita Road, Stanley Blvd.)

- Direct Alignments: Routes should be designed to operate as directly as possible to maximize average speed for the bus and minimize travel time for passengers while maintaining access to service.
- Route Alignment: Routes should ideally operate along the same alignment in both directions to make it easy for riders to know how to return to their trip origin location.
- Spacing Between Routes. To maximize use of operating resources and avoid duplication of services, routes should in most cases be spaced to duplication of service in the same corridor.
- Route Deviations: Routes should not deviate from the most direct alignment unless there is a compelling reason.
- Transfers. If routes are to be made relatively direct and frequent, it may not always be necessary to provide “one-seat” rides between riders’ origins and destinations. Connections should be designed to be as seamless as possible, with relatively frequent service and timed connections at key hubs (BART, Transit Center)
- Route Consistency: Routes should follow the same pattern when in operation. Route variants that only operate during parts of the day or on weekends should be avoided if possible to improve ease of understanding.
- Stop Spacing: The distance between stops is a key element in balancing transit access and service efficiency. Where possible, stops should be located one quarter to one third of a mile apart.

#### Major Highlights of Preferred Alternative

The preferred alternative includes a realignment of resources in order to provide 15-minute “Rapid” service on Route 10, and extend the hours of the existing Rapid line (Route 30). The recommendation to operate a second Wheels bus line with 15-minute BART feeder service increases the likelihood that ridership will improve, especially along Santa Rita corridor in Pleasanton. Currently, Wheels’ 15-minute BART feeder service is available to 11,976 households and 27,220 jobs within a ¼ mile of the route; in the preferred alternative, these numbers increase to 18,263 households and 32,758 jobs within a ¼ mile of a 15-minute BART feeder route. Additional major highlights include:

- Route 2 – Service is eliminated due to low ridership. Options for replacement include a demonstration project named *Wheels-On-Demand*, and additional school bus service. Information about *Wheels-On-Demand* is included in Attachment 5.
- Route 3 – Route is eliminated in Dublin and realigned in Pleasanton to provide a direct connection between the East Dublin/Pleasanton BART Station and the Stoneridge Mall. Approximately 15 passengers per day currently utilize Route 3 in Dublin. Options for replacement in Dublin include the *Wheels-On-Demand* demonstration project (Attachment 5). Additionally, current Route 3 riders will have service provided by County Connection Routes 35 and 36. Route 35 operates along Dougherty Road every 30 minutes in peak periods and every 60 minutes during off-peak times M-F. Route 36 operates along Village Parkway every 60 minutes M-F. The realigned Route 3 with service to the Stoneridge Mall is expected to carry at least 100 passengers per day at just the Stoneridge Mall stops.

- Route 8 – Route is realigned to a bi-directional line between the East Dublin/Pleasanton BART Station and south Pleasanton. Route will no longer operate on Santa Rita Road (service will be provided by Route 10).
- Route 10 – Service is increased to every 15-minutes during the day on Weekdays. Route truncated at the Livermore Transit Center and the East Dublin/Pleasanton BART Station.
- Route 11 – Route is realigned to connect to the Vasco Road ACE Station. Realigned route will provide for opportunities to pick up Wheels bus passengers at the Livermore Transit Center and ACE rail passengers at the VASCO Road station for transportation to the industrial area of Livermore.
- Route 12 – Route is eliminated (see Rapid, below)
- Route 14 – Route is realigned to provide service from central Livermore to the San Francisco Premium Outlets, Stoneridge Creek retirement facility, and Stoneridge Drive to the East Dublin/Pleasanton BART Station.
- Route 15 – Service is increased to every 30-minutes all day on Weekdays
- Route 20x – Service is eliminated and replaced with a pilot vanpool program for Lawrence Livermore Lab employees. Details forthcoming.
- Rapid (Route 30) – Route is realigned to serve Las Positas College and Dublin Blvd, replacing the local 12 service; route terminates at the West Dublin Pleasanton BART Station and no longer directly serves Stoneridge Mall. Route is proposed to run 7-days per week.
- Route 70X – Service is maintained with the exception of Route 70XV (two trips per day). The alternatives to Route 70X are BART, which would take 63 minutes with two transfers, or County Connections, which would take 59 minutes with one transfer.
- New Route 580X – Service would be provided from the Livermore Transit Center to the Dublin/Pleasanton BART Station via the I-580 Express Lanes during peak times on Weekdays.

#### Wheels-On-Demand Demonstration Project

At both the January Projects and Services Committee and the February Board meeting there was significant discussion about the development of a pilot *Wheels-On-Demand* project. The Board directed staff to come back with information on the former Direct Access Responsive Transit (DART) service that Wheels previously operated from 1997-2005. Additionally, the Board wanted to explore operating a Flex service versus Wheels-On-Demand. The following section describes the different service alternatives to serve the areas in Dublin where fixed route bus service is eliminated.

*DART Service:* LAVTA's DART service began operating in 1997, coinciding with the opening of the Dublin/Pleasanton extension of BART. DART service operated during the off peak times (midday and evening time periods) on weekdays, and operated all-day on Saturdays in place of the smaller, less productive routes in the Dublin and Pleasanton areas. There was one timepoint for the service, which was at the Dublin/Pleasanton BART Station, and customers could request a drop-off in front of their final destination. Customers could access DART by making a telephone reservation or by walk-up at the BART Station. There were three vehicles used on the service and each vehicle was assigned to one of three areas

(East Pleasanton, West Pleasanton, and Dublin). The service operated for approximately 7 hours on weekdays and 9.5 hours on Saturdays. The productivity on the DART was 2.8 passengers per hour in FY2002. In 2005, DART service was phased out and fixed-route service was implemented in its place (Routes 1, 3 and 8).

*FLEX Service:* FLEX service would be similar to the DART service but is designed to be more responsive to demand. Instead of having a timed departure at BART, riders would request their pick-up utilizing a mobile application. Service would not be provided in a curb-to-curb fashion; instead, bus stop locations would be established within the neighborhoods as pick-up/drop-off locations. There would be two vehicles assigned to this service in order to reduce passenger wait times. This service would be operated in-house, and accordingly, would have the same hourly cost as regular fixed-route bus service.

*Wheels-On-Demand:* Staff envisions this demonstration project to include a partnership with private Transportation Network Companies (TNC) and utilize real-time, dynamic ridesharing in two project areas in Dublin. In late 2015, LAVTA Staff developed a white paper that details the project description, which is included as Attachment 5.

Below is a chart comparing the costs of the *Wheels-On-Demand* project operated as a partnership with TNC's versus operating it in-house, similar to DART.

