

**Caltrans Active Transportation Program Grant
Application**

**For the Implementation of the Albany Complete Streets
for San Pablo Avenue and Buchanan Street**

May 20, 2014

**City of Albany ATP Caltrans Grant Application for the Implementation of Complete Streets for
San Pablo Avenue and Buchanan Street**

Index

Application Part 1-----	1-10
Project Programming Request-----	1-11
Application Part 2 -----	1-20
Attachment 1	
Project Location Map-----	1-1
Priority Sidewalk and Pathway Network-----	1-2
Attachment 2	
Existing Conditions on Project Area -----	2-1
Proposed Improvements for Northern Gateway-San Pablo Ave.-----	2-5
Pedestrian Improvements for Portland Ave.-----	2-6
Proposed Improvements for Intersection of San Pablo and Washington Avenue -----	2-7
Proposed Improvements for Buchanan/Marin Merge -----	2-8
Proposed Improvements for Buchanan/Taylor -----	2-9
Proposed Gateway Enhancements Buchanan Street-----	2-10
Complete Streets Plan-Project Improvement Descriptions -----	2-11
Attachment 3	
Engineer’s Estimate -----	3-1
Attachment 4	
Cost Benefit Calculation -----	4-1
Safety Effectiveness of HAWK Pedestrian Crossing Treatment -----	4-3
Rectangular Rapid Flashing Beacon (RRFB) -----	4-7
Multi-Modal Count Locations -----	4-9
Brighton/San Pablo Collision Diagram -----	4-24
Washington and San Pablo Collision Diagram -----	4-25
Pedestrian Collisions City of Albany -----	4-26
Bicycle Collisions City of Albany -----	4-27
Total Collisions City of Albany -----	4-29
Pollution Risk City of Albany -----	4-30
Asthma Hospitalizations City of Albany -----	4-31

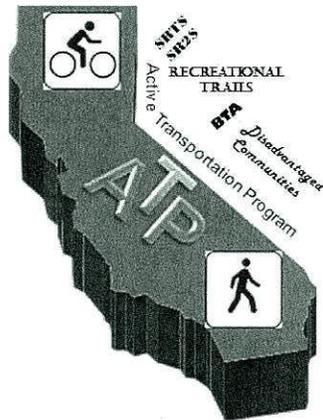
Demographic Facts Albany, CA -----	4-32
Mode Choice Trip to School -----	4-33
Bus Stop Activity in Project Area -----	4-34
MTC Transportation 2035 Plan Investments -----	4-36
MTC Transportation 2035 Appendices -----	4-40
Albany Active Transportation Plan -----	4-43

Attachment 5

Albany Complete Streets Plan Event Outreach Hand Out -----	5-1
Albany Complete Streets Flyer -----	5-2
San Pablo Avenue and Buchanan Street Design Charette -----	5-3
Focus Groups Participants List -----	5-4
Feedback from Focus Groups (Notes) -----	5-8
Traffic and Safety Commission Meetings-----	5-16
Council Meeting Approving Complete Streets Plan -----	5-20
Council Resolution Adopting Complete Streets Policy -----	5-24
City of Albany Complete Streets Policy -----	5-27

Attachment 6

City Council Resolution Approving Submittal of Grant Applications to the Caltrans ATP for Implementation of CS Improvements -----	6-1
Letter of Recommendation Orientation Center for the Blind Students -----	6-3
Letter of Recommendation Ocean View Elementary School -----	6-5
Letter of Recommendation Albany Middle School -----	6-6
Letter of Recommendation Albany Strollers and Rollers -----	6-7
Letter of Recommendation Solano Avenue Association -----	6-8



ACTIVE TRANSPORTATION PROGRAM CYCLE 1

APPLICATION Part 1

(Includes Sections I, V, VI, VII, VIII & XI)

Please read the Application Instructions at
<http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html>
prior to filling out this application

Project name:

Albany Complete Streets for San Pablo Avenue and Buchanan Street

For Caltrans use only: TAP STP RTP SRTS SRTS-NI SHA
 DAC Non-DAC Plan

I. GENERAL INFORMATION

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

(fill out all of the fields below)

1. APPLICANT (Agency name, address and zip code) City of Albany, 1000 San Pablo Avenue, Albany, 94706	2. PROJECT FUNDING ATP funds Requested \$ <u>3,098,550.00</u> Matching Funds \$ <u>401,450.00</u> (If Applicable) Other Project funds \$ _____ TOTAL PROJECT COST \$ <u>3,500,000.00</u>
3. APPLICANT CONTACT (Name, title, e-mail, phone #) Aleida Andrino-Chavez, Transportation Planner, achavez@albanyca.org, 510-528-5759	5. PROJECT COUNTY(IES): <p style="text-align: center;">Alameda</p>
4. APPLICANT CONTACT (Address & zip code) Ray Chan, 1000 San Pablo Ave. Albany, 94706	7. Application # <u>1</u> of <u>1</u> (in order of agency priority)
6. CALTRANS DISTRICT #- Click Drop down menu below District 4	

Area Description:

8. Large Metropolitan Planning Organization (MPO)- Select your "MPO" or "Other" from the drop down menu>	MTC Metropolitan Transportation Commission
9. If "Other" was selected for #8- select your MPO or RTPA from the drop down menu>	
10. Urbanized Area (UZA) population (pop.)- Select your UZA pop. from drop down menu>	Small Urban (Pop =or<200,000 but > than 5,000)

Master Agreements (MAs):

11. Yes, the applicant has a FEDERAL MA with Caltrans. 04-5178
12. Yes, the applicant has a STATE MA with Caltrans. 00131S
13. If the applicant does not have an MA. Do you meet the Master Agreement requirements? Yes No
 The Applicant MUST be able to enter into MAs with Caltrans

Partner Information:

14. Partner Name*:	15. Partner Type
16. Contact Information (Name, phone # & e-mail)	17. Contact Address & zip code

Click here if the project has more than one partner; attach the remaining partner information on a separate page

*If another entity agrees to assume responsibility for the ongoing operations and maintenance of the facility, documentation of the agreement must be submitted with the application, and a copy of the Memorandum of Understanding or Interagency Agreement between the parties must be submitted with the request for allocation.

Project Type: (Select only one)

18. Infrastructure (IF) 19. Non-Infrastructure (NI) 20. Combined (IF & NI)

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

I. GENERAL INFORMATION-continued

Sub-Project Type (Select all that apply)

21. Develop a Plan in a Disadvantaged Community (select the type(s) of plan(s) to be developed)
 Bicycle Plan Safe Routes to School Plan Pedestrian Plan
 Active Transportation Plan

(If applying for an Active Transportation Plan- check any of the following plans that your agency already has):

- Bike plan Pedestrian plan Safe Routes to School plan .ATP plan

22. Bicycle and/or Pedestrian infrastructure
Bicycle only: Class I Class II Class III
Ped/Other: Sidewalk Crossing Improvement Multi-use facility

Other:

23. Non-Infrastructure (Non SRTS)
24. Recreational Trails*- Trail Acquisition

***Please see additional Recreational Trails instructions before proceeding**

25. Safe routes to school- Infrastructure Non-Infrastructure

If SRTS is selected, provide the following information

26. SCHOOL NAME & ADDRESS: Albany Middle School
27. SCHOOL DISTRICT NAME & ADDRESS: Albany Unified School District

28. County-District-School Code (CDS) 6090161	29. Total Student Enrollment 890	30. Percentage of students eligible for free or reduced meal programs ** 26.07
31. Percentage of students that currently walk or bike to school Approximately 80%	32. Approximate # of students living along school route proposed for improvement 350	33. Project distance from primary or middle school 1600 ft.

**Refer to the California Department of Education website: <http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp>

- Click here if the project involves more than one school; attach the remaining school information including school official signature and person to contact, if different, on a separate page

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

V. PROJECT PROGRAMMING REQUEST

Applicant must complete a Project Programming Request (PPR) and attach it as part of this application. The PPR and can be found at http://www.dot.ca.gov/hq/transprog/allocation/ppr_new_projects_9-12-13.xls

PPR Instructions can be found at <http://www.dot.ca.gov/hq/transprog/ocip/2012stip.htm>

Notes:

- Fund No. 1 must represent ATP funding being requested for program years 2014/2015 and 2015/2016 only.
- Non-infrastructure project funding must be identified as Con and indicated as "Non-infrastructure" in the Notes box of the Proposed Cost and Proposed Funding tables.
- Match funds must be identified as such in the Proposed Funding tables.

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

VI. ADDITIONAL INFORMATION

Only fill in those fields that are applicable to your project

FUNDING SUMMARY

ATP Funds being requested by Phase (to the nearest \$1000)

Amount

PE Phase (includes PA&ED and PS&E)	\$	317,000
Right-of-Way Phase	\$	18,000
Construction Phase-Infrastructure	\$	2,733,000
Construction Phase-Non-infrastructure	\$	
Total for ALL Phases	\$	3,068,000

All Non-ATP fund types on this project* (to the nearest \$1000)

Amount

Combination of local Measure F/Gas Tax/pass funds	+	\$	397,000
		\$	
		\$	
		\$	
		\$	
		\$	

*Must indicate which funds are matching

Total Project Cost	\$	3,465,000
Project is Fully Funded	Yes	

ATP Work Specific Funding Breakdown (to the nearest \$1000)

Amount

Request for funding a Plan	\$	
Request for Safe Routes to Schools Infrastructure work	\$	3,068,000
Request for Safe Routes to Schools Non-Infrastructure work	\$	
Request for other Non-Infrastructure work (non-SRTS)	\$	
Request for Recreational Trails work	\$	

ALLOCATION/AUTHORIZATION REQUESTS SCHEDULE

	Proposed Allocation Date	Proposed Authorization (E-76) Date
PA&ED or E&P	07/01/2014	09/01/2014
PS&E	07/01/2015	09/01/2015
Right-of-Way	03/01/2016	05/01/2016
Construction	12/01/2016	02/01/2017

All project costs MUST be accounted for on this form, including elements of the overall project that will be, or have been funded by other sources.

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

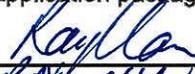
VIII. APPLICATION SIGNATURES

Applicant: The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: 
Name: Aleida Andrino-Chavez
Title: Transportation Planner

Date: 5/5/2014
Phone: 510-528-5759
e-mail: achavez@albanyca.org

Local Agency Official (City Engineer or Public Works Director): The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: 
Name: RAYLAN
Title: PUBLIC WORKS DIRECTOR/CITY ENGINEER

Date: 5/14/14
Phone: (510) 559-7255
e-mail: rchan@albanyca.org

School Official: The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: 
Name: ALBANY MIDDLE SCHOOL
Title: ASSISTANT PRINCIPAL

Date: 5/20/2014
Phone: 510.558.3616
e-mail: dneumann@ausdk12.org

Person to contact for questions:

Name: DAVID Neumann
Title: ASSISTANT PRINCIPAL

510
Phone: 558-3616
e-mail: dneumann@ausdk12.org

Caltrans District Traffic Operations Office Approval*

If the application's project proposes improvements on a freeway or state highway that affects the safety or operations of the facility, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support or acknowledgement from the traffic operations office be attached () or the signature of the traffic personnel be secured below.

Signature: 
Name: Roland Au-Yeung
Title: Chief, Office of Traffic

Date: 5/19/2014
Phone: 510-286-4560
e-mail: roland_au-yeung@dot.ca.gov

*Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at <http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm>

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

VIII. APPLICATION SIGNATURES

Applicant: The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: Aleida Andrino-Chavez
Name: Aleida Andrino-Chavez
Title: Transportation Planner

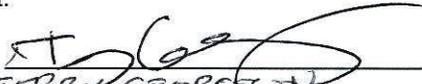
Date: 5/5/2014
Phone: 510-528-5759
e-mail: achavez@albanyca.org

Local Agency Official (City Engineer or Public Works Director): The undersigned affirms that the statements contained in the application package are true and complete to the best of their knowledge.

Signature: _____
Name: _____
Title: _____

Date: _____
Phone: _____
e-mail: _____

School Official: The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: 
Name: TERRY GEORGE
Title: PRINCIPAL, OCEAN VIEW SCHOOL

Date: 5/20/14
Phone: 510-558-4800
e-mail: tgeorge101@dusk12.org

Person to contact for questions:

Name: Terry George
Title: Principal of Elementary

Phone: SAME AS ABOVE
e-mail: SAME AS ABOVE

Caltrans District Traffic Operations Office Approval*

If the application's project proposes improvements on a freeway or state highway that affects the safety or operations of the facility, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support or acknowledgement from the traffic operations office be attached () or the signature of the traffic personnel be secured below.

Signature: 
Name: Roland Au-Yeung
Title: Chief, Office of Traffic

Date: 5/19/2014
Phone: 510-286-4560
e-mail: roland_au-yeung@dot.ca.gov

*Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at <http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm>

Project name:

Albany Complete Streets for San Pablo Avenue and Buchanan Street

VIII. ADDITIONAL APPLICATION ATTACHMENTS

Check all attachments included with this application.

- Vicinity/Location Map- **REQUIRED for all IF Projects**
 - North Arrow
 - Label street names and highway route numbers
 - Scale

- Photos and/or Video of Existing Location- **REQUIRED for all IF Projects**
 - Minimum of one labeled color photo of the existing project location
 - Minimum photo size 3 x 5 inches
 - Optional video and/or time-lapse

- Preliminary Plans- **REQUIRED for Construction phase only**
 - Must include a north arrow
 - Label the scale of the drawing
 - Typical Cross sections where applicable with property or right-of-way lines
 - Label street names, highway route numbers and easements

- Detailed Engineer's Estimate- **REQUIRED for Construction phase only**
 - Estimate must be true and accurate. Applicant is responsible for verifying costs prior to submittal
 - Must show a breakdown of all bid items by unit and cost. Lump Sum may only be used per industry standards
 - Must identify all items that ATP will be funding
 - Contingency is limited to 10% of funds being requested
 - Evaluation required under the ATP guidelines is not a reimbursable item

- Documentation of the partnering maintenance agreement- Required with the application if an entity, other than the applicant, is going to assume responsibility for the operation and maintenance of the facility

- Documentation of the partnering implementation agreement-Required with the application if an entity, other than the applicant, is going to implement the project.

- Letters of Support from Caltrans (Required for projects on the State Highway System(SHS))

- Digital copy of or an online link to an approved plan (bicycle, pedestrian, safe routes to school, active transportation, general, recreation, trails, city/county or regional master plan(s), technical studies, and/or environmental studies (with environmental commitment record or list of mitigation measures), if applicable. Include/highlight portions that are applicable to the proposed project.

- Documentation of the public participation process (required)

- Letter of Support from impacted school- when the school isn't the applicant or partner on the application (required)

- Additional documentation, letters of support, etc (optional)

Project name: Albany Complete Streets for San Pablo Avenue and Buchanan Street

I. GENERAL INFORMATION-continued

Sub-Project Type (Select all that apply)

21. Develop a Plan in a Disadvantaged Community (select the type(s) of plan(s) to be developed)
- Bicycle Plan Safe Routes to School Plan Pedestrian Plan
- Active Transportation Plan

(If applying for an Active Transportation Plan- check any of the following plans that your agency already has):

- Bike plan Pedestrian plan Safe Routes to School plan ATP plan

22. Bicycle and/or Pedestrian infrastructure
- Bicycle only: Class I Class II Class III
- Ped/Other: Sidewalk Crossing Improvement Multi-use facility

Other:

23. Non-Infrastructure (Non SRTS)

24. Recreational Trails*- Trail Acquisition

***Please see additional Recreational Trails instructions before proceeding**

25. Safe routes to school- Infrastructure Non-Infrastructure

If SRTS is selected, provide the following information

26. SCHOOL NAME & ADDRESS:

Ocean View Elementary School

27. SCHOOL DISTRICT NAME & ADDRESS:

Albany Unified School District

28. County-District-School Code (CDS) 6116222	29. Total Student Enrollment 599	30. Percentage of students eligible for free or reduced meal programs ** 31.39
31. Percentage of students that currently walk or bike to school Approximately 57%	32. Approximate # of students living along school route proposed for improvement 200	33. Project distance from primary or middle school 650 ft.

**Refer to the California Department of Education website: <http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp>

- Click here if the project involves more than one school; attach the remaining school information including school official signature and person to contact, if different, on a separate page

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2013)

General Instructions

<input checked="" type="checkbox"/> New Project						Date:	5/19/14
District	EA	Project ID		PPNO	MPO ID	TCRP No.	
04							
County	Route/Corridor	PM Bk	PM Ahd	Project Sponsor/Lead Agency			
ALA	123			City of Albany			
				MPO	Element		
				MTC	Capital Outlay		
Project Manager/Contact		Phone		E-mail Address			
Aleida Andrino-Chavez		510-528-5759		achavez@albanyca.org			
Project Title							
Complete Streets Implementation for San Pablo Avenue and Buchanan Street							
Location, Project Limits, Description, Scope of Work <input type="checkbox"/> See page 2							
The project is located along two streets in Albany: San Pablo Avenue, north of the Solano/San Pablo intersection, and Buchanan Street. The project consists of developing Plans, Specifications, and Estimates, environmental work and construction for the implementation of the pedestrian enhancements recommended in the recently adopted Albany Complete Streets Plan for San Pablo Ave. and Buchanan St. The implementation includes design, environmental work and construction of the proposed pedestrian improvements on each of the corridors.							
<input checked="" type="checkbox"/> Includes ADA Improvements <input checked="" type="checkbox"/> Includes Bike/Ped Improvements							
Component	Implementing Agency						
PA&ED							
PS&E	City of Albany						
Right of Way							
Construction	City of Albany						
Purpose and Need <input checked="" type="checkbox"/> See page 2							
The purpose of the project is to implement the recommendations of the Albany Complete Streets Plan for San Pablo Avenue and Buchanan Street. San Pablo Ave. is a major arterial that lacks pedestrian crossings, medians and other pedestrian and Americans with Disabilities Act features. San Pablo Ave. carries 30,000 ADT and has considerable pedestrian traffic as it is the commercial district in Albany. It is also the training grounds for the Orientation Center for the Blind. Buchanan St. needs a couple of enhancements that would make this corridor friendly to all users. These enhancements are: a safe crossing at Taylor St. and the realignment of the Marin/Buchanan merge.							
Project Benefits <input type="checkbox"/> See page 2							
The project will benefit the blind population fo the Orientation Center for the Blind and children who walk to school.							
<input checked="" type="checkbox"/> Supports Sustainable Communities Strategy (SCS) Goals <input checked="" type="checkbox"/> Reduces Greenhouse Gas Emissions							
Project Milestone							Proposed
Project Study Report Approved							12/17/14
Begin Environmental (PA&ED) Phase							01/01/15
Circulate Draft Environmental Document					Document Type	ND/CE	05/01/15
Draft Project Report							08/01/15
End Environmental Phase (PA&ED Milestone)							9/31/2015
Begin Design (PS&E) Phase							11/31/2015
End Design Phase (Ready to List for Advertisement Milestone)							05/01/16
Begin Right of Way Phase							06/01/16
End Right of Way Phase (Right of Way Certification Milestone)							09/01/16
Begin Construction Phase (Contract Award Milestone)							03/01/17
End Construction Phase (Construction Contract Acceptance Milestone)							10/01/17
Begin Closeout Phase							12/01/17
End Closeout Phase (Closeout Report)							02/28/18

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2013)

Date: 5/19/14

District	County	Route	EA	Project ID	PPNO	TCRP No.
04	ALA	123				
Project Title: Complete Streets Implementation for San Pablo Avenue and Buchanan Street						

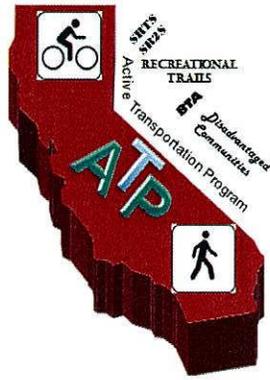
Proposed Total Project Cost (\$1,000s)									Notes
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	
E&P (PA&ED)		20						20	
PS&E		338						338	
R/W SUP (CT)		10						10	
CON SUP (CT)			338					338	
R/W		10						10	
CON				2,749				2,749	
TOTAL		378	338	2,749				3,465	

Fund No. 1:	HSIP or SHA								Program Code
Proposed Funding (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)		18						18	Caltrans
PS&E		299						299	
R/W SUP (CT)		9						9	
CON SUP (CT)			299					299	
R/W		9						9	
CON				2,434				2,434	
TOTAL		335	299	2,434				3,068	

Fund No. 2:	Combination of Measure F and pass through funds								Program Code
Proposed Funding (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)		2						2	Combinaton of local funds (Measur
PS&E		39						39	
R/W SUP (CT)		1						1	
CON SUP (CT)			39					39	
R/W		1						1	
CON				315				315	
TOTAL		43	39	315				397	

Fund No. 3:									Program Code
Proposed Funding (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									

1-12



ACTIVE TRANSPORTATION PROGRAM CYCLE 1

APPLICATION Part 2 (Includes Narrative Sections II, III & IV)

signalized intersections north of Solano on the San Pablo Avenue corridor and the following un-signalized intersection specific improvements as follows:

Garfield Avenue: This is a T intersection without a leg on the west side of San Pablo Ave. This layout facilitates the implementation of a raised median in addition to the general recommendations described above.

Castro Street: The Castro – San Pablo intersection is also a T. Intersection. Specific recommendations include relocating the existing crosswalk from the south to the north leg and construction of a median to provide for pedestrian refuge.

Portland Avenue: The existing crosswalk on the south leg of this intersection is recommended for enhancement with a raised median. Installation of a set of Rectangular Rapid Flashing Pedestrian Beacon (RRFB) is recommended because this intersection is located within the route to Albany High School and Middle School.

Washington Avenue: The Albany Active Transportation Plan (ATP) proposes Washington Avenue as a bicycle boulevard. Therefore, the intersection of Washington and San Pablo Avenue must offer safety enhancements for bicyclists and pedestrians. A special crossing treatment is recommended in the Complete Streets Plan to accommodate the bike boulevard crossing. The two legs of Washington Avenue do not align (see Attachment 2), therefore, the implementation of left turn bicycle lanes in the center median is recommended. To accommodate the left turn lanes, northbound and southbound left turn movements would need to be restricted to motor vehicles from San Pablo Ave. to Washington Ave. Motor vehicle turn restrictions support the use of Washington Ave. as a bike boulevard by reducing traffic volume to a more comfortable level for bicyclists. The northernmost leg of Washington Ave. is currently signalized, while the southernmost leg (connecting to and from the east) is un-signalized. The Albany Complete Streets proposes the implementation of a traffic signal at the south leg of the intersection to facilitate bicycle turning movements. The signal or an alternative treatment for this intersection will be pursued by another project and the City will coordinate with Caltrans as these intersections are less than 300' apart and require further analysis.

Gateway Improvements:- At the northern City Limit include the implementation of a bulb out where a plaza will be created on the west side of San Pablo Avenue. This plaza will have a "Welcome to Albany" sign or kiosk and seating rest area. It will also include pedestrian scale illumination as recommended in the Albany Complete Streets Plan.

Not part of this grant request are the proposed recommendations in the Albany Complete Streets Plan for bicycle lanes and bicycle shared lanes along the San Pablo corridor because they will be implemented by the City at a later date. Installation of a bike facility on San Pablo Ave. is depending on the installation of parallel bike facilities on Kains Ave. and Adams Ave. to complete the bike network and offer bike routes for not experienced users. Also not included are the recommendations for the south end of San Pablo Ave. and the San Pablo Marin intersection. These recommendations will be addressed by a proposed redevelopment project on the University of California property scheduled to be built in 2015 and by the Buchanan-Marin Bikeway Phase III project to be built in 2015-2016, respectively.

The design of the proposed pedestrian improvements in this grant application will consider future placement of bike facilities at these locations along the corridor.

