

Rumrill Boulevard/ 13th Street Final Complete Streets Study



CITY OF SAN PABLO
City of New Directions



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1. Introduction

The Rumrill Boulevard and 13th Street Complete Streets Study stems from an intensive community-based design process focused on transforming the street into a safe and friendly place for people and business by improving conditions for walking, bicycling, and transit. This effort was made possible with the support of a Caltrans Environmental Justice Transportation Planning Grant awarded to the City of San Pablo in partnership with the City of Richmond, Contra Costa County Health Services and the Local Government Commission.

The project team studied conditions for all modes of travel and types of users, and explored potential improvements through an intensive community engagement process. This included a series of meetings, presentations, walking assessments and workshops that brought together residents, stakeholders and agencies to elicit hopes and concerns and draw out ideas about possible solutions. Key outreach efforts were: a Walk and Design Workshop and two additional community workshops as well as business outreach.

Both the Cities of San Pablo and Richmond and community members of adjacent neighborhoods identified Rumrill Boulevard/13th Street as a corridor in need of a safety, comfort, and placemaking vision for the corridor. This Study documents the identification of existing

conditions, alternatives development for corridor-wide improvements, and a preferred concept alternative for the community's complete streets vision for the corridor.

As shown on **Figure 1**, the planning process was initiated in the Fall of 2014 with community workshops and engagement throughout the planning process. The Study culminated in the development of a set of design drawings for the preferred concept alternative and the preparation of this Study.

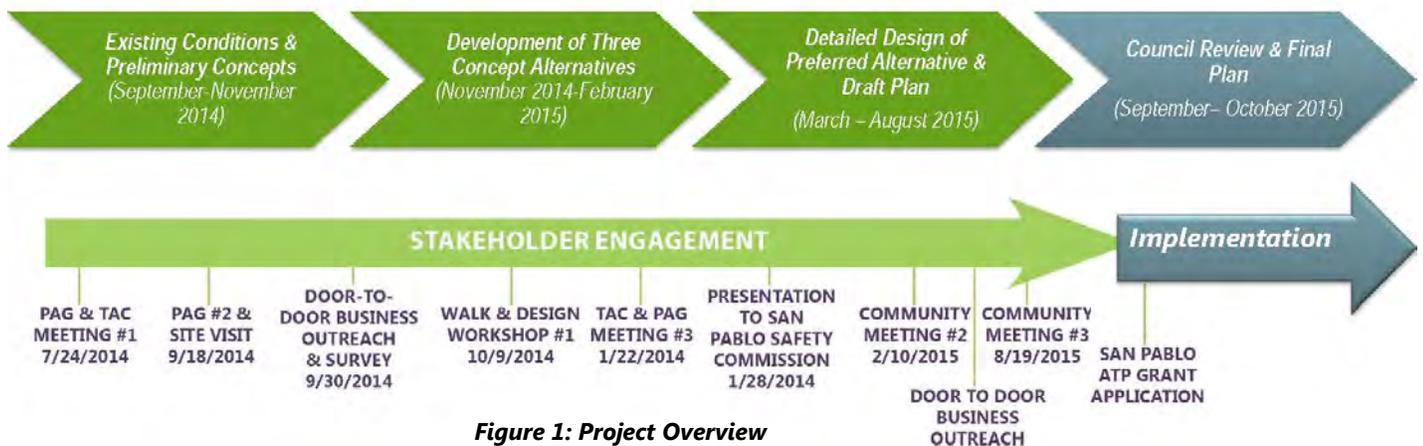


Figure 1: Project Overview

Study Area

This Study covers the length of Rumrill Boulevard through the City of San Pablo and 13th Street through the City of Richmond, as show on **Figure 2**. The Study area covers the full length of those two streets between Harbour Way/Pennsylvania Avenue in Richmond and San Pablo Avenue in San Pablo. Rumrill Boulevard/13th Street serves a variety of roles in these cities; it is one of two continuous north-south roadways through the area, connecting Central Richmond and the Richmond BART stations to key commercial nodes and destinations in San Pablo. However, connectivity in many adjacent neighborhoods is limited as a result of roadway grid barriers including the railroad tracks that parallel the corridor to the west, further compounding the importance of the Rumrill Boulevard/13th Street corridor to better serve all modes of transportation. Land uses range from commercial and industrial to single-family residential along its length.



Figure 1: Project Study Area

2. Community and Stakeholder Engagement

Community input and partnership drove the development of the Study through the planning process and will continue to drive and inform improvements on the corridor as the Cities of San Pablo and Richmond move forward with implementation.

There were four primary venues for community and stakeholder engagement:

- Community Workshops
- Project Advisory Group Meetings
- Technical Advisory Group Meetings
- Direct Outreach to Businesses on the Corridor

These are detailed in the sections below.

Community Workshops

The Cities of San Pablo and Richmond jointly hosted three community workshops, one at each stage in the study development process, as shown on **Figure 1**. One was located in Richmond at Cesar Chavez Elementary School, located two blocks west of 13th Street, and the other two workshops were hosted at the Lao Family Center, located on Rumrill Boulevard in San Pablo.

Across all three meetings, there were consistent themes that emerged from discussion with workshop participants. These include:

- Desire to reduce high auto speeds on the corridor
- Need to enhance crosswalks and improve pedestrian safety
- Need for lighting and personal security
- Opportunity for bicycle infrastructure improvements

- Opportunity for landscaping and aesthetic treatments
- Need for community and economic development
- Placemaking along the corridor

This feedback was incorporated throughout the planning process and strongly informed the preferred concept design for the corridor presented in this Plan.



Community stakeholders imagine an improved Rumrill Boulevard



Participants discussing issues during the Walk & Design Workshop.

Walk and Design Workshop (Community Workshop #1) - October 2014

The Community Walk & Design Workshop was the first major outreach event. Held on October 8, 2014, it provided the San Pablo and Richmond communities an opportunity to identify specific

opportunities and problem areas along the corridor. Staff provided maps to participants who then took a guided bus and/or walking tour of the corridor to discuss general ideas and site-specific issues and opportunities along the corridor. Participants were then invited to discuss their vision for transportation and placemaking improvements on the corridor. Many workshop participants were in agreement about the need for safety and placemaking improvements, including:

- **Lighting:** Improved lighting to improve safety and walkability after dark.
- **Pedestrian experience:** Reduced traffic speeds, sidewalk improvements, crosswalks improvements, shade trees and other landscaping, and separation from the street.
- **Bicycle experience:** Many wanted to see a continuous bike lane with connections to a wider bicycle network.
- **Transit:** Closely-spaced and accessible bus stops with amenities such as shelters with benches, schedules, trash cans, with frequent and reliable transit service.
- **Vehicles:** Participants expressed concern about vehicle speeds, truck traffic, and making left turns on to and off of the corridor.
- **Economic Development:** Economic development could be spurred with more businesses and a greater variety of businesses that are pedestrian-friendly, including retail.
- **Safety and Health:** Residents have a vision for a safe, secure, healthy community that is violence-free, immigrant-friendly, has healthy food options, and is supported by police surveillance and enforcement.
- **Cleanliness and Appearance:** The community desires more landscaping, more frequent street and sidewalk

cleaning, more trash cans, public art (including murals and mosaics), and undergrounded utilities.

In addition the transportation-related considerations outlined above, the community also identified public spaces, recreation opportunities, and affordable housing as key needs for the area.