	DART	FLEX	TNC
Est. Capital Costs			
Vehicle:	\$80,000/6 years (1 vehicle)	\$160,000/6 years (2 vehicles)	\$0
Technology:	\$0	Minimum \$50,000	\$0
Annual O&M Costs	~\$150,000	~\$300,000	~\$61,000
Daily O&M Costs	\$590 (6 hours)	\$1,176 (12 hours)	\$480-\$1200
Est. Daily Ridership	33	90 (7.5 pax per hour)	120
Cost/Ride	\$17.82	\$14.70	\$4-\$10 to LAVTA
Reduced ADA Costs?	Yes	Yes	No

### Action Requested

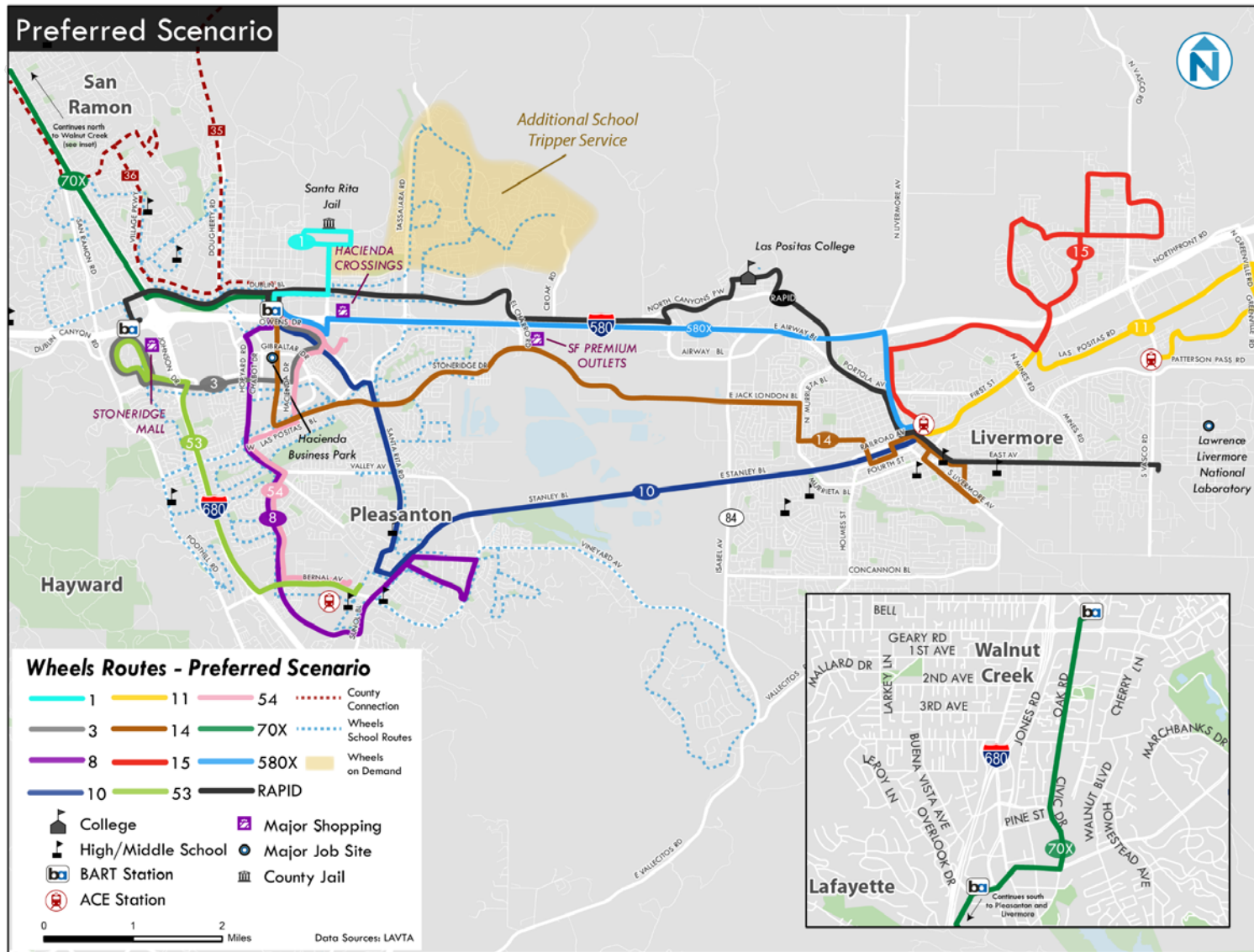
The Projects and Services Committee recommends that the Board open the public comment period from March 7 – April 8, 2016; and set the public hearing date for April 4, 2016 for the COA Preferred Alternative.

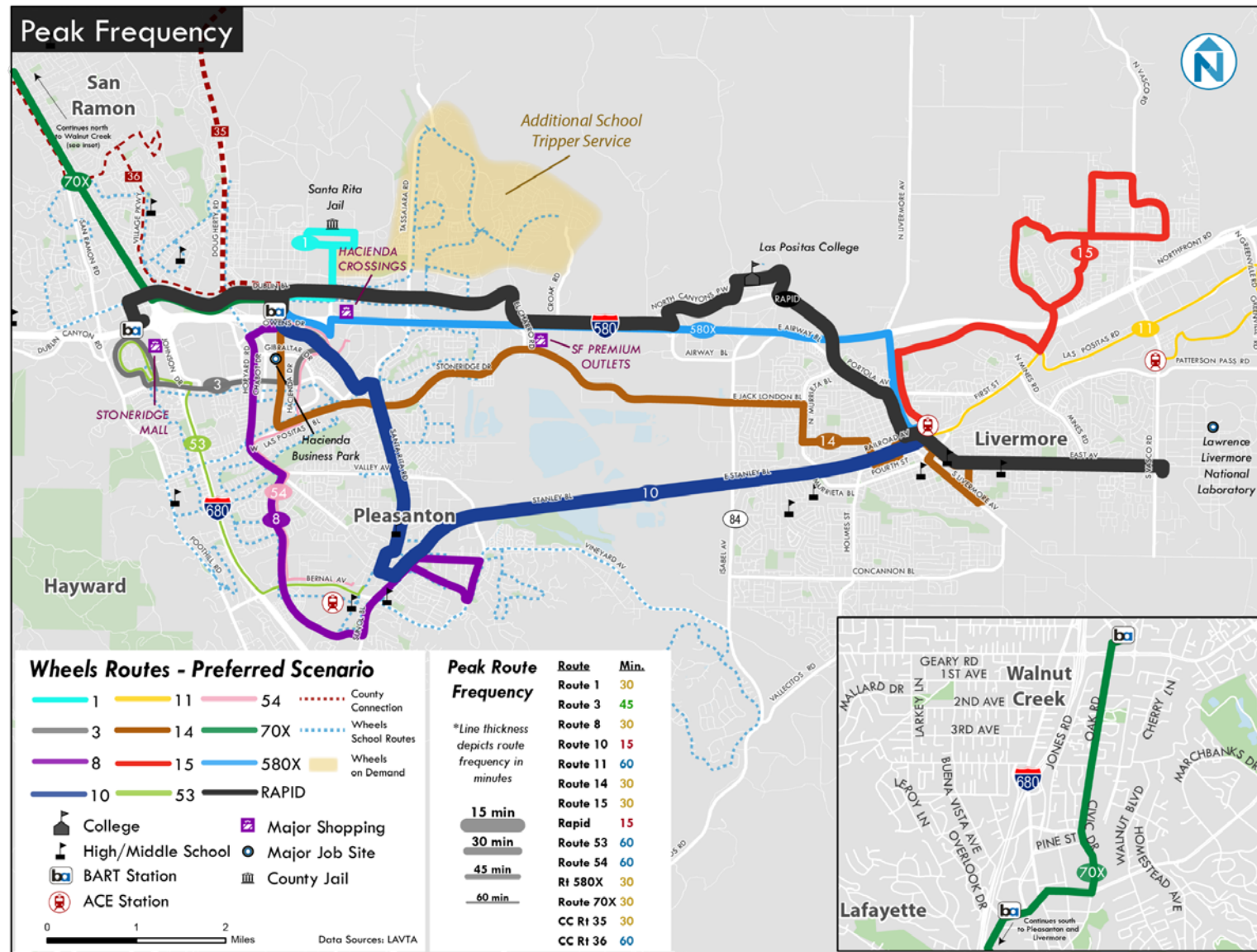
### Attachments:

1. Preferred Alternative Map

2. Preferred Alternative Service Details
3. Comments Received on Service Scenarios
4. Wheels Forward Three Service Scenario Maps
5. Wheels-On-Demand White Paper

*Approved:* \_\_\_\_\_







## Rapid

The ridership and productivity of the Rapid service has not met market expectations. Moreover, due to poor performance, MTC is withholding operating funding. Rapid also suffers from variable running times. The Stoneridge Mall area is the area where travel time differences by time of day are most acute. Recommendations include:

- **End the Rapid at the West Dublin/Pleasanton BART station** – the existing alignment to the Stoneridge Mall is indirect, fraught with traffic conflicts, and is less productive than almost all other segments. Stoneridge Mall itself could still be accessed from the Rapid via a walk across the BART station skybridge. A restructured Route 3 will continue to provide service to Stoneridge Mall and the Stoneridge Mall Road loop.
- **Extend Hours of Service** – Rapid service currently ends at about 7 p.m. and does not operate on weekends. Rapid should operate 7 days a week to be consistent. In addition, Rapid should operate to midnight 7 days a week.
- **Extend Rapid to serve Las Positas Community College via I-580** – Rapid’s alignment should be adjusted to serve a bigger all-day market. Stops on Stanley Boulevard in Livermore would no longer be served by Rapid, but would be served by expanded Route 10 service. The Outlet Mall would be served by a revised Route 14.
- **Reduce Duplication of Service with Local Routes** – In conjunction with recommendations for Route 10 no longer operating on East Avenue in Livermore and Route 12 no longer operating on Dublin Boulevard in Dublin, Rapid service would need to add additional stops along both East Avenue and Dublin Boulevard. Travel time would increase slightly as a result.

These recommendations will improve ridership and likely achieve the 20% farebox recovery ratio goal set by MTC.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	5:15 - 24:00	5:15 - 24:00	5:15 - 24:00

Headways (min)	Weekday	Saturday	Sunday
Early AM	15	60	60
AM peak	15	60	60
Midday	15	60	60
PM peak	15	60	60
Evening	30	60	60
Night (after 9 pm)	60	60	60

## Route 1 – Santa Rita Jail to E. BART

Route 1 is a feeder route for the E Dublin/Pleasanton BART station whose only unique market is service to the Santa Rita jail and the Rose Pavilion. Route 1 is a one-way loop which ensures out-of-direction travel on any round trip. Route 1 duplicates segments of Routes 2, 12, and 9. Recommendations for Route 1 are designed to create a unique market for Route 1, and include:

- **Operate as a connector between East Dublin/Pleasanton BART to the Santa Rita Jail** – This recommendation will provide bi-directional service between the Jail, employers along Hacienda Drive, and BART. It will reduce duplication of service with other routes in both Dublin and Pleasanton. The Rose Pavilion stops will no longer be served, but are within a 0.4 mile walk of frequent Route 10 service.
- **Interline Route 1 with a restructured Route 3 and Route 8**

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	6:00 - 21:00	8:00 - 21:00	8:00 - 21:00

Headways (min)	Weekday	Saturday	Sunday
AM peak	30	60	60
Midday	60	60	60
PM peak	30	60	60
Evening	60	60	60

## Route 2 – E. BART to Dublin Ranch to E. Bart

Route 2 is a feeder route for the E Dublin/Pleasanton BART station that operates during peak hours only. Its markets are service to BART as well as to Fallon Middle School. The route includes a circuitous one-way loop, and it carries few riders. Recommendations include:

- **Replace Route 2 with a demonstration project named *Wheels-On-Demand*. Wheels-On-Demand will utilize real-time, dynamic ridesharing in the East Dublin area instead of a large, fixed-route bus.**
- **Add school tripper trips in area currently served by Route 2**

## Route 3 – E. BART to Stoneridge Mall

Route 3 is a peak-only feeder route serving two BART stations. Despite 30-minute peak frequency, Route 3 is a very low performing route. The alignment is circuitous, difficult to understand, and requires out-of-direction travel. It is a peak only route on weekdays, and operates one direction in the morning and another in the afternoon. Two County Connection routes (35 and 36) provide service between the Dublin/Pleasanton BART station and the area of Dublin served by Route 3. Recommendations for Route 3 include:

- **Delete segments serving Village Parkway and Dougherty Road** – Ridership is low in these areas and County Connection serves these corridors. County Connection has similar fares and accepts transfers from Wheels as well.

- **Restructure Route 3 to feed BART and serve area around Stoneridge Mall**– Route 3 would operate bi-directionally between the two Dublin/Pleasanton BART stations, serving the Hacienda Business Park and Stoneridge Mall.
- **Extend Route 3 span of service to 1:00 a.m.**
- **Operate every 45 minutes during the day on weekdays, every 40 minutes on weekends, and every 60 minutes at night.** These frequencies will allow all trips to connect with BART.
- **Operate seven days a week**
- **Interline Route 3 with Route 10 after 9:00 p.m.**

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	6:00 – 1:00	8:00 – 1:00	8:00 – 1:00

Headways (min)	Weekday	Saturday	Sunday
AM peak	45	40	40
Midday	45	40	40
PM peak	45	40	40
Evening	45	40	40
Night	60	60	60

### Route 8 – E. BART to Downtown Pleasanton

Routes 8A and 8B are feeder routes that operate as large counter-clockwise and clockwise loops on weekdays, with several differences in route deviations. There are three different variants of this route, depending on day and time. The following recommendations are made for Route 8:

- **Create a consistent bi-directional route between BART and Pleasanton** – Route 8 would operate the same alignment, seven days a week. The Santa Rita segments of the route would no longer be served by Route 8, but instead be served by more frequent Route 10 service.
- **Streamline Route 8 so that it can operate hourly all-day, seven days a week** - The deviations into the Bernal Business Park would be eliminated due to low ridership.
- **Operate the existing Kottinger loop seven days a week**
- **Operate every 30 minutes during peak periods, and hourly during the off peak**
- **Interline with Route 1 and Route 3**
- **Expand span of service until 9 p.m. on Sundays**

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	6:00 - 21:00	8:00 - 21:00	8:00 - 21:00

Headways (min)	Weekday	Saturday	Sunday
AM peak	30	60	60
Midday	60	60	60
PM peak	30	60	60
Evening	60	60	60

## Route 9 – E. BART/California Center/Hacienda Business Park

Route 9 is a feeder route designed as a short collector to distribute BART passengers to the Hacienda Business Park. Despite operating every 15 minutes during peak periods, ridership is very low. Recommendations for Route 9 include:

- **Delete Route 9 due to low productivity.** Route 9 would be replaced by enhanced Route 10 service, a revised Route 3, a revised Route 14, and Route 54 service.