Buchanan Street

Buchanan Street is a Major Arterial that provides access to the City from the Interstate 80 and 580 systems. On the south side, adjacent land uses include the United States Department of Agriculture (USDA), Ocean View Park, Ocean View Elementary School, and the University of California property known as the Gill Tract. On the north side, land uses are predominantly single family residential. Buchanan carries an ADT of over 30,000 vehicles and speeds of 28.1 mph with a speed limit of 25 mph. In December 2013, the City completed

implementation of Phases 1 and 2 of the Buchanan Marin Bikeway project, which entailed the implementation of a bicycle bikeway along the south side of Buchanan, bike sharrows in the eastbound direction, a bike lane in the westbound direction, and a traffic signal at the intersection of Buchanan and Pierce St. The additional recommendations in the Albany Complete Streets Plan that are included in this grant application for Buchanan St. are the following:

Gateway improvements at the Buchanan Bridge overcrossing: Signage and landscape elements to align to the existing medians on Buchanan St., construction of a plaza at the foot of the bridge overcrossing by the new signalized intersection, and widening the curb ramps to allow easier access for bicyclists and pedestrians accessing the plaza.

Buchanan/Taylor intersection: Taylor is the natural crossing for pedestrians going to Ocean View Park and the United States Department of Agriculture (USDA). Currently, there is no pedestrian crossing at Taylor St. The recommendations, therefore, include installation of a Pedestrian Hybrid Beacon (HAWK signal), high visibility crosswalks and median reconfiguration to facilitate pedestrian crossings.

Marin/Buchanan Merge: This is a Y-type intersection where Buchanan St. and Marin Avenue merge west of the Albany Fire Station. Currently, this merge layout is not pedestrian friendly and lacks sidewalks and crosswalks. This presents a walking barrier to pedestrian travel along the north side of Marin Ave. The Plan recommends realigning this intersection to create a small park equipped with benches, native trees and vegetation. The realigned intersection will create a more urban and pedestrian friendly environment.

For both the San Pablo and Buchanan corridors, the City is requesting funds to develop engineering plans, conduct environmental work, and construction of the proposed projects. The City will follow the design guidelines of Title 24 of the California Code of Regulations and the AADA Accessibility Guidelines for the design of the pedestrian improvements on the corridors. Project plans and photos are included in Attachment 2.

3. **Project Status**

The projects included in this grant application are recommended in the Albany Complete Streets Plan for San Pablo Avenue and Buchanan Street, adopted by Council in December 2013. This Plan was funded by a Caltrans Community Based Transportation Planning Program. Caltrans Transit and Community Planning Department was part of the planning process. The City of Albany is requesting funding to develop plans, specifications, and estimates, environmental work, and construction of the improvements described in the Project Descriptions above. The Caltrans ATP Call for Projects represents a funding opportunity for implementation of the recommendations of the Complete Streets Plan on these corridors.

III. SCREENING CRITERIA

1. **Demonstrated Needs of the Applicant**

Describe the need for the project and/or funding

Thanks to a Caltrans Community Based Transportation Planning grant, the City was able to conduct a very successful planning effort for San Pablo Avenue and Buchanan Street in December 2012. The City applied for the Caltrans grant to create a countermeasures plan to address the pedestrian, bicyclist and disabled persons safety risks posed by heavy traffic volume on the San Pablo and Buchanan corridors. These corridors are located within the route to school for Ocean View Elementary schools and the Albany Middle School and the Albany High School. (See location Plan in Attachment 1.)

San Pablo Avenue:

San Pablo Avenue is a four-lane, bi-directional major arterial that runs north-south carrying 24,538 vehicles per day. This corridor is home to the City's commercial district. The type of business in the area

varies from ethnic restaurants and beauty parlors that attract large number of pedestrian traffic to auto repair shops that attract vehicular trips. In addition, San Pablo Avenue is a thoroughfare connecting the cities along the I-80 corridor, a designated truck route, and a regional and local bus alignment. There are seven signalized intersections and five un-signalized intersections along the San Pablo Ave. corridor in Albany. Three of the signalized intersections and four of the un-signalized intersections located north of the Solano/San Pablo intersection are included in this grant application. As explained in the Project Description, the remaining intersections will be implemented by other projects that are currently in design phase or need additional analysis to move forward.

San Pablo Avenue intersects the route to school for Albany Middle and Albany High Schools. The crossings at Brighton, Clay, Castro, and Garfield experience high level of pedestrian activity, including students en route to and from school (See Intersection Counts in Attachment 4). These crossings have a high incidence of pedestrian collisions, as presented in the Collision Map in Attachment 4.

In addition, instructors for the visually impaired students of the Orientation Center for the Blind (OCB), located on Adams Street, use San Pablo Avenue as training ground for their students.

Currently, San Pablo Avenue lacks medians that provide refuge for pedestrian crossings. Pedestrians are exposed to the double threat crash by negotiating the two traffic lanes in each direction when crossing the 74 feet of cross section at un-signalized intersections. The existing crosswalks consist of two parallel white lines that are not highly visible to motorists and do not elevate the presence of pedestrians on this corridor. Signalized intersections prioritize vehicular travel and are not equipped with audible devices for the vision impaired.

This project proposes to set the signals to Pedestrian Recall on San Pablo Avenue, north of the Solano/San Pablo intersection, and to equip them with audible signals to orient visually impaired users. At un-signalized intersections, the proposal is to build bulb outs with high visibility crosswalks and install medians for pedestrian protection. A RRFB will be installed at The intersection with Portland Avenue.

The proposal also includes installation of gateway enhancements at the northern City Limit, which includes a median to allow left turns onto the local businesses and onto Carlson Blvd in El Cerrito. A "Welcome to Albany" and wayfinding signage will also be installed at this location and a bulb out on the west side of San Pablo Avenue to expand the sidewalk and create a little welcoming plaza. This could also be an opportunity nearby businesses to use as an outdoor sitting area.

Buchanan Street

Buchanan is a four lane major arterial carrying 30,000 vehicles per day. It is also a truck and bus route and the gateway linking Albany to regional destinations through Interstate 580/80. Traffic from neighboring areas such as the Berkeley and the Kensington Hills use the Marin/Buchanan corridor to access the interstate system during the commute time. This increases congestion during the AM and PM peak hour. Also exacerbating the traffic volume is the Ocean View Elementary School traffic and the commute of 400 employees to the USDA facility located on the south side of Buchanan St.

In 2013, the City implemented the Buchanan Marin Bikeway project that entailed installation of three types of bicycle facilities along Buchan Street from Pierce Street to San Pablo Avenue. The project included installation of a bikeway along the south side of the corridor, share the road pavement markings in the eastbound direction, a bike lane in the westbound direction, a traffic signal at the Buchanan/Pierce intersection, and construction of an exclusive right turn lane at the intersection of San Pablo Avenue and Marin Avenue.

The Albany Active Transportation Plan identified additional improvements along this corridor that were not implemented as part of the Buchanan Marin Bikeway project. These include the installation of a Pedestrian Hybrid Beacon crossing at Taylor Street and the realignment of the Buchanan/Marin Merge. Taylor Street is the natural crossing for people accessing Ocean View Park for recreational purposes, for Little League games and practices, and employees of the USDA. Pedestrians trying to reach these destinations would not necessarily walk west or east to cross the signalized intersections at Jackson or at Pierce because they are located 650' and 600' from the Taylor intersections, respectively. They rather wait for a gap in traffic flow and cross the first two lanes of this four lane roadway, wait at the median and wait for another traffic flow gap to cover the next two traffic flow lanes. This practice risks a double threat

crash to pedestrians. This type of crash happens when a vehicle yields to pedestrians crossing the street, but the vehicle in the adjacent travel lane fails to yield, which represents a high potential for an auto/pedestrian collision. Random observations at this location show that during Little League games and practices, approximately 10 pedestrians (adults and children) cross at this location in the 30 minutes prior to the event. As shown in Attachment 4 in the Cost/Benefit analysis, the Buchanan/Taylor intersection experienced 5 collisions. Of these, one was an auto/pedestrian injury collision and another was an auto/bicycle collision.

The area south of the Albany Fire Station known as the Buchanan Marin merge, lacks sidewalks making it difficult for pedestrians to navigate through the intersection. Participants of the charette for the Complete Streets Plan raised this issue and the importance of creating a countermeasure that increased safety for pedestrian travel at this intersection. The idea of the implementation of the pocket park was first envisioned during the Albany Active Transportation Plan process. The Complete Streets Plan also incorporates it in the adopted Plan due to community requests during the charette and walking audits. In addition, the Marin/Buchanan merge provides access to Ocean View Elementary School for families living east of San Pablo Avenue. Currently, families and children going to school have only one option on the south side of Marin Avenue west of San Pablo Ave. for walking to school. The realignment of the Buchanan Marin merge will provide another option for pedestrians with the added benefit that the proposed park will create a sense of place and community in the City.

2. Consistency with Regional Transportation Plan (100 words or less)

Explain how this project is consistent with your Regional Transportation Plan (if applicable). Include adoption date of the plan.

The Albany Complete Streets Project proposal is consistent with the Regional Transportation Plan (RTP)-Change in Motion adopted on April 22, 2009 and amended in May 2010 by the Metropolitan Transportation Commission. On page 97, Project 22007, a total of \$305.5 million is allocated for bicycle and pedestrian projects in Alameda County. In addition, the RTP emphasizes investments in the Transportation for Livable Communities (TLC) program, which also improves pedestrian projects in transit-rich areas. TLC investment is listed on page 87, project #21011 in the amount of \$ 2,200 million. An excerpt of these plans is included in attachment 4.

IV. NARRATIVE QUESTIONS

1. POTENTIAL FOR INCREASED WALKING AND BICYCLING, ESPECIALLY AMONG STUDENTS, INCLUDING THE IDENTIFICATION OF WALKING AND BICYCLING ROUTES TO AND FROM SCHOOLS, TRANSIT FACILITIES, COMMUNITY CENTERS, EMPLOYMENT CENTERS, AND OTHER DESTINATIONS; AND INCLUDING INCREASING AND IMPROVING CONNECTIVITY AND MOBILITY OF NON-MOTORIZED USERS. (0-30 POINTS)

A. Describe how your project encourages increased walking and bicycling, especially among students.

The Albany Complete Streets Project will improve the pedestrian environment by implementing a combination of bulb outs, pedestrian crossings and medians on San Pablo Avenue at signalized and un-signalized intersections north of Solano Avenue. Students attending Albany Middle School and Albany High School cross San Pablo Avenue at Brighton, Clay and Portland when walking to and from school. Improving the safety along this stretch of San Pablo Ave. will encourage active forms of transportation to and from school, thereby complementing the Safe Routes to School educational efforts already implemented at the schools. The City has not collected official data on the travel mode share of Albany Middle School students for the trip to school, but a tally conducted in October 2012 for the International Walk to School Day showed that 77% of the students who stopped at the refreshment station at the school during that day were pedestrians.

The OCB is located on Adams St., which is parallel to San Pablo Ave. The OCB instructors train their students on San Pablo Avenue. Implementation of Audible Pedestrian Signals is a must for the effective training and safety of the visually impaired. In the past, OCB staff has requested the installation of this feature along the signals of San Pablo Ave., but since the corridor is under Caltrans jurisdiction, the City has to coordinate improvements with

Caltrans. This grant application presents an opportunity for Caltrans and the City to work together on the implementation of this project.

Improving the pedestrian crossing at the Taylor – Buchanan intersection and realigning the Buchanan Marin merge will increase safety for pedestrians traveling along Buchanan Street. Buchanan Street is included in the route to school for Ocean View Elementary School and other important destinations, such as Ocean View Park, and the USDA. Ocean View Park has a baseball and soccer field that is used by local recreational soccer teams and Little League games and practices. Many employees of the USDA live in Albany and walk to work. The proposed crossing at Taylor and Buchanan will improve safety when crossing this four lane roadway and will encourage walking as an alternative to the private automobile. The Marin/Buchanan Merge project is also conducive of walking to school by creating sidewalks along the north side of Marin Ave. east of the Buchanan/Marin merge. Ocean View already has a high percent share (53% walk and 13% bike) of students who walk and bike to school as evidenced by a parent survey that was conducted in 2011, included in Attachment 4. This project has the potential of encouraging walking among students who live over ½ mile from the school.

- B. Describe the number and type of possible users and their destinations, and the anticipated percentage increase in users upon completion of your project. Data collection methods should be described.

The City has been conducting student tallies through the SR2S program. Currently, these tallies are taking place every three years at each of the three elementary schools in the City and more recently at the Albany Middle School. The information collected at schools through parent questionnaires is sent to the National Center for Safe Routes to School to be tallied. The results are then analyzed by staff and shared with schools. In addition, the City works with Transform, the agency administering the SR2S program in Alameda County. Transform conducts student tallies at each school by asking students how they arrive to school that day. Recent student tallies show that thanks to the efforts of the educational SR2S programs, the percent share for walking and bicycling is already high in Albany Elementary Schools. At Ocean View Elementary School over 53 percent of the students walk and bike to school. This means that with an enrollment of 599, 317 students currently walk and bike to school. At the May 2012 Walk to School Day, a hand tally was taken at the Albany Middle School and it was found that 77% of students walk to school, 12% biked to school and 4% skated or scooter to school. These percentages translate to a total of 838 students or 94% of the student population who currently walk/roll to school on a regular basis. The City proposes continuing taking the parent surveys and student hand tallies before and after the implementation of this project to evaluate transportation mode share shifts.

In terms of transit usage, bus stop activity (boarding and alightings) show the level of transit use in the project area. The Bus Stop Activity Map in Attachment 4 shows that compared to neighboring stops along the same corridors, the bus stops located in the project area do not have high intensity use. It is expected that by improving the pedestrian environment, transit use in the north segment of San Pablo Avenue will increase. A pedestrian oriented development usually attracts a good mix of businesses that encourage window shopping and in turn, increase transit ridership. The City will be working with AC Transit to obtain bus stop activity after project implementation.

- C. Describe how this project improves walking and bicycling routes to and from, connects to, or is part of a school or school facility, transit facility, community center, employment center, state or national trail system, points of interest, and/or park.

As stated earlier in this grant application, the proposed project will improve the pedestrian environment of the segment of San Pablo Avenue north of Solano Ave. and will implement the remaining Complete Street features planned for the Buchanan Corridor. Both of these corridors are included in the route to school for the Albany Middle and Albany High Schools (San Pablo Ave.) and for Ocean View Elementary School (Buchanan St.).

Moreover, the OCB trains its entering visually-impaired students along San Pablo Avenue. Every day blind students and their instructors navigate the busy intersections of San Pablo Avenue. It is detrimental that only the Solano/San Pablo signal is equipped with audible pedestrian devices along this corridor. This grant application will allow the City to implement audible pedestrian signals at each of the signals along the northern segment of San Pablo. The signals outside of this project scope, will be retrofitted or upgraded by other projects that have been officially approved and are currently in designed phase.

The proposed enhancements for these two corridors aim to improve safety for pedestrians, complementing the SR2S efforts that were implemented in the City in 2007. The purpose is to encourage more and more families to walk or allow to walk their students to school, improve safety for the disabled and seniors and make them feel at ease while walking on San Pablo Ave. and Buchanan Street.

- D. Describe how this project increases and/or improves connectivity, removes a barrier to mobility and/or closes a gap in a non-motorized facility.

For the San Pablo Corridor, this grant proposal will complement current design efforts to implement Complete Streets features at the locations south of the Solano/San Pablo intersection. The intersections south of Solano will be upgraded through two different projects that are currently in design phase. The UC Village Mixed Use Development will redesign the intersection of San Pablo and Monroe Ave. and the un-signalized intersection of San Pablo Ave. and Dartmouth St., south of Marin Ave. The San Pablo/Monroe intersection will be equipped with a new signal that will accommodate bicycle and pedestrian movements by implementing an exclusive bike and pedestrian phase. The San Pablo Marin intersection is another signalized location that will be upgraded with the construction of the Buchanan Marin Bikeway Phase III. Both of these projects are currently in design phase and will be implemented between 2015 and 2016. This grant request will address the pedestrian needs at the intersections located north of Solano Ave. along the San Pablo corridor, completing the elements included in the Complete Streets Plan adopted by Council in December 2013. The bicycle facility along San Pablo Avenue will be implemented in the future as the City will be embarking on a Parking Management Assessment Study later this year, and the feasibility of parallel bike facilities on Kains and Adams. The design of the enhancements proposed in this grant application will take into consideration the recommendations of the Complete Streets Plan for the implementation of the type of bike facilities on San Pablo Avenue

Likewise, for Buchanan Street, the proposed enhancements in this grant request are the recommendations in the Albany Active Transportation Plan that were not implemented as part of the recent Buchanan Bikeway Phases I and II project. As such, implementation of this grant request will make the Buchanan Corridor a Complete Street.

Attachment 2 includes excerpt of the Complete Streets Plan that shows graphics of the proposals and project descriptions. Attachment 4 includes an excerpt of the Albany Active Transportation Plan.

The web link for the Complete Streets Plan is <http://www.albanyca.org/index.aspx?page=1170>
And for the Active Transportation Plan is: <http://www.albanyca.org/index.aspx?page=799>

- Projects with significant potential- 21 to 30 points
- Projects with moderate potential- 11 to 20 points
- Projects with minimal potential- 1 to 10 points
- Projects with no potential- 0 points

IV. NARRATIVE QUESTIONS- continued

2. POTENTIAL FOR REDUCING THE NUMBER AND/OR RATE OF PEDESTRIAN AND BICYCLIST FATALITIES AND INJURIES, INCLUDING THE IDENTIFICATION OF SAFETY HAZARDS FOR PEDESTRIANS AND BICYCLISTS. (0-25 POINTS)

A. Describe the potential of the project to reduce pedestrian and/or bicycle injuries or fatalities.

As shown in the total collisions map in Attachment 4, San Pablo Avenue and Buchanan Street have a high incidence of collisions in the time period analyzed (2007 to 2012). The collision diagrams included in Attachment 4 for the intersections of San Pablo/Washington and San Pablo/Brighton from 2008 through 2012 show that 3 pedestrians were hit at the Brighton intersection by left turning vehicles and two bicyclists were hit by vehicles heading north. Brighton is the route to school for the Albany Middle School, and it is crucial that the City along with Caltrans address the safety hazards that students face day by day.

The Collision Diagram for the Washington intersection shows 3 bicycle collisions in the same time period. As stated earlier, the San Pablo/Washington intersection is highly used by cyclists as the ATP recommends implementation of a bicycle boulevard on Washington Ave.

The intersections with Portland Avenue and Garfield Avenue also show a high incidence of collisions. These intersections are used by students going to Albany High School. The implementation of a RRFB will help increase pedestrian safety in this area.

Likewise, the implementation of a HAWK signal on Buchanan St at Taylor St., will provide a place for safe pedestrian crossing at this location. In this way, motorists will have to stop when pedestrians push the button to cross the street.

The proposed pedestrian improvements in this grant application have the potential to reduce the high incidence of crashes by elevating pedestrians as equal users of the street, increasing motorists expectation of pedestrians while driving on San Pablo Avenue and Buchanan Street.

The US Federal Highway Administration (FHWA)-published Toolbox of Countermeasures and Their Potential Effectiveness for Pedestrian Crashes (2008) is a resource that helps estimate the crash reduction that might be expected if a specific countermeasure or group of countermeasures is implemented with respect to pedestrian crashes. According to this document, implementation of a raised median with marked crosswalks at un-signalized intersections has the potential to reduce pedestrian crashes by 46 percent. The installation of the proposed sidewalk for the realignment of the Buchanan/Marin merge has the potential to reduce crashes by 88 percent according to the FHWA Toolbox of Countermeasures.

According to the FHWA publication "Safety Effectiveness of the HAWK Pedestrian Crossing Treatment (Publication No. FHWA-HRT-10-042), an evaluation of HAWK locations in Tucson, Arizona found that this countermeasure reduced total crashes by 29 percent (statistically significant at 95 percent), with a 69 percent reduction in pedestrian crashes (statistically significant at the 95 percent confidence level) and a 15 percent reduction in severe crashes (not statistically significant at the 95 percent confidence level).

Research on the effectiveness of the RRFB at signalized intersections indicates that driver yielding behavior increased to 81 percent after installation of this feature at un-signalized intersections. This is a significant increase from the marginal 18 percent of drivers yielding to pedestrians before project implementation.

From the available data, it can be inferred that the proposed improvements will have a positive effect on improving safety and reducing crashes, particularly pedestrian crashes in the project area.

B. Describe if/how your project will achieve any or all of the following:

- Reduces speed or volume of motor vehicles
- Improves sight distance and visibility
- Improves compliance with local traffic laws

- Eliminates behaviors that lead to collisions
- Addresses inadequate traffic control devices
- Addresses inadequate bicycle facilities, crosswalks or sidewalks

The project will increase motorist awareness of the presence of pedestrians along San Pablo Avenue and Buchanan Street. High visibility crosswalks, RRFB installation, bulb outs and raised medians on San Pablo and the installation of the HAWK signal on Buchanan St. will help eliminate behaviors that lead to collisions by increasing visibility of pedestrians and by providing a place for pedestrians to wait while crossing these corridors. The project also addresses the safety issues and collision potential posed by the existence of inadequate crosswalks on San Pablo and Buchanan St. and the lack of sidewalks by the Buchanan St./Marin merge west of the Fire Station.

- C. Describe the location's history of events and the source(s) of data used (e.g. collision reports, community observation, surveys, audits) if data is not available include a description of safety hazard(s) and photos.

Collision reports obtained from Statewide Integrated Traffic Records System (SWITRS) are the source of collision information presented in the maps and collision diagrams in Attachment 4. The maps show a high incidence of collisions along San Pablo Avenue in the project segment, particularly at Washington Ave. ranging from 26 to 30 collisions in five years (2007-2012). Portland, and Garfield follow ranging between 11-15 total collisions in the same time period. Of these collisions, one was a vehicle/pedestrian collision at the San Pablo/Washington intersection.

On Buchanan Street, the Pedestrian Collision Map shows one pedestrian-vehicle injury collision at the intersection of Buchanan and Taylor from 2007 through 2012, which attests to the imminent danger pedestrians expose themselves when crossing this intersection.

- Projects with significant potential- 16 to 25 points
- Projects with moderate potential- 8 to 15 points
 - Projects with minimal potential- 1 to 7 points
 - Projects with no potential- 0 points

IV. NARRATIVE QUESTIONS- continued

3. PUBLIC PARTICIPATION and PLANNING (0-15 POINTS)

- A. Describe the community based public participation process that culminated in the project proposal or plan, such as noticed meetings/public hearings, consultation with stakeholders, etc.

The Complete Streets Plan process involved a substantial community participatory process that included 8 focus groups, walking audits, and a charette (open studio), which took place in December 2012. During 2013, the consultant team developed a set of three alternatives with two sub alternatives and a report that was presented to the Traffic and Safety Commission (T&S) at public meetings. The first meeting took place in February 2013 and subsequently in April of the same year when the preferred alternative was selected. The Draft Report was presented in July and the Final Report and recommendation to Council was formulated at the October T&S Commission meeting. The City Council approved the Complete Streets Plan for San Pablo and Buchanan Street on December 16, 2013. Agendas, Council minutes, photos of the charette, and public comment received are include in Attachment 5. Copies of the organizations represented in the focus groups and the feedback received from these meetings are included in Attachment 5. Letters of support for this grant application are included in Attachment 6.

- B. Describe the local participation process that resulted in the identification and prioritization of the project:

The public participatory process for project alternatives selection included two T&S Commission meetings in 2013 where the different alternatives were discussed. The alternatives presented the option of implementing bicycle lanes or shared lanes along San Pablo Avenue and the length and width of medians along this corridor. The consultant team provided pros and cons of each alternative in terms of pedestrian and bicyclist safety and externalities of each option, such as parking removal. The Albany Strollers and Rollers (AS&R), the pedestrian and cycling advocacy group in Albany, supported the implementation of bicycle lanes along the San Pablo corridor, but this alternative proved difficult to implement as it required parking removal and narrowing the proposed medians. Business owners were against intense loss of on-street parking and did not support the bike lane concept along the corridor.

The T&S Commission suggested a hybrid design alternative that include the installation of bicycle lanes along the northern and southern segments of San Pablo Avenue and shared lanes in the core area. In that fashion, parking removal would have less of an impact as there is high demand for parking in the core area near the Solano/San Pablo intersection than along the City Limits.