Workshop Participants Discuss Ideas for the Corridor

Complete Streets Design Workshop (Community Workshop #2) – February 2015

On February 10, 2015, Richmond and San Pablo hosted a joint workshop to present three alternative concepts for the Rumrill Boulevard/13th Street Complete Streets Study. The workshop included a presentation on each of the three alternatives for the corridor, which were developed based on the existing conditions analysis and feedback from the first workshop, Technical Advisory Group meeting, and Project Advisory Group meeting. Drawings focused on safety and comfort improvements for pedestrians, bus riders, and bicyclists. Participants discussed trade-offs associated with each alternative, particularly around the possibility of reducing a travel lane in each direction to accommodate non-motorized travel improvements. The workshop culminated in a

September 2015

voting exercise. Alternative 1, which proposed crossing improvements, bus stop improvements, and a cycle track for bicyclists through a lane reduction in each direction was selected as the most popular concept with 60% of the votes. The three alternatives are presented in detail in **Section 4** of this Study. Alternative 2 received 18% of the votes, and Alternative 3 received 22% of the votes.

Preferred Design Workshop (Community Workshop #3) - August 2015

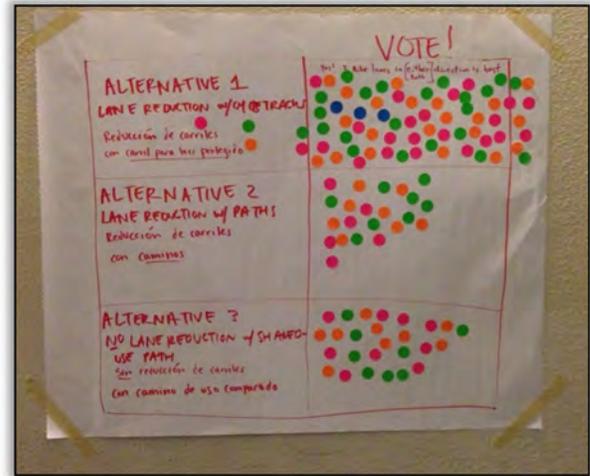
On August 19, 2015, San Pablo and Richmond hosted the final joint workshop for the Study. The purpose of the workshop was to review the preferred concept plans the full corridor. A presentation gave participants an overview of the study to date and introduced the concept plans. Simultaneous translation was provided in English, Spanish, and Mien. Large format maps of the proposed improvements were available for stakeholders to review in detail, looking at site-specific improvements block-by-block. Over 65 people attended the workshop. The community was generally supportive of the proposed improvements and offered site-specific enhancements to the plans. Some members of the community voiced concerns about auto congestion.

Project Advisory and Technical Advisory Groups

A Technical Advisory Group, comprising external stakeholders from related agencies and jurisdictions, and a Project Advisory Group, which was staffed by local representatives from non-profits and citizen groups, were formed for the study. These groups met multiple times through the Study process, typically convening in advance of the community workshops.

The Technical Advisory Group included members from both jurisdictions, Caltrans, transit agencies, Contra Costa County, and other stakeholders. The Project Advisory Group

consisted of community-based stakeholders, including students, parents, advocacy groups,



Voting Results from Community Workshop #2



Presentation at Community Workshop #3



Comments Received on Preferred Alternative Plans at Community Workshop #3

September 2015

and non-profit representatives. Both groups weighed in on key issues to address through the project; other agencies, organizations and groups to involve; and how to engage residents and businesses on Rumrill Boulevard. The project team and members from both groups also toured the corridor together and discussed observations.

Direct Outreach to Businesses on the Corridor

Businesses along Rumrill Boulevard and 13th Street were engaged through the study process.

In October 2014, staff from Contra Costa Health Services distributed flyers and discussed issues with businesses along Rumrill Boulevard in advance of the first community workshop on October 9th.

In November 2014, the San Pablo Economic Development Corporation with assistance from staff from Contra Costa Health Services conducted surveys of businesses along Rumrill Boulevard to further assess their needs and concerns. Surveys were offered to most of the businesses along the San Pablo section of the corridor and 10 were returned. The survey covered topics including training needs, barriers to business expansion, how the street is or is not working for them and their patrons, and soliciting suggested improvements.

Several recurrent themes emerged from the surveys and informal conversation. Store owners expressed interest in increasing foot traffic to their businesses. Some owners had concerns about safely walking along the street and others said they regularly witnessed cars driving dangerously and making midblock U-turns. Many store owners would like to see the aesthetics of the street improved and were also interested in learning about ways they could finance improvements to the facades of their own buildings.

Business owners were also specifically targeted with flyers and one-on-one conversations to invite them to the larger community workshops.

In June 2015, the City of San Pablo Development Services, Planning staff along with the San Pablo Economic Development Corporation staff conducted local business surveys to ensure that the community preferred concept captured their vision and needs for the corridor. 60% of the businesses surveyed were in support of the selected concept, since the concept addresses the following challenges: economic development, reduce auto speeds, bike and pedestrian facilities, crosswalk improvement, lighting, increased safety, landscaping and accessibility. 40% of the businesses surveyed did not support the selected concept due to the auto lane reduction on each side and potential traffic impacts.

3. Existing Conditions

Documenting the existing conditions helps to present the Rumrill Boulevard/13th Street corridor as it is used and experienced by the community today. The existing conditions analysis provides an understanding of how pedestrians, bus riders, bicyclists, and drivers use the corridor today and what the distinct set of needs are.

The Rumrill Boulevard/13th Street corridor today has a large number of demands placed on it by users of all modes of travel. The corridor serves an important function for neighborhood access to Richmond BART, Contra Costa College, safe routes to school for many area households, and through access for autos to I-580 and I-80 via Harbour Way and San Pablo Avenue. The corridor also serves heavy truck trips though it is not a designated truck route, in addition to locally serving commercial trips. Buildings are frequently built with no setback, which constrains the sidewalk environment. Block sizes are long due in part to railroad infrastructure on the west side of the roadway as well as limited land uses in some portions of the corridor. As a result, pedestrian crosswalks are infrequent. Given the roadway network through adjacent San Pablo and Richmond neighborhoods, the corridor is an important auto route for residents traveling to and from the neighborhood. Wide lanes are in the northern section of the corridor often lead to higher speed traffic. Bike lanes are discontinuous and are only provided on one segment of the corridor. Both communities have crafted a vision of a more walkable, bikeable, and transit-friendly Rumrill Boulevard/13th Street that better meets the needs of all travel modes. This is generally established in both City's General Plans and other policy documents. Mode specific issues



While the Corridor remains auto dominated, pedestrian volumes are high between Chesley Avenue and Lincoln Avenue. In several areas, parking on the sidewalk occurs, blocking the pedestrian realm due to narrow parking widths.

and opportunities are detailed in the following sections.

Existing & Proposed Land Uses

This section presents the existing land uses and the proposed land use changes anticipated in each City's General Plan.

Existing Land Use/Urban Design Character

Existing land uses vary substantially based on the segment of the corridor. The following existing land uses characterize the different portions of the corridor:

- **Northern Commercial** (San Pablo Avenue/Broadway Avenue Area): These intersections serve commercial uses which are primarily auto-oriented retail. Contra Costa College is in close proximity, just two blocks to the east.
- **Northern Residential** (Broadway Avenue to Brookside Drive): This is a neighborhood of single family houses on either side of Rumrill Avenue. Neighborhood schools are located to the north and south of Rumrill Boulevard. Most single family houses are oriented to side streets and do not front Rumrill Boulevard although several parcels do.
- **Central Commercial/Light Industrial** (Brookside Drive to Costa Avenue): This area is dominated by commercial land uses, with large lot sizes on the west side of the roadway and smaller commercial and retail on the east side of the roadway. Some single-family and multi-family residential is located sporadically on both side sides of the corridor, but primarily on the east side.
- **Southern Commercial/Light Industrial** (Costa Avenue to Harbour Way): This area is dominated by commercial and industrial land uses, with large lot sizes on the west side of the roadway and smaller commercial and retail on the east side of the roadway. Many of these uses are auto-related uses

with some retail, such as restaurants and convenience stores, on the east side. South of Lincoln Avenue, single-family and multi-family residential neighborhoods are located on the east side.

