

To: County Connection Advisory Committee

Date: January 3, 2014

From: Mary Burdick, Sr. Manager Marketing/Cust. Service Reviewed by:

Subject: Final Adaptive Service Plan

Background:

Measure J Transpac funds were used to do a study of alternative transit service in areas where traditional fixed route transit isn't working efficiently. It was envisioned that creative new services would be developed. The planning team at Nelson Nygaard first selected neighborhoods for study within the Transpac area, then narrowed down the choices to the Trotter/South Walnut Creek area, Downtown Martinez, and Shadelands.

Service options were developed and specific recommendations are made to improve service to these neighborhoods. The final Adaptive Service Plan was reviewed by the Marketing, Planning, and Legislative Committee, and adopted by the Board of Directors in December.

The next steps include further review by the Operations and Scheduling Committee for final authorization to begin the public input process for any of the recommendations on which County Connection intends to take action.

The attached executive summary is a concise version of the process and recommendations.



ADAPTIVE SERVICE PLAN

Executive Summary

Contra Costa County Transportation Authority

November 2013



In partnership with
Fehr and Peers

EXECUTIVE SUMMARY

Traditional fixed route service is an effective mobility option in certain applications and in certain environments. Typically, this includes areas with ample residents and destinations along relatively direct corridors. Where fixed route service tends to underperform is in suburban and rural areas where development density is low and the roadway networks are incomplete or the roadway environment is unsuitable for the walking trips needed to access the service.

The goal of the Adaptive Service Plan is to explore options beyond traditional fixed route service and seek recommendations that might be more effective in meeting the mobility needs of certain focus areas within the CCCTA Transpac service area. In some cases, recommendations might not even include transit service at all. To develop recommendations, a data-driven approach was used, investigating the entire Transpac area, this approach is described in the Report Overview and Figure ES-1.

REPORT OVERVIEW

This report reviews the entire Transpac study area where County Connection operates. Considering numerous factors in combination with input from County Connection staff, the project narrows the study area to four “focus areas” for further analysis of service options. The process of selecting these initial four focus areas can be found in **Chapter 2: Demographic Analysis**.

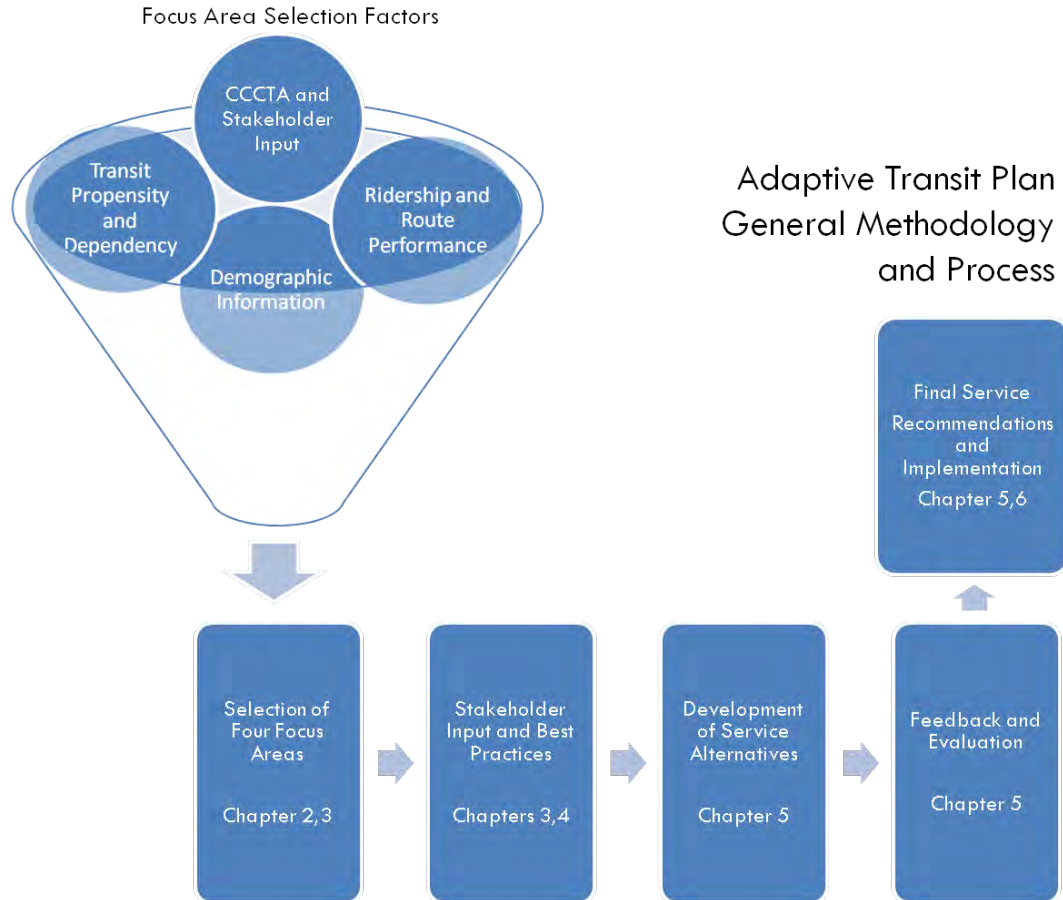
Upon selection of four focus areas, each was reviewed at a much higher level of detail, investigating elements such as major local destinations and attractions, existing transit service, local preference and physical characteristics such as the roadway network and pedestrian network.