The proposal for Buchanan Street was less controversial and was based on previous public processes that took place when developing the Active Transportation Plan. The proposed HAWK signal at Taylor is recommended in response to residents and USDA employee's request for a safe crossing at Taylor that provide direct access to the Park and to the USDA.

- C. Is the project cost over \$1 Million? Y/N

Yes

If Yes- is the project Prioritized in an adopted city or county bicycle transportation plan, pedestrian plan, safe routes to school plan, active transportation plan, trail plan, circulation element of a general plan, or other publicly approved plan that incorporated elements of an active transportation plan? Y/N

Yes

The project is included in the City Active Transportation Plan, adopted in January, 2012 and the City's Complete Streets Plan for San Pablo and Buchanan adopted by Council in December 2013. Complete Streets improvements along San Pablo Avenue in Albany are also included in the Countywide Bicycle and Pedestrian Plan and in the MTC TIP. See Attachment 4.

- Projects with substantial participation of community members- 11 to 15 points

- Projects with moderate participation of community members - 6 to 10 points
- Projects with minimal participation of community members- 1 to 5 points
- Projects with no participation of community members- 0 points

IV. NARRATIVE QUESTIONS- continued

4. COST EFFECTIVENESS (0-10 POINTS)

- A. Describe the alternatives that were considered. Discuss the relative costs and benefits of all the alternatives and explain why the nominated one was chosen.

When the City conducted the Complete Streets Plan for San Pablo Avenue and Buchanan Street in 2013, three alternatives and some variations thereof were suggested for San Pablo Avenue.

Option 1 included the use of "Shared Lane Markings" for bicycle travel along the corridor and the installation of either a minimum or moderate amount of medians. With this option, the loss of parking was minimal. At the public discussions with the Traffic and Safety Commission, this alternative was favored by the local merchants who were very sensitive to street parking loss. However, the City's bicycle advocacy group did not favor this alternative because it did not provide increased protection for bicyclists.

Option 2 explored the feasibility of installing bicycle lanes on San Pablo Ave. by implementing varying median widths. This option had the highest decrease of street parking (about 43%) and was opposed by local merchants.

Option 3: The Traffic and Safety Commission recommended the development of a hybrid option that installed bicycle lanes where they were most needed and retained parking where it had the most demand. The result is the implementation of bike lanes from the northern City limit to Clay Avenue and from Buchanan Street to Dartmouth Street and shared lane markings in the core downtown area. This alternative includes the installation of medians of varying widths, retaining the left turns where needed. Street parking loss with this option is approximately 31%. The Traffic and Safety Commission recommended the adoption of Option 3 as a design alternative for San Pablo Avenue.

Currently, San Pablo Avenue does not offer pedestrian amenities or safety features that meet the needs of pedestrians and people with disabilities. To address this need, the participants in the charrette process in December of 2012 requested inclusion of physical features that heighten the level of safety for all users along this corridor, such as high visibility crosswalks, bulb outs, and medians. These features are present in all three design options discussed at the traffic and Safety Commission meetings.

For Buchanan Street, the Complete Streets planning process developed one design alternative as this proposal was based on previous planning efforts that evaluated 17 alternatives for the location of the crossing for the Buchanan/Marin Bikeway that was installed in December 2013. Ultimately, the alternative that was built in 2013 was selected through extensive public process that took place between 2005 and 2009. In 2011 and 2012, the City updated its Bicycle Master Plan and developed its first Pedestrian Master Plan known as the Albany ATP. This planning document proposed the installation of a pedestrian crosswalk at Taylor equipped with a Pedestrian Hybrid Beacon (HAWK). Likewise, the Marin/Buchanan merge was suggested in the ATP as a way to provide a more efficient intersection configuration at this busy intersection and to allow for improved pedestrian environment. The City obtained construction grants for the completion of Phases I and II of the Buchanan/Marin Bikeway, but the installation of the Hawk signal at Taylor and the Buchanan/Marin merge realignment was not included because at the time of grant application, these components were not part of any formally adopted planning document. It was until the end of 2012 that the Albany ATP was adopted, those two components were included.

- B. Calculate the ratio of the benefits of the project relative to both the total project cost and funds requested

$$\left(\text{i.e., } \frac{\text{Benefit}^*}{\text{Total Project Cost}} \text{ and } \frac{\text{Benefit}^*}{\text{Program Funds Requested}} \right).$$

City of Albany staff developed this application in house and calculated the project benefits using the Transportation Injury and Mapping Service (TIMS) data and method developed for calculation of Cost Benefit ratio for HSIP grant applications. The cost/benefit of the total project cost is estimated at 1.02 and the cost benefit of the Program Funds was estimated at 1.16. This is solely based on crash reduction factor of the three main countermeasures included in the application: Installation of raised medians, pedestrian-scale lighting, and pedestrian crossings. Obviously, there are more benefits that will be achieved by the implementation of the project, such as reduction of greenhouse gas emissions, improved health, improved local economy.

For instance, an improved pedestrian environment would encourage people to walk more and to use San Pablo Avenue and Buchanan Street as places to meet friends, have dinner and shop. This not only helps the local economy, but individuals' mental health as well.

In addition, the fact that in the City of Albany there are no parking structures (there is only free-time limited parking and private surface parking lots), is also a fitting complement for Complete Streets projects as visitors would not be encourage to drive to the City given its limited parking supply. The City will also start developing a Citywide Parking Study, with the goal of assessing the cost effectiveness of implementing metered parking in the Commercial District and permit parking in the adjacent residential areas. The parking program would complement the Complete Streets project by discouraging excess driving into the City and promoting walking, bicycling and transit riding.

While these benefits can be monetized, it required more effort to complete in house. We believe the crash reduction factor is a strong enough argument to make the case for the effectiveness of this investment..The countermeasures selected to calculate the cost benefit ration show a value over 1, which justify the investment over the project life cycle. See attachment 4 for Cost Benefit ration calculation.

*Benefits must directly relate to the goals of the Active Transportation Program.

- Applicant considers alternatives and exceptionally justifies the project nominated - 5 points
- Applicant considers alternatives and adequately justifies the project nominated - 3 to 4 points
- Applicant considers alternatives and minimally justifies the project nominated - 1 to 2 points
- Applicant did not consider alternatives or justify the project nominated - 0 points

- Applicant logically described how project benefits were quantified and has a benefit-cost ratio greater than 1 - 5 points
- Applicant logically described how project benefits were quantified and has benefit-cost ratio less than 1- 3 points
- Applicant did not logically describe how project benefits were quantified - 0 points

IV. NARRATIVE QUESTIONS- continued

5. IMPROVED PUBLIC HEALTH (0-10 points)

- A. Describe how the project will improve public health, i.e. through the targeting of populations who have a high risk factor for obesity, physical inactivity, asthma, or other health issues.

The California Department of Public Health shows that in Albany visits to hospitals due to asthma-related conditions were 46 visits in 2009. See map presented in Attachment 4

While this is not in the highest range, it is significant if the consequences of asthma and its related conditions are taken into consideration. The City of Albany is adopting policies and programs that will keep these public health risk factors at bay. For instance, in 2007, Council adopted Resolution 07-09 establishing the goal to reduce greenhouse gas emissions to 25% below 2004 levels by the year 2020. The City adopted a Complete Streets Policy in January, 2013 which ensures that all the projects being built and redeveloped in Albany, will consider the needs of all users of the street. The Albany School Board of Education adopted the City's Safe Routes to School Program in April 2013, which commits the School Board to work with the City in pursuing programs and supporting projects that promote walking and bicycling to school. The City is also pursuing grants to implement the projects included in the Active Transportation Plan adopted in 1012 and the Complete Streets Projects for San Pablo and Buchanan St. adopted in December 2013. A copy of the pertinent resolutions is included in Attachment 4.

This grant application will help shape the physical environment that encourage active transportation, benefiting not only the Albany community, but the many visitors that come to shop, eat, and play in the City.

Applicant exceptionally described how the project will improve public health and addresses high risk populations- 7 to 10 points

- Applicant adequately described how the project will improve public health and addresses high risk populations - 4 to 6 points
- Applicant minimally described how the project will improve public health - 1 to 3 points
- Applicant did not describe how the project will improve public health - 0 points

IV. NARRATIVE QUESTIONS- continued

6. **BENEFIT TO DISADVANTAGED COMMUNITIES** (0-10 points)

A. I. Is the project located in a disadvantaged community? Y/N

No

II. Does the project significantly benefit a disadvantaged community? Y/N

Yes

a. Which criteria does the project meet? (Answer all that apply)

- Median household income for the community benefited by the project: \$___Not Available for the residents of the Orientation Center for the Blind. According to the Census 2000, about 10.4% of the Albany residents are below poverty levels.___
- California Communities Environmental Health Screen Tool (CalEnvironScreen) score for the community benefited by the project: ___16.25___
- For projects that benefit public school students, percentage of students eligible for the Free or

Attachment 4 presents a table showing the percentage of students eligible for free or reduced price lunch in the Albany Unified School District. This data was extracted from the California Department of Education website. Approximately 30 of the student population in each school is eligible for free or reduced price lunches, which represents a total of 580 students who would be directly benefitted by this project.

b. Should the community benefitting from the project be considered disadvantaged based on criteria not specified in the program guidelines? If so, provide data for all criteria above and a quantitative assessment of why the community should be considered disadvantaged.

The project will greatly benefit students from the OCB who train on San Pablo Avenue. Most of the students served by the OCB are depending on State Supplemental Income to meet their living needs. In addition, it will benefit low income students at Ocean View School, Albany Middle School, McGregor School, and High School. In total, there are 580 students who are eligible for free or reduced-priced lunch at these schools.

B. Describe how the project demonstrates a clear benefit to a disadvantaged community and what percentage of the project funding will benefit that community, for projects using the school based criteria describe specifically the school students and community will benefit.

The overall project will benefit the Orientation Center for the Blind students. The Center serves low-income vision impaired students whose training will be significantly improved by the installation of audible pedestrian signals and updated curb ramps with truncated domes along the signalized intersections of the northern segment of San Pablo Avenue. The Center houses 32 resident students for each training cycle, which lasts about a year and also provides training for outside students. In addition, there are other mobility training institutions in the East Bay that use San Pablo Avenue as their training grounds. The project will allow these students to be able to become independent when walking on these corridors because they will have hearing cues, updated curb rams, refuge medians, and high visibility crosswalks. By having a safer environment, they will gain integration to the community and greater society.

The project will also directly benefit Middle School students and Ocean View Elementary students. 26% and 31% of the student population respectively is eligible for free or reduced price lunch. San Pablo Avenue in located in the route to school to Albany Middle School and Taylor/Buchanan and the Marin-Buchanan merge is located within the route to school to Ocean View Elementary School. See Attachment 4.

Moreover, the project will encourage walking by offering a safer pedestrian environment through high visibility crosswalks, installation of medians, sidewalks, and a safe crossing at Buchanan and Taylor. Increased walking rates lead to improved health in the community at large.

The Total project cost will benefit these disadvantage populations as San Pablo Avenue is in the route to school of Albany Middle, High School, McGregor and the Orientation Center for the Blind. Approximately 24.4% of the project cost will benefit students at Ocean View Elementary Schools.

- Project clearly and significantly addresses health, safety, and/or infrastructure challenges in the disadvantaged community- 5 points
- Project adequately addresses health, safety, and/or infrastructure challenges in the disadvantaged community - 3 points
- Project minimally addresses health, safety, and/or infrastructure challenges in the disadvantaged community - 1 points

- 80% to 100% of project funding benefits the disadvantaged community- 5 points
- 60% to 79% of project funding benefits the disadvantaged community- 4 points
- 40% to 59% of project funding benefits the disadvantaged community- 3 points
- 20% to 39% of project funding benefits the disadvantaged community- 2 points
- 1% to 19% of project funding benefits the disadvantaged community- 1 points
- 0% of project benefits the disadvantaged community- 0 points

IV. NARRATIVE QUESTIONS- continued

7. USE OF CALIFORNIA CONSERVATION CORPS (CCC) OR A CERTIFIED COMMUNITY CONSERVATION CORPS (0 to -5 points)

The applicant must send the following information to the CCC and CALCC prior to application submittal to Caltrans:

Project Description
Project Map

Detailed Estimate
Preliminary Plan

Project Schedule

The corps agencies can be contacted at:

California Conservation Corps at: www.ccc.ca.gov

Community Conservation Corps at: <http://calocalcorps.org>

A. The applicant has coordinated with the CCC to identify how a state conservation corps can be a partner of the project. Y/N **Yes.**

a. Name, e-mail, and phone # of the person contacted and the date the information was submitted to them

Virginia Clark

Virginia.clark@ccc.ca.gov

916-341-4137

Contacted on 5/9/2014

The CCC cannot participate in our project due to lack of capacity.

B. The applicant has coordinated with a representative from the California Association of Local Conservation Corps (CALCC) to identify how a certified community conservation corps can be a partner of the project. Y/N

a. Name, e-mail, and phone # of the person contacted and the date the information was submitted to them

Cynthia Vitale,

Calocalcorps@gmail.com

Phone (916) 558-1516

The representative expressed interest in participating in the landscaping and irrigation component of our project. Staff at CACC in Sacramento was contacted on 5/9/2014 and project information was submitted on 5/16/2014.

C. The applicant intends to utilize the CCC or a certified community conservation corps on all items where participation is indicated? Y/N they were contacted, but they decided to not participate in our project due to lack of capacity.

I have coordinated with a representative of the CCC; and the following are project items that they are qualified to partner on:

The CCC does not have more capacity to participate in our project.

I have coordinated with a representative of the CALCC; and the following are project items that they are qualified to partner on:

Landscape and Irrigation

Points will be deducted if an applicant does not seek corps participation or if an applicant intends not to utilize a corps in a project in which the corps can participate*.

- The applicant intends to partner with a conservation corps to the maximum extent possible- 0 points
- The applicant did not seek partnership with a conservation corps, or indicated that they do not intend to partner with the corps to the maximum extent possible- (-)5 points

**If the applicant has indicated intended use of the CCC or CALCC in the approved application, a copy of the agreement between the implementing agency and the CCC or CALCC must be provided by the implementing agency, and will be incorporated as part of the original application, prior to request for authorization of funds for construction.*

IV. NARRATIVE QUESTIONS- continued

8. APPLICANT'S PERFORMANCE ON PAST GRANTS (0 to -10 points)

- A. Describe any of your agency's ATP type grant failures during the past 5 years, and what changes your agency will take in order to deliver this project.

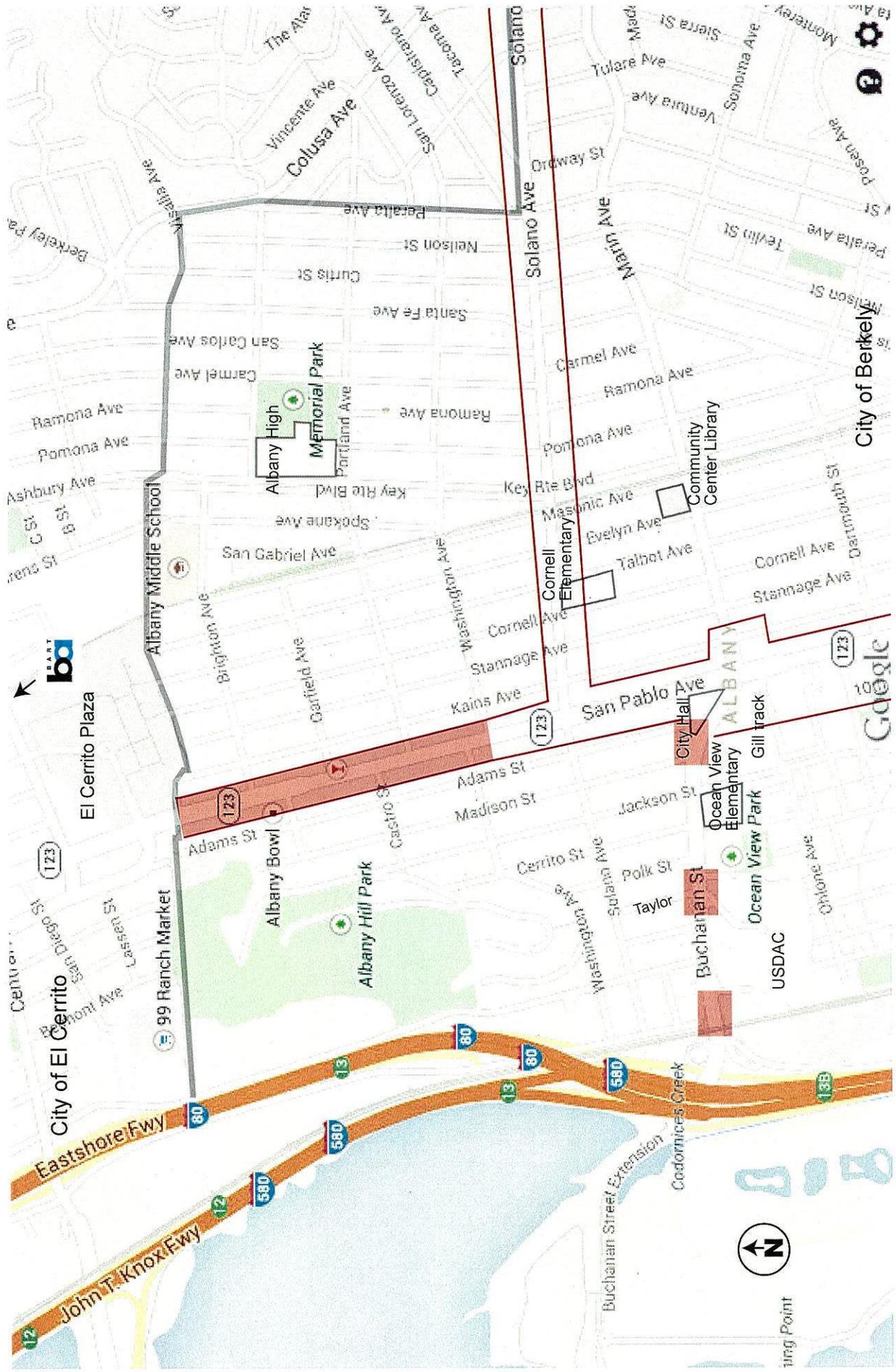
The City of Albany has been able to deliver past Safe Routes to School projects within project schedule and with very good performance. There have been a few delays in submitting invoices every six months due to shortage of staff, which affects small cities in a significant way.

In order to address this issue in the future, the City plans to have an assistant to the grant manager who can help with preparing invoicing and record keeping.

- The applicant has no past grant experience or has performed satisfactorily on past grants - 0 points
- The applicant has not performed satisfactorily on past grants and/or has not adequately described how they will deliver this project (-)10 points

ATTACHMENT 1: Project Location Map

ALBANY COMPLETE STREETS PROJECT LOCATION



- Project Locations
- Albany Commercial District

**ATTACHMENT 2: Project Plans and Existing
Conditions Photos**

**EXISTING CONDITIONS ON THE PROJECT AREA:
BUCHANAN/ MARIN**



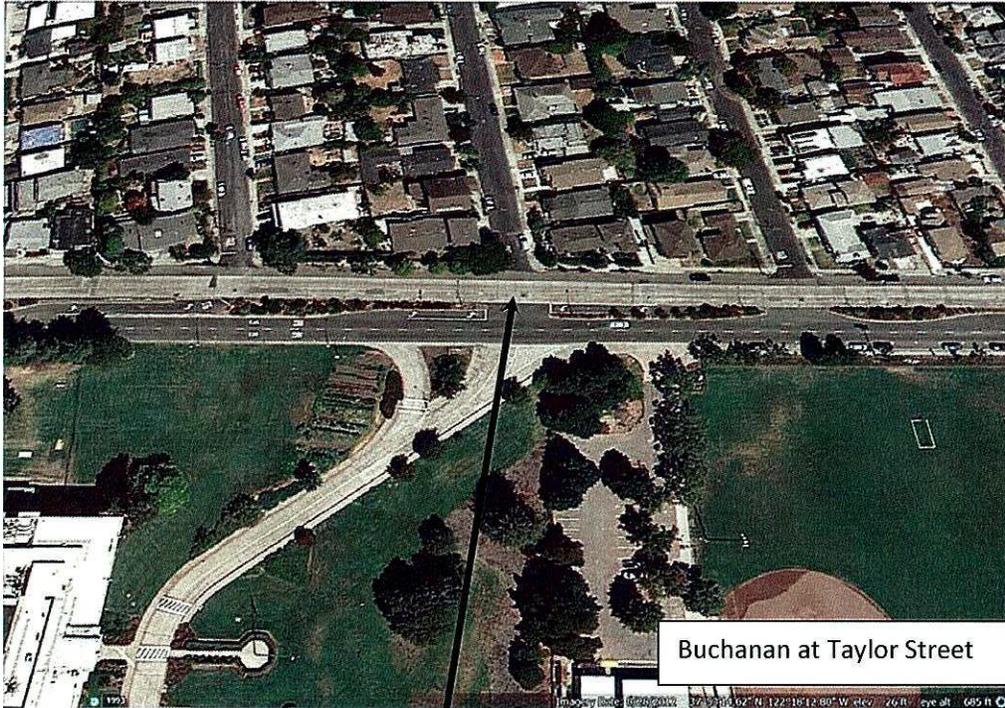
THERE IS NO PEDETRIAN WALKWAY ON THE NORTH SIDE OF MARIN AND BUCHANAN AVE. THE PROPOSED CROSSING IMPROVEMENTS ON BUCHANAN AVE WILL PROVIDE SIDEWALKS, HIGH VISIBILITY CROSSWALKS AND CURB RAMPS.



Buchanan/Marin Merge

Imagery Date: 8/28/2012 37°51'15.64"N 122°17'57.79"W - WGS84 39 ft eye at 1248 ft

EXISTING CONDITIONS: BUCHANAN AT TAYLOR



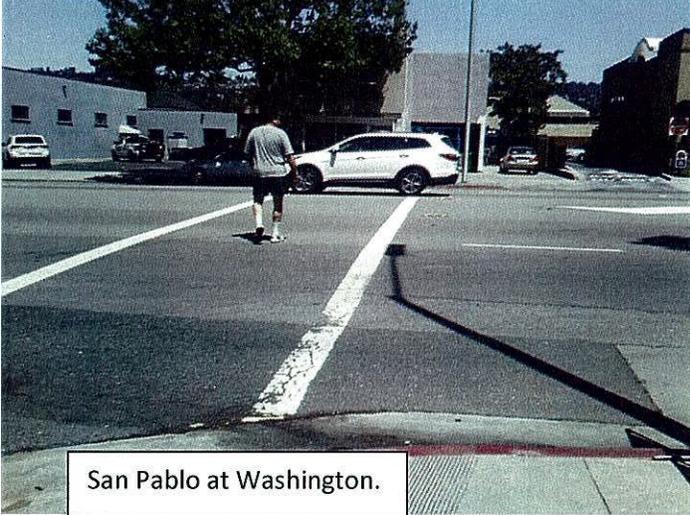
Buchanan at Taylor Street



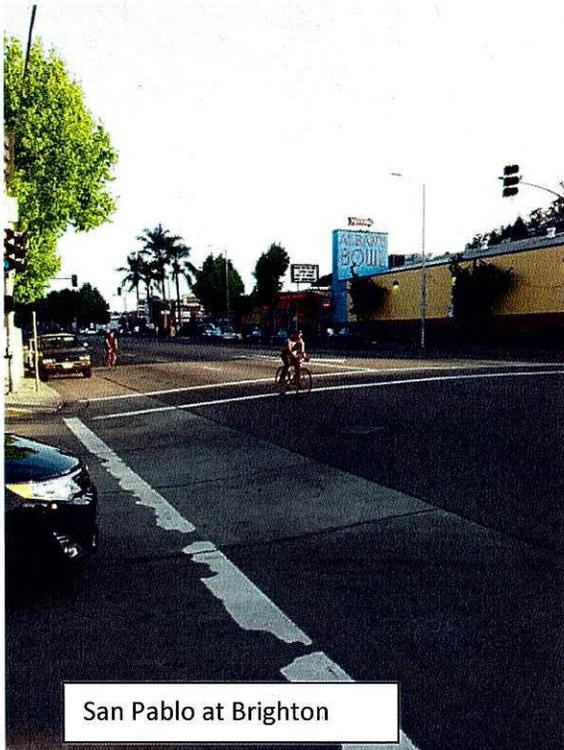
BUCHANAN AT TAYLOR

THERE IS NO SAFE PEDESTRIAN CROSSWALK AT THIS 79 FEET CROSS-SECTION. THE NEAREST CONTROLLED INTERSECTIONS ARE 600 FEET TO THE WEST (PIERCE) AND 700' TO THE EAST (JACKSON). FOR A PEDESTRIAN, THIS IS A LONG DISTANCE TO COVER, PARTICULARLY IF THE DESIRED DESTINATION IS OCEAN VIEW PARK OR USDA. THE PROPOSED HAWK SIGNAL WILL PROVIDE THE NEEDED SAFETY FOR PEDESTRIANS WHEN CROSSING BUCHANAN AT TAYLOR.