## Route 10 – Livermore, Pleasanton, Dublin, E. BART

Route 10 is one of LAVTA's strongest performers. Route 10 has several different variants. During early mornings and late evenings, and weekends (when Rapid is currently not operating), Route 10 is extended to serve Stoneridge Mall. In Livermore, not all trips are extended to the East Avenue terminus. The East Avenue and Stanley Boulevard segments duplicate the Rapid. Recommendations include:

- **Terminate Route 10 at the Livermore Transit Center to reduce duplication with Rapid on East Avenue.** Rapid would continue to serve East Avenue, including new service on evenings and weekends.
- **Improve weekday frequency to every 15 minutes during peak and midday hours** – This will improve the ability for Livermore and Pleasanton residents to access BART, and will facilitate transferring to other local routes along the alignment.
- **Operate Route 10 at 30 minute service during Saturdays and Sundays** – Waits at BART will still be reasonable, but this will also enhance connections with other LAVTA routes, including Route 15, 3, 8, and 1.
- **Cease the extension to Stoneridge Mall** – A restructured Route 3 will make that connection 7 days a week.
- **Interline with Route 3 after 9:00 p.m.**

## Span and Headway

	Weekday	Saturday	Sunday
Span of Service	4:30 AM - 1:00 AM	5:30 AM - 1:00 AM	6:00 AM - 12:45 AM

Headways (min)	Weekday	Saturday	Sunday
Early AM	30	45	-
AM peak	15	45	45
Midday	15	30	30
PM peak	15	30	30
Evening	30	45	45

Night (after 9 p.m.)	60	60	60
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## Route 11 Transit Center to Greenville Road and Vasco Road ACE

Route 11 is a peak only service that connects the Livermore Transit Center with employment sites in northeast Livermore. Service is every 45 minutes, and ridership is low. Recommendations include:

- **Extend to Vasco Road ACE Station** – Route 11 would be converted to a bidirectional route between Livermore Transit Center and the Vasco Road ACE station, serving the industrial area in between. In the morning, the route would connect to two ACE trains at Vasco Road, and another ACE train at the Transit Center. In the afternoon, it would connect with three ACE trains at Vasco Road. This will improve connections for the many workers who live in the San Joaquin Valley and work in the industrial area.
- **Adjust schedule to operate every 60 minutes to facilitate transfers** – Transfers to Route 10 and 15 could be made at the Livermore Transit Center for all trips in both directions, which should increase the ridership market.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	6:12 – 9:02 16:12 – 19:02		

Headways (min)	Weekday	Saturday	Sunday
AM peak	60		
Midday			
PM peak	60		
Evening			

## Route 12 – Livermore Transit Center to E. BART

Route 12 connects Livermore with Las Positas College and Dublin. Route 12 duplicates Route 10 and Rapid service on Stanley Boulevard. Route 12 duplicates Rapid service on Dublin Boulevard. The unique market of Los Positas College is the defining feature of Route 12. Recommendations for Route 12 include:

- **Consolidate Route 12 with Rapid** – With the recommendation to revise the Rapid to serve Las Positas College, Route 12 no longer has a unique market. Rapid would serve the Dublin Boulevard segments and a restructured Route 14 would serve the Livermore segments of the existing Route 12.

## Route 12X – Livermore Transit Center to E. BART Express

Route 12X is designed to be an express version of Route 12 that skips Las Positas College during peak times. Route 12X and Route 20 are interlined, so the same vehicle does both. Route 12X is does not attract significant ridership. Recommendations for Route 12X include:

- **Delete route due to low ridership and duplication with Rapid**

## Route 14 West Livermore – Outlet Mall – E. Dublin BART

Route 14 is a feeder/circulator route in Livermore that has above average ridership. Recommendations include:

- **Extend Route 14 to Dublin via Stoneridge** – This recommendation would transform Route 14 from a neighborhood circulator to a regional connector. It will also provide one-seat ride service from multiple Livermore neighborhoods to BART and employment areas in Pleasanton. Route 14 would be extended to serve Jack London, San Francisco Premium Outlets, Hacienda Business Park, and the E. Dublin BART station. This route would also address one of the biggest requests for service to Stoneridge Creek. Route 14 would operate within ¼ mile of the LAVTA facility on Rutan Court, but not serve it directly. The route would also serve the Civic Center Library seven days a week, which was a frequent request by the public.
- **Operate on weekends** – Route 14 would operate on weekends. Employer access to the Premium Outlets is one of the prime drivers of this recommendation.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	7:00 - 22:00	8:00 – 22:00	8:00 – 22:00

Headways (min)	Weekday	Saturday	Sunday
AM peak	30	60	60
Midday	60	60	60
PM peak	30	60	60
Evening	60	60	60
Night (after 9 p.m.)	60	60	60

## Route 15 – Livermore Transit Center to Springtown

Route 15 is productive feeder route in Livermore. Recommendations include operating Route 15 every 30-minutes all day on Weekdays.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	6:00 - 23:58	6:02 - 21:48	7:02 - 20:48

Headways (min)	Weekday	Saturday	Sunday
Early AM	60	-	-
AM peak	30	60	60
Midday	30	60	60
PM peak	30	60	60
Evening	60	60	60

Night (after 9 p.m.)	60	60	-
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## Route 20X – BART to Vasco Road to Transit Center

Route 20X is a Primary route that travels on I-580 to the LLNL via Vasco Road. Despite travel time between BART and Lawrence Livermore National Laboratory being quicker on Route 20X, fewer than 15 people a day are making this trip. Recommendations for Route 20X include:

- **Delete Route 20X service due to low ridership** – there are insufficient numbers of passengers to warrant express service between BART and the employment areas of East Livermore.
- **Replace Route 20X with BART-Based Vanpool Service**– Currently, there are less than 10 daily riders between BART and the LLNL using Route 20X. A vanpool(s) will be better able to match times with BART and be able to distribute riders within the Lab itself. Vans would be parked in reserved parking spaces at the East Dublin/Pleasanton BART station. Users would drive vans to the LLNL in the morning and return to BART in the afternoon/evening.

## Route 51 – Transit Center to Civic Library

Route 51 is a feeder route that operates only in the afternoons and evenings. Almost the entire route is served more frequently by Route 14. Recommendations for Route 51 include:

- **Consolidate Route 51 with Route 14.** Ridership response for a separate Route 51 has not materialized.

## Route 53 Pleasanton ACE Station to W. BART

Route 53 provides a peak-hour connections between ACE trains and BART and has very high productivity. No changes are recommended to Route 53.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	5:36 – 8:41 15:55 – 19:16		

Headways (min)	Weekday	Saturday	Sunday
AM peak	25 - 75		
Midday			
PM peak	60		
Evening			

## Route 54 – Pleasanton ACE Station to Hacienda / E. BART

Route 54 provides peak-hour connections between ACE trains and BART, but is designed to circulate through the Hacienda business park. Ridership is relatively high, especially near the BART station. Recommendations for Route 54 include:

- **Streamline route** – To provide faster travel times, streamline the route to serve Bernal, Hopyard, Las Positas, Hacienda, Owens, and Rosewood. The deviation to serve Bernal Business Park would be eliminated due to low ridership.
- **Connect BART to Rosewood Commons** - Current out-of-service trips from between the BART and ACE would stop at Rosewood Commons to provide a direct connection between the employment site and BART.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	5:36 – 8:23 15:47 – 18:19		

Headways (min)	Weekday	Saturday	Sunday
AM peak	65 - 75		
Midday			
PM peak	60		
Evening			

### Route 70X and 70XV – Pleasant Hill BART to E. Dublin BART

Routes 70X and 70XV are peak bi-directional express routes between the Dublin/Pleasanton BART line and the Pittsburg/Bay Point line at Walnut Creek and Pleasant Hill. Productivity for Route 70X is better than 70XV.