A detailed analysis of each of the focus areas can be found in **Chapter 3: Focus Areas**. Given the context and background provided in these preliminary chapters, the study turns its focus externally to investigate various “adaptive service strategies” that have been employed in other locations around the country. Examples of strategies include deviated fixed route systems, flex-routes and non-fixed route options. A summary of these service delivery models and associated performance measures for their service are provided in **Chapter 4: Service Strategies**.

Chapter 5: Service Plan culminates the background information from each of the focus areas and applies different service strategies. Contrary to the initial expectation of the study, many of the strategies are not considered adaptive service strategies. In fact, in each of the three final focus areas, more traditional services including circulator shuttles and modifications to existing fixed route service are applied. This is not to say that different service strategies were not analyzed. They were deemed to not be applicable to the focus areas in question and enhancements to existing services are believed to be more effective at generating ridership.

Finally, **Chapter 6: Implementation Plan** briefly highlights key implementation tasks and associated organizations that should be involved in bringing service recommendations to fruition.

Figure ES-1 Adaptive Transit Plan General Methodology



FINAL FOCUS AREAS

Trotter/South Walnut Creek

The Trotter/South Walnut Creek focus area conveys two very different stories. Based on the low-density residential land uses and absence of major destinations, Trotter/South Walnut Creek (specifically, areas south of Rudgear Road) has little potential for near-term growth in transit ridership. From a transit operations perspective, it is challenging to justify the need and relevance of traditional fixed-route transit service in this neighborhood. Existing service (Route 2) experiences very low route ridership and productivity, which could warrant the introduction of a flexible service type. However, given that many other neighborhoods in the central county with similar land use characteristics do not have any transit service, even a flexible service type may not be warranted in this area.

On the contrary, the Creekside Drive area has characteristics that lend itself to successful transit service. The combination of high-density housing, constrained parking supply and roadway options that limit access to the area suggest that transit could be competitive with drive alone

trips. While the pedestrian network and connectivity is constrained, the area's proximity to shopping and recreational trails would be supportive of transit service modifications that better serve local needs.

Martinez

Downtown Martinez's combination of jobs density, walkable street network, and relatively close major regional destinations make it an interesting candidate for improvements. Feedback from stakeholders and a review of local demographic data shows that a need and desire for transportation services exists, yet current transit does not seem to fully capitalize on these specific needs. Intra-Martinez trips between the downtown core, the County Regional Hospital, and retail on Route 4 may include markets that could be more efficiently served by transit.