EXISTING CONDITIONS ON THE PROJECT AREA: SAN PABLO AVE



SAN PABLO AVE CROSS SECTION IS 74 FEET. PEDESTRIANS CROSS WITHOUT PROTECTION AT SEVERAL INTERSECTIONS. THE PROEJECT WILL INSTALL CURB EXTENSIONS, HIGH VISIBILITY CROSSWALKS, MEDIANS, NEW CURB RAMPS, A RECTANGULAR RAPID FLASHING BEACON AT PORTLAND AVE. TO IMPROVE PEDESTRIAN SAFETY ON SAN PABLO AVENUE.



SAN PABLO AVE

THE EXISTING ENVIRONMENT IS NOT CONDUCTIVE FOR WALKING OR BICYCLING. THE SIGNALIZED INTERSECTIONS WILL BE EQUIPPED WITH AUDIBLE AND COUNT DOWN SIGNALS, PEDESTRIAN RECALL IN ALL DIRECTIONS, MEDIANS, AND BULBOUTS.

EXISTING CONDITIONS ON THE PROJECT AREA: SAN PABLO AVE AT PORTLAND



San Pablo at Portland



SAN PABLO AVE
A PEDESTRIAN IS INTIMIDATED BY A TURNING VEHICLE AT THIS BUSY INTERSECTION ON SAN PABLO AVENUE.

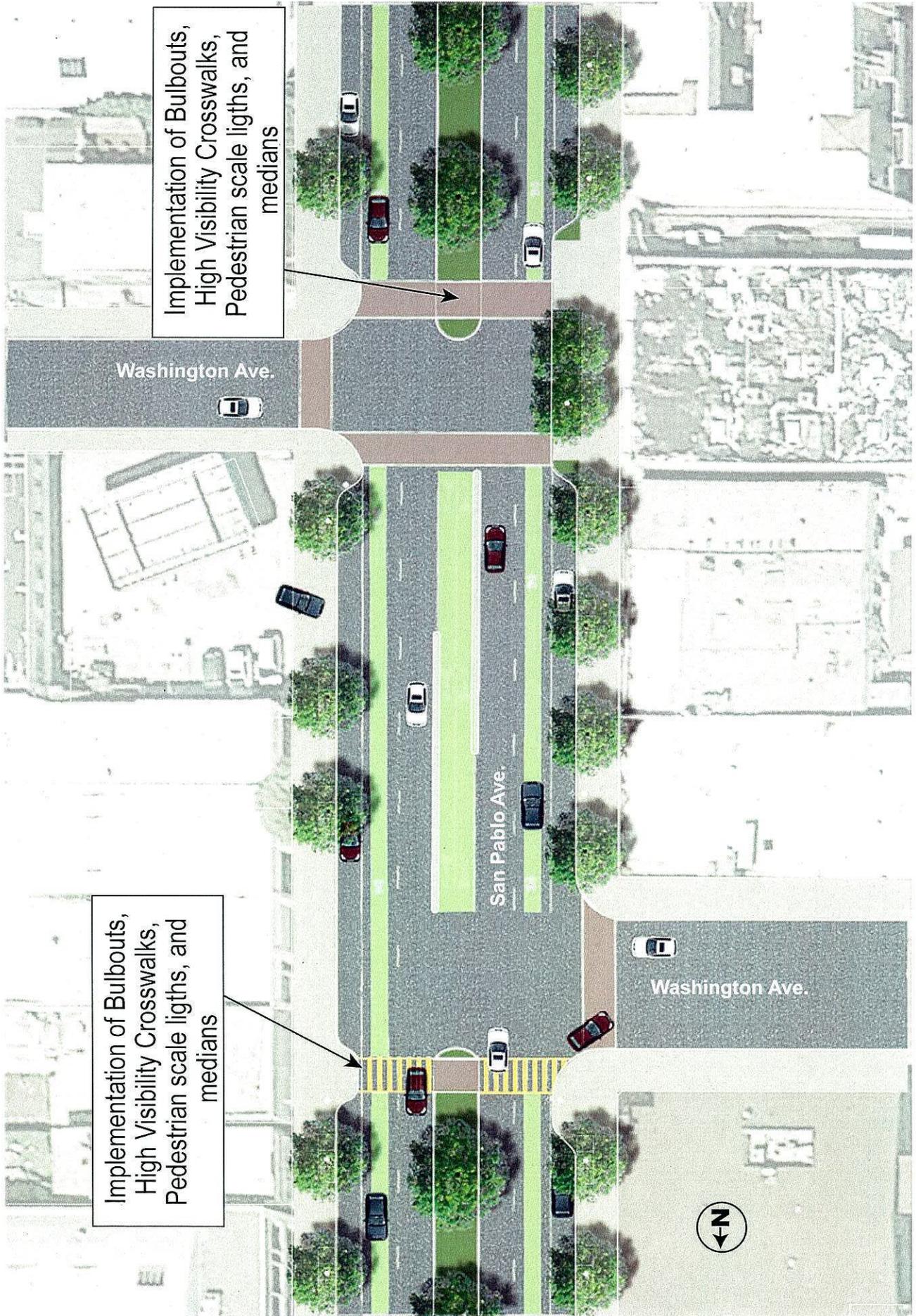
PROPOSED IMPROVEMENTS FOR NORTHERN GATEWAY - SAN PABLO AVE.



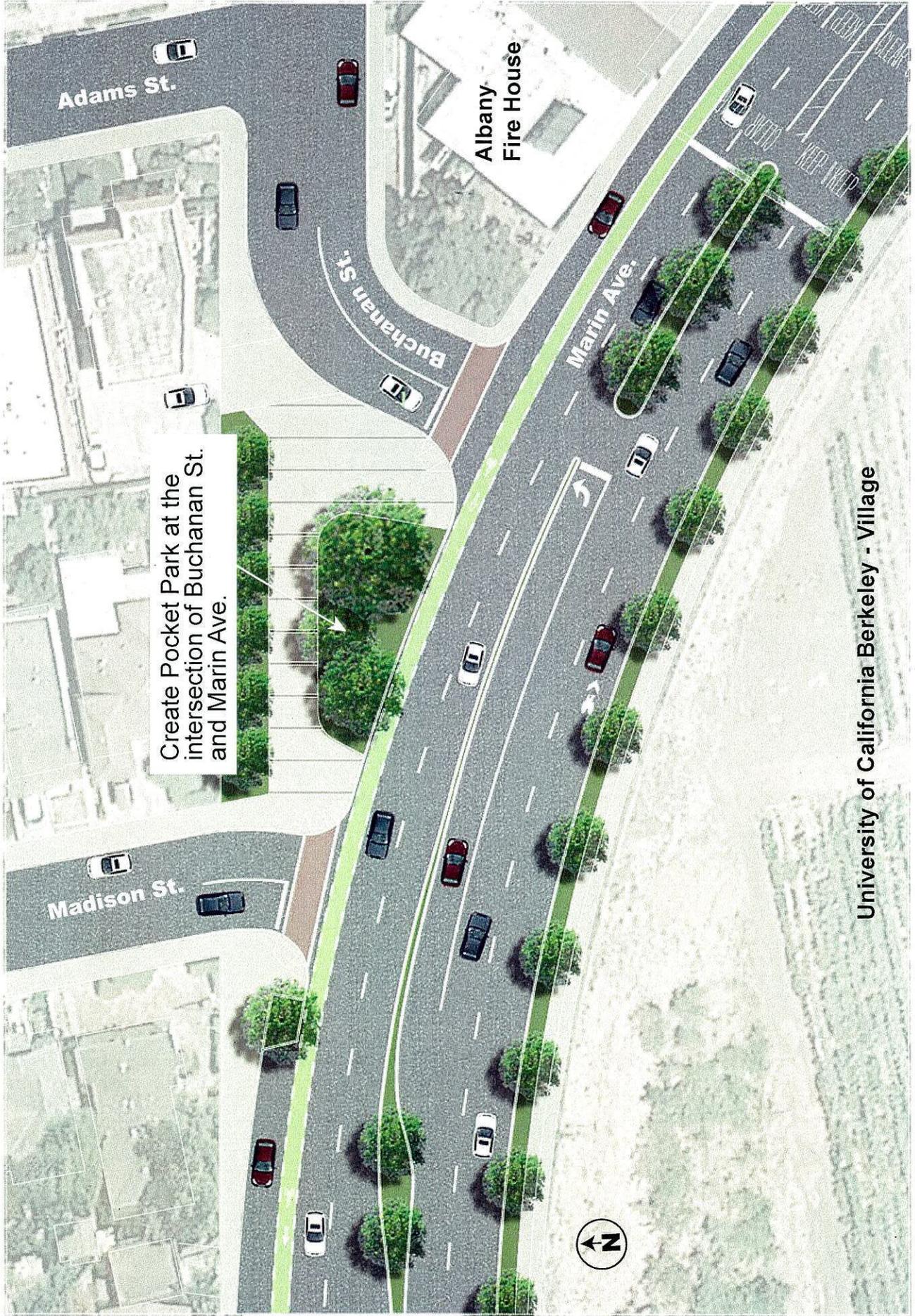
PEDESTRIAN IMPROVEMENT FOR PORTLAND AVE.



PROPOSED IMPROVEMENTS FOR THE INTERSECTION OF SAN PABLO AVENUE AND WASHINGTON AVENUE



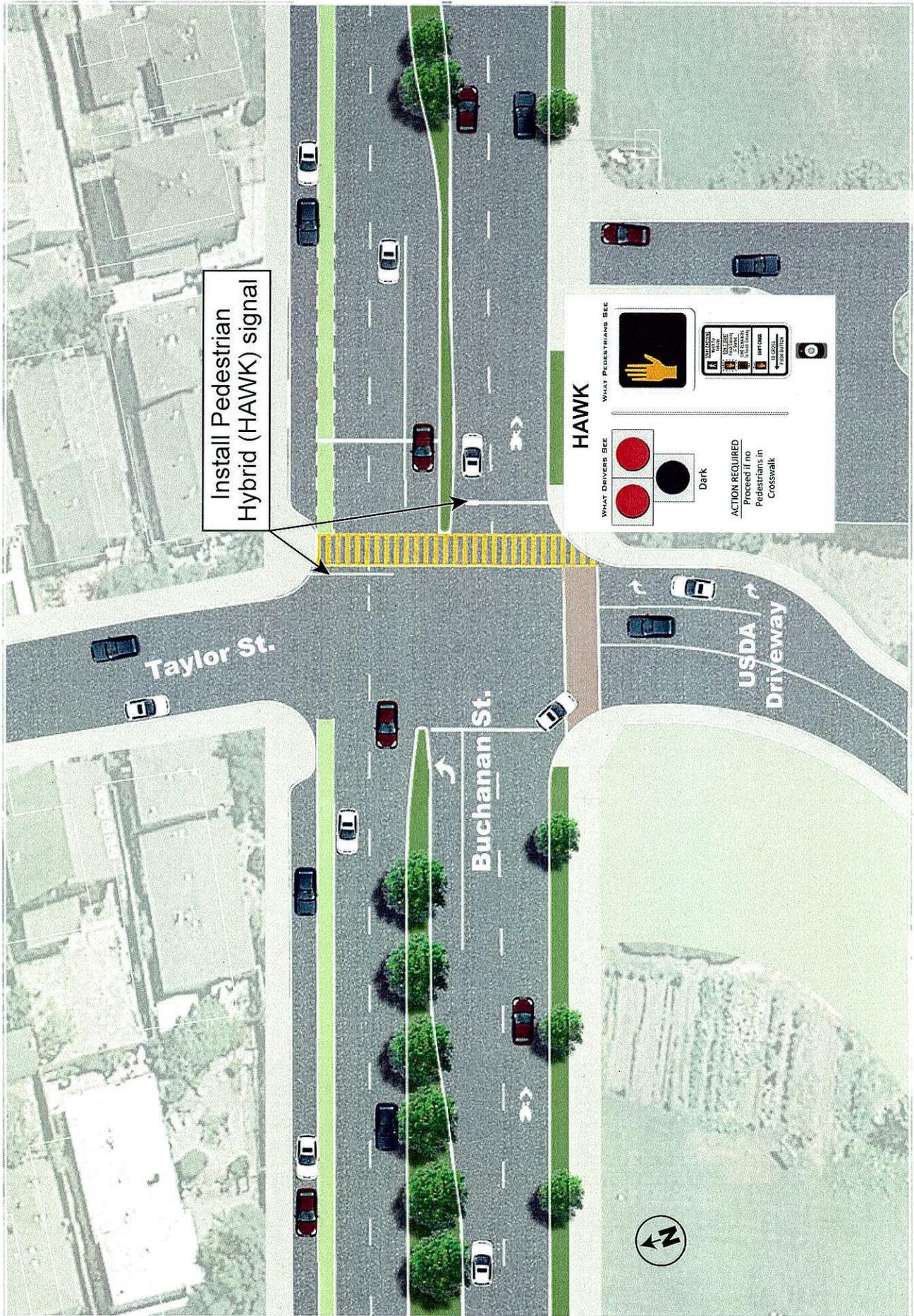
PROPOSED PEDESTRIAN ENHANCEMENTS FOR THE BUCHANAN MARIN MERGE



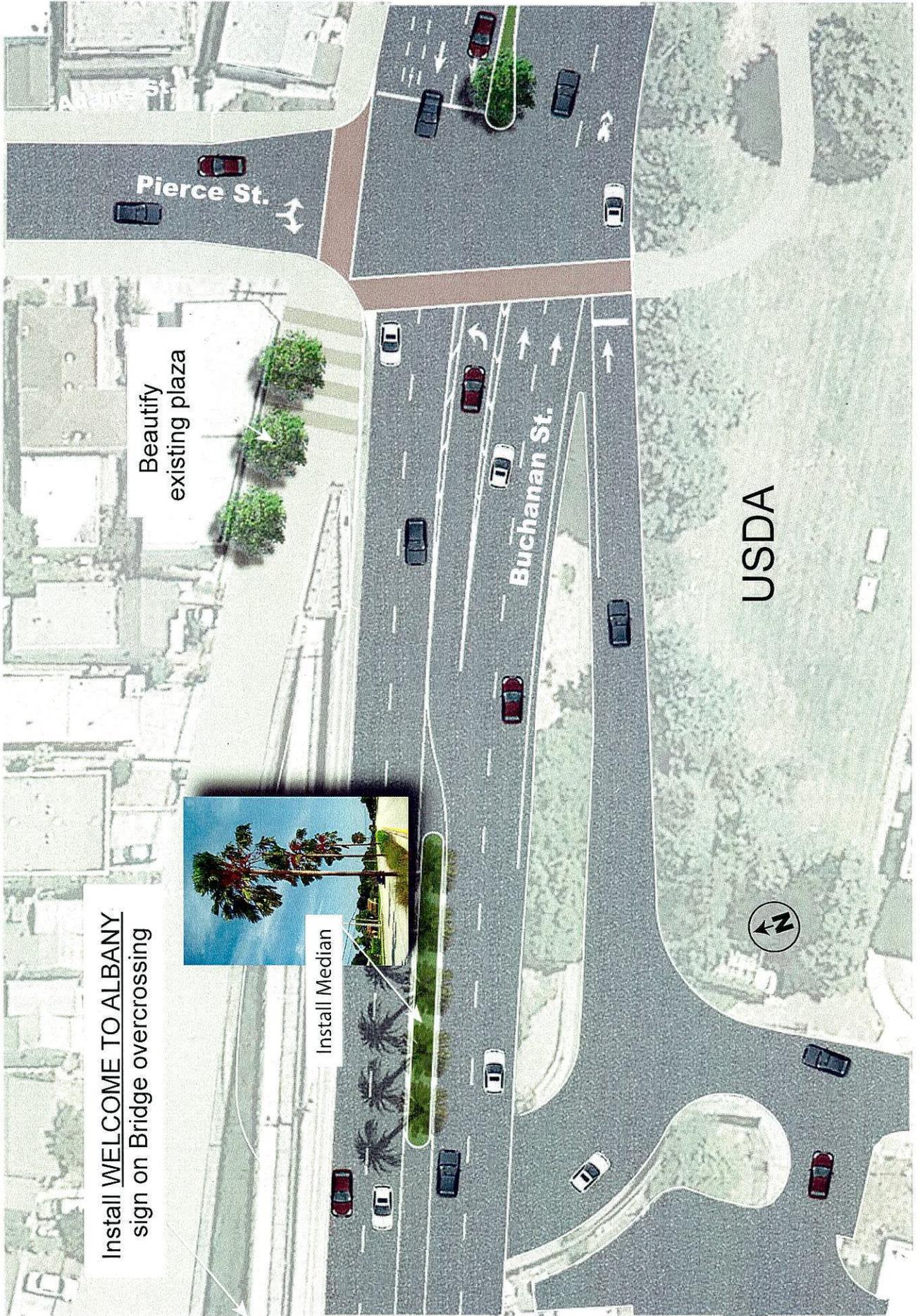
Create Pocket Park at the intersection of Buchanan St. and Marin Ave.

University of California Berkeley - Village

PROPOSED PEDESTRIAN IMPROVEMENTS FOR BUCHANAN AT TAYLOR ST.



PROPOSED GATEWAY ENHANCEMENTS ON BUCHANAN ST.



Install WELCOME TO ALBANY
sign on Bridge overcrossing

Beautify
existing plaza

Install Median

USDA





Complete Streets

CONCEPTUAL DESIGN AND PLAN FOR
SAN PABLO AVENUE AND BUCHANAN STREET

This Plan was conducted thanks to funding from the Caltrans Community Based Transportation Planning Grant Program.



3 Recommendations

CORRIDOR-WIDE RECOMMENDATIONS

Several design strategies associated with complete streets should apply to both corridors, emphasizing the creation of a safe, comfortable, and accessible pedestrian experience. Treatments should include paving for sidewalks and crosswalks, street lights, and street trees, and should be applied consistently along each corridor to reinforce a single identity.

Narrow Lanes

Existing travel lanes on San Pablo Avenue and Buchanan Street in Albany are typically 12 feet wide. Travel lanes that are 11 feet wide are recommended as part of the proposed complete streets project. Several research studies have shown that 10-, 11-, and 12-foot lanes have similar safety and capacity characteristics. Narrower lanes also encourage motorists to drive more slowly and preserve right-of-way for other uses. For these streets, 11-foot lanes are recommended due to the need to carry frequent bus traffic and occasional truck traffic.

Intersection Geometry and Other Physical Changes

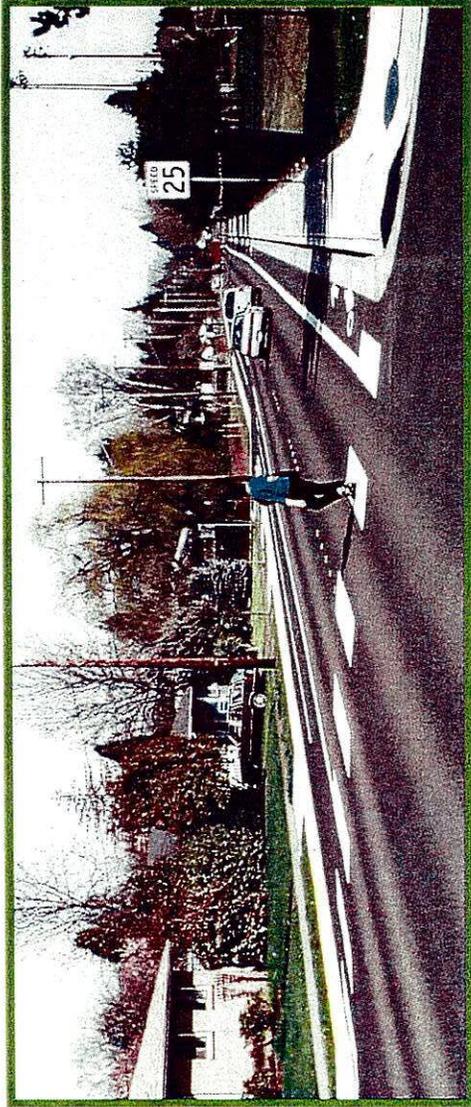
At both signalized and unsignalized intersections, there are several intersection geometry changes that should be considered to improve safety and usability by people walking and bicycling:

- Reduce corner radii to the minimum needed for the appropriately sized large vehicle (bus or truck) that regularly makes right turns around the corner in question. Small corner radii reduce turning speeds, reduce crossing distances, and make it easier to place crosswalks and curb ramps.

Figure 3-1 Project Context Map



UNSIGNALIZED CROSSING PRECEDENT IMAGES



Use high-visibility longitudinal crosswalk markings for all unsignalized crosswalks. Wide lines should be spaced to avoid the wheel paths of vehicles, thus reducing maintenance costs.

- Install curb extensions (also called bulb outs) where there is on-street parking, to reduce crossing distances, improve sightlines between pedestrians and motorists, and reduce vehicle turning speeds.
- Continuous raised medians encourage slower vehicle speeds, provide access control to reduce turning conflicts, and allow pedestrians to cross streets in two stages, greatly simplifying the crossing task.
- Caltrans has supported other cities using a textured, flush median for the left turn lane and other cues to indicate a visual narrowing of the street.

Signalized Intersections

Signalized intersections have both positive and negative impacts on pedestrian and bicycle travel. On one hand, the signals stop traffic along the major street to provide gaps that allow pedestrians, bicyclists, and motorists to cross. But on the other hand, pedestrians and bicyclists are at risk from crashes from concurrent turning movements by motor vehicles, and also due to all users' occasional failure to obey signal controls. The following general recommendations improve signals for pedestrians and bicyclists.