Proposed Land Use/Urban Design Character

The City of San Pablo and City of Richmond General Plans create plans for changes in land use on the corridor over time. The following land uses are planned for corridor:

- **Northern Commercial** (San Pablo Avenue/Broadway Avenue Area): This area is planned as a key node in San Pablo, with mixed-use centers and residential mixed-use.
- **Northern Residential** (Broadway Avenue to Brookside Drive): The existing low-density residential uses will continue to define this section of Rumrill Boulevard.
- **Central Commercial/Light Industrial** (Brookside Drive to Costa Avenue): North of Market Avenue, this area is envisioned as primarily neighborhood commercial with some regional commercial. A key commercial mixed-use node is planned for the Market Avenue intersection. South of Market Avenue, industrial mixed-use is envisioned on the west side of Rumrill Boulevard with neighborhood commercial and medium-density residential on the east side of the roadway. Emphasis is placed on the design of new buildings to create a consistent and attractive building facades and streetscapes.
- **Southern Commercial/Light Industrial** (Costa Avenue to Harbour Way): The Richmond portion of the corridor is envisioned as having a business and industrial focus on the west side of 13th Street. 13th Street is envisioned as "key corridor" for Richmond in the General Plan, indicating that it should be a vibrant,

mixed-use area with pedestrian and transit focuses.

Pedestrians

Despite some vacant and industrial land uses on the west side of the corridor, Rumrill Boulevard/13th Street serves many pedestrians and is a key corridor for walking in San Pablo and Richmond. People walk on Rumrill/13th to access schools, bus stops (AC Transit Route 71), parks (e.g. Wildcat Creek Trail and Davis Park), and local businesses and services. Numerous schools are located only a few blocks east of the corridor, including Downer Elementary School, Chavez Elementary School, Dover Elementary School, and Contra Costa College. **Figure 3** presents pedestrian volumes on the corridor.

Sidewalks

Sidewalks are provided almost continuously on the corridor and typically have five to six feet of usable space. **Figure 4** indicates sidewalk widths on the corridor. With small parcels with off-street parking, there are many driveway curb cuts along the length of the corridor, which impacts the walking environment. **A sidewalk gap exists on the north side of the 13th Street bridge.** In some portions of the corridor, streets trees exist and provide some shade. On-street parking also provides a buffer for the sidewalk environment south of Market Street, which feels noticeably different than the area to the north where traffic feels faster as a result. In the northern portion of the corridor, in areas without on-street parking, **the sidewalk is immediately adjacent to the travel lanes with no buffer as autos travel upwards of 35 mph.** Appendix B provides a detailed analysis of comfort and the quality of the pedestrian environment and summaries the key issues.

Crosswalks

Signalized crosswalks are typically spaced ¼-mile apart in the central and southern portion of