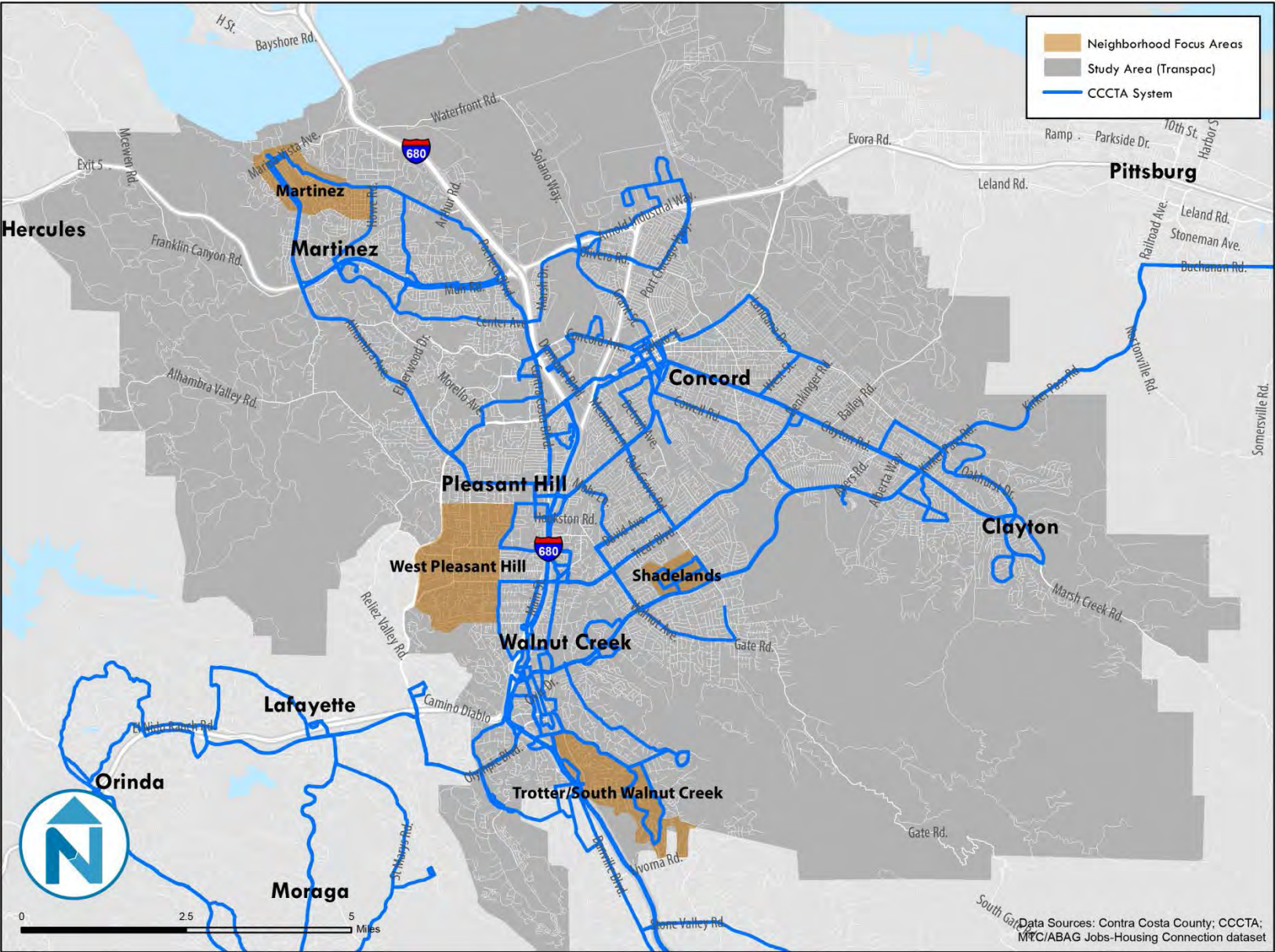
Shadelands

Shadelands is the only commercially-focused (primarily office) site of this study. It is worth noting that many employees who work at Shadelands reside in areas adjacent to or nearby the office park, therefore it may benefit most from improving access for non-motorized transportation modes. Further investigation of this site may include recommendations for "transit-supportive" strategies rather than flexible transit or route modifications. Currently, Route 1 and Route 7 provide transit service between Shadelands and the Walnut Creek and Pleasant Hill BART Stations. However, these do not provide direct, frequent service and may not attract regular commuting employees who would otherwise drive and have access to free parking. As a result, a dedicated Shadelands shuttle may be viable and is a service that has garnered interest from the local business community.