- Where possible, set pedestrian signals to "recall to walk," concurrent with the green vehicle intervals. At a minimum, this feature should be provided for all crosswalks parallel to the major street at each intersection, concurrent with the green interval that is set to "recall to green" (north-south crosswalks along San Pablo, and east-west crosswalks along Buchanan). At locations with frequent pedestrian crossings across the major street (e.g. San Pablo Avenue at Solano Avenue), or where there is significant green time needed for vehicles crossing the major street (e.g. San Pablo Avenue at Marina Avenue during peak hours), consider setting signals

Crosswalks at Unsignalized Locations

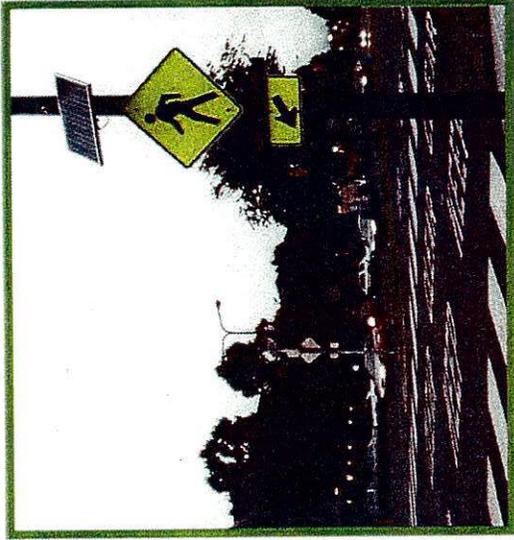
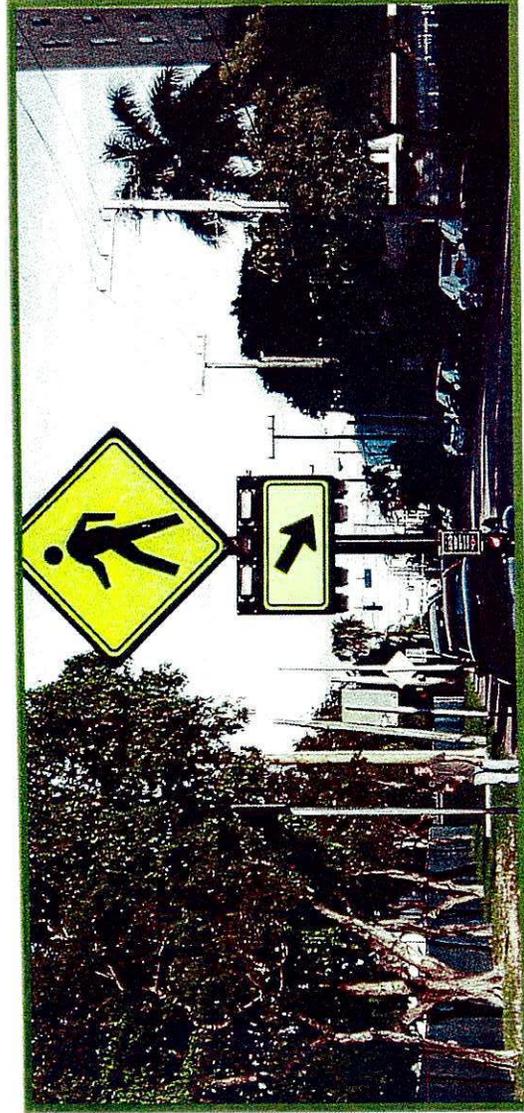
Research indicates that marked crosswalks at unsignalized locations should be enhanced with additional pedestrian crossing treatments.⁵ There are four uncontrolled marked crosswalks along San Pablo Avenue and numerous unsignalized intersections without crosswalk markings along both San Pablo Avenue and Buchanan Street. In the sections with specific recommendations for each corridor, enhanced crosswalks are recommended at several locations. The recommendations on the next two pages should be considered for all existing and proposed crosswalks.

to recall to walk for pedestrian crossings across the major street as well.

- Where signals area not set to recall to walk, pedestrian pushbuttons should be placed where they are convenient to the crosswalk they serve. New guidance on convenient pushbutton locations is included in the 2012 California Manual on Uniform Traffic Control Devices (CA-MUTCD).⁶
- At signalized intersections, approaches with vehicle detection, ensure loop-detector or video detection technology is calibrated to detect bicycles, and that proper markings are painted to ensure cyclists know where to position their bicycles to trigger the signal detection. New standards in the 2012 California MUTCD require bicycle and motorcycle signal detection.

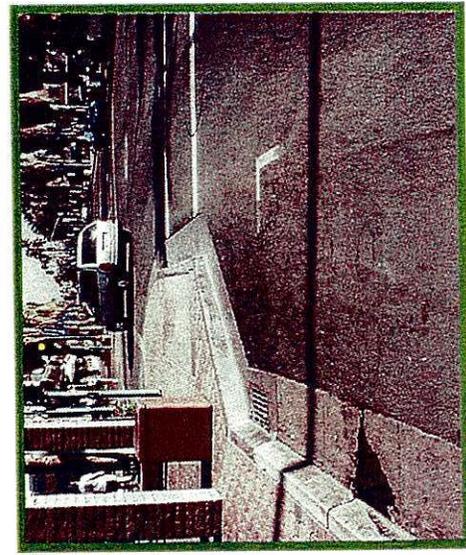
⁵ Zaeper, C.V., R. Stewart et al. "Safety Effects of Marked vs. Unmarked Crosswalks at Unsignalized Locations" Transportation Research Record Volume 1778, 2001

⁶ 2012 California Manual on Uniform Traffic Control Devices (CA-MUTCD) <http://www.dot.ca.gov/hq/traffic/mutcd/mutcdmain.pdf>



Rectangular rapid-flash beacons are new traffic control devices that indicate when there are pedestrians in crosswalks, as approved by the Federal Highway Administration. These new high-intensity LED devices are more effective than standard incandescent yellow flashing beacons, and in-roadway flashing lights. Some are solar-powered and operate by radio frequency to avoid the need for hard-wiring.

3 FHWA interim approval for RRFs: https://www.fhwa.dot.gov/resources/misim_approval/ra1/fhwasemohm



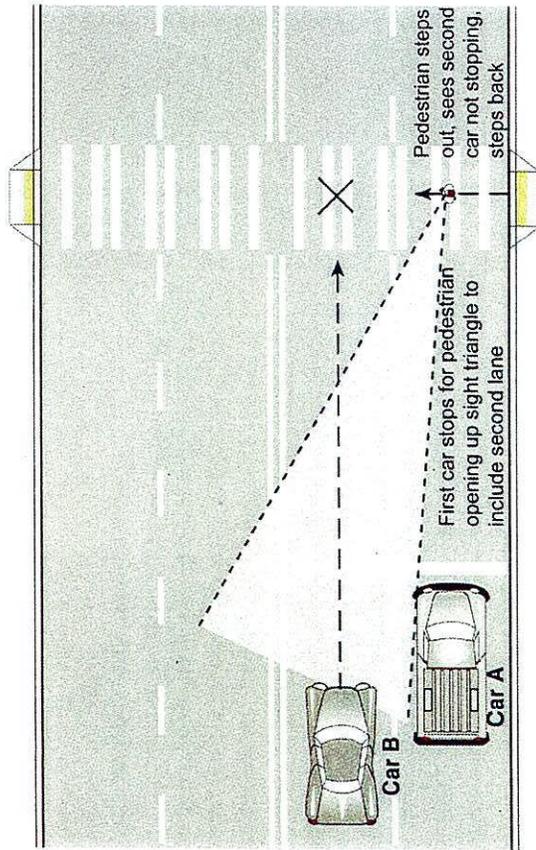
Curb extensions reduce crossing distance for pedestrians and improve sight lines between pedestrians and motorists. Front design for curb extensions should include corner radii selected carefully to be as small as possible to improve pedestrian safety while still allowing buses and fire trucks to make necessary turns.



Raised medians are recommended at all unsignalized pedestrian crossings, as either part of a continuous median as recommended above, or small median islands placed specifically at the crosswalk locations. Medians make it much easier and safer for pedestrians to cross streets, reducing pedestrian crash risk by approximately 40%.

a. bid

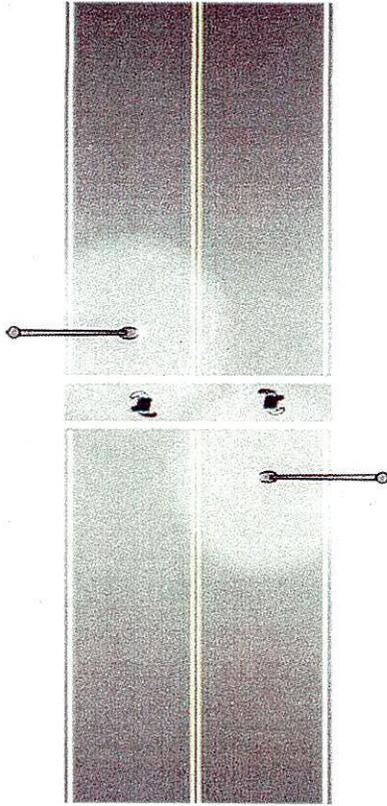
Figure 3-2 Advance Yield Line Graphic



On multilane roadways, many crashes at marked crosswalks are the "multiple threat" crash type, occurring when a motorist in the first lane stops for the pedestrian but does not stop in close proximity to the crosswalk, reducing sightlines between the pedestrian and motorists in the next lane. By placing a yield line and accompanying "Yield Here to Pedestrians" sign in advance of the crosswalk, sightlines are improved, and the chance of a crash is reduced. Advance yield lines are recommended at any unsignalized crosswalk on multilane roadways in Albany, as long as the lines can be placed at the intersection in a manner that does not create potential for driver confusion.

Whether or not pedestrians choose to cross at dedicated crossing points, medians improve crossing safety by permitting pedestrians to only have to focus on one direction of oncoming traffic at a time.

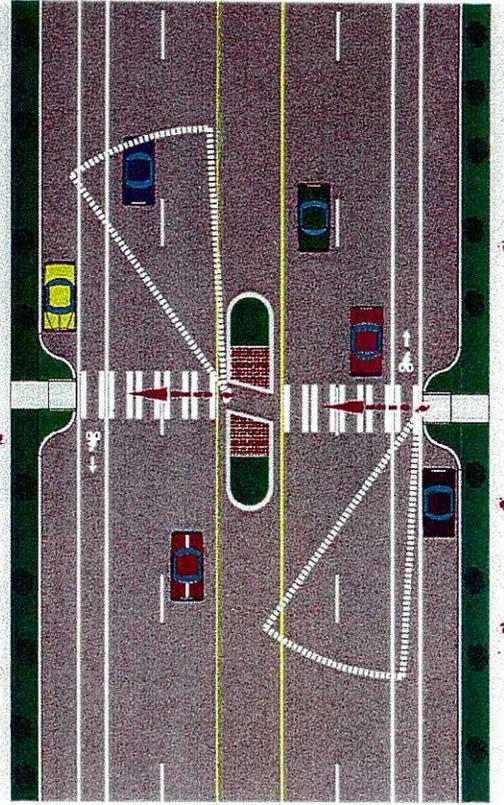
Figure 3-3 Pedestrian Lighting at Crosswalks Graphic



All unsignalized crosswalks should have illumination so that pedestrians can be seen adequately at night. Illumination should be placed on the upstream side of the crosswalk for each direction of travel so the sides of pedestrians are illuminated, not the tops of their heads. Illumination layouts and lighting levels should be as shown in the Informational Report on Lighting Design or Midblock Crosswalks.

Gibbons, R.B., C. Edwards et al. "Informational Report on Lighting Design for Midblock Crosswalks" FHWA-HRT-06-053, 2008. <http://www.fhwa.gov/safety/pubs/08053/08053.pdf>

Figure 3-4 Staggered Median Crossing



GATEWAYS

Gateways work in several ways for the betterment of a community. Most simply, they establish the identity of a community; they introduce visitors to a place; and offer residents a sense of collective, positive pride. More generally, they make motorists aware of a context change. Drivers who are conscious that they are entering a neighborhood or main street are more likely to slow their speeds, contributing immensely to the increased safety and quality of a place. Gateways can also add interest to the approach of a main street, and may invite travelers to explore its shops and spaces further. San Pablo Avenue and Buchanan Street are key entry routes into Albany, and the first introduction to the community for most visitors and through-travelers.

A gateway to a community can be communicated in many forms. Beyond welcome and identification signage, public art or monuments are commonly used to draw attention to gateways. Special landscaping, such as a tree-lined street, also calls attention to a change in context. Gateways are especially effective when they are articulated by changes in the structure of the road. Medians and roundabouts are two great examples, and they work well with other gateway features, as they enable signage, monuments, and landscaping elements to be placed in the center of the thoroughfare. Both the south and north end of San Pablo Avenue in Albany are ideal for major gateways, as well as the western end of Buchanan Street east of the freeway ramps.



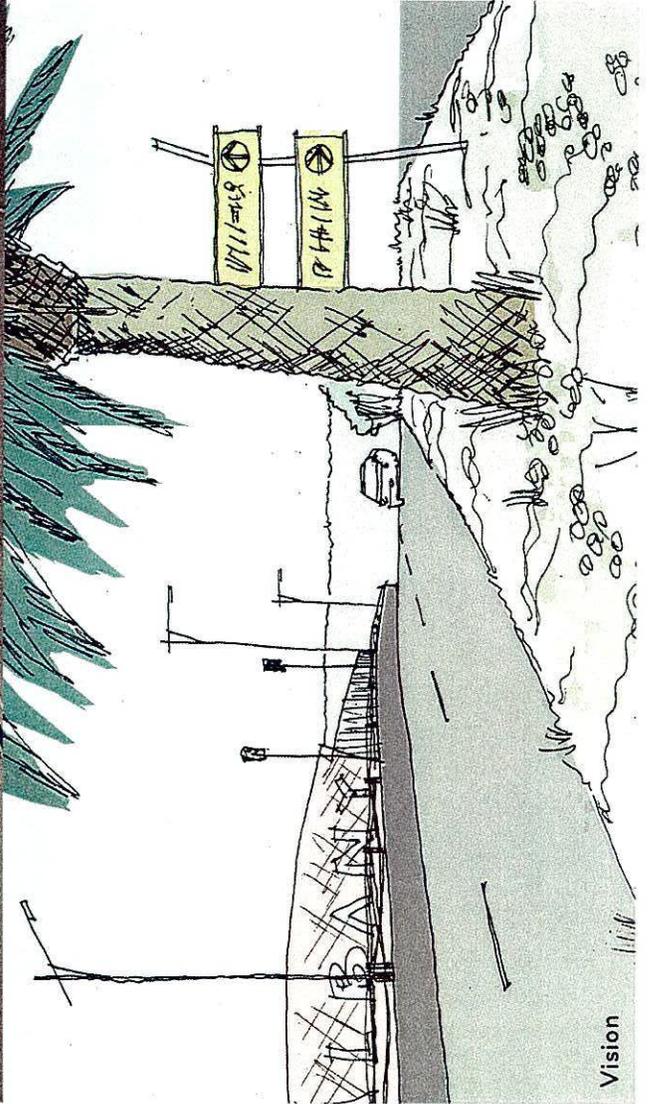
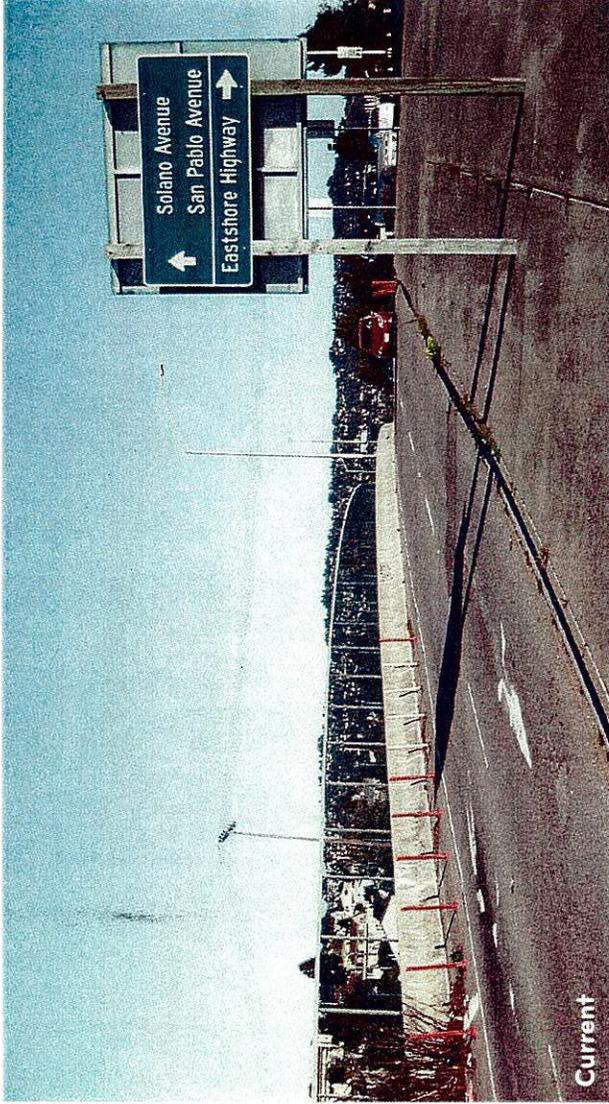
Sketch of gateway locations from the Community Design Charrette.



Boundary markers can create a gateway to the community and help brand the corridor (Anaheim, CA).

Buchanan at Freeway

At the railway overcrossing west of Pierce Street, there is an opportunity to present vibrant signage and introduce landscape elements that will carry along Buchanan Street to San Pablo Avenue.



North End of San Pablo

Introduce the north border of the city with El Cerrito with visual signage and landmarks.



Figure 3-5 Design for Gateway at North End of San Pablo

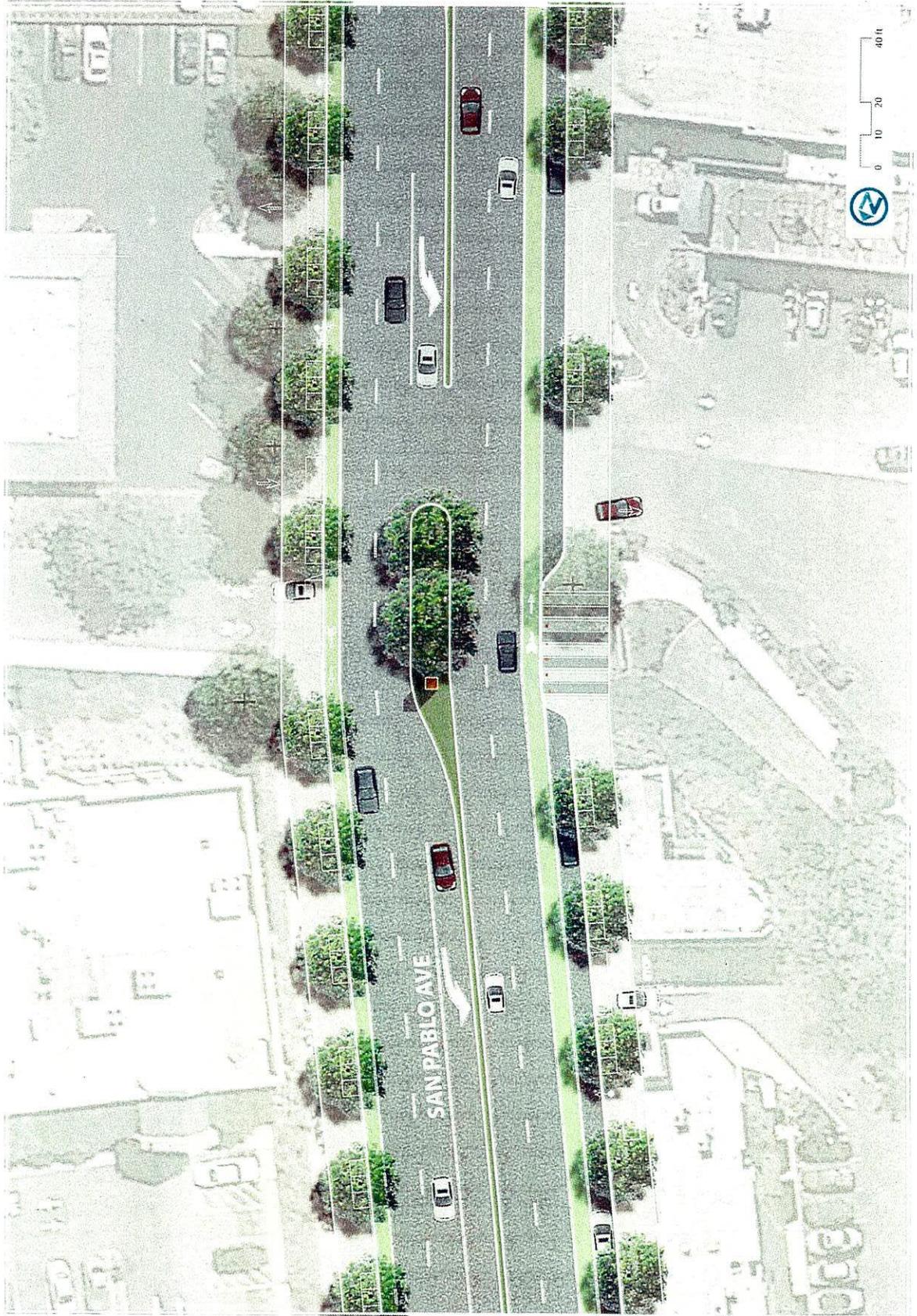
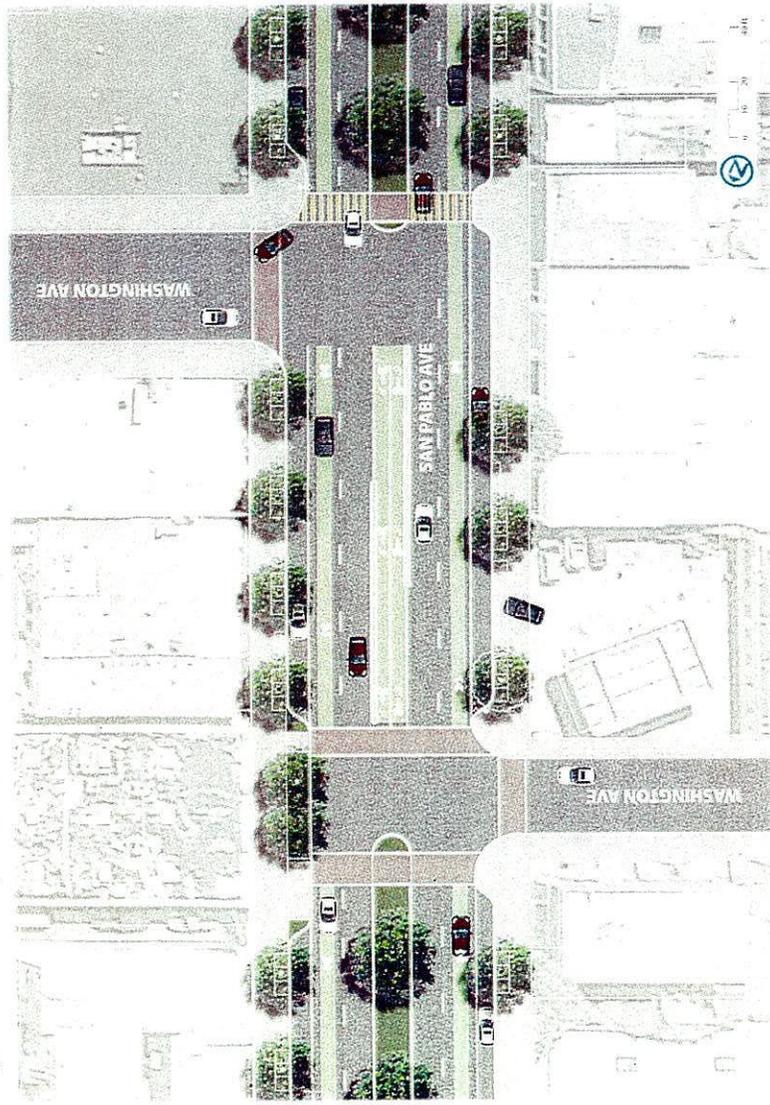


Figure 3-28 Bicycle Boulevard Crossing at San Pablo and Washington - Plan View



The recommendation for a far side stop should be pursued independently of the recommendation to install a bus bulb-out at this bus stop, pending further discussion by Albany staff and Traffic and Safety Commission, as well as Caltrans approval. All bus stop changes are independent of the signal timing recommendations, which should be pursued whether or not bus stop changes are made at this intersection.

San Pablo Avenue at Washington Avenue Bike Boulevard Crossing Option

The Active Transportation Plan proposes a Washington Avenue bicycle boulevard treatment, connecting the proposed Kains Avenue and Adams Street bicycle boulevards, and providing a low-stress bikeway across this portion of the city. A special crossing treatment is recommended at San Pablo Avenue and Washington Street as an option to accommodate this proposal (as shown in Figure 3-28). As the two legs of Washington Avenue do not align, left turn bicycle lanes in the center median are recommended, similar to the proposed design at Dartmouth and Monroe Streets. To accommodate these left turn bike lanes, northbound and southbound left turns movements would need to be restricted from San Pablo Avenue to Washington Avenue. As with Dartmouth, turn restrictions support the use of Washington Avenue as a bicycle boulevard by diverting motor vehicles, reducing traffic volume to a more comfortable level for bicyclists.

