

Date: December 22, 2016
Current Meeting: January 5, 2017
Board Meeting: January 5, 2017

BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
Board of Directors

THROUGH: General Manager, Nuria I. Fernandez

FROM: Interim Director - Planning & Program Development, Carolyn M. Gonot

SUBJECT: Next Network Draft Plan

Policy-Related Action: No

Government Code Section 84308 Applies: No

ACTION ITEM

RESULT:	ADOPTED [10 TO 0]
MOVER:	Johnny Khamis, Board Member
SECONDER:	Sam Liccardo, Vice Chairperson
AYES:	Bruins, Carr, Hendricks, Khamis, Liccardo, O'Neill, Peralez, Vaidhyathanan, Yeager, Carrasco
AWAY:	Cindy Chavez

RECOMMENDATION:

Approve the Draft Transit Service Plan for release to the public for review and comment.

BACKGROUND:

Under VTA's Transit Ridership Improvement Program (TRIP) initiated in 2015, VTA began a two-year planning and outreach effort to develop a redesigned transit network. This project was known as Next Network, with implementation of a new transit service plan to occur concurrent with the opening of BART Phase 1 service at the Milpitas and Berryessa stations. The project aims to engage the community in developing a new bus and light rail transit network that reflects our transit needs and values, while increasing ridership, improving farebox recovery, and integrating BART service into the transit network. VTA engaged Jarrett Walker + Associates, an internationally-recognized leader in transit planning, to assist with the effort. The project's major milestones include:

- **Late 2015:** Independent assessment of VTA's service and market
- **April 2016:** Transit Choices and Alternatives reports to VTA Board
- **Summer 2016:** Community outreach phase 1
- **November 2016:** VTA Board decision on ridership-coverage allocation (85/15)
- **January 2017:** Draft transit service plan released
- **January-February 2017:** Community outreach phase 2
- **April 2017:** Final transit service plan for VTA Board approval
- **Fall 2017:** Service begins (concurrent with the opening of BART Phase 1)

The Next Network project started with an independent assessment of VTA's transit service and market. This assessment, called the Transit Choices Report and accompanying Transit Alternatives Report (both available at <http://nextnetwork.vta.org/library>), illustrated the significant tradeoff decisions for consideration in developing a redesigned transit network. The reports identified the allocation of services between ridership-oriented service and coverage-oriented service as the most critical policy choice facing VTA. To this end, the project team sought to engage the community in a broad discussion of VTA's allocation of resources on the spectrum and whether the new transit service plan should represent a shift in resource allocation towards ridership and away from coverage.

Over the summer of 2016, the project team utilized a series of three transit network concept maps to engage the community and solicit their input on tradeoff questions. This first of two project outreach phases included VTA-hosted community meetings, discussions at non-VTA community meetings, intensive community leader workshops, an online meeting, an interactive dedicated project website, numerous blog posts with accompanying discussion area, social media engagement, and tabling events. The project team received over 5,000 points of valuable feedback, including votes on the ridership-coverage balance. The volume of feedback was used to develop a draft transit service plan.

Following the first phase of community outreach, the VTA Board of Directors held a November 2016 workshop to discuss the community's input and give staff direction on the ridership-coverage balance for the draft transit service plan. At the conclusion of the meeting, the VTA Board voted to direct staff to develop a draft transit service plan that reflects an "85/15" split - that is, a network that allocates 85% of resources to ridership-oriented service and 15% of resources to coverage-oriented service. This direction to pursue a network designed to achieve higher ridership represents a shift from today's network of 70% ridership-oriented service and 30% coverage-oriented service. This change would have the effect of increasing frequency in high ridership transit-supportive corridors and areas, decreasing service in areas with low transit demand, and a design philosophy that embraces a grid of frequent routes with more rapid routes and more midday and weekend service.

DISCUSSION:

VTA staff have developed a draft transit service plan that reflects the substantial community

input received over the summer as well as the VTA Board's guidance on the ridership-coverage balance given at the November 18 Board Workshop. Staff is requesting Board approval to take the draft transit service plan out to the community in a second phase of outreach. **The draft plan's network map is presented as Attachment A; a route-by-route matrix of proposed service changes is presented as Attachment B.**

The draft transit service plan includes the following major features:

REALLOCATION OF RESOURCES FROM COVERAGE TO RIDERSHIP

What we heard: The community understood the difficult ridership and coverage tradeoff and overall voted strongly in favor of VTA allocating more resources to ridership service and fewer resources to coverage service.