West Pleasant Hill (eliminated from final focus areas)

West Pleasant Hill was one of the four original focus areas selected for preliminary portions of the study. However, after an initial round of analysis, it was determined West Pleasant Hill had the lowest potential for transit service improvements as compared to other focus areas. As a result, this focus area was dropped from the service planning portion of the study.

Figure ES-2 Focus Areas



SERVICE RECOMMENDATIONS

Trotter/South Walnut Creek

Eliminate Route 2 and increase transit frequency on Route 5

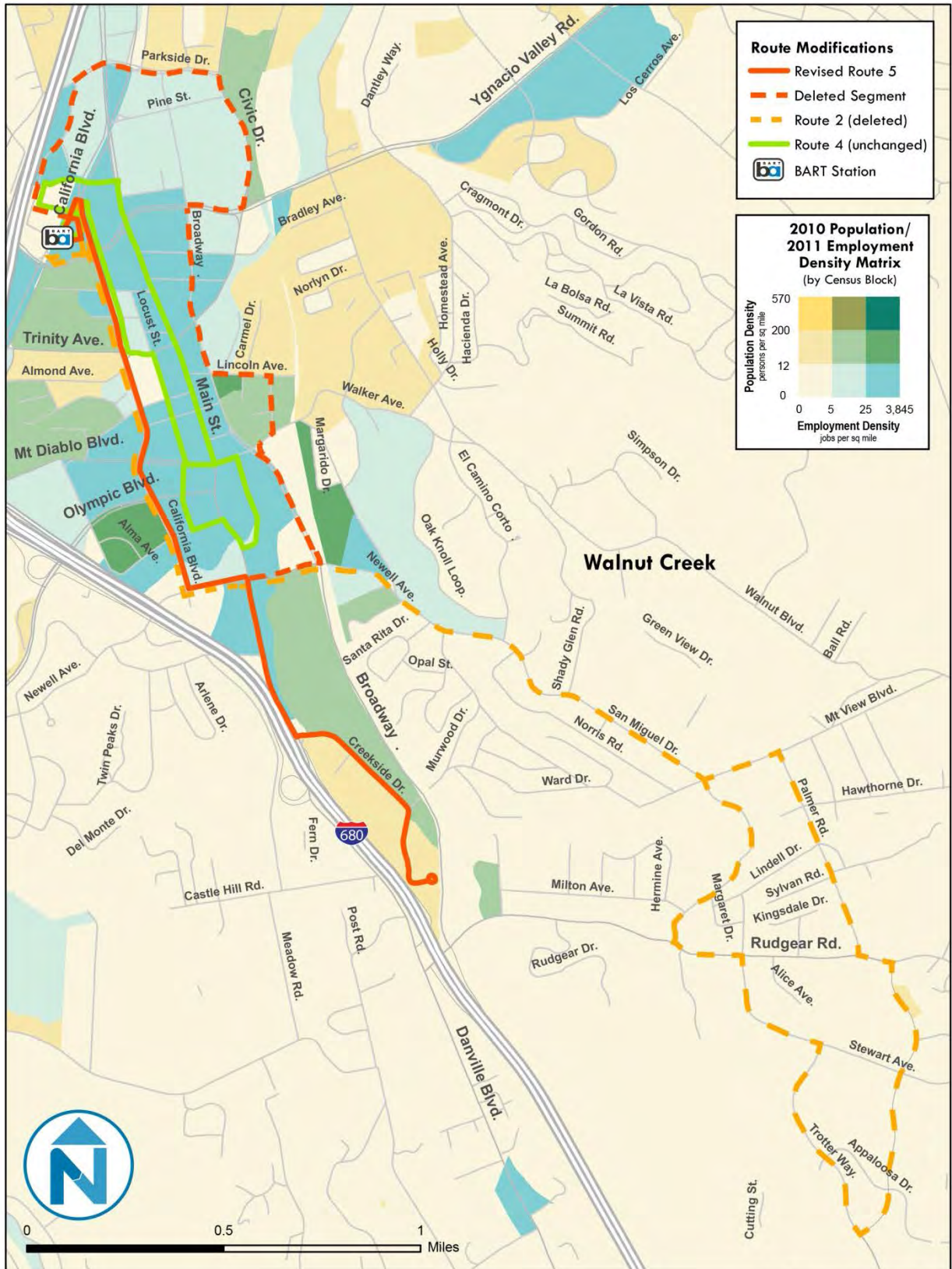
Service recommendations in the Trotter/South Walnut Creek Area include the elimination of Route 2 given its low productivity (nearly 7 boardings per hour) and reallocation of resources to improve Route 5 service on Creekside Drive.