The northernmost leg of Washington Avenue (connecting east and from the west) is currently signalized, while the southernmost leg (connecting east and from the east) is unsignalized. If the signalization remains the same, eastbound bicyclists on Washington Avenue could use the signal to make their way to the left turn lane, but westbound bicyclists would need to wait for a gap in both lanes of northbound traffic in order to turn right directly into the left turn lane. Working with Caltrans, it may

be possible to modify the existing signal so both legs of Washington Avenue would be signalized. This will allow both eastbound and westbound cyclists to use the signal to make their way to the left turn lane. In addition, it would provide a signalized pedestrian crossing on the south leg of this intersection, where there is currently an unsignalized marked crosswalk.

Enhanced Unsignalized Crosswalks on San Pablo Avenue

There are several existing unsignalized crosswalks on San Pablo Avenue, and most are simply identified with only two transverse lines across the roadway, along with pedestrian crossing signs. In addition, new crosswalks are recommended at two mid-block locations. It is recommended that all of the unmarked crosswalk locations described below include the following combination of treatments to enhance their usability and safety, as described in more detail in the general recommendations section of this chapter:

- Raised medians (continuous raised medians or small median islands)
- Curb extensions, where there are parking lanes, and where driveways or other constraints allow for the construction of a curb extension
- Advanced yield lines with “Yield Here to Pedestrians” signs
- High-visibility longitudinal crosswalk markings
- Rectangular rapid-flash beacons
- Pedestrian-scaled illumination

Garfield Avenue

The existing crosswalk on the south leg of this intersection should be enhanced with the recommended treatments. Because there is no street on the west side of the intersection, a median can be placed at this location.

Castro Street

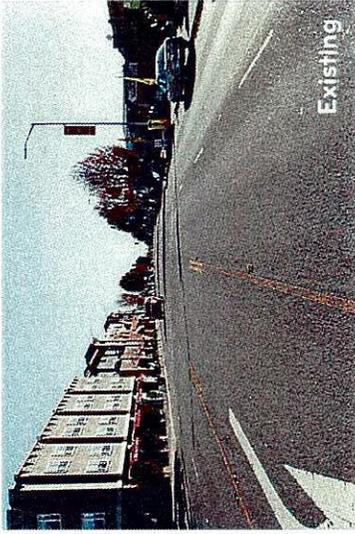
The existing crosswalk on the south leg of this intersection should be moved to the north leg of the intersection and enhanced with the recommended treatments. Moving the crosswalk to the north leg will allow for a median to be placed at this location, since there is no street on the east leg of the intersection.

Portland Avenue

The existing crosswalk on the south leg of this intersection should be enhanced with the recommended treatments. Because there is no street on the west side of the intersection, a median can be placed at this location.

Washington Avenue

The existing crosswalk on the south leg of this intersection should be enhanced with the recommended treatments, unless the intersection is signalized as described in the bike boulevard crossing recommendation for this intersection. Because there is no street on the west side of the intersection, a median can be placed at this location.

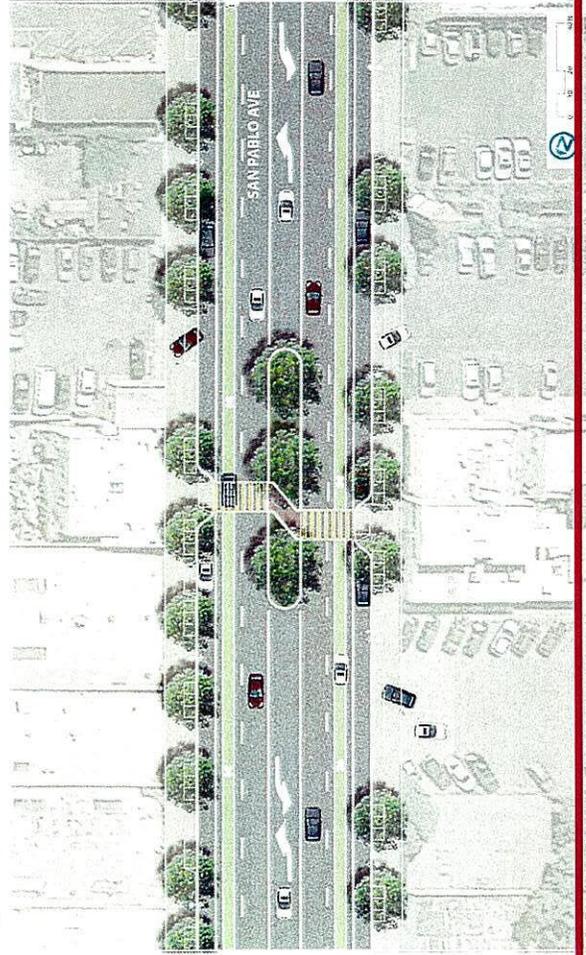


This photo simulation shows the existing crosswalk at Portland Avenue modified with the combination of treatments described above.

Midblock Crosswalk Between Solano Avenue and Buchanan Street

A new midblock crosswalk is recommended in this long block in the core of Albany. In downtown settings, crosswalks spaced between 300 and 600 feet are recommended to serve pedestrians, as long as there are origins and destinations in the area. The nearest crosswalks are spaced over 900 feet apart, and this proposed crosswalk is recommended in the vicinity of Happy Donuts and Albany Ford Subaru, roughly midway between the existing crosswalks. A crosswalk at this location allows people to cross back and forth between businesses, including the car dealer employees who regularly cross in this area to drop off or pick up cars in nearby parking lots. The crosswalk should be enhanced with the recommended treatments shown in Figure 3-29, and also include an offset between the two halves of the crosswalk, to encourage pedestrians to look toward the traffic stream that they will cross next.

Figure 3-29 Midblock Crossing Between Solano and Buchanan - Plan View



Midblock Crosswalk Between Marin Avenue and Monroe Street

A future midblock crosswalk is recommended for consideration in this long block. With current land use, a crosswalk in this location may not be appropriate at this time. But as properties in this area redevelop, a crosswalk should be considered to reduce the 800-foot gap between the existing crosswalks of San Pablo Avenue at Marin Avenue and Monroe Street. If installed, the crosswalk should be enhanced with the treatments recommended above, and also include an offset between the two halves of the crosswalk, as shown in Figure 3-30.

Figure 3-30 Midblock Crossing Between Marin and Monroe - Plan View



BUCHANAN RECOMMENDATIONS

Overall Design

The complete street design for Buchanan Street should create a welcoming entry sequence to Albany from the west and enhance the primary access corridor to the shoreline from the neighborhoods. The streetscape needs to advance an appropriate character that says "neighborhood pathway" not "high speed connector."

During the design charrette, a number of key features were identified to enhance and improve the Buchanan Street corridor, in addition to the planned (recently constructed) shared-use path on the south side of the street and new crossing of Buchanan Street at Pierce Street.



Buchanan is a challenging bicycling environment but is a vital connection to the Albany Waterfront.

Figure 3-31 Design Charrette Brainstorming and Visioning

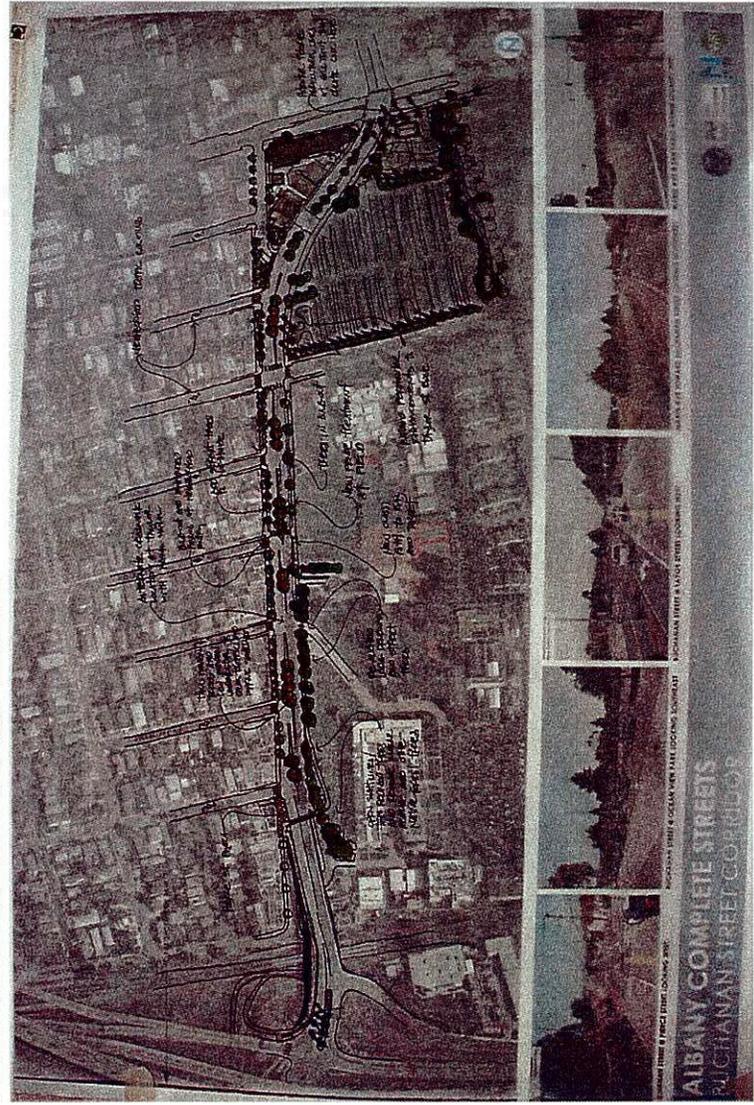
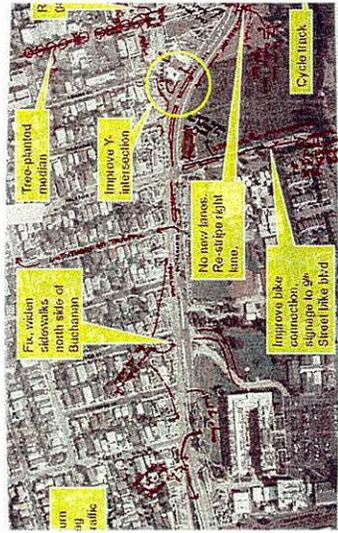
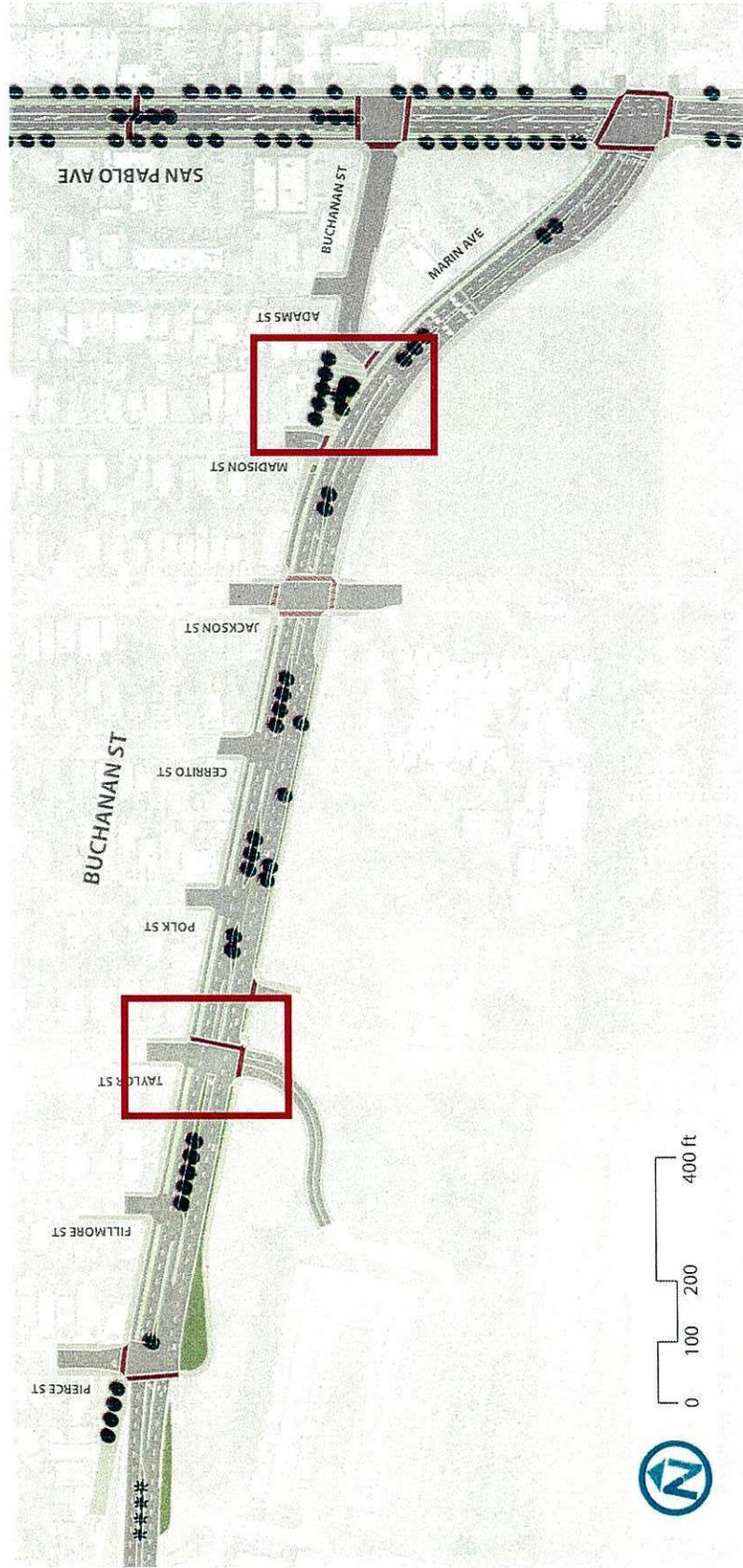
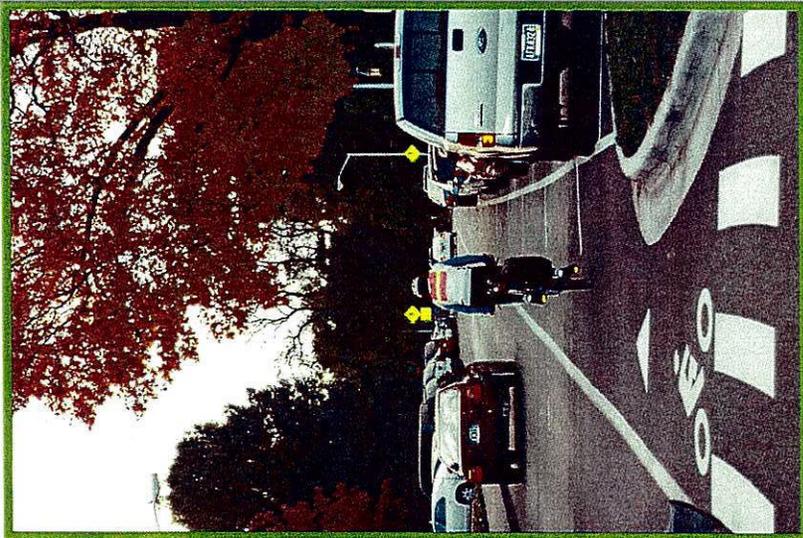
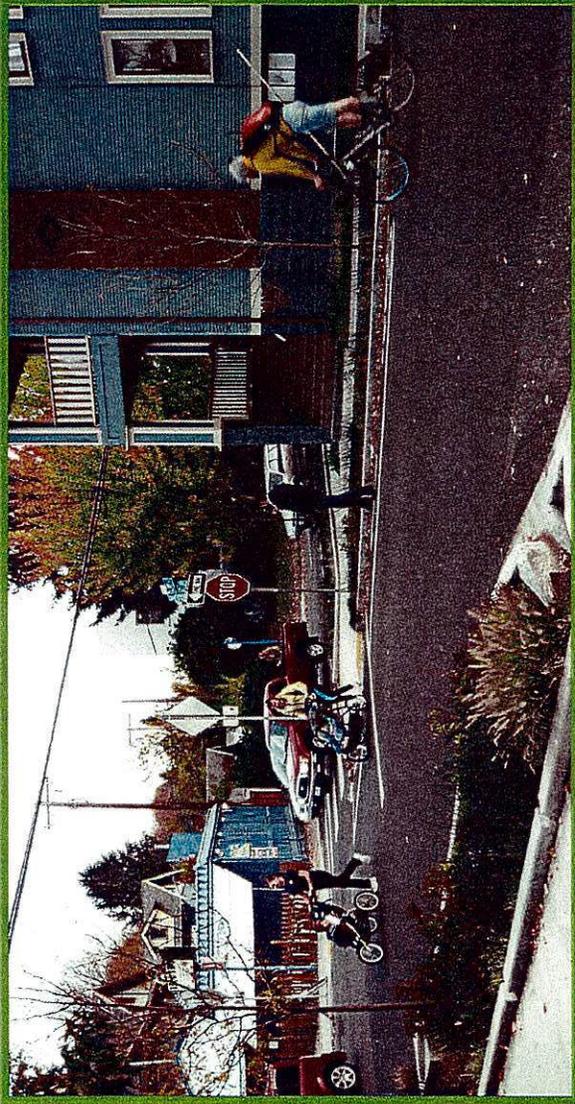


Figure 3-32 Buchanan Street - Overall Plan

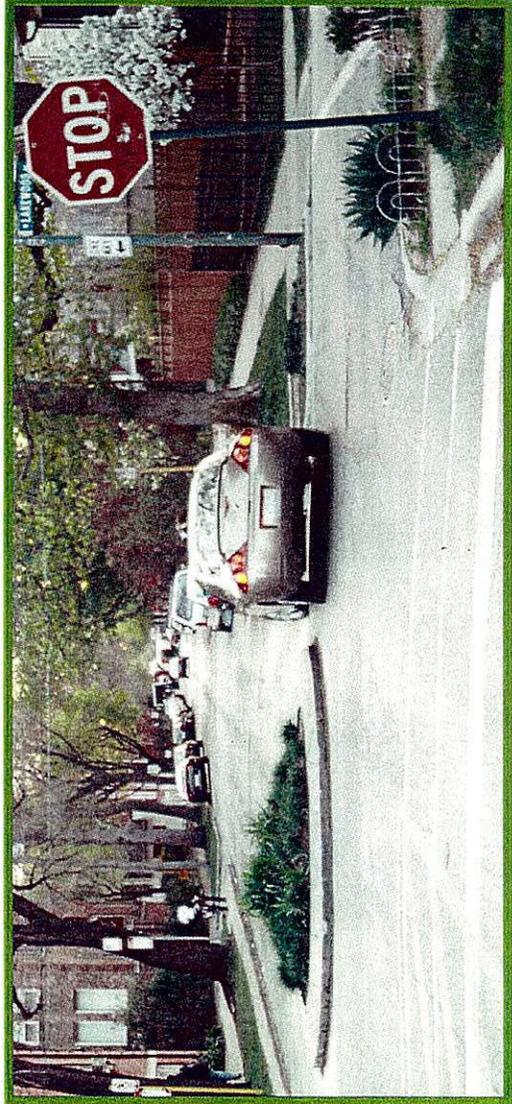




Clearly marking bike lanes help guide cyclists and identify the multimodal use of the street to slow down motor vehicles.

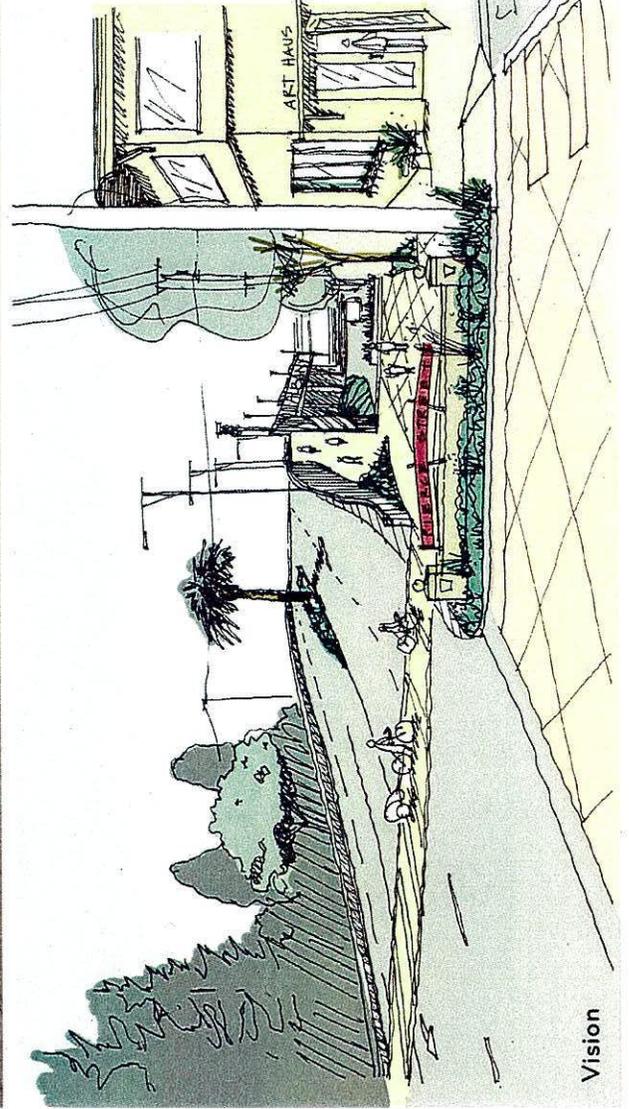
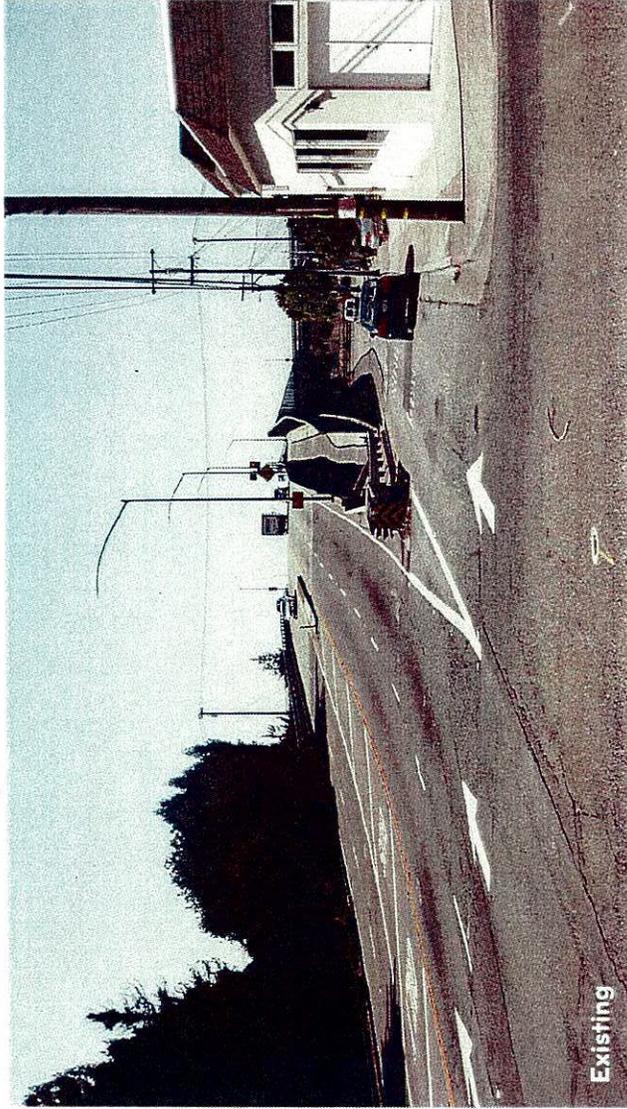


Curb extensions (bulb-outs) expand the pedestrian zone, provide space for amenities like planting and bike racks, and shorten crossing distances.



The entry to residential streets off of Buchanan Street should be designed to signal their uses by means of planting and traffic calming measures, which will help deter non-residential traffic.