VTA currently spends approximately 70% of its operating dollars on productive ridership-oriented service and the remaining 30% to unproductive coverage-oriented service, a "70/30" balance. The draft plan would achieve an 85/15 balance by reallocating resources from unproductive services and investing those resources in more productive services. **This reallocation of coverage-oriented service to ridership-oriented service is how the plan can offer significant benefits while not increasing the total cost of service.**

The areas that would lose service under the draft plan are generally areas that lack the transit-supportive characteristics such as dense, walkable, pedestrian-oriented spaces that are necessary for transit to be productive. VTA is exploring alternative mobility strategies for these difficult-to-serve areas in a concurrent Core Connectivity project to potentially serve these "gaps" in the transit network.

INCREASED LIGHT RAIL SERVICE

What we heard: The community expressed a strong desire to invest in VTA's light rail system.

The VTA Light Rail to BART connection will be at the Montague Light Rail station, and VTA will modify the light rail service plan to better serve this connection as well as the ongoing needs of Santa Clara Valley residents and workers.

In May 2016, staff brought, for review, three different operating plans with three different optional enhancements to the VTA Board of Directors. Staff returned in October 2016 with a staff recommendation that includes the following changes (see Attachment C for a map of the recommended light rail operating plan):

- A new line from Alum Rock to Mountain View operating every 15-minutes. This new line would double the Light Rail service frequency at the Milpitas BART Station and provide a direct trip from BART to major employment centers in North San Jose, Santa Clara, Sunnyvale, and Mountain View. This line would also serve Levi's Stadium, reducing the need for special event trains. Staff is also continuing to study the potential for an express service on part of this line.
- The existing Winchester to Mountain View line would be modified to a Winchester to

Old Ironsides line. The frequency of this service would improve from the current 15-minute peak hour/30-minute midday frequencies to 15-minute frequencies all day.

- The Commuter Express, which currently operates three trips each peak period between Santa Teresa and Baypointe, would operate from Santa Teresa to St. James Station and be expanded to six trains each peak period, instead of the current three, using the same resources.
- No changes are proposed for the existing Santa Teresa to Alum Rock line and the existing Almaden Service.
- Signage and wayfinding improvements, including renaming the light rail lines to coincide with their colors (Orange, Blue, Green, Purple, Yellow) and renaming of two stations. Montague light rail station will become Milpitas light rail station, and I-880/Milpitas light rail station will become Alder light rail station.

FREQUENT BART CONNECTIONS

What we heard: The community reiterated the importance of BART service in the county and expressed a desire for convenient transit connections to BART service.

The draft plan includes frequent connecting service at the Milpitas and Berryessa transit centers, ensuring that riders would have a range of transit options to connect with BART trains (see Attachment D for an illustration of transit connections at the two transit centers). The Milpitas and Berryessa transit centers would feature an array of connecting services:

- A **new light rail line between Alum Rock and Mountain View**, discussed above, that would provide a direct BART connection for Alum Rock, Santa Clara, Sunnyvale, and Mountain View destinations (every 15-minutes all day).
- A redesigned and improved DASH service, renamed **Route 500**, would provide a direct service with more frequency, longer spans of service, and a larger service area that would include the Berryessa BART station. As an expanded route with new regional connections, Route 500 would be a standard fare route. Route 500 trips would be timed to meet BART trains at the Berryessa BART station and provide fast and direct service into downtown San Jose and Diridon Station (trips timed to meet every BART train).
- Today's Airport Flyer Route 10 would be upgraded to become a new frequent **Route 60** that would provide a direct connection between the Milpitas transit center's BART trains and Mineta San Jose International Airport, Santa Clara Caltrain Station, Valley Fair/Santana Row, and the Winchester corridor (every 15-minutes all day). As a new countywide frequent route, Route 60 would be a standard fare route, with the exception of boardings at the airport, which would be fare-free.
- **Rapid 523**, a new Rapid service between Berryessa BART, downtown San Jose (via King Road and Alum Rock Avenue), San Carlos Street, Stevens Creek Boulevard, Sunnyvale-Saratoga Road, downtown Sunnyvale, and Lockheed Martin via Mathilda Avenue (every 15-minutes all day).