Recommendations include:

- **Eliminate 70XV trips** – Route 70XV does not show the ridership to support a separate targeted trip. Reinvest 70XV resources to provide service on Route 580X.

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	5:43 – 8:53 16:00 – 19:10		

Headways (min)	Weekday	Saturday	Sunday
AM peak	30		
Midday			
PM peak	30		
Evening			



## Route 580X – Livermore Transit Center to BART

Route 580X would be a new route providing express service between Livermore Transit Center and East Dublin/Pleasanton BART. It will supplement the Rapid service with quicker, peak directional trips. Passengers wishing to return during midday or evening times have the option of using the Rapid to return from BART to the Livermore Transit Center.

Route 580X would utilize the new HOT lanes for operating on I-580 to improve speed and reliability on that heavily congested roadway. Service between the Livermore Transit Center and BART would be non-stop. Trips would be timed to meet with BART trains.

- **Provide service every 30 minutes during peak periods**
- **Create new express route connecting Livermore and BART via I-580 HOT lanes**

### Span and Headway

	Weekday	Saturday	Sunday
Span of Service	5:30 – 8:30 16:00 – 19:00		

Headways (min)	Weekday	Saturday	Sunday
AM peak	30		
Midday			
PM peak	30		
Evening			

## SCENARIO SUMMARY TABLES

### Existing and Proposed Service Frequencies

Route	Existing								Proposed							
	Early AM	AM Peak	Midday	PM Peak	Eve.	Night	Sat	Sun	Early AM	AM Peak	Midday	PM Peak	Eve.	Night	Sat	Sun
Route 1	-	30	30	30	30	-	30	30	-	30	60	30	60	-	60	60
Route 2	-	60	-	60	60	-	-	-	-	-	-	-	-	-	-	-
Route 3	-	30	-	30	60	-	60	-	-	45	45	45	45	60	40-60	40-60
Route 8	-	60	60	60	60	-	50-60	40	-	30	60	30	60	-	60	60
Route 9	-	15-30	-	15	-	-	-	-	-	-	-	-	-	-	-	-
Route 10	30	30	30	30	30	40	16-48	40	30	15	15	15	30	60	30-60	30-60
Route 11	-	45	-	45	-	-	-	-	-	60	-	60	-	-	-	-
Route 12	-	30	60	30	60	60	60	120	-	-	-	-	-	-	-	-
Route 12X	-	30	-	30	-	-	-	-	-	-	-	-	-	-	-	-
Route 14	-	30	30	30	30	-	-	-	-	30	60	30	60	60	60	60
Route 15	60	30	30-60	30	30-60	60	60	60	60	30	30	30	30-60	60	60	60
Route 20X	-	45	-	45	-	-	-	-	-	-	-	-	-	-	-	-
Rapid	15	15	15	15	15	-	-	-	15	15	15	15	30	60	60	60
Route 51	-	-	-	30	30	-	-	-	-	-	-	-	-	-	-	-
Route 53	-	25-75	-	60	-	-	-	-	-	25-75	-	60	-	-	-	-
Route 54	-	65 – 75	-	60	-	-	-	-	-	65 – 75	-	60	-	-	-	-
Route 70X/70XV	-	30	-	30	-	-	-	-	-	30	-	30	-	-	-	-
Route 580X	-	-	-	-	-	-	-	-	-	30	-	30	-	-	-	-

## Existing and Proposed Service Spans

Route	Existing			Proposed		
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
Route 1	6:00 a.m. – 8:55 p.m.	8:01 a.m. – 9:25 p.m.	8:01 a.m. – 9:25 p.m.	6:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.
Route 2	6:30 a.m. – 9:20 a.m. 3:20 p.m. – 6:48 p.m.	-	-	-	-	-
Route 3	5:55 a.m. – 9:20 a.m. 3:30 p.m. – 8:50 p.m.	9:01 a.m. – 5:51 p.m.	-	6:00 a.m. – 1:00 a.m.	8:00 a.m. – 1:00 a.m.	8:00 a.m. – 1:00 a.m.
Route 8	6:15 a.m. – 8:32 p.m.	8:01 a.m. – 11:11 p.m.	9:01 a.m. – 2:18 p.m.	6:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.	8:00 a.m. – 9:00 p.m.
Route 9	6:30 a.m. – 9:19 a.m. 3:30 p.m. – 6:19 p.m.	-	-	-	-	-
Route 10	4:12 a.m. – 1:44 a.m.	4:57 a.m. – 1:14 a.m.	5:17 a.m. – 1:14 a.m.	4:30 a.m. – 1:00 a.m.	5:30 a.m. – 1:00 a.m.	6:00 a.m. – 1:00 a.m.
Route 11	6:42 a.m. – 8:48 a.m. 4:12 p.m. – 6:18 p.m.	-	-	6:12 a.m. – 9:02 a.m. 4:12 p.m. – 7:02 p.m.	-	-
Route 12	5:58 a.m. – 10:42 p.m.	9:01 a.m. – 9:47 p.m.	9:02 a.m. – 8:47 p.m.	-	-	-
Route 12X	7:12 a.m. – 9:12 a.m. 3:54 p.m. – 7:15 p.m.	-	-	-	-	-
Route 14	6:42 a.m. – 8:06 p.m.	-	-	7:00 a.m. – 10:00 p.m.	8:00 a.m. – 10:00 p.m.	8:00 a.m. – 10:00 p.m.
Route 15	5:12 a.m. – 11:58 p.m.	6:02 a.m. – 11:48 p.m.	7:08 a.m. – 8:43 p.m.	5:12 a.m. – 11:58 p.m.	6:02 a.m. – 11:48 p.m.	7:08 a.m. – 8:43 p.m.
Route 20X	6:15 a.m. – 9:54 a.m. 3:52 p.m. – 6:36 p.m.	-	-	-	-	-
Rapid	5:16 a.m. – 8:04 p.m.	-	-	5:15 a.m. – Midnight	5:15 a.m. – Midnight	5:15 a.m. – Midnight
Route 51	3:12 p.m. – 6:57 p.m.	-	-	-	-	-
Route 53	5:36 a.m. – 8:41 a.m. 3:55 p.m. – 7:16 p.m.	-	-	5:36 a.m. – 8:41 a.m. 3:55 p.m. – 7:16 p.m.	-	-
Route 54	5:36 a.m. – 8:23 a.m. 3:47 p.m. – 6:19 p.m.	-	-	5:36 a.m. – 8:23 a.m. 3:47 p.m. – 6:19 p.m.	-	-
Route 70X/70XV	5:43 a.m. – 8:53 a.m. 4:00 p.m. – 7:10 p.m.	-	-	5:43 a.m. – 8:53 a.m. 4:00 p.m. – 7:10 p.m.	-	-
Route 580X	5:30 a.m. – 8:30 a.m.	-	-	4:00 p.m. – 7:00 p.m.		