Buchanan Street Site Specific Recommendations



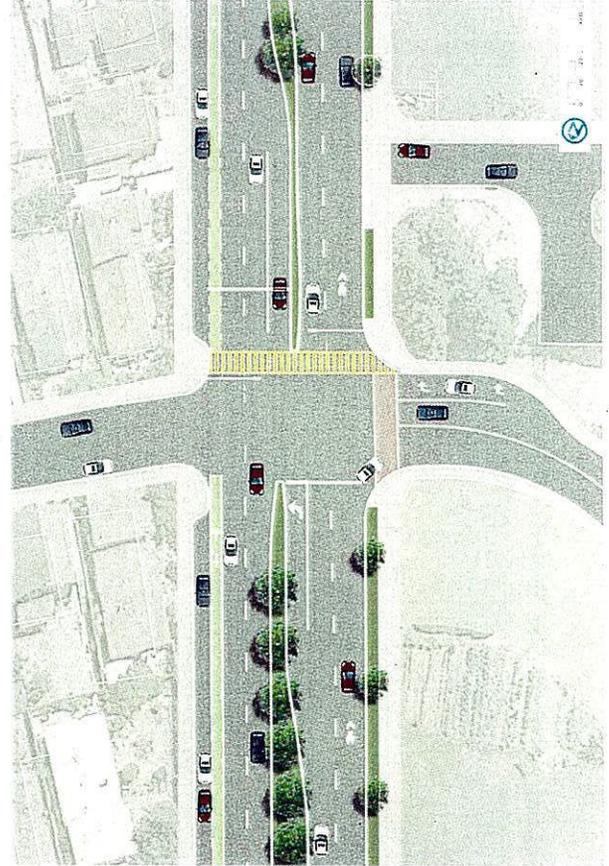
Buchanan Street at Pierce Street

At Pierce Street, a new traffic signal and pedestrian was installed during the summer of 2013. This project also closed off motor vehicle access from this intersection to Buchanan Avenue (the short street that formerly connected to Cleveland Avenue) and created a small pedestrian plaza at Pierce Street. This plaza can function as a gateway and potential gathering spot --a location to provide amenities to cyclists or potentially develop retail frontage. It is also recommended that the two curb ramps built in 2013 be reconstructed to be one larger curb ramp that provides easier access by pedestrians and bicyclists to this plaza area and the path on the bridge over the railroad and freeway (not shown in the vision sketch on this page (developed at the charrette in December 2012)).

On the south side of Buchanan Street at Pierce Street, the new ramp at that location should also be widened to provide easier access by both bicyclists and pedestrians.



Figure 3-35 Proposed Pedestrian Crossing at Taylor and Buchanan and Concrete Driveway Apron for Ocean View Park Driveway



Buchanan Street at Taylor Street

Currently there are only two pedestrian crossings on Marin Avenue/Buchanan Street west of San Pablo Avenue, at Jackson Street and at Pierce Street (under construction). This project (and the Buchanan Bikeway Project) initially proposed two possible options for an additional pedestrian crossing between Jackson and Pierce Streets, either at Polk Street or Taylor Street. During the February meeting of the Traffic and Safety Commission, the commission decided to move forward with the Taylor Street crossing. The Taylor and Buchanan Streets intersection is the natural crossing for pedestrians going to Ocean View Park and USDA, as this crossing is a direct link between the residential areas to the north of Buchanan Street and Ocean View Park/Baseball Field.

Currently, there is no marked crosswalk at this intersection. The recommended treatments are to provide a Pedestrian Hybrid Beacon (sometimes called a HAWK signal), provide high-visibility crosswalks, and reconfigure the median to facilitate pedestrian crossings, similar to the recommendations of the ATP.

An unsignalized treatment here is not recommended, due to the nature of the crossing. The recommended design is shown in Figure 3-35.

Buchanan Street at Ocean View Park Driveway

This driveway has a street type entrance, that provides the sense that pedestrians and bicyclists are “guests” in vehicle space when crossing the driveway. It is recommended that this driveway be reconfigured to be more like a concrete driveway, with a sloped driveway apron in the planter strip area, with the path remaining at its normal height behind the apron, as shown in Figure 3-35.

Marin Avenue and Buchanan Street (City Hall)

The Buchanan Street/Marin Avenue merge is the point where Buchanan Street and Marin Avenue meet west of the Albany Fire Station. Currently, this merge layout is not pedestrian-friendly and lacks sidewalks and crosswalks, presenting a walking barrier to pedestrian travel along the north side of Marin Avenue. The ATP proposes a reconfiguration of this merge by creating a pocket park. As part of creating a more urban, walkable environment on Buchanan Street, the team recommends reconstructing the intersection so that east leg of Buchanan Street meets Marin Avenue at a right angle, as shown in Figure 3-40. This creates a pocket park or plaza in the old Buchanan Street right-of-way between Madison Street and the east leg of Buchanan.

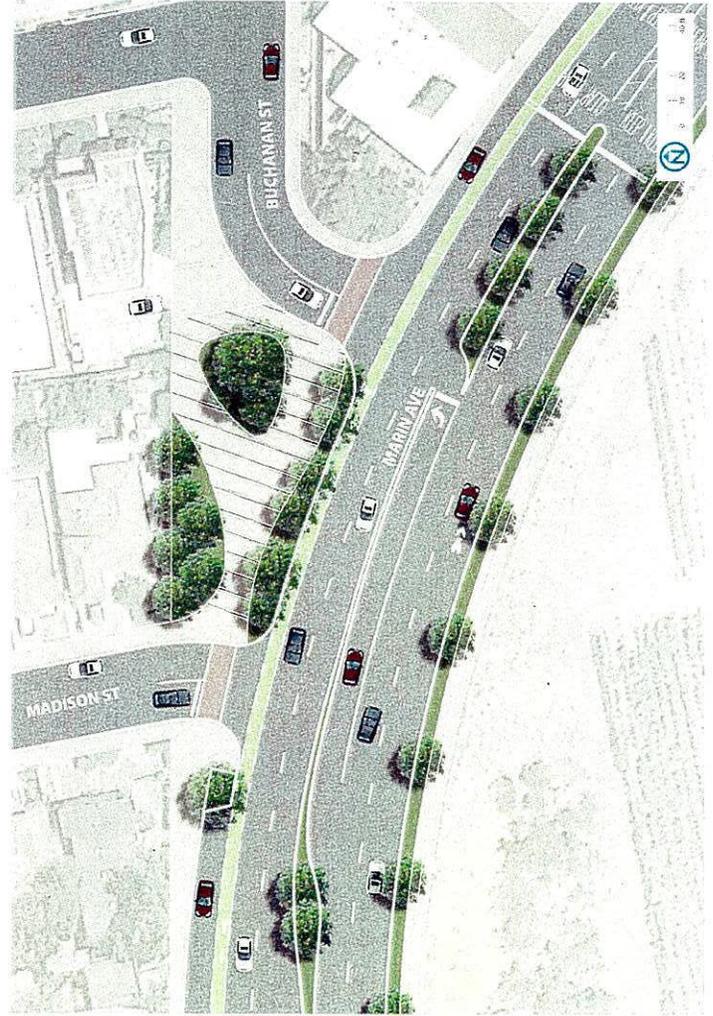


Narrow sidewalk adjacent to high speed vehicle lane near Albany City Hall.



Existing intersection of Buchanan Street and Marin Avenue.

Figure 3-40 Reconfigured Intersection of Marin Avenue and Buchanan Street - Plan



⁷ City of Albany, "Active Transportation Plan," 2012, <http://albanyco.org/index.aspx?page=799>

ATTACHMENT 3: Engineers Estimate

**City of Albany - Active Transportation Program Grant Application
Construction Cost Estimate**

	Area or Length	Width	Quantity	Units	Unit Cost	Cost	Grant funded
San Pablo Avenue Corridor							
Roadway Excavation	26142		2905	CY	\$42	\$121,996	Yes
Extruded curb	10870	1	10870	LF	\$45	\$489,150	Yes
Pedestrian Lightng fixtures	0		30	EA	\$6,000	\$180,000	Yes
2" Conduit for lighting			900	LF	\$32	\$28,800	No
Pull Box for lighing			30	EA	\$750	\$22,500	No
Striping and Pavement Delineation	204023		1	LS		\$204,023	Yes
Surveys and Design	1		15%			\$156,970	
Inspection and Admin	1		15%			\$156,970	
<i>San Pablo Ave Total</i>						\$1,360,410	
Buchanan Corridor							
Roadway Excavation	9898	15	1100	CY	\$42	\$46,191	Yes
Extruded curb	4436	1	4436	SF	\$45	\$199,620	Yes
Curb & Gutter	535		535	LF	\$32	\$17,120	Yes
Sidewalk	4793		4793	SF	\$16	\$76,688	Yes
Asphalt Paving	535	2	1070	CF	\$16	\$17,120	Yes
Storm drain Inlets			9	ea	\$5,000	\$45,000	Yes
SD pipe tie in	9	30	270	LF	\$120	\$32,400	Yes
Manhole			9	ea	\$7,000	\$63,000	Yes
Hybrid Pedestrian Signal at Taylor	1		1	LS	\$120,000	\$120,000	Yes
Striping and Pavement Delineation	40000					\$40,000	Yes
Surveys and Design			15%			\$98,571	Yes
Inspection and Admin			15%			\$98,571	Yes
<i>Buchanan Ave Total</i>						\$854,280	
Castro Street/San Pablo Ave							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	3289	1	122	CY	\$42	\$5,116	Yes
Sidewalk	3289	1	3289	SF	\$16	\$52,624	Yes
Curb & Gutter	654		654	LF	\$32	\$20,928	Yes
Asphalt Paving	654	2	1308	CF	\$16	\$20,928	Yes
Storm drain Inlets	1		1	ea	\$5,000	\$5,000	Yes
SD pipe tie in	1	30	30	LF	\$120	\$3,600	Yes
Manhole	1		1	ea	\$7,000	\$7,000	Yes
Surveys and Design			15%			\$17,279	Yes
Inspection and Admin			15%			\$17,279	Yes
<i>Castro St Total</i>						\$154,755	
Garfield Avenue/San Pablo Ave							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	1096	1	41	CY	\$42	\$1,705	Yes
Sidewalk	1096	1	1096	SF	\$16	\$17,536	Yes
Curb & Gutter	90		650	LF	\$40	\$26,000	Yes
Asphalt Paving	90	2	180	CF	\$16	\$2,880	Yes
Storm drain Inlets	1		1	ea	\$5,000	\$5,000	Yes
SD pipe tie in	40		30	LF	\$120	\$3,600	Yes
Manhole	1		1	ea	\$7,000	\$7,000	Yes
Surveys and Design			15%			\$9,558	Yes
Inspection and Admin			15%			\$9,558	Yes
<i>Garfield Ave Total</i>						\$87,837	
Portland Avenue/San Pablo Ave							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	1124	1	42	CY	\$42	\$1,748	Yes
Sidewalk	1124	1	1124	SF	\$16	\$17,984	Yes
Curb & Gutter	93		650	LF	\$32	\$20,800	Yes
Asphalt Paving	93	2	186	CF	\$16	\$2,976	Yes
Storm drain Inlets	1		1	ea	\$5,000	\$5,000	Yes
SD pipe tie in	30		30	LF	\$120	\$3,600	Yes
Manhole	1		1	ea	\$7,000	\$7,000	Yes
Rectanguar Rapid Flashing Beacon			2	ea	\$15,000	\$30,000	Yes
Surveys and Design			15%			\$13,366	Yes

**City of Albany - Active Transportation Program Grant Application
Construction Cost Estimate**

	Area or Length	Width	Quantity	Units	Unit Cost	Cost	Grant funded
Inspection and Admin			15%			\$13,366	Yes
<i>Portland Ave Total</i>						\$120,841	
Washington Avenue/San Pablo Ave - Unsignalized leg							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	873	1	32	CY	\$42	\$1,358	Yes
Sidewalk	873	1	873	SF	\$16	\$13,968	Yes
Curb & Gutter	66		650	LF	\$40	\$26,000	Yes
Asphalt Paving	66	2	132	CF	\$16	\$2,112	Yes
Surveys and Design			15%			\$6,516	Yes
Inspection and Admin			15%			\$6,516	Yes
<i>Washington Ave - unsignalized Total</i>						\$61,469	
Brighton Avenue/San Pablo Ave							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	1922	1	71	CY	\$42	\$2,990	Yes
Sidewalk	1922	1	1922	SF	\$16	\$30,752	Yes
Curb & Gutter	132		650	LF	\$32	\$20,800	Yes
Asphalt Paving	132	2	264	CF	\$16	\$4,224	Yes
Audible PPBs	1		1	LS	\$18,600	\$18,600	Yes
Reprogram Video Detection	1		1	LS	\$1,000	\$1,000	Yes
Add SB Video Detection	1		1	LS	\$17,440	\$17,440	Yes
Surveys and Design			15%			\$14,371	Yes
Inspection and Admin			15%			\$14,371	Yes
<i>Brighton Ave Total</i>						\$129,548	
Clay Avenue/San Pablo Ave							
Traffic Control			1	LS	\$5,000	\$5,000	yes
Roadway Excavation	1101	1	41	CY	\$42	\$1,713	yes
Sidewalk	1101	1	1101	SF	\$16	\$17,616	yes
Curb & Gutter	95		650	LF	\$40	\$26,000	yes
Asphalt Paving	95	2	190	CF	\$16	\$3,040	yes
Audible PPBs	1		1	LS	\$18,600	\$18,600	yes
Reprogram Video Detection	1		1	LS	\$1,000	\$1,000	yes
Surveys and Design			15%			\$10,195	yes
Inspection and Admin			15%			\$10,195	yes
<i>Clay Ave Total</i>						\$93,359	
Washington Avenue/San Pablo Ave - Signalized Leg							
Traffic Control			1	LS	\$5,000	\$5,000	Yes
Roadway Excavation	2311	1	86	CY	\$32	\$2,739	Yes
Sidewalk	2311	1	2311	SF	\$16	\$36,976	Yes
Curb & Gutter	144		650	LF	\$16	\$10,400	Yes
Asphalt Paving	144	2	288	CF	\$16	\$4,608	Yes
Relocate Type I pole			1	ea	\$2,500	\$2,500	Yes
Audible PPBs	1		1	LS	\$18,600	\$18,600	Yes
Reprogram Video Detection	1		1	LS	\$1,000	\$1,000	Yes
Surveys and Design			15%			\$11,523	Yes
Inspection and Admin			15%			\$11,523	Yes
<i>Washington Ave - signalized Total</i>						\$104,870	
Totals							
Bid Items						\$2,290,669	
Contingency @ 15%						\$343,600	
Mobilization						\$114,533	
Surveys and Design						\$338,350	
Inspection and Admin						\$338,350	
Environmental						\$40,000	
Grand Total						\$3,465,503	
SAY						\$3,500,000	

ATTACHMENT 4: Data Information

- ~~Existing Condition~~
- **Collision Map and Diagram**
- **Department of Health Data**
- **Cost Benefit Analysis &
Counter Measure Effectiveness**
- **Department of Education**
- **Transit Information**
- **TIP and Local Plans**

Benefit / Cost Calculation Result

1. Project Information

Application ID	Complete Streets	Version	1
----------------	------------------	---------	---

2. Countermeasures and Crash Data

Crash Data Time Period	01/01/2007	to	12/31/2012	Years	6
------------------------	------------	----	------------	-------	---

- Install raised median on approaches (NS.I.)

CM Number	Project Type	Crash Type	CRF	Life
NS12	Geometric Mod.	All	25	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
All	0	4	5	18	38	65

Annual Benefit	\$ 97,850	Cost	\$ 1,704,203
Life Benefit	\$ 1,957,000	B/C Ratio	1.15

- Install pedestrian crossing (S.I.)

CM Number	Project Type	Crash Type	CRF	Life
S20	Ped and Bike	Ped & Bike	25	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Ped & Bike	0	3	4	4	0	11

Annual Benefit	\$ 47,650	Cost	\$ 774,638
Life Benefit	\$ 953,000	B/C Ratio	1.23

- Add intersection lighting (NS.I.)

CM Number	Project Type	Crash Type	CRF	Life
NS1	Lighting	Night	40	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Night	0	1	1	4	4	10

Annual Benefit	\$ 33,613	Cost	\$ 619,710
Life Benefit	\$ 672,267	B/C Ratio	1.08

3. Benefit Cost Result

Total Benefit	\$ 3,582,267
Total Cost	\$ 3,098,550
B/C Ratio	1.16

Safety Practitioner / Engineer: Aleida Andrino

Signature:

By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, **DO NOT SIGN** if any of this is not the case.

Benefit / Cost Calculation Result

1. Project Information

Application ID	Complete Streets	Version	1
----------------	------------------	---------	---

2. Countermeasures and Crash Data

Crash Data Time Period	01/01/2007	to	12/31/2012	Years	6
------------------------	------------	----	------------	-------	---

• Install raised median on approaches (NS.I.)

CM Number	Project Type	Crash Type	CRF	Life
NS12	Geometric Mod.	All	25	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
All	0	4	5	18	38	65

Annual Benefit	\$ 97,850	Cost	\$ 1,925,000
Life Benefit	\$ 1,957,000	B/C Ratio	1.02

• Install pedestrian crossing (S.I.)

CM Number	Project Type	Crash Type	CRF	Life
S20	Ped and Bike	Ped & Bike	25	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Ped & Bike	0	3	4	4	0	11

Annual Benefit	\$ 47,650	Cost	\$ 875,000
Life Benefit	\$ 953,000	B/C Ratio	1.09

• Add intersection lighting (NS.I.)

CM Number	Project Type	Crash Type	CRF	Life
NS1	Lighting	Night	40	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Night	0	1	1	4	4	10

Annual Benefit	\$ 33,613	Cost	\$ 700,000
Life Benefit	\$ 672,267	B/C Ratio	0.96

3. Benefit Cost Result

Total Benefit	\$ 3,582,267
Total Cost	\$ 3,500,000
B/C Ratio	1.02

Signature:

By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, **DO NOT SIGN** if any of this is not the case.

Safety Effectiveness of the HAWK Pedestrian Crossing Treatment

PUBLICATION NO. FHWA-HRT-10-042

JULY 2010



U.S. Department of Transportation
Federal Highway Administration

Research, Development, and Technology
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, VA 22101-2296

CHAPTER 6. SUMMARY, CONCLUSION, AND DISCUSSION

SUMMARY

The HAWK is a pedestrian-activated beacon located at the roadside and on mast arms over the major approaches to an intersection. It was created in Tucson, AZ, and at the time of this study, it was used at more than 60 locations throughout the city. The HAWK head consists of two red lenses over a single yellow lens. It appears red to drivers when activated and creates gaps during which pedestrians can cross the major street. It also transitions to a flashing red phase to allow vehicles to proceed as soon as the pedestrians have passed. Previous research found driver yielding percentages above 95 percent for the HAWK treatment even on major streets with multiple lanes or higher speeds. Because of the limited number of treatments with high yielding rates for major arterials, the FHWA sponsored this study to determine the safety benefits of the HAWK. It considered 21 intersections where a HAWK had been installed. Evaluation approaches considered included the following:

- Three types of crashes (total, severe, and pedestrian).
- Two methods for identifying crashes (ISN and IR).
- Two reference groups (reference group 1 with 36 signalized and 35 unsignalized intersections and reference group 2 with 102 unsignalized intersections).
- Two ways to combine the reference group before and after data (aggregated where each intersection is only included once and disaggregated where each intersection is included twice and a period indicator variable represents the before and after periods).

This report documents a study of the safety performance of HAWKs using a before-after EB method. The EB method permits the evaluations to account for possible regression-to-the-mean bias as well as traffic, weather, citywide public relations campaigns, and other factors that change over time. SPFs were developed using reference site data consisting of nearby intersections without the HAWK treatment. The crash prediction during the before period is calculated from SPFs and combined with the observed crash count for the before period by using a weighted average to control for regression-to-the-mean bias. This weighted average is adjusted for differences in duration and traffic volumes (and general time trend if any exists) between the before and after periods to lead to a crash prediction for the after period had the treatment not been applied. EB then compares this predicted value to the observed crash frequency for the after period with the treatment installed.

CONCLUSION

In conclusion, the before-after evaluation found the following:

- A 29 percent reduction in total crashes, which is statistically significant at the 95 percent confidence level.

- A 69 percent reduction in pedestrian crashes, which is statistically significant at the 95 percent confidence level.
- A 15 percent reduction in severe crashes, which is not statistically significant at the 95 percent confidence level.

DISCUSSION

Two crash datasets were used in the before-after evaluation. The initial dataset, ISN crashes, included all crashes coded with the same street names that matched the HAWK or unsignalized intersections used in the study. The second dataset, IR crashes, included only those ISN crashes that had "yes" for the intersection-related code. In theory, the IR crash dataset should represent those crashes that would be affected by the traffic control at the intersection. A closer review revealed that the IR code was not used in over 1/3 of the crashes; therefore, the IR crash dataset may have eliminated too many of the crashes. The ISN crash dataset, however, may include crashes that are not related to the intersection. Therefore, both datasets were considered. The IR crashes may initially appear to be the more representative group for evaluating the benefits of the HAWK. The ISN crash evaluation, however, may be more representative of the change in pedestrian crashes as compared to IR crashes since the HAWK could induce pedestrians to walk an additional distance to receive the benefit of an activated traffic control device.

HAWK intersections are associated with a slightly greater number of total crashes (0.223 crashes/MEV&P) as compared to nearby unsignalized intersections (0.150 crashes/MEV&P) (see table 4). This observation should not indicate that the removal of a HAWK from a location will result in a crash rate similar to the unsignalized intersection rate. Rather, the conditions and characteristics at these locations are associated with more crashes. The before crash rate for the HAWK sites (i.e., before the HAWKs were installed) was greater (0.341 crashes/MEV&P) than the crash rate identified for the unsignalized intersections for the same time period (0.166 crashes/MEV&P).

While the observed after crash rate is higher for total crashes at HAWKs as compared to nearby unsignalized intersections, the crash rate for total crashes at HAWK sites (0.223 crashes/MEV&P) is lower than the crash rate at signalized intersections (0.716 crashes/MEV&P). In addition, the pedestrian crash rates for HAWKs are lower than both the neighboring unsignalized intersections and the neighboring signalized intersections (see table 4). This difference is even more pronounced when only considering the number of entering pedestrians rather than both entering vehicles and pedestrians. The HAWK sites had 0.255 pedestrian crashes/MEP, while the unsignalized and signalized intersections had 0.602 and 0.839 pedestrian crashes/MEP, respectively.

The prime objective of a HAWK is to provide pedestrians with crossing opportunities. As such, a reduction in pedestrian crashes would be expected to be associated with the HAWK. The evaluation found a statistically significant reduction in pedestrian crashes for ISN (based on either aggregated or disaggregated data) and IR crashes (based on disaggregated data). The installation of the HAWK was also found to be associated with a statistically significant reduction in total crashes. The HAWK, however, just like any other warning traffic control device, may not work as well if overused. Also, such high crash reductions identified in this

study may not be achieved at future locations if the site has different characteristics, such as less pedestrian activity.

While this study demonstrated safety benefits for the HAWK, there are still several questions that need to be investigated. The sample sizes for pedestrian crashes and for severe crashes were a concern during the evaluations. For pedestrian crashes, a statistically significant reduction in crashes (at the 95 percent confidence level) was achieved in spite of a small sample size due to a large effect size (69 percent). For severe crashes, the effect size was much smaller (15 percent, although still practically significant) than that for pedestrian crashes, and a much larger sample will be required to achieve statistical significance. Further research with a larger sample should examine the effectiveness of HAWKs in reducing severe crashes. It is possible that with a larger sample size, the effect of HAWKs on severe crashes may become statistically significant at the 95 percent confidence level.

A preliminary review of crash type at the HAWK sites indicated a reduction in rear-end crashes, which is not typical when a higher level of control is implemented at an intersection. A potential reason for the reduction in rear-end crashes is that drivers behind the initial vehicle that has stopped for a crossing pedestrian can view the traffic control device without needing to see the pedestrian, who may be obscured by the lead vehicle. Additional research to investigate the changes in crash patterns at the HAWK sites should be considered. Other questions include the minimum spacing between a HAWK and a signal and the criteria that should be used to warrant the device, especially near a school.