- A new **Route 20** that would serve north San Jose, Santa Clara, Sunnyvale, and Mountain View (every 15-minutes peak and 30-minutes midday).
- Additional bus routes from the Milpitas and/or Berryessa BART stations:
 - o **Route 47** would serve Milpitas (every 30-minutes all day).
 - o **Route 66** would serve Milpitas, Oakland Road, downtown San Jose, and Monterey Highway (every 15-minutes all day).
 - o **Route 77** would serve both Milpitas and Berryessa BART stations, plus Lundy Avenue, King Road, and the Eastridge Transit Center (every 15-minutes all day).
 - o **Route 70** would serve both Milpitas and Berryessa BART stations, plus southern Milpitas, Jackson Avenue, and the Eastridge Transit Center (operating every 15 or 30 minutes all day, depending on route segment).
 - o **Route 71** would serve Piedmont Road, White Road, and the Eastridge Transit Center (every 30-minutes all day).
 - o **Route 61** would serve Berryessa Road and West San Jose via Taylor Street, Naglee Avenue, and Bascom Avenue (every 15-minutes all day).
 - o **AC Transit's Route 217** would serve Milpitas and Fremont BART via Mission Boulevard (every 30-minutes all day).

SIMPLIFIED FAMILY OF SERVICES

What we heard: The community expressed frustration in understanding and using VTA's complex transit network.

The draft plan features a simplified family of transit services that would make service easier to understand and use (see Attachment E). The new family of services would establish a strong hierarchy of transit service and a clear structure to complement VTA's new brand:

- **Light rail**, featuring 7-day a week service every 15-minutes
- **Rapid bus**, featuring 7-day a week service every 15-minutes, with limited stops
- **Frequent bus**, featuring 7-day a week service every 15-minutes, with local stops
- **Local bus**, featuring weekday service every 30-minutes, with local stops
- **Express bus**, featuring peak-only commuter service on weekdays

The draft plan also proposes discontinuing Community Bus as a distinct service class and fare. The Community Bus fare was established in 2007 because the Community Bus routes were serviced by light duty gasoline-fueled cutaway vehicles (which were significantly cheaper to acquire) and because the bus operators assigned to Community routes were paid less than operators assigned to regular routes. Neither of these cost differentials apply today; VTA operates our regular transit buses on all Community routes and all operators are paid the same wage regardless of the route they operate. Therefore, the draft plan incorporates routes

previously classified as Community routes into the Local Bus class.

REGIONAL CONNECTIONS

What we heard: The community expressed a desire for better connections with other regional transit services to expand mobility beyond Santa Clara County.

The draft plan would enhance regional mobility by improving connections with the Bay Area's regional transit network. Better regional connections would be achieved by 1) improving the frequency of VTA routes that connect to the regional transit network, thereby reducing transfer wait times, and 2) introducing new VTA routes that connect to the regional transit network. Some of the improved regional connections include:

- Numerous Frequent routes that would serve the Milpitas and Berryessa BART stations.
- A new light rail Orange Line that would offer direct service between Alum Rock and Mountain View, serving Milpitas BART, Mountain View Caltrain, and ACE/Capitol Corridor at Great America Station.
- A new cross-county Frequent route that would offer a direct connection between Milpitas BART, San Jose International Airport, Santa Clara Caltrain, light rail, and Valley Fair/Santana Row (Route 60).
- Improved service frequencies at Diridon Station for routes connecting to Monterey-Salinas Transit Route 55 to Monterey and the Highway 17 Express to Santa Cruz.
- New Rapid 523 service that would connect Sunnyvale Caltrain to Lockheed Martin transit center, De Anza College, and the Stevens Creek/San Carlos/Santa Clara/Alum Rock corridors.
- A revised and more frequent downtown San Jose DASH shuttle that would offer frequent connections at Diridon Station and the Berryessa BART station (Route 500).
- New routes at Milpitas BART that would offer connections with AC Transit's Route 217 (previously connecting at the Great Mall Transit Center).

FOCUS SERVICE NEAR TRANSIT-SUPPORTIVE DEVELOPMENT

What we heard: Community members understood the land use and transportation connection and expressed a desire for transit to support dense, walkable, and sustainable development.

Transit, land use, and the street grid form an interrelated trio of features that work together to produce sustainable communities where residents can adopt transit-oriented lifestyles. The draft plan focuses transit resources in areas with a street grid and land use pattern that support transit and where it would achieve the greatest ridership per dollar spent. These transit-supportive areas, often in dense cores, along corridors, and around station areas, would benefit from additional

transit service as part of a robust frequent transit network. By establishing a *frequent transit network* where cities could focus dense, transit-oriented development, cities could accommodate future growth while minimizing new auto trips. In turn, additional growth along the frequent network would generate additional ridership on the transit network, continuing the mutually beneficial cycle of transit-supportive land use and transit productivity.