This reallocation of resources would provide improved service to an area with one of the highest population densities in Walnut Creek. School trippers, which carry many students, would continue to operate in the Trotter neighborhood. Given that Route 2 and Route 5 currently interline, this option provides the opportunity for Route 5 to nearly double its frequency to Creekside Drive. This route would enable service frequencies in upwards of 20-25 minutes to residents along Creekside Drive in addition to 30 minute service from Route 21.

Feedback from existing residents of Creekside Drive includes the criticism that Route 5 takes too long to get to BART. It is suggested that Route 5 be realigned to travel on a more direct path to BART using California Boulevard (following Route 21). This would save approximately 1.4 miles (round trip) in travel distance and associated travel time.

The northern and eastern segments of Route 5 (Parkside Drive, Civic Drive, Lincoln, South Broadway, Newell) would be eliminated altogether. Currently, Route 4 operates within ¼ mile of the existing segments of Route 5 proposed for elimination. Route 4 operates more frequently and over a longer service span, thus justifying service elimination of this segment of Route 5.

Figure ES-3 Trotter/South Walnut Creek Recommendations



Data Sources: CCCTA; US Census

Martinez

Modify existing fixed route services and provide a community-focused shuttle in Martinez

Community Shuttle

Based on the service goals and criteria in Martinez, a shuttle service similar to the 2009 Community Based Transportation Plan recommendation is still valid. That recommendation outlined several potential routing options between Downtown and destinations along Highway 4. This plan goes beyond the 2009 recommendations to provide more detailed routing, potential schedules, and other variants that may help the service better meet current community goals.

Preliminary service would be scheduled to operate hourly between approximately 7:00a.m. - 9:30p.m. It is likely that routes would be scheduled to enable timed transfers at the Amtrak station or mid-route for routes traveling to Walnut Creek. Two routing alternatives are possible; one includes a one-way loop route that services Muir Road and Arnold Drive in a counter-clockwise loop and a two-way service on Arnold Way that would have a bus turnaround near Morello Avenue.

It is assumed that a Community Shuttle would have the same fares as all other service. However, fares could be subsidized by the City of Martinez or other entities similar to how the City of Walnut Creek subsidizes fares on the Route 4 Trolley.