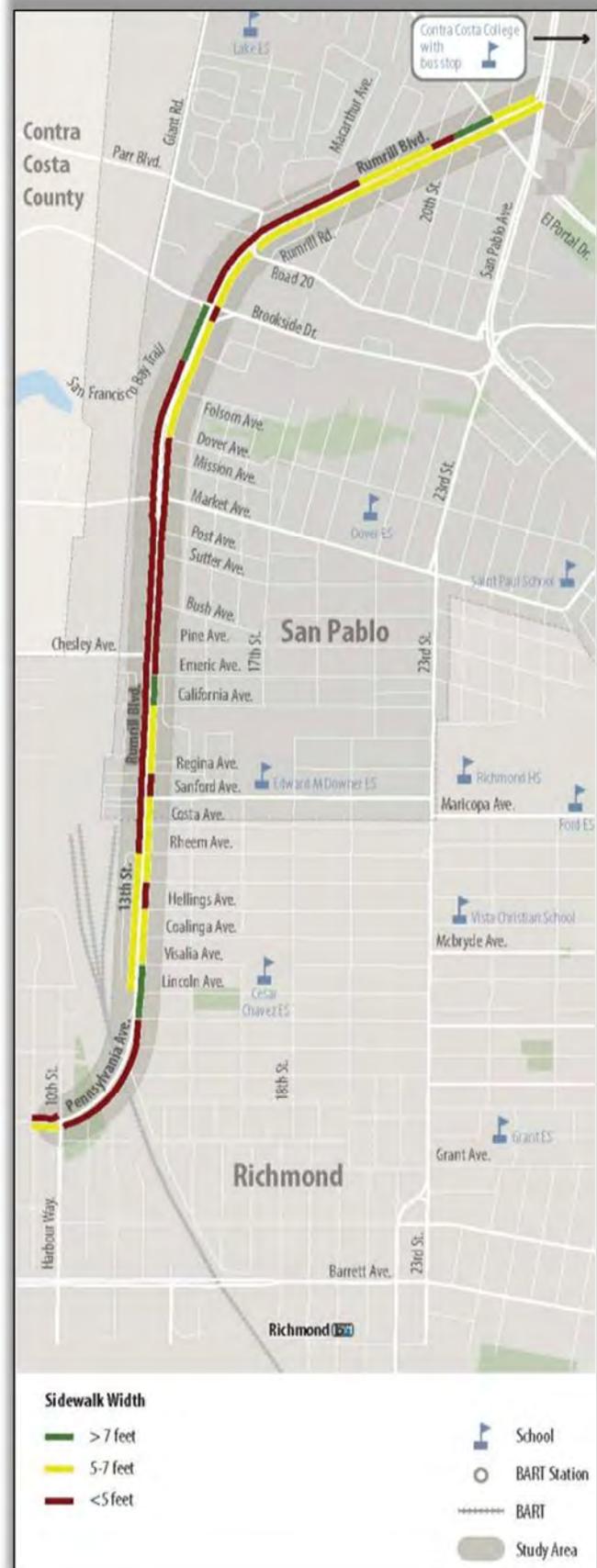


Figure 4: Existing Sidewalk Widths

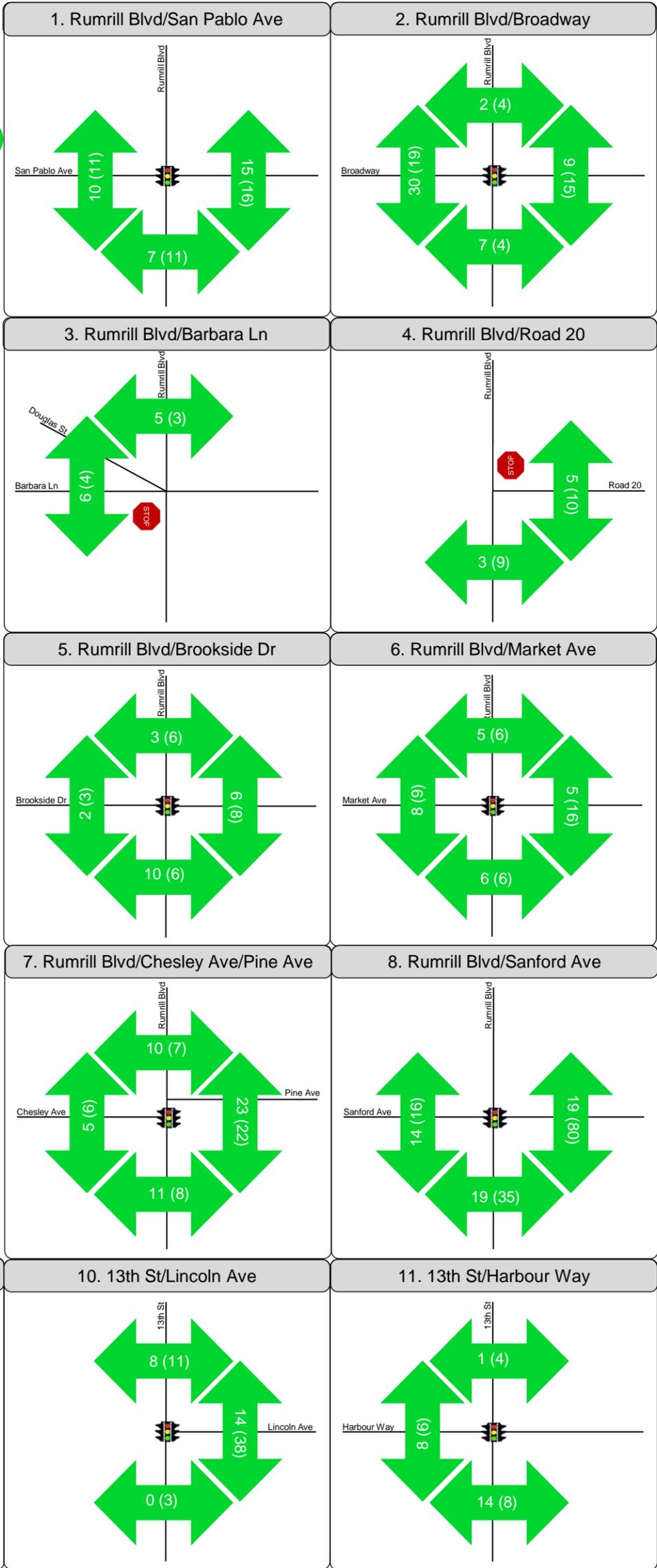
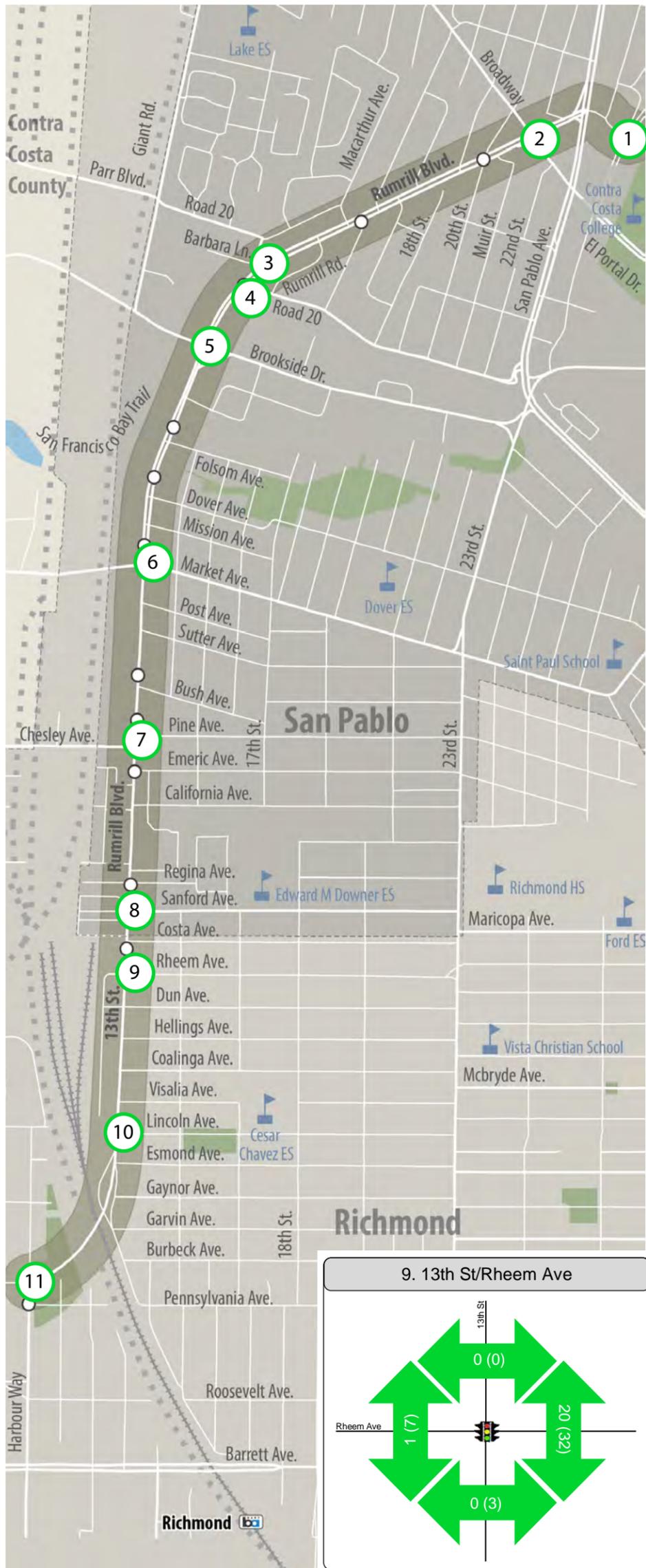


Figure 3
Existing Peak Hour Pedestrian Volumes by Crosswalk



the corridor. In the northern section of the corridor, **no signalized crosswalks are present between Brookside Drive and Broadway Avenue, almost ¾ mile in length.** This presents limited opportunities for pedestrians to cross the multi-lane corridor. Multiple uncontrolled crosswalks are marked through the northern portion of the corridor, which are typically long (90-100 feet in length). These are located at Road 20, Douglas Street, 17th Street, Merritt Avenue, and 20th Street. With the exception of Merritt Avenue, **the crosswalks do not have any enhancement or median island refuge.**

At Brookside Drive, Broadway Avenue, and San Pablo Avenue, the signalized crosswalks also have right-turn slip lanes. These **slip lanes allow right-turning autos to turn without substantially reducing their speed.** Even when located at signals, crosswalks across the slip lanes are uncontrolled, which may make crossing uncomfortable for pedestrians.

Safety

As a result of limited crossing opportunities and perceptions of speeding traffic, many stakeholders were concerned with pedestrian safety on the corridor. Between 2003 and 2011, 32 reported vehicle-pedestrian collisions occurred. Locations with multiple collisions include the Rumrill Boulevard/Road 20 intersection, an unsignalized location; Rumrill Boulevard/Market Avenue, a signalized intersection; and the area near the Rumrill Boulevard/Chesley Avenue/Chesley Street partially signalized intersection. **Appendix B** presents a detailed analysis of pedestrian conditions on the corridor from the Existing Conditions Report.



Crosswalks with no curb-ramps (shown) can impede mobility for those in wheelchairs.



On the northern portion of Rumrill, sidewalk widths are inconsistent with unused pull-outs.



Long unsignalized crosswalk increases pedestrian exposure to autos.

Bicyclists

Many bicyclists today chose to use the sidewalk rather than ride in mixed-flow traffic. Bicycle lanes are provided on one segment of the corridor: Five-foot Class II bicycle lanes exist between Road 20 and 20th Street in both directions. **With wide vehicles lanes and higher documented speeds through this section, the bicycle lanes may still feel uncomfortable** for a broad section of the community, particularly the young and old and those who may be interested in biking but concerned about their safety. The existing and proposed bicycle network is presented on **Figure 5**. Existing bicycle volumes are presented on **Figure 6**.

However, from a physical standpoint, the wide travel lanes and infrequent intersections north of Market Avenue, present an opportunity to provide protected bicycle lanes (“cycle tracks”) to maximize comfort and safety for bicyclists who may be new to biking and/or less confident riders. This could be an alternative to riding on the sidewalk, which can create conflicts with pedestrians.

Signal detection for bicycles is not typically provided at signalized intersections on the corridor, which means that bicyclists on the side streets may not receive a green light if not accompanied by a waiting auto.