MORE RESIDENTS AND JOBS ON THE FREQUENT TRANSIT NETWORK

What we heard: Today's transit network tries to go too many places and transit is spread too thin, service doesn't come very often, and therefore transit trips take too long. The community expressed a desire for transit to focus on transit-supportive areas.

As outlined in the project's *Transit Choices Report* released in early 2016, a transit network maximizes ridership by maximizing the total number of residents and jobs on a frequent network of transit services (i.e. getting more people to more places in less time). The draft plan aims to maximize the number of residents and jobs on a network of frequent transit routes in the most transit-supportive areas of the county by taking more residents to more places in the same amount of time, which is a central theme of high ridership transit networks.

PARATRANSIT SERVICE AVAILABILITY

What we heard: High-quality paratransit service options are critical to valley residents.

The draft plan features a redesigned fixed-route transit network which would impact VTA's federal requirements regarding complementary paratransit service. Some network changes would increase VTA's paratransit service obligations, such as new service in previously-unserved geographic areas or an expansion of the hours of service availability in evenings and on weekends. Conversely, some network changes would reduce VTA's paratransit obligations, such as geographic areas that would lose fixed route service entirely. The net impact of the draft plan's fixed route network on paratransit service has not been fully analyzed yet, and VTA staff will engage the VTA Committee for Transportation Mobility and Accessibility (CTMA) in developing a recommended paratransit policy strategy for adoption with the final transit service plan. In advance of Board adoption of a paratransit policy, **the draft plan includes a recommendation to minimize service impacts for all existing paratransit customers in the county so that paratransit users are not negatively impacted by the new transit service plan.**

IMPROVED SERVICE TO LOW INCOME AND MINORITY RESIDENTS

What we heard: VTA should pay particular attention to the transit needs of low income and minority residents.

The draft plan includes elements to increase transit service available to low income and minority residents. As outline in VTA's Title VI program, staff paid particular attention to the location and travel needs of low income and minority residents during the planning process to develop the draft plan. In Santa Clara County, low income and minority residents tend to reside in areas that are already transit supportive (featuring dense, mixed land uses and a strong street grid). The draft plan's emphasis on expanding service in transit-supportive areas work hand-in-hand with the goal of improving service for low income and minority residents. Staff also enlisted the

expertise of an independent consultant to conduct a preliminary Title VI equity analysis. The preliminary Title VI analysis concluded that the draft plan does not impose a disparate impact on minority populations or a disproportionate burden on low income populations.

Staff will continue to include Title VI equity considerations as part of the planning process to revise the draft plan into the final transit service plan. A full Title VI service equity analysis will be conducted on the final transit service plan and the results will be presented with the final plan.

EXPANDED WEEKEND SERVICE

What we heard: The community expressed frustration with VTA's limited transit options on weekends, particularly those residents who work in the service and retail sectors.

The draft plan aims to increase the amount of transit service provided on weekends, particularly on the core network of frequent routes. Compared to VTA's current transit network, the draft plan provides 9% more service on Saturdays and 7% more service on Sundays.

For example, VTA's transit network today provides no service to Alviso on Saturdays or Sundays. Under the draft plan, Alviso would have 15 hours of service on Saturdays and 11 hours of service on Sundays. By providing a more useful 7-day transit network, more residents could adopt a transit-oriented lifestyle.

BETTER NORTH-SOUTH CONNECTIONS IN WEST VALLEY

What we heard: West Valley residents and workers expressed a desire for more frequent transit service, particularly north-south service.

Effective transit networks utilize a grid of intersecting frequent routes to create the possibility of travel anywhere within the grid, as demonstrated by the success of East San Jose's strong grid network of frequent routes. The draft plan introduces new north-south frequent service in West Valley's strongest corridors. These new frequent corridors include:

- A **Frequent 57** route on the Saratoga/Kiely/Bowers/Great America corridor, every 15-minutes on weekdays and 20-minutes on weekends.
- Improved service on **Frequent route 60** along the Winchester corridor, every 15-minutes on weekdays and every 20-minutes on weekends.
- A new **Rapid 523** route along the Mathilda/Sunnyvale-Saratoga/Hollenbeck corridor between De Anza College and the Lockheed Martin transit center, every 15-minutes every day (including weekends).