Figure ES- 4 Martinez Community Recommended Shuttle Routing



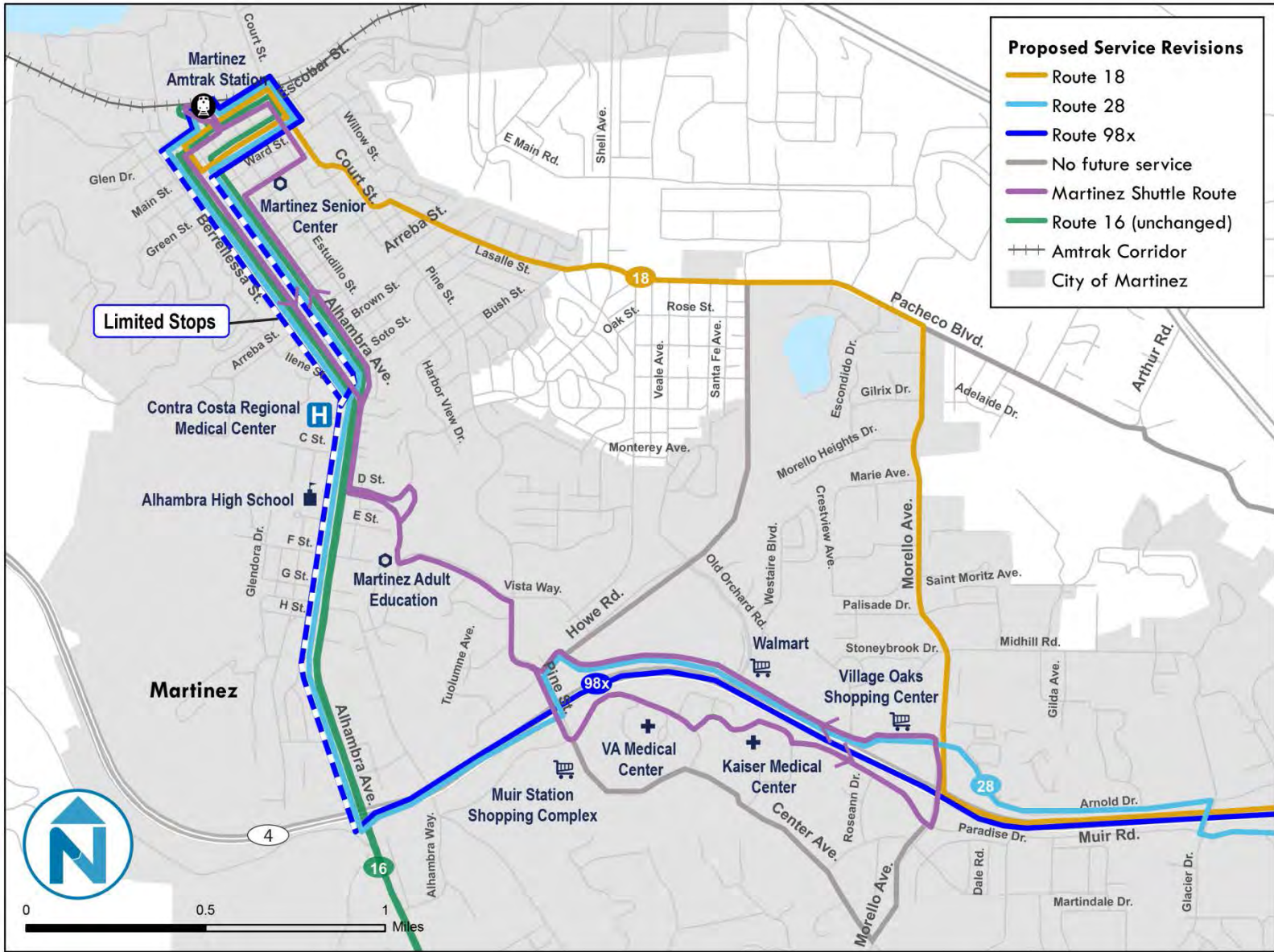
Data Sources: CCCTA

Fixed Route Modifications (Martinez Focus Area)

Several modifications are recommended to existing routes in the Martinez area including the elimination of Route 19. The route modifications described below assume that a Community Shuttle would be implemented and are designed to complement that service. The elimination of Route 19 will free up resources that could help support the initiation of a Community Shuttle service.