Safety

Between 2003 and 2011 there were 24 vehicle-bicycle collisions, only 8 percent of which resulted in severe injuries. Twenty-nine percent of the injuries involved travel in the wrong direction, and another 29 percent involved traffic signals and signs. Providing dedicated space for bicyclists with controls at intersections may alleviate some of these collision types. **Appendix B** provides additional details regarding bicycle collisions.



Parents and children ride on the corridor today, frequently on the sidewalk.



Parents and children ride on the corridor today, frequently on the sidewalk.

September 2015



Figure 5: Existing and Proposed Bikeways

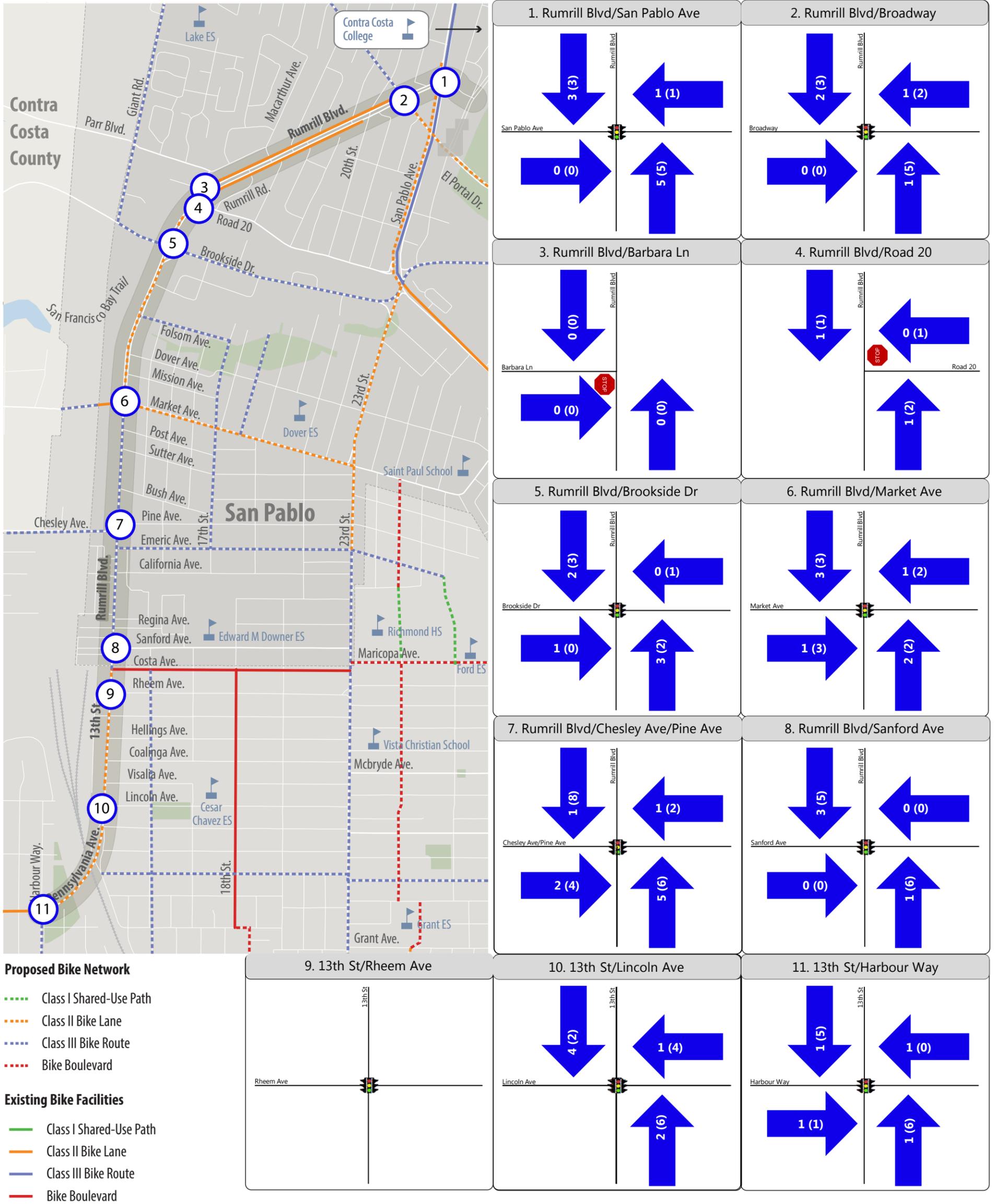


Figure 6
Existing Peak Hour Bicycle Volumes by Approach

Transit Service

Three AC Transit lines serve the Rumrill Avenue/13th Street corridor, with the Contra Costa College transit hub on the northern end and the Richmond BART and Amtrak station less than half a mile from the southern end of the study area.

Table 1: Summary of Area Transit Service	
AC Transit	
Route 71	Weekdays: 15-30 Minutes Weekends: 60 Minutes
Route 376	Weekdays: 30 Minutes Weekends: no service
Route 607	One bus only
BART	
Daly City/Millbrae	Weekdays: 15 minutes Saturday: 20 minutes Sunday: no service
Fremont	Weekdays: 15 minutes Weekends: 20 minutes
Amtrak	
San Joaquin	3-5 Hours Daily
Capital Corridor	Weekdays: 40 min - 2 hrs Weekends: 90 min - 2 hrs

AC Transit

AC Transit Route 71 is the primary bus service on the corridor, with multiple stops along its length, 15 to 30 minute weekday headways and 60 minute weekend headways. Two school routes also have stops along the corridor. Several stops have fewer than 10 average daily boardings and alightings per direction. By contrast, the stop at Brookside Drive and Rumrill Boulevard sees the highest volume within the project area with 49 northbound and 45 southbound average daily boardings and alightings. This may be explained by a small concentration of commercial land uses at that intersection, nearby multi-family residential land uses, riders travelling north to the transit hub at Contra Costa College, or south to more transit connections at Richmond BART.

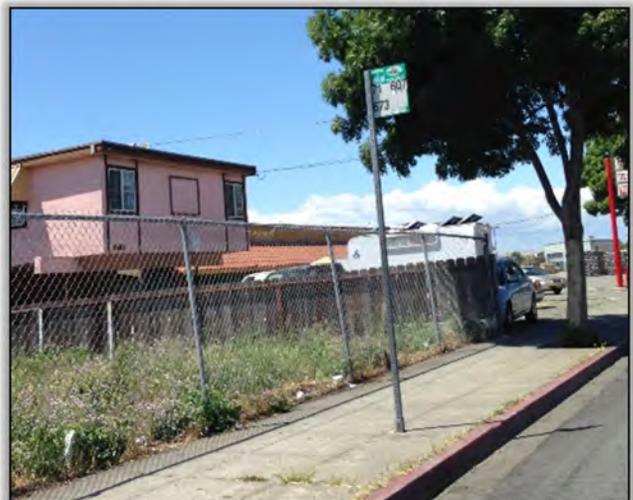
Beyond the extent of the project area are two major bus hubs: Contra Costa College to the northeast sees just under 250 average daily boardings and alightings from all bus routes, and the Richmond BART station to the south sees nearly 400 average daily boardings and alightings from all bus lines.

Along the Rumrill Boulevard/13th Street corridor, bus stops are located approximately 500 feet to just over a quarter-mile apart with 15 bus stops over the 2.25 mile corridor.

Comfort at Bus Stops

Most of the bus stops in the corridor lack shade and seating elements, and generally have no infrastructure beyond the sign post. Additionally, most bus stops are located on narrow sidewalks of varying quality. Some bus stops have adjacent trees that provide shade but further constrain the limited sidewalk space.

Some community stakeholders felt that service was not reliable on the corridor.



A typical bus stop on the corridor.

BART

The Richmond BART station, which is outside the project area but a major transportation hub, sees approximately 8,000 boardings and alightings per day. While the Richmond BART station is less

than a half-mile from the southern end of the study corridor “as the crow flies,” limited roadway connectivity as a result of the BART/train track that bisect the Richmond street grid make travelling between the station and the study area difficult.