## Existing and Proposed Revenue Hours and Peak Vehicles

Route	Existing						Proposed					
	Revenue Hours			Peak Vehicles			Revenue Hours			Peak Vehicles		
	Wkdy	Sat	Sun	Wkdy	Sat	Sun	Wkdy	Sat	Sun	Wkdy	Sat	Sun
Route 1	15	13	13	1	1	1	9	8	8	0.7	0.6	0.6
Route 2	6	-	-	1	-	-						
Route 3	14	9	-	2	1	-	23	15	15	1	1	1
Route 8	26	13	5	2	1	1	27	18	18	2.3	1.4	1.4
Route 9	9	-	-	1	-	-	-	-	-	-	-	-
Route 10	82	111	70	5	9	4	102	48	47	7	3	3
Route 11	4	-	-	1	-	-	6	-	-	1	-	-
Route 12/12X	50	26	12	7	2	1	-	-	-	-	-	-
Route 14	13	-	-	1	-	-	40	28	28	4	2	2
Route 15	28	16	14	2	1	1	28	16	14	2	1	1
Route 20X	7	-	-	2	-	-	-	-	-	-	-	-
Rapid	125	-	-	10	-	-	123	38	38	9	2	2
Route 51	4	-	-	1	-	-	-	-	-	-	-	-
Route 53	6	-	-	1	-	-	6	-	-	1	-	-
Route 54	4	-	-	1	-	-	4	-	-	1	-	-
Route 70X/70XV	16	-	-	5	-	-	16	-	-	4	-	-
Route 580X	-	-	-	2	-	-	12	-	-	2	-	-
<b>Total</b>	<b>410</b>	<b>188</b>	<b>114</b>	<b>40</b>	<b>13</b>	<b>8</b>	<b>395</b>	<b>170</b>	<b>167</b>	<b>35</b>	<b>11</b>	<b>11</b>

## MEMORANDUM

To: Michael Tree, Christy Wegener, and Cyrus Sheik  
From: Thomas Wittmann, Sam Erickson, Victor Stover  
Date: January 15, 2016  
Subject: Summary of Public Comments on the LAVTA COA Scenarios

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### SURVEY PURPOSE

Three alternative scenarios were presented to the public to illustrate potential LAVTA Wheels service changes. These scenarios took into account existing ridership, on-time performance, travel patterns, and demographic data, as well as input from public meetings, and surveys. The scenarios were:

- Scenario 1: Coverage – maintains much of the existing network
- Scenario 2: Core – focuses on core routes in the Wheels service area
- Scenario 3: Hybrid – combines elements of a coverage-based system and a core network system

### OUTREACH

The public was asked to comment on these scenarios via an online survey, the LAVTA website, and at public meetings. There were 289 responses from the online survey, of which 255 specified a preference for a scenario. This includes online surveys that were printed and submitted in paper format, including 163 paper surveys received from Stoneridge Creek in favor of Route 14 in Scenario 3. There were 96 comments submitted on the LAVTA WheelsForward website, of which 46 specified a preference for one of the scenarios. Public meetings held at the end of October included 11 people at the meeting at Amador Valley High School in Pleasanton, 7 at Las Positas College in Livermore, and 7 at the Dublin Civic Center meeting. Twenty comments were received from these meetings. Of those, six specified a preference for one of the scenarios. And although not tied to any of the scenarios, about 20 letters were also submitted in favor of keeping Route 2 in the Wheels network.

These results described below are qualitative in nature because the quantitative results cannot be considered statistically significant because the survey was not a random sample. Residents of the Stonecreek Retirement Community made up a large number of responses for both the WheelsForward website and the online survey. In some instances people filled out comments at a public meeting and on the WheelsForward website, and there is no way of knowing whether some respondents also filled out a survey resulting in preferences being accounted for more than once.

### MAJOR FINDINGS

Of those who specified a preference, Scenario 3 (Hybrid) was chosen by approximately 60% of the survey respondents, over 95 % of website comments, and all of the public meeting attendees. Approximately one-third of survey respondents preferred Scenario 1 (Coverage). Although there

was some overlap on the elements of each plan, there were only a few routes that received specific feedback. The main themes included:

- Support for service to Stoneridge Creek Retirement Community (Scenario 3 only)
- Support for increased service to Las Positas College (Scenario 2 and Scenario 3)
- Fear of Route 2 being eliminated (all scenarios)
- Concern that the consolidation of 70X and 70XV service would mean reduced service (Scenarios 1 and 3), and opposition to the elimination Route 70X/70XV (Scenario 2)

## DETAILED QUALITATIVE RESULTS

### Coverage Scenario 1 Comments:

- This was the second most popular choice among the public respondents.
- People who preferred this option supported offering the most Rapid service between Livermore and BART as possible. Others defended eliminating routes that had low ridership.
- Among those who preferred other alternatives, the most common comments revolved around the 70X and Route 2, even though the 70X was not proposed to be eliminated in this scenario, and Route 2 was proposed for elimination in all three scenarios.
- Interestingly, there were no comments on changes to routes 3 or 14.
- The elimination of Route 2 in this scenario was a concern for several people.
- People liked the service to the airport, which is lacking in the other two scenarios.

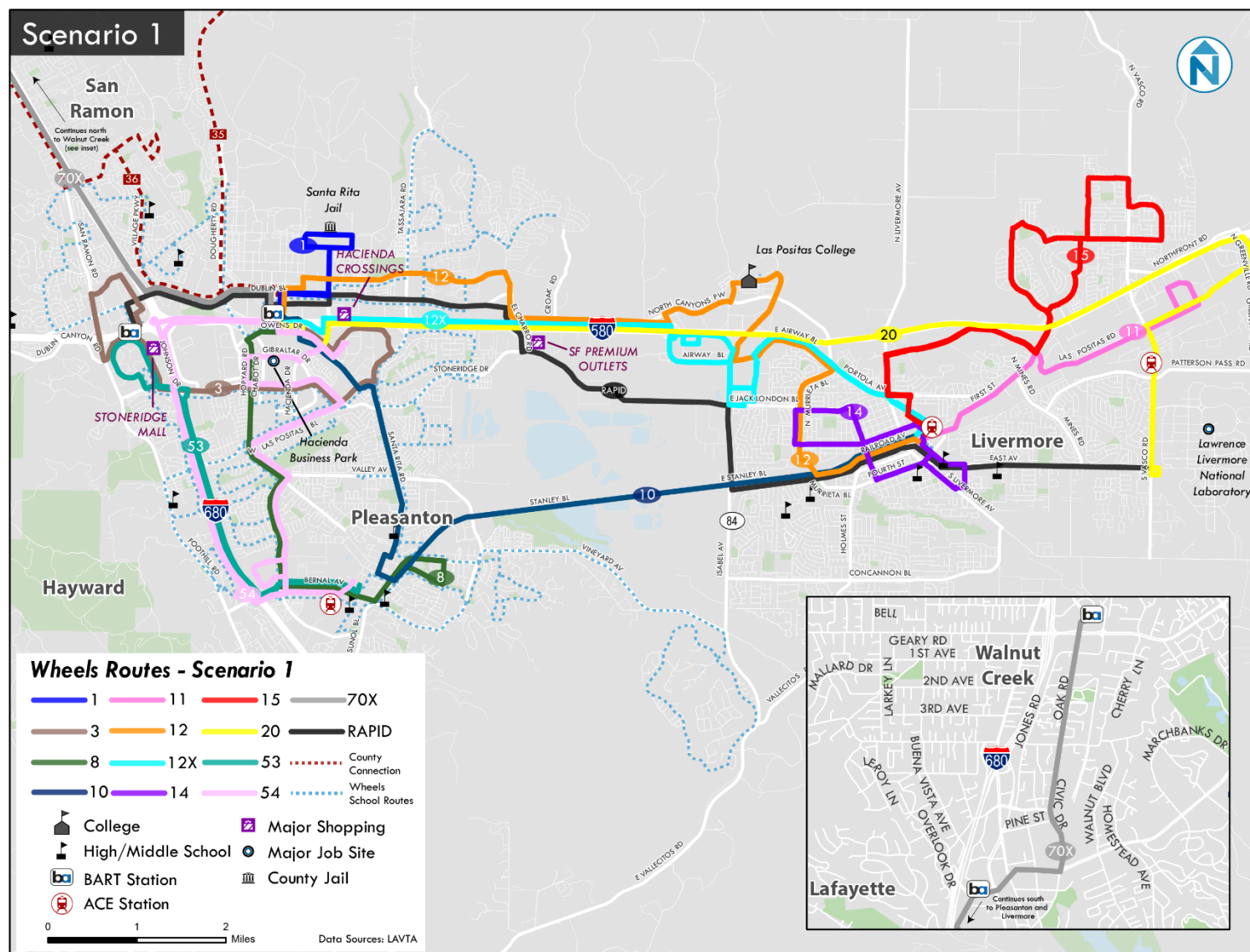
### Core Scenario 2 Comments:

- This was the least favorable choice among respondents. Overall, comments stated that other scenarios were better options, and that this plan would cause people to incur much larger transportation costs.
- Among those that liked Scenario 2, the elements of the plan they commented on were also present in Scenario 3, such as weekend service, more service to Las Positas College, and consolidating Route 12.
- Of the respondents that did not like this scenario, the overwhelming concern was that Route 70X/XV was slated to be eliminated. Route 2 being eliminated was also brought up, although as mentioned before, this recommendation was true under all scenarios. People who work near the airport did not like the scenario because it would eliminate service to their workplace.

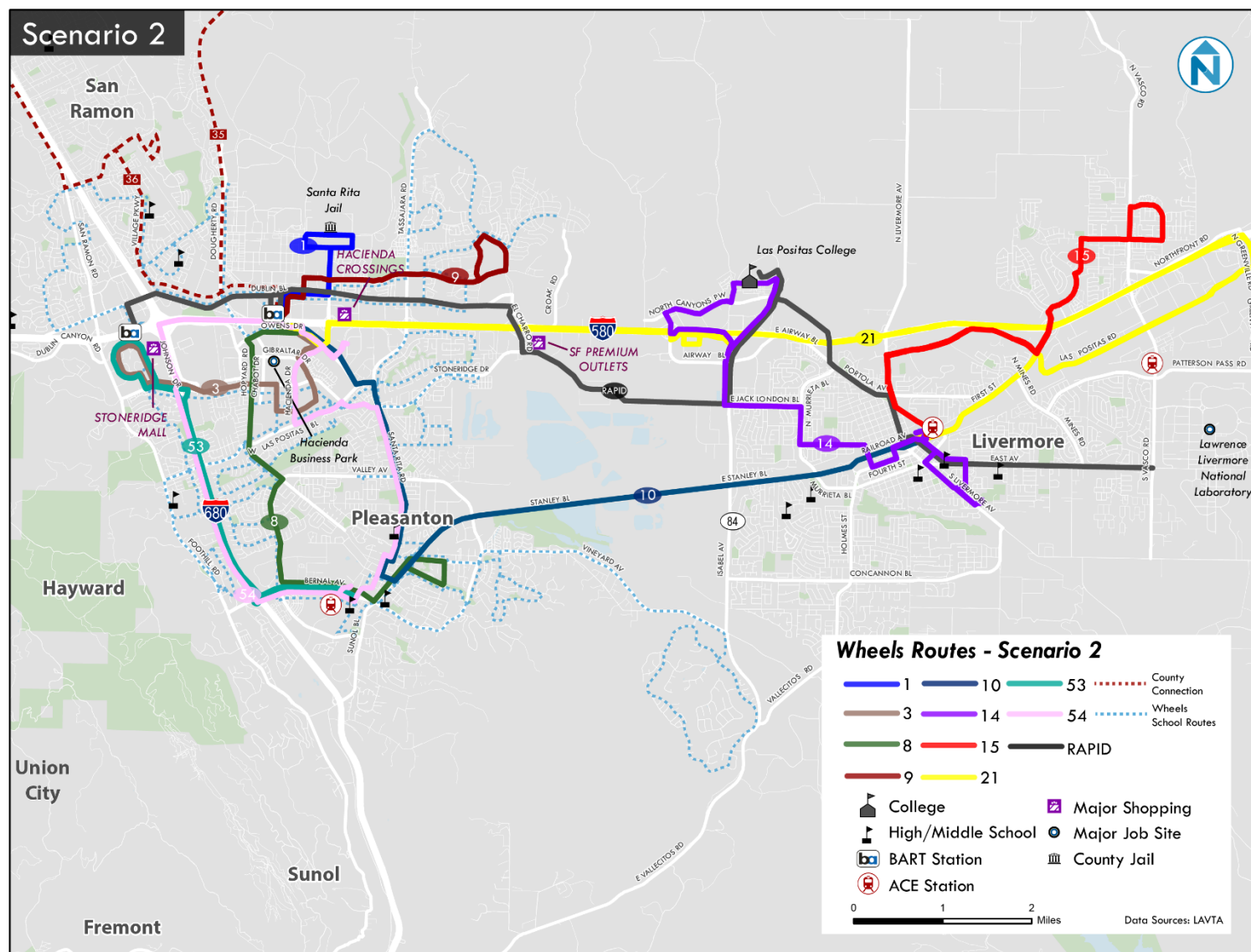
### Hybrid Scenario 3 Comments:

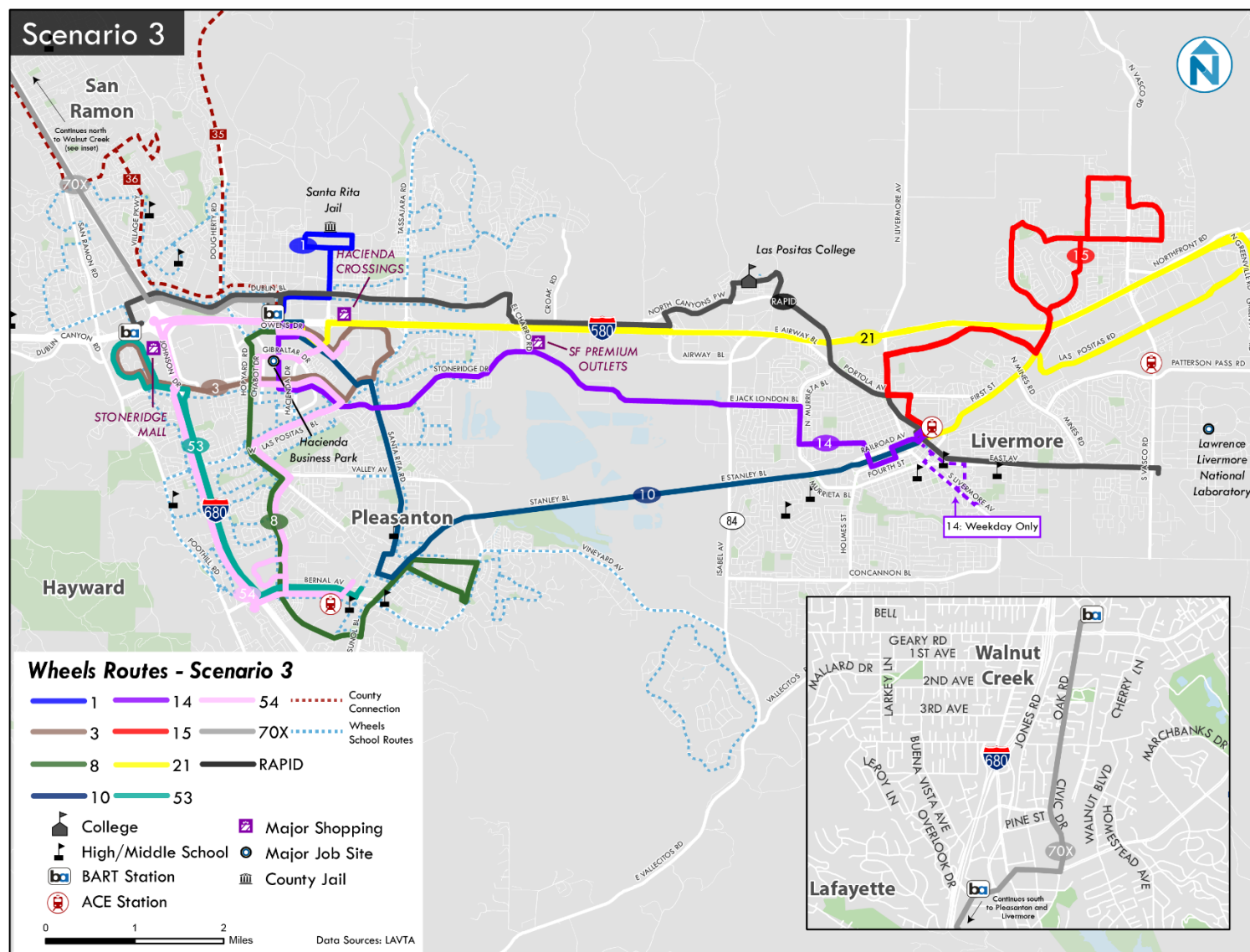
- This alternative was the most popular choice, and was preferred by approximately 60% of online survey respondents.
- The Stoneridge Creek Retirement Community was well represented in the survey, which was clear in the comments. The new coverage to this facility was very well received.

- The proposed changes to Route 70X received a significant number of comments, with many people okay with the proposed changes as long as they could still get to work at the same times on the weekdays.
- People also favored additional service to Las Positas College, and the changes to Route 14 in Livermore.
- The elimination of Route 2 remained a common area of concern for respondents, as did the elimination of service near the airport.









### Problem/Solution/Goals

Most areas within the City of Dublin, north of Dublin Blvd, do not have the density of housing or employment to support Wheels fixed route service. However, large numbers of single occupancy trips are taken daily in Dublin to repeat locations for work and other activity centers. With the transactional costs of ridesharing having been significantly reduced by technology and the existence of the sharing economy, Wheels proposes a discount program within two demonstration project areas as a financial incentive for Dublin residents to utilize the dynamic, real-time ride sharing capacities of the Transportation Network Companies (Uber, Lyft, Scoop, taxicabs, etc.).

The measurable goal of the Wheels discount will be to reduce the number of single occupancy vehicles and congestion in Dublin, and to reduce trip costs to those economically challenge.

### How Customers Would Use the Discount Program

On the Wheels website (and near-future phone app) customers will be informed about discount program and will be able to easily obtain a discount code. After obtaining the discount code the customer will simply choose the transportation provider of his/her choice, provide their pick-up and drop-off data, click the ridesharing option (Lyft Line for example) and enter in the discount code. Because the customer is utilizing the ridesharing option, as opposed to the option of riding alone, the ride will receive multiple discounts—one from the rideshare company itself and the other through Wheels—thus creating a shared ride that on the average slightly more expensive than what one would pay on fixed route service, but with a far smaller public subsidy and the convenience of being on demand. The rideshare companies would assure Wheels that trips taken would both start and end within the project area so that the discount is not inappropriately applied.

Example: Joe lives in east Dublin 5 miles northeast of the East Dublin/Pleasanton BART station. Joe needs more travel options. Parking at BART stations is causing him delays and frustration. Joe learns about the Wheels discount, obtains the Wheels discount code and uses his smart phone to obtain a Lyft Line ride, which means Lyft will set up a dynamic, real-time route that will pick up multiple customers-including Joe-that are going in a similar direction. For Joe's effort in using Lyft Line he is rewarded by Lyft with a reduction in his fare from \$12 to \$8 (Lyft Line fares can be reduced up to 60% per Lyft). With the Wheels discount code automatically applied, Joe's fare is reduced another \$4, bringing his total one-way trip cost to \$4. Joe notes the \$3 parking fee he is currently paying at BART and the cost per mile of operating his vehicle and believes convenience of real-time, dynamic ride sharing now makes sense.

At the end of the month, Lyft sends an invoice to Wheels with information on rides that received the Wheels discount, including sufficient information needed by NTD to record the trip for Wheels.

### Two Demonstration Areas

Staff are proposing to operate the Wheels-On-Demand demonstration project in two project areas. One area would encompass the neighborhoods served by the former Route 2 (East Dublin) and the other would include the neighborhoods served by the former area served by Route 3 north of I-580 (West Dublin). The demonstration project would be operated with two different subsidy models in each area: one area (West Dublin) would operate using a fixed cost to the passenger (i.e. \$4 per trip where Wheels covers the cost above \$4) and the other would operate using a fixed subsidy to the passenger (i.e. \$4 per trip where the customer pays the cost above \$4). Both models will be important to run and study in an effort to offer an optimal service for Dublin. Finally, both models offer a substantial savings over other LAVTA alternatives.

### Initial Demonstration Project and Funding

The initial funding would be through a partnership of Wheels and Alameda County Transportation Commission. The funding would not include federal dollars. The demonstration project would be a 1-year duration, or until funding is exhausted, to evaluate the productivity and efficiencies of the programs.

### Sample Questions/Answers

1. What about ADA requirements? In the Tri-Valley area at least one taxicab company has an accessible vehicles. Additionally, although not part of this program, Wheels para-taxi program and Wheels paratransit is available where applicable and for those who qualify.
2. What about Governance? Wheels would contract with providers who wish to be participants. Providers would agree to provide Wheels information needed to record a trip for NTD data.
3. What about Customers without a smart phone and credit card? Taxicabs have traditionally been available to schedule rides through a phone call. Taxicabs also traditionally take cash for payment. Additionally, TNCs are currently developing “concierge” services to allow accommodations.
4. Is supply for potential demand sufficient? Generally speaking taxicabs, Uber, Lyft and other companies are quick to add supply as demand warrants. Recent experience has shown that wait times in Dublin are less than 10 minutes on average.
5. What about other technology issues? Wheels website and phone app will have information on the discount program, including links and phone numbers to schedule rides with participating companies. Bus schedules and informational kiosks at transit centers will also have the information for ease of use.