SCHOOL SERVICE

What we heard: Many communities rely on VTA service for youth school trips.

Many schools are located near fixed-route service, and VTA plays a role in getting these students to and from school. VTA's school service takes the form of additional vehicles added to routes near schools, timed to the school bell times, to ensure students are well-served. The draft plan continues VTA's program to provide supplementary school trips at the same level as today,

about 46,000 annual service hours (3% of VTA's total annual bus service hours).

The draft plan includes four cases where VTA would scale back an existing all-day fixed route to a schedule focused on school bell times. These four routes have low ridership today and would otherwise have been discontinued under the draft plan's shift to a more ridership-oriented network. Instead, these four routes have been scaled back to operate at school bell times only:

- **Route 88** in Palo Alto would be converted to special service (Route 288), for Gunn High School, Kehillah Jewish High School, Palo Verde Elementary School, Hoover Elementary School, and Jane Lathrop Stanford Middle School.
- **Route 82** in Willow Glen would be converted to special service (Route 282), for Willow Glen High School and Willow Glen Elementary School.
- **Route 46** in Milpitas would be converted to special service (Route 246), for Milpitas High School.
- **Route 16** in Morgan Hill would be converted to special service (Route 216), for Sobrato High School, Live Oak High School, and Lewis Britton Middle School.

VTA EXPRESS SERVICE

VTA's twelve Express routes were not studied as part of this project. However, a dedicated Express service redesign project will be conducted following adoption of the final transit service plan in 2017. Therefore, the draft plan does not make recommendations for VTA's Express routes, except for the routes that currently serve Fremont BART (Express routes 120, 140, 180, and 181). As the only VTA routes that provide service outside of Santa Clara County, the four Express routes that currently serve Fremont BART would all be replaced by the BART Phase 1 extension:

- **Express 120** to Lockheed Martin/Moffett Park (6 AM and 6 PM trips) would be replaced by the new Orange light rail line (every 15-minutes all day) and the BART extension to Milpitas.
- **Express 140** to Mission College and Montague Expressway (3 AM and 3 PM trips) would be replaced by a new Frequent route 20 (every 15-minutes peak and 30-minutes midday) and the BART extension to Milpitas.
- **Express 180** to Milpitas (and Eastridge on select peak trips) (every 30-minutes) would be replaced by the BART extension to Milpitas (and Frequent route 77 every 15-minutes).
- **Express 181** to downtown San Jose (every 15-minutes) would be replaced by Rapid route 500 (timed to meet every BART train at Berryessa Station), and the BART extension to Berryessa Station.

- **Express 101, 102, 103, 104, 121, 122, 168, 182:** no change; service remains as it is today.

RELATIONSHIP TO FARE STUDY

The draft plan utilizes a grid network of frequent routes to expand the range of trips possible on the transit network, however VTA's current fare structure discourages the transfers that would unlock the ridership benefits of the grid. Concurrent with the project, VTA staff will separately engage the Board in discussions and development of revised fare policies that would complement the new transit service network.

BUDGET

Following VTA Board guidance, the draft plan represents an unchanged total amount of bus service, utilizing the same annual service hours as the most recent Board-approved service plan (the FY16-17 Transit Service Plan). The draft bus service plan is anticipated to be cost neutral, i.e., no increase in annual operating expenses directly related to the number of service hours.

The light rail portion of the draft plan represents an increase in the total amount of service provided. The proposed light rail service plan is projected to increase operating costs by approximately \$11 Million annually. Net costs after projected fares, would be approximately \$8 Million annually.

ALTERNATIVES:

Alternatively, the Board could direct staff to defer release of the draft transit service plan or make modifications to the proposals contained within the draft service plan.

FISCAL IMPACT:

There is no direct fiscal impact related to approval of the draft transit service plan. However, subsequent adoption of the final transit service plan, currently scheduled for April 2017, could result in increased annual operating expenses of up to \$11 Million (\$8 Million net of projected fare revenues) depending on the level of light rail service ultimately approved. In addition, changes made to the draft bus service plan that result in a higher amount of overall service hours could result in increased annual operating expenses.

Prepared by: Jason Tyree
Memo No. 5840

ATTACHMENTS:

- Attachment A: System Map(PDF)
- Attachment B: Route by Route List of Major Changes (PDF)
- Attachment C: Light Rail System Map (PDF)
- Attachment D: BART Connections (PDF)
- Attachment E: Family of Services (PDF)