Autos

Most people travelling on the corridor use private automobiles. Rumrill Boulevard/13th Street serves an important north-south connection between Richmond and San Pablo neighborhoods as well with destinations including San Pablo Avenue, Contra Costa College, Richmond BART, I-580, and I-80.

Rumrill Boulevard/13th Street has a four lane cross-section, with left-turn pockets provided in some locations through the San Pablo portion of the corridor. On an average day, approximately 15,000 daily vehicle trips occur on the northern portion of the Rumrill corridor and 19,000 daily trips at the southern end (2012-2013 counts). **Figure 7** presents the ADT and peak hour auto turning movement volumes on the corridor. Given the limited roadway connectivity through the area and congestion on I-80, the corridor may also serve regional pass through trips.

Speeds

The posted speed limit on the corridor is 35MPH. The community cited concerns about speeding vehicles as a major issue at the community workshops. In the northern portion of the corridor, **speed surveys indicated that the 85th Percentile speed was 43MPH, fully 8 miles over the speed limit.** South of Market Avenue, speeds were reported in line with the posted speed limit, with 36 MPH 85th percentile speeds (2007-2008 speed surveys). **Attachment B** Existing Conditions Report provides a detailed analysis.

Truck Volumes

Heavy truck volumes are high though the corridor even though it is not a designated

truck route. Nearby, Giant Road serves as a truck route up to Parr Boulevard/Brookside Drive. The corridor has some light to heavy industrial uses located on the west side of the corridor in between the two railroad lines. These uses may contribute to truck volumes along the corridor. It is possible that some truck trips are avoiding Richmond Parkway, San Pablo Avenue, and/or I-80. Richmond Parkway could also serve as a parallel truck route option for many trips as it is located approximately one mile to the west of the corridor. Based on 2013 vehicle classification counts, truck volumes on the corridor vary from 6% of traffic near Sanford Avenue to 15% near Pine Street.



Vehicle traffic on Rumrill/13th and Lincoln Ave. in Richmond



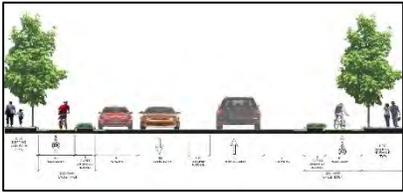
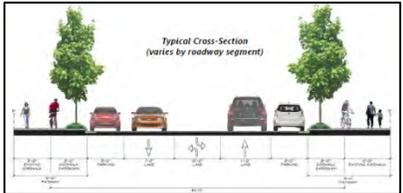
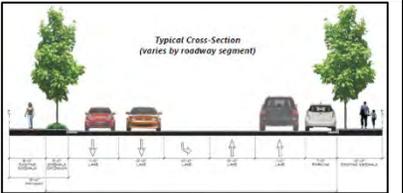
1. San Pablo Avenue/Rumrill Boulevard	2. Broadway/Rumrill Boulevard	
<p>San Pablo Avenue</p> <p>Rumrill Boulevard</p> <p>College Lane</p> <p>455 (267) 929 (498) 119 (42)</p> <p>25 (66) 54 (52) 49 (32)</p> <p>346 (591) 83 (50) 32 (47)</p> <p>0 (0) 378 (881) 18 (17)</p>	<p>Broadway</p> <p>Rumrill Boulevard</p> <p>6 (12) 274 (207) 39 (48)</p> <p>17 (33) 523 (279) 8 (16)</p> <p>23 (20) 399 (619) 405 (347)</p> <p>217 (181) 246 (255) 16 (31)</p>	
3. Rumrill Boulevard/Barbara Lane	4. Rumrill Boulevard/Road 20	
<p>Rumrill Boulevard</p> <p>Barbara Lane</p> <p>0 (6) 812 (400)</p> <p>2 (2) 6 (5)</p> <p>0 (0) 712 (958)</p>	<p>Rumrill Boulevard</p> <p>Road 20</p> <p>6 (0) 868 (475) 37 (44)</p> <p>37 (27) 1 (0) 45 (47)</p> <p>4 (1) 0 (0) 1 (0)</p> <p>0 (1) 744 (1,005) 34 (91)</p>	
5. Rumrill Boulevard/Brookside Drive	6. Rumrill Boulevard/Market Avenue	
<p>Rumrill Boulevard</p> <p>Brookside Drive</p> <p>51 (45) 850 (451) 19 (22)</p> <p>21 (41) 74 (41) 77 (55)</p> <p>57 (128) 30 (50) 181 (155)</p> <p>117 (160) 704 (930) 38 (56)</p>	<p>Rumrill Boulevard</p> <p>Market Avenue</p> <p>31 (37) 933 (494) 65 (63)</p> <p>61 (78) 100 (83) 171 (134)</p> <p>60 (101) 101 (108) 39 (52)</p> <p>65 (84) 630 (904) 191 (209)</p>	
7. Rumrill Blvd/Chesley Ave/Pine Ave	8. Rumrill Boulevard/Sanford Ave	
<p>Rumrill Boulevard</p> <p>Chesley Avenue</p> <p>Pine Avenue</p> <p>71 (88) 1,074 (616) 6 (10)</p> <p>10 (13) 25 (12) 41 (36)</p> <p>91 (221) 1 (1)</p> <p>90 (82) 815 (1,019) 6 (7)</p>	<p>Rumrill Boulevard</p> <p>Sanford Avenue</p> <p>1 (6) 1,117 (669) 89 (20)</p> <p>80 (36) 6 (1) 34 (11)</p> <p>5 (3) 5 (3) 7 (1)</p> <p>11 (13) 770 (1,096) 38 (18)</p>	
9. Rumrill Boulevard/13th Street/Rheem Avenue	10. 13th Street/Lincoln Avenue	11. Harbour Way/13th Street
<p>Rumrill Boulevard</p> <p>Rheem Avenue</p> <p>13th Street</p> <p>8 (1) 1,061 (581) 106 (83)</p> <p>77 (127) 6 (3) 122 (99)</p> <p>8 (3) 6 (1) 0 (1)</p> <p>0 (2) 700 (1,016) 106 (118)</p>	<p>13th Street</p> <p>1,060 (632) 40 (29)</p> <p>61 (59) 108 (70)</p> <p>689 (1,055) 91 (89)</p>	<p>Harbour Way</p> <p>13th Street</p> <p>7 (8) 54 (28) 31 (28)</p> <p>52 (49) 440 (229) 431 (290)</p> <p>2 (2) 261 (296) 52 (41)</p> <p>41 (35) 33 (54) 349 (636)</p>



Figure 7
ADT and Peak Hour Auto Turning Movements

4. Alternatives Analysis

Based on the community vision, input from technical stakeholders, and City staff, three concept designs for Rumrill Boulevard/13th Street were developed. Each alternative is intended to treat multi-modal trade-offs in different ways, with greater or lesser benefits for pedestrians, bus riders, bicyclists, and/or autos. Each alternative prioritizes safety, which was a primary theme of the community outreach. Two alternatives (Alternative 1 & 2) propose a lane reduction, repurposing one travel lane in each direction for additional pedestrian, bicycle, and bus rider space, maximizing comfort for those modes. Alternative 3 focuses on autos on the corridor in maintaining the four auto lanes of travel and makes pedestrian, bicycle, and bus rider comfort as feasible. At Workshop #2, the community voted for and selected Alternative 1 as the preferred concept. Key proposals for each alternative are described in **Table 2**.