Route Number	Proposed Service Change	Implications on Service Hours	Additional Comments
16	No service changes	N/A	If additional resources become available, it is recommended that service frequencies be set at hourly clockface headways (0:30 minute frequencies) for passenger convenience. Current frequency is 40 minutes between trips.
18	Route realignment: Route 18 and Route 28 switch alignments between Morello Avenue and Pacheco Boulevard. Route 18 now travels on Highway 4.	Any route efficiencies due to alignment changes should be used towards improving route frequency.	The proposed route provides a slightly faster travel time which could marginally improve frequencies. However, if additional resources become available, it is recommended that service frequencies be standardized at hourly (0:60) headways for passenger convenience. Current frequencies vary.
19	Route elimination: All segments of route are recommended to be eliminated due to low ridership.	Route elimination provides approximately 13.8 (13:50) weekday fixed route service hours to be applied towards other services.	Route eliminated
28	Route realignment: Route 28 would be realigned from Pacheco Boulevard to Alhambra Avenue and Berrellesa Avenue. The route would also serve Arnold Drive and previous segments of Route 18 (Arnold Drive, Muir Road)	Any route efficiencies due to alignment changes should be used towards improving route frequency.	The proposed route provides a slightly faster travel time which could marginally improve frequencies. However, if additional resources become available, it is recommended that service frequencies be standardized at hourly (0:60) headways for passenger convenience.
98X	Stop Reduction: Eliminate low-ridership stops to improve overall travel time. Stop location: Stop directly at DVC on both northbound and southbound trips.	Any route efficiencies due to alignment changes should be used towards improving route frequency.	The proposed route provides a slightly faster travel time which could marginally improve frequencies. However, if additional resources become available, it is recommended that service frequencies be standardized at hourly (0:30) headways for passenger convenience.

Figure ES-5 Martinez Area CCCTA Service Recommendations



Data Sources: CCCTA

Shadelands

Establish dedicated BART Shuttle to Shadelands and support efforts to organize a Shadelands Transportation Management Association (TMA)