Table 2: Three Alternative Visions for Rumrill Boulevard/13th Street Corridor		
Alternative 1	Alternative 2	Alternative 3
		
Pedestrian Environment		
<ul style="list-style-type: none"> -New and enhanced crosswalks throughout -Driveway improvements to benefit pedestrians -Lane reduction to minimize crossing distances throughout -Sidewalk repair at key locations -Widen sidewalks north of Market Street 	<ul style="list-style-type: none"> -Widens existing sidewalk into a shared-use path for bicyclists and pedestrians. -May increase conflict between bicyclists/pedestrian -New and enhanced crosswalks throughout -Driveway improvements to benefit pedestrians -Lane reduction to minimize crossing distances throughout 	<ul style="list-style-type: none"> -Rebuilds and widens the existing sidewalk on the west side of corridor to create a shared-use path for bicyclists and pedestrians -More frequent crosswalks but require higher cost enhancements, such as flashing beacons -No lane reduction, crossing distances are still long
Bus Environment		
<ul style="list-style-type: none"> -Bus shelters to improve comfort -Relocation of bus stop to far side of intersection to provide modest bus operational improvements 	<ul style="list-style-type: none"> -Bus shelters to improve comfort -Relocation of bus stop to far side of intersection to provide modest bus operational improvements 	<ul style="list-style-type: none"> Bus shelters are proposed. -Bus bulbs where parking is provided to allow bus to stop in the travel lane
Bicycle Environment		
<ul style="list-style-type: none"> -Cycle track along the length of the corridor -Landscaped buffer where feasible to provide additional comfort and shade for bicyclists and pedestrians 	<ul style="list-style-type: none"> -Shared-use path (minimum 10') proposed that would widen and replace the existing sidewalk on the west side -Landscaping and street trees provides placemaking opportunities benefiting bicyclists and pedestrians 	<ul style="list-style-type: none"> -Narrow shared use path (8') is shared between bicyclists and pedestrians -Located on the west side of the street only
Auto Environment		
<ul style="list-style-type: none"> -One travel lane in each direction -Some left-turn lanes added, requires parking removal 	<ul style="list-style-type: none"> -One travel lane in each direction -Some left-turn lanes added, requires parking removal 	<ul style="list-style-type: none"> -No change to travel lanes -Parking is removed on the west side in some cases
Street Trees and Landscaping		
<ul style="list-style-type: none"> -Street trees and landscaping with some placemaking opportunities 	<ul style="list-style-type: none"> -Street trees and landscaping with maximum placemaking opportunities 	<ul style="list-style-type: none"> -Some new street trees

5. Preferred Concept

The community-preferred vision for Rumrill Boulevard/13th Street is a lane reduction with space reallocated to pedestrian, bus rider, and bicycle improvements, including shorter crosswalks, sidewalk repair, cycle tracks, bus shelters, and far side bus stops. **Figure 8** provides an overview of the proposed improvements, including

- Continuous cycle tracks, which are protected bicycle lanes. South of Market, this included a landscaped buffer and parking protection, and north of Market, this is a striped buffer with rubber curb to allow emergency vehicle access.
- Widened sidewalks north of Market Street
- Reconstructed driveways along the corridor to improve sidewalk environment and enhance accessibility
- New marked crosswalks with refuges, high-visibility ladder striping, and shorter crossing distances
- Bus shelters and far side bus stops
- Left-turn pockets at key locations
- Bicycle parking throughout corridor
- Pedestrian-scale lighting throughout corridor

These improvements and sample photos of treatments are summarized in **Table 3**. Before and after photo simulations of the proposed improvements are shown on **Figures 9** and **10**. The full 30% plans for the corridor and the corresponding cost estimate are located in **Appendix A**.

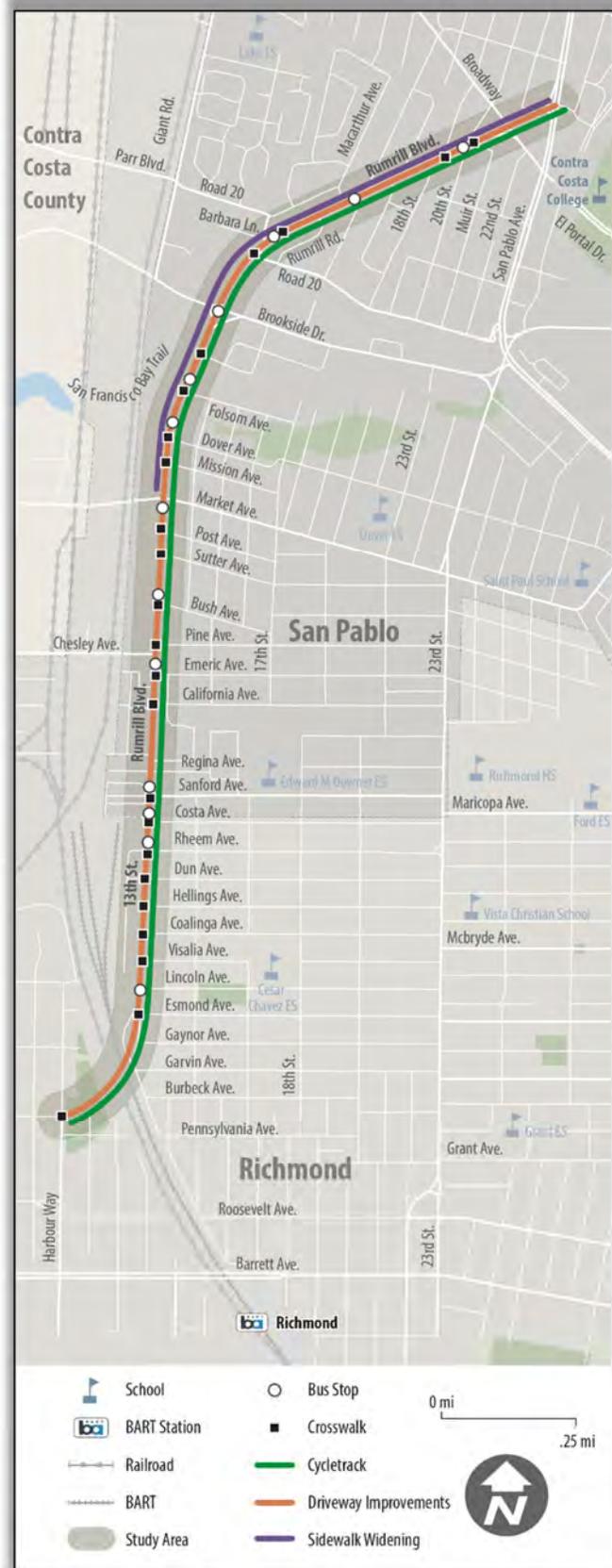
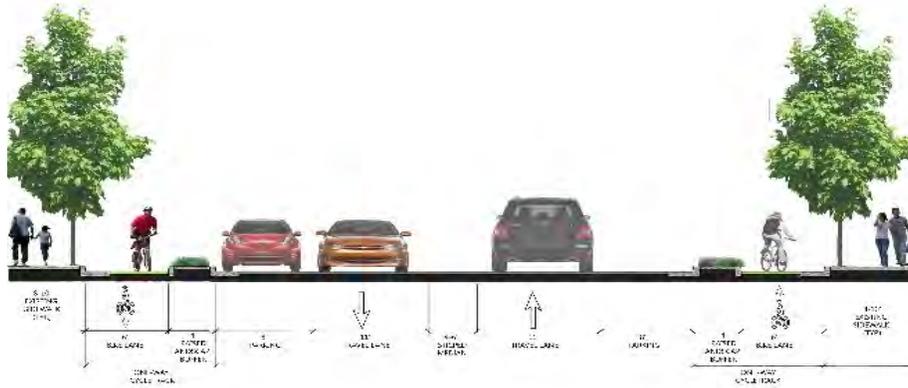


Figure 8: Map of Preferred Concept Improvements

Table 3: Preferred Concept - Lane Reduction with Cycletrack



Pedestrian Improvements



New and improved crosswalks at many locations. Driveways along the corridor will be reconfigured to minimize interference with those walking. Corridor-wide lane reduction will minimize crossing distance at all intersections.