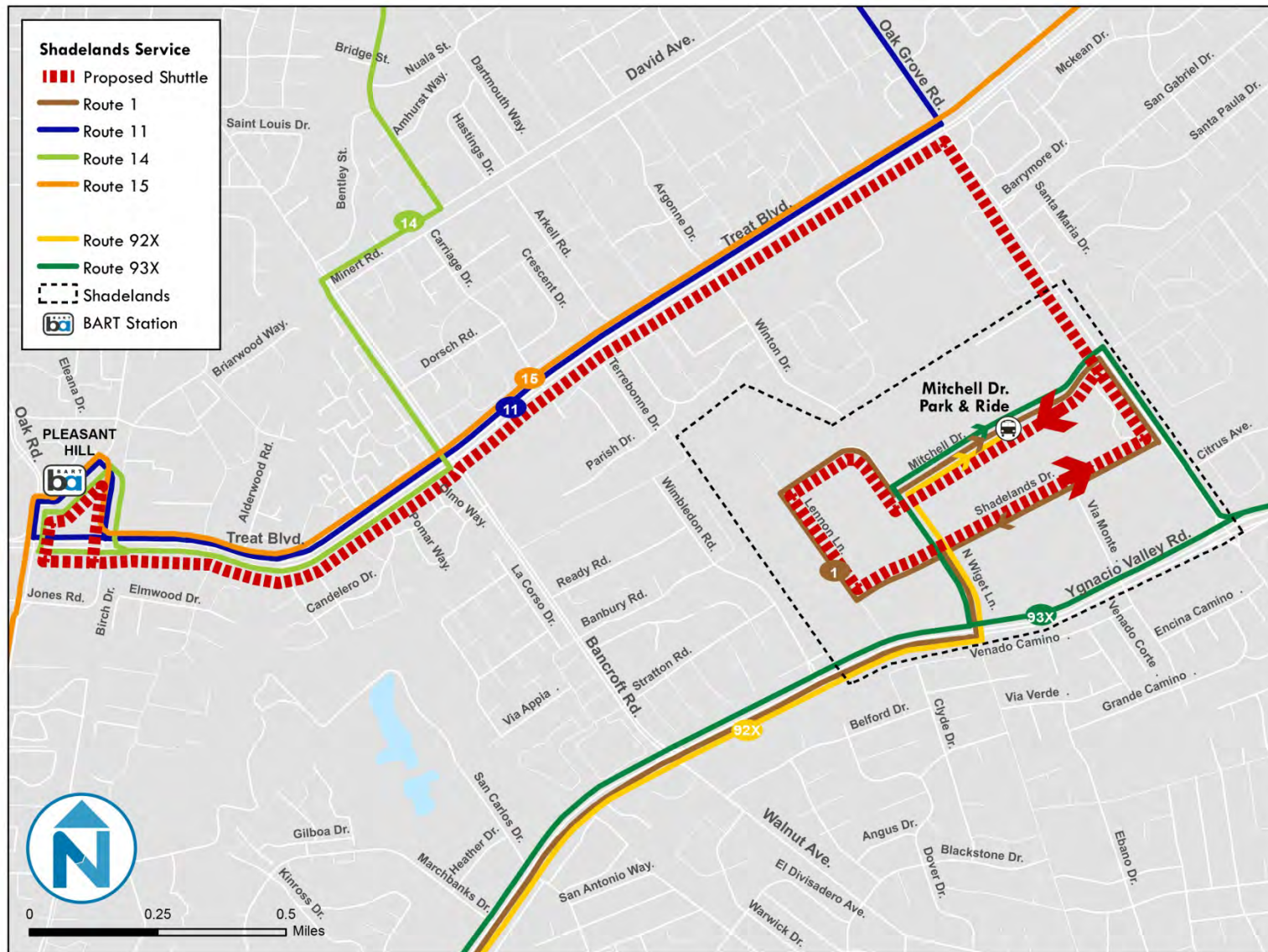
Shadelands BART Shuttle

Compared to the existing County Connection service, a dedicated BART shuttle could reduce travel times between destinations in Shadelands and Pleasant Hill BART. Presently, the fastest County Connection trip from the Mitchell Park and Ride takes approximately 24 minutes (Route 7, one-way). A dedicated service could reduce the travel time to approximately 18-20 minutes. Travel time savings would be achieved by reducing the total number of stops and utilizing a travel corridor with less variable traffic congestion than the current alignment.

Increasing the frequency of operations would also make the service more attractive to potential users. 15 minute (peak) service frequency would match BART train arrivals at Pleasant Hill BART and provide a much higher level of travel flexibility as compared to current transit options. Given the limited information about potential ridership demand and needs, it is preliminarily proposed that service operate between 7 a.m. and 10 a.m. in the morning and between 3 p.m. and 7:30 p.m. in the evening. Route 7 that currently serves Shadelands should not duplicate the Shadelands Shuttle. Instead, it should be truncated (to save resources) and not directly serve Shadelands or the route could be eliminated altogether to provide resources for a shuttle.

Figure ES- 6 Shadelands Shuttle Alignment

Note: Route 7 is no longer shown and is assumed to be replaced by a Shadelands Shuttle.



Data Sources: Contra Costa County

Establishment of a Shadelands Transportation Management Association (TMA)

In an area like Shadelands that is already served by transit, a TMA may serve as a sounding board or decision-making body that could articulate certain “on-campus” transit needs to County Connection or lead the charge in improving transit amenities such as stops, shelters or even creating a new consolidated “transit hub.”

As of September 2013, it has been rumored that numerous companies in Shadelands are exploring the formation of a Property Based Improvement District (PBID). A PBID could establish the administrative foundation under which a TMA could operate. It is recommended that County Connection continue to maintain involvement with any organized efforts within the Shadelands Office Park related to transportation.