Bus Shelters and Far-Side Stops



Bus shelters will provide a comfortable waiting area for people taking transit on the corridor. Some bus stops will be relocated to the far side of intersections to minimize delay at traffic signals and improve reliability.



Dedicated, On-Street Bike Lanes



Protected Class IV cycle track along the length of the corridor will provide the highest level of comfort and safety. South of Market Street, this has a landscaped buffer and is protected by parking. North of Market, this is a striped buffer with rubber curb to allow for emergency vehicle access.



Lane Reduction and Left-Turn Lanes



One travel lane in each direction is proposed to be repurposed. In some cases, the travel lane space is reallocated to provide left-turn pockets for cars along the corridor.



Street Trees and Landscaping



With the road diet, space is provided for street trees and landscaping, particularly where path widening is proposed. These can be bio retention planters or traditional bay-friendly plantings. Opportunities for pedestrian plazas at 13th Street/Esmond Street and Barbara Lane/Douglas Street/Rumrill Boulevard.





Figure 9: Before and After of Proposed Improvements below Market Street



Figure 10: Before and After of Proposed Improvements above Market Street

Comfort Enhancements

For each alternative, proposed treatments were evaluated on the basis on potential for the alternative to enhance the comfort of people who walk, bicycle, or take transit. Each mode saw a measureable improvement under the Built Environment Factors Evaluation, a qualitative measurement designed to evaluate infrastructure on how well it serves non-motorized modes. The preferred alternative offers some of the highest comfort benefits in its ability to create a walkable, transit-friendly, and bikeable Rumrill Boulevard/13th Street. **Table 4** presents a summary of the comfort analysis by mode, showing how the existing condition would improve with the proposed design. A detailed discussion of comfort for all alternatives by mode is presented in **Appendix C**.

Table 4: Existing Conditions and Preferred Concept Comfort		
Mode	Existing Conditions	Preferred Concept
Pedestrians	Poor	Excellent
	Sidewalk gaps Good to poor sidewalk width and poor quality in all Segments Long crossing distances due to multiple lanes of traffic Missing curb ramps	New or improved sidewalk Remove conflicts with bikes Reduced crossing distances with lane reduction Directional ramps provided where possible
Bus Riders	Poor	Good
	No bus shelters or waiting space provided Limited bus frequency	Bus shelters provided Limited bus frequency
Bicyclists	Poor	Excellent
	No designated bicycle facility for many segments Few dedicated bicycle lanes Long crossing distances due to multiple lanes of traffic Missing curb ramps at several crossings	Cycletrack maximizes comfort for bicyclists Limited pedestrian or auto conflicts Removes bicycle/auto conflict at signals with protected signal phasing

Street Furnishings & Landscape

Strong public support for landscape and greening of the corridor has documented through the study process.

Figure 11 presents the potential street furnishings. The furnishings were chosen for their durability, ability to incorporate City logos, and resistance to vandalism. The City wanted the furnishings to be able to stand the test of time. The irrigation design should be based on City standards, be low-water use, limit any overspray, and meet the State regulations as set forth in the Model Water Efficient Landscape Ordinance (MWELo), Assembly Bill 1881. It is recommended that the irrigation system be a 2-wire system to allow for phasing and future additions to the system without the need for installing more wire and do more trenching. The 2-wire system also limits the amount of copper in the irrigation system to a single wire.

Figure 12 presents the potential plant palette. Throughout the design process public and City staff input played a critical role in the direction of the landscape, furnishings and irrigation decisions. The plants were chosen for their drought tolerant nature and low maintenance requirements - choosing California natives and plants well suited for the San Pablo climate. The specified plant material also provides seasonal color and visual interest year-round due to the variations of foliage color and, with the exception of the street trees, is low growing to maintain a clear line of site for vehicles, bicyclists, and pedestrians.

FURNISHINGS



Figure 11: Potential Street Furnishings for Rumrill Boulevard/13th Street

PLANTINGS



Figure 12: Potential Landscape Palette for Rumrill Boulevard/13th Street

6. 6. Implementation

Constructing the preferred alternative will require ongoing cooperation between Richmond and San Pablo. Important first steps are identifying funding sources and prioritizing improvements for construction. **Table 5** outlines the recommended next steps for implementation to be initiated by both the City of San Pablo and the City of Richmond. *Error! Reference source not found.*

	Task	Details	Next Steps
Year 1	Secure (Additional) Funding	-Continue to seek out grant, developer, CIP, and other opportunities to fund roadway, parklet, bicycle parking, and other improvements -City submitted a Caltrans Cycle 2 Active Transportation Program application and is waiting to hear back (7/2015)	-Assess funding eligibility for various sources -Reserve staff time or other funds for preparation of grant applications using materials from this Study
Years 1-2	Prepare Specific Plan for Rumrill Boulevard/13th Street	-Coordinate future Specific Plan efforts with this Study - Include robust TDM section to address greenhouse gas (GHG) and vehicle miles traveled (VMT) Reductions	-Identify grant funding for Specific Plan
Years 1-3	Design Parklet/ Plaza Areas		Engage design firm to design plazas at Esmond 13th and Barbara Lane/ Douglas Street/ Rumrill Boulevard Seek funding for public realm/parks improvements
Years 1-2	Initiate Railroad Quiet Zone Study	- Coordinate with BNSF/UPRR, North Richmond/Contra Costa County,	-Engage railroad stakeholders and local residents in the process
Ongoing	Continue Community Involvement		-Include community and technical stakeholders involved in TAG/PAG moving forward - Continue to engage businesses community
Ongoing	Review Rumrill/13th Study and Plans with All New Development;	Look for early opportunities for installation as related projects or development goes in	-Review plans new development applications -Integrate Study into future Specific Plan efforts

Funding

Sources for full funding of the project are not yet identified; as a result, Richmond and San Pablo will likely need to apply for competitive grant funding programs at the local and state level.

As of this writing, the City of San Pablo submitted a **Caltrans Active Transportation Program Cycle 2** grant application for the Rumrill Boulevard portion of the corridor and will hear if it was successful in Fall 2015. If the project is not funded, San Pablo should re-submit their application for the next cycle, once the Study is adopted. The finalized 30% design drawings and cost estimates will likely enhance the project's competitiveness. Additionally, San Pablo and Richmond could consider submitting a joint application that phases in improvements to the corridor, which may boost the project evaluation. The Active Transportation Program combines several previously discrete funding sources, including Safe Routes to School (SR2S), Bicycle Transportation Account (BTA), and Transportation Alternatives Program (TAP). There are two funding pots for ATP: one a statewide competition through Caltrans and one a regional competition through the Metropolitan Transportation Commission (MTC).

Contra Costa County Measure J could also provide a new source of revenue, depending on the outcome of the ballot measure which will likely occur in 2015 or 2016. Richmond and San Pablo should seek funding from this source as the County develops the new expenditure plan.

Grant funds are available from the **Bay Area Air Quality Management District (BAAQMD)** for projects that provide bicycle facilities and bicycle parking facilities, which would be relevant for this project. More information can be found at: <http://www.baaqmd.gov/grant-funding/public-agencies/bikeways-roads-lanes-paths>.

Metropolitan Transportation Commission (MTC) **One Bay Area Grants (OBAG)** is a unified competitive grant program that cities around the Bay Area may apply for. This project integrates past funding sources such as Transportation for Livable Communities (TLC) administered by CCTA. Projects are weighed based on their ability to provide sustainable transportation solutions that emphasize complete streets and non-motorized transportation. As of June 30, 2015, Rumrill Boulevard has been designated a Priority Development Area (PDA), as a Mixed-Use Corridor.