Rectangular Rapid Flash Beacon (RRFB)

Purpose

According to the National Highway Traffic Safety Administration, there were a total of 14,340 pedestrian fatalities and 193,000 pedestrian injuries resulting from pedestrian-vehicle crashes nationwide during the 2004-2006 period. Rectangular Rapid Flash Beacons (RRFB) can enhance safety by reducing crashes between vehicles and pedestrians at unsignalized intersections and mid-block pedestrian crossings by increasing driver awareness of potential pedestrian conflicts.



This summary is one in a series describing Innovative Intersection Safety Treatments. The summaries identify new technologies and techniques to improve intersection safety developed since NCHRP Report 500, Volumes 5 and 12, were published in 2003 and 2004, respectively. These treatments show promise for improving safety but comprehensive effectiveness evaluations are not yet available.

Alternative Names

Light Emitting Diode (LED) Rapid-Flash System, Stutter Flash or LED Beacons.

Operation

- RRFBs are user-actuated amber LEDs that supplement warning signs at unsignalized intersections or mid-block crosswalks. They can be activated by pedestrians manually by a push button or passively by a pedestrian detection system.
- RRFBs use an irregular flash pattern that is similar to emergency flashers on police vehicles.
- RRFBs may be installed on either two-lane or multi-lane roadways.

Potential Benefits

- RRFBs are a lower cost alternative to traffic signals and hybrid signals that are shown to increase driver yielding behavior at crosswalks significantly when supplementing standard pedestrian crossing warning signs and markings.
- An official FHWA-sponsored experimental implementation and evaluation conducted in St. Petersburg, Florida found that RRFBs at pedestrian crosswalks are dramatically more effective at increasing driver yielding rates to pedestrians than traditional overhead beacons.
- The novelty and unique nature of the stutter flash may elicit a greater response from drivers than traditional methods.
- The addition of RRFB may also increase the safety effectiveness of other treatments, such as the use of advance yield markings with YIELD (or STOP) HERE FOR PEDESTRIANS signs. These signs and markings are used to reduce the incidence of multiple-threat crashes at crosswalks on multi-lane roads (i.e., crashes where a vehicle in one lane stops to allow a pedestrian to cross the street while a vehicle in an adjacent lane, traveling in the same direction, strikes the pedestrian), but alone they only have a small effect on overall driver yielding rates.

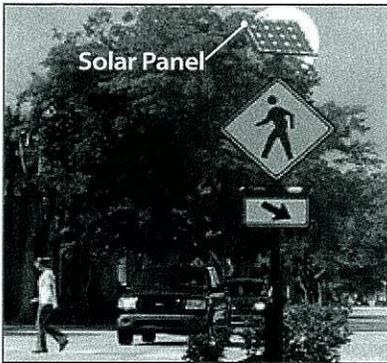


Figure 1: Activated, solar-powered RRFB on a center island at an unsignalized intersection—beacons flash using an irregular flash pattern that is similar to emergency flashers on police vehicles



Figure 2: Activated, solar-powered, roadside RRFB at a mid-block crosswalk

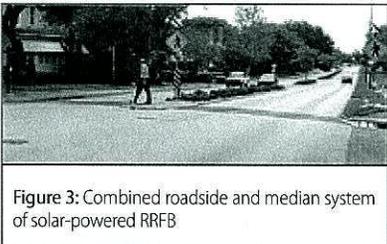


Figure 3: Combined roadside and median system of solar-powered RRFB

Learn More

Michael Frederick, St. Petersburg Neighborhood Transportation Manager

727.893.7843

michael.frederick@stpete.org

Ed Rice, Intersection Safety Team Leader
FHWA Office of Safety

202.366.9064

ed.rice@dot.gov

See Also:

http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/stpetersburg rpt/intro.htm
http://www.stpete.org/pdf/ite_paper_07.pdf

Agency Experience

"An Analysis of the Effects of Stutter Flash LED Beacons to Increase Yielding to Pedestrians Using Multilane Crosswalks," along with "The Use of Stutter Flash LED Beacons to Increase Yielding to Pedestrians at Crosswalks," presented at the Transportation Research Board Annual Meeting in 2008, summarized the results of two studies on the effects of RRFBs when used to supplement standard pedestrian crossing warning signs at crosswalks¹.

The former found that going from a no-beacon arrangement to a two-beacon system, mounted on the supplementary warning sign on the right side of the crossing, increased yielding from 18 percent to 81 percent. There was a further increase in yielding behavior, with a four-beacon system (with two beacons on both the right and left side of the crossing) to 88 percent. "An Analysis of the Effects of Stutter Flash LED Beacons to Increase Yielding to Pedestrians Using Multilane Crosswalks" also evaluated the sites over a 1-year period, and found that there was little to no decrease in yielding behavior over time.

Implementation Considerations

- Including RRFBs on the roadside increases driver yielding behavior significantly. Including RRFBs on a center island or median as well can further increase driver yielding behavior, although with a lower marginal benefit than roadside beacons.
- RRFBs can use manual push-buttons or automated passive (e.g., video or infrared) pedestrian detection, and should be unlit when not activated.
- RRFBs typically receive power by standalone solar panel units, but may also be wired to a traditional power source.

Manual on Uniform Traffic Control Devices (MUTCD) Specifications

- The MUTCD gave interim approval to RRFBs for optional use in limited circumstances in July 2008. The interim approval allows for usage as a warning beacon to supplement standard pedestrian crossing warning signs and markings at either a pedestrian or school crossing; where the crosswalk approach is not controlled by a yield sign, stop sign, or traffic-control signal; or at a crosswalk at a roundabout.
- The MUTCD interim approval memo also contains other provisions for the implementation of the device and should be reviewed (http://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm).

Costs

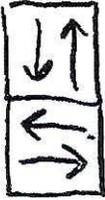
- Cost is approximately \$10,000 to \$15,000 for purchase and installation of two units (one on either side of a street). This includes solar panels for powering the units, pad lighting, indication units (for both sides of street) with RRFBs in the back and front of each unit, signage on both approaches, all posts, and either passive infrared detection or push buttons with audio instructions.
- Costs would be proportionately higher for additional units placed on a median island, etc.

¹The two known studies of stutter flash were both conducted in Florida—one in Miami Beach and one in St. Petersburg. They are:

Sherbutt, J., R. Van Houten, and S. Turner. "An Analysis of the Effects of Stutter Flash LED Beacons to Increase Yielding to Pedestrians Using Multilane Crosswalks." Presented at the Transportation Research Board Annual Meeting, Washington, DC, 2008.

Van Houten, R., R. Ellis, and E. Marmolejo. "The Use of Stutter Flash LED Beacons to Increase Yielding to Pedestrians at Crosswalks." Presented at the Transportation Research Board Annual Meeting, Washington, DC, 2008.

14-7303-001



Am	Noon	Pm
10	8	8

SAN PABLO AVE.

Autos			
Am	Noon	Pm	
2	1,127	129	
13	807	126	
12	835	120	

Autos

Am	Noon	Pm
81	137	162
1	1	4
92	73	91

Am Noon Pm

Am	Noon	Pm
13	41	36

DRIVE WAY

Autos		
Am	Noon	Pm
7	10	73
0	7	1
0	8	7

Am	Noon	Pm
15	10	1

BRIGHTON AVE.

Am	Noon	Pm
13	85	15

Autos

Am	Noon	Pm
1	905	54
9	942	85
10	614	68

Am	Noon	Pm
7	1	
10	10	10

REV
 10/1/80
 ↓

14-7303-002



Bill

Am	2	9	0
Noon	1	8	0
Pm	4	5	0

SAN PABLO AVE.

Auto

Am	21	1283	0
Noon	20	215	2*
Pm	25	912	2*

Bill

Am	Noon	Pm
0	0	0
0	1	0
0	0	0

Auto

Am	Noon	Pm
14	14	22

CLAY ST.

Auto

Am	Noon	Pm
0	2	4
0	0	0
0	0	1

DRIVE WAY

Auto

Am	Noon	Pm
18	46	58
0	0	0
30	25	24

Am	Noon	Pm	Tots
2	0	1	3
0	0	0	0
0	0	0	0

Auto

5	460	0	Am
14	1047	1	Noon
15	1124	2	Pm

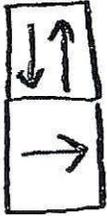
Bill

Am	Noon	Pm
18	35	29

Bill

0	2	0	Am
0	6	0	Noon
0	5	0	Pm

14-7303 - 003 A



BIKES

Am	0	0	0
Noon	1	0	0
Pm	0	0	0

TI

Am	Noon	Pm
0	0	0

Auto

Am	116	1065	0
Noon	60	774	0
Pm	65	825	0

SAN PABLO AVE

Auto

Am	Noon	Pm
76	72	100
0	0	0
53	44	53

WASHINGTON AVE

TI

Am	Noon	Pm
1	28	26

BIKES

Am	Noon	Pm
0	1	1
0	0	0
2	1	1

TI

Am	Noon	Pm
54	54	54

Auto

Am	26	483	0
Pm	33	972	0
Noon	39	1063	0

BIKES

Am	0	0	0
Noon	3	0	0
Pm	15	0	0

14-7303-003 B

Bike ← ↓ ↘

Am	0	6	5
Noon	0	2	1
Pm	0	3	0



Auto.

Am	1	1028	119
Noon	0	762	47
Pm	0	843	62

← ↓ ↘

SAN PABLO AVE. Bike

	Am	Noon	Pm
←	2	1	5
↙	0	0	0
↘	1	0	0

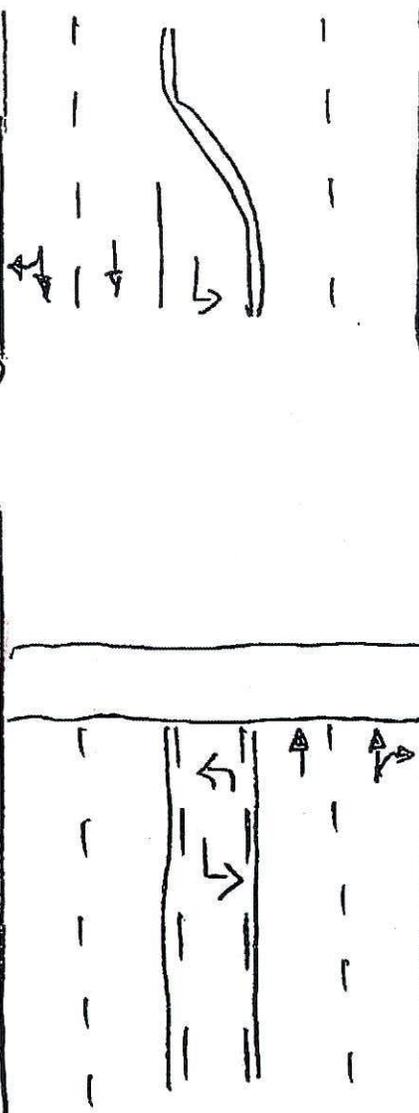
Auto.

Am	Noon	Pm
30	29	40

Trees

Am	Noon	Pm
1	2	1

↔



DRIVE WAY

Auto.

Am	Noon	Pm
0	0	0
0	0	0
1	1	2

Am Noon Pm
18 18 18

No B...

o/R

Auto.

Am	Noon	Pm
51	74	89
0	0	0
15	11	8

WASHINGTON AVE.

Auto ← ↑ ↗

0	458	55	Am
1	938	80	Noon
0	1011	88	Pm

↔ Trees

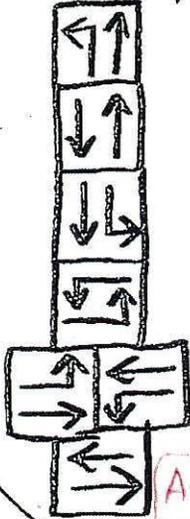
Am	Noon	Pm
6	14	5

Auto

0	3	1	Am
0	9	2	Noon
0	13	2	Pm

Bike

14-7303-004



Am	12	817	89
Noon	22	571	121
Pm	16	620	139

Bike

0	5	0	Am
1	4	0	Noon
0	6	0	Pm

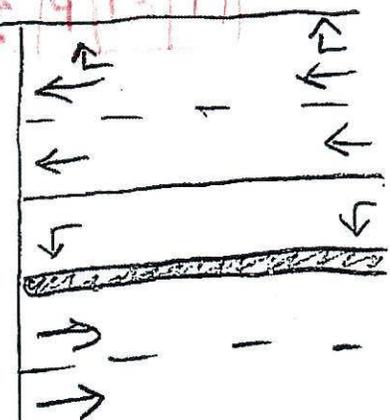


SAN PABLO AVE

Am	Noon	Pm	Am	Noon	Pm
91	99	90	1	0	1
633	541	617	14	11	3
123	116	148	2	0	0

Am	Noon	Pm
7	4	5

9 1 1 17



MARIN AVE

AVE

Am	Noon	Pm
18	40	27
579	556	583
243	128	171

13	4	1
Am	Noon	Pm

Am	Noon	Pm
0	0	0
6	6	15
0	0	0

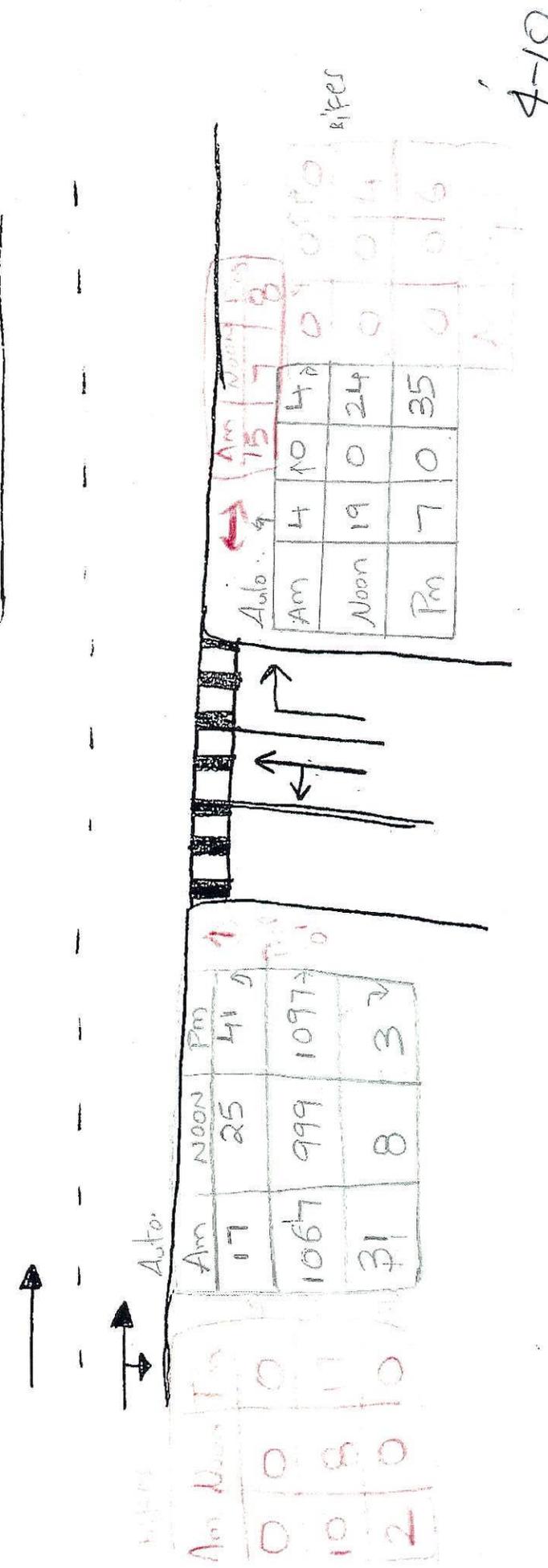
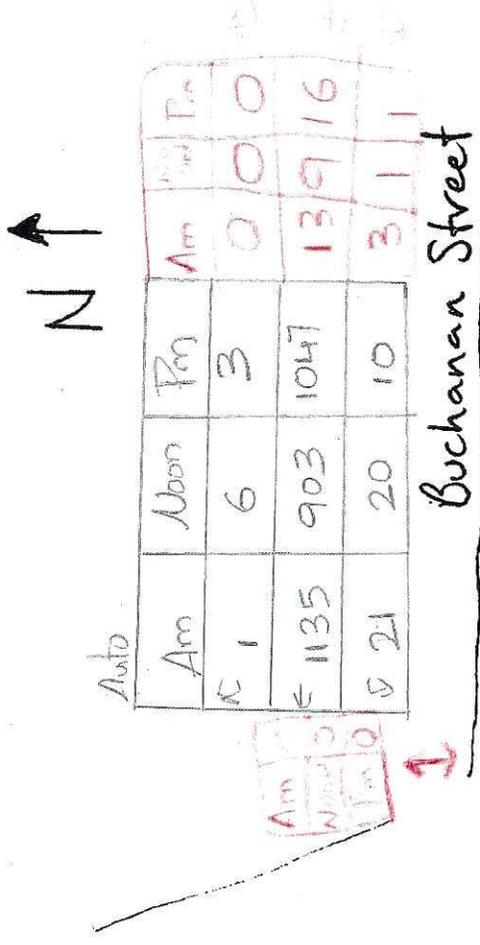
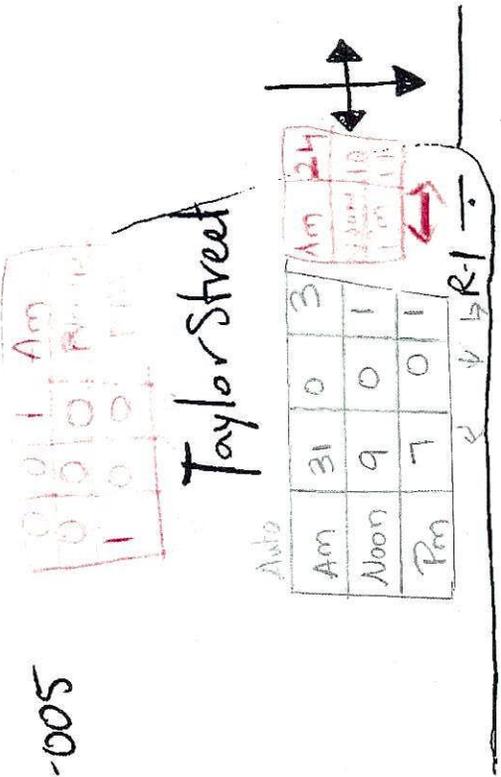
Bikes

92	315	56	Am
137	668	103	Noon
197	719	123	Pm

Am	Noon	Pm
20	15	10

1	6	0	Am
3	6	0	Noon
0	10	0	Pm

14-7303-005



4-10

ALL TRAFFIC DATA

(916) 771-8700

orders@altdtraffic.com

File Name : 14-7303-005 Taylor Street-Buchanan Street.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

START TIME	Taylor Street Southbound					Buchanan Street Westbound					Taylor Street Northbound					Buchanan Street Eastbound					Total	Ped Total	
	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL			
07:00	0	0	0	4	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	5
07:15	0	0	0	1	0	1	2	0	0	3	0	0	0	0	0	0	1	0	0	0	1	4	1
07:30	0	0	0	1	0	3	3	0	0	6	0	0	0	0	0	0	3	0	0	0	3	9	2
07:45	0	0	0	6	0	6	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	8
Total	0	0	0	12	0	5	14	0	0	19	0	0	0	0	0	0	4	0	0	0	4	23	16
08:00	1	0	0	5	1	2	5	0	0	7	0	0	0	0	0	0	3	1	0	0	4	12	9
08:15	0	0	0	7	0	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	5	6	13
08:30	0	0	0	6	0	1	1	0	0	2	0	0	0	0	0	0	2	1	0	0	3	5	9
08:45	0	0	0	0	0	4	1	0	0	5	0	0	0	0	0	0	4	0	0	0	4	9	0
Total	1	0	0	18	1	7	8	0	0	15	0	0	0	0	0	0	14	2	0	0	16	32	31
14:00	0	0	0	2	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	0	1	5	6
14:15	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	0	3	0	0	0	3	6	0
14:30	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	2	3	5
14:45	0	0	0	5	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	2	3	6
Total	0	0	0	9	0	0	8	0	0	8	0	0	1	0	0	0	8	0	0	0	8	17	17
15:00	0	0	0	2	0	1	3	0	0	4	0	0	0	0	0	0	2	0	0	0	2	6	4
15:15	0	0	0	4	0	0	1	0	0	1	0	0	1	0	0	0	2	0	0	0	2	4	6
15:30	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	0	4	6	6
15:45	0	0	0	2	0	1	1	0	0	2	0	0	0	0	0	0	1	0	0	0	1	3	3
Total	0	0	0	10	0	2	7	0	0	9	0	0	1	0	0	0	9	0	0	0	9	19	19
16:00	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	0	3	6	4
16:15	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	2	4	4
16:30	0	0	0	3	0	0	5	0	0	5	0	0	2	0	0	0	2	0	0	0	2	9	6
16:45	0	0	0	4	0	0	1	0	0	1	0	0	2	0	0	0	3	0	0	0	3	6	10
Total	0	0	0	12	0	0	9	0	0	9	0	0	6	0	0	0	10	0	0	0	10	25	24
17:00	0	0	0	1	0	1	2	0	0	3	0	0	2	0	0	0	4	0	0	0	4	7	3
17:15	0	0	0	4	0	0	7	0	0	7	0	0	3	1	0	0	4	0	0	0	4	14	5
17:30	0	0	0	2	1	0	2	0	0	2	0	0	3	2	0	0	7	0	0	0	7	13	4
17:45	0	0	0	4	0	0	5	0	0	5	0	0	3	0	0	0	2	0	0	0	2	7	7
Total	0	0	0	11	1	1	16	0	0	17	0	0	6	8	0	0	17	0	0	0	17	41	19
Grand Total	1	0	0	72	2	15	62	0	0	77	0	0	14	54	14	0	62	2	0	0	64	157	126
Approch %	50.0%	0.0%	0.0%	50.0%	1.3%	19.5%	80.5%	0.0%	0.0%	49.0%	0.0%	0.0%	100.0%	8.9%	8.9%	0.0%	96.9%	3.1%	0.0%	0.0%	40.8%	100.0%	
Total %	0.6%	0.0%	0.0%	0.6%	1.3%	9.6%	39.5%	0.0%	0.0%	49.0%	0.0%	0.0%	8.9%	1.3%	8.9%	0.0%	39.5%	1.3%	0.0%	0.0%	40.8%	100.0%	

4-12

ALL TRAFFIC DATA

(916) 771-8700

orders@altdtraffic.com

File Name : 14-7303-005 Taylor Street-Buchanan Street.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	Taylor Street Southbound					Buchanan Street Westbound					Taylor Street Northbound					Buchanan Street Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL		
Peak Hour Analysis From 07:45 to 08:45																						
07:45	0	0	0	6	0	0	6	0	0	6	0	0	0	0	2	0	0	0	0	0	0	0
08:00	1	0	0	5	1	2	5	0	0	7	0	0	0	0	4	0	3	1	0	4	0	4
08:15	0	0	0	7	0	0	1	0	0	1	0	0	0	6	0	0	5	0	0	5	0	5
08:30	0	0	0	6	0	1	1	0	0	2	0	0	0	3	0	0	2	1	0	3	0	3
Total Volume	1	0	0	24	1	3	13	0	0	16	0	0	0	15	0	0	10	2	0	12	0	29
% App Total	100.0%	0.0%	0.0%	0.0%	.250	18.8%	81.3%	0.0%	0.0%	.375	0.0%	0.0%	0.0%	0.0%	.571	0.0%	83.3%	16.7%	0.0%	.604	0.0%	.604
PHF	.250	.000	.000	.000	.250	.375	.542	.000	.000	.571	.000	.000	.000	.000	.000	.000	.500	.500	.000	.600	.000	.604

NOON PEAK	Taylor Street Southbound					Buchanan Street Westbound					Taylor Street Northbound					Buchanan Street Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL		
Peak Hour Analysis From 15:45 to 16:45																						
15:45	0	0	0	2	0	1	1	0	0	2	0	0	0	0	1	0	0	0	0	0	0	1
16:00	0	0	0	3	0	0	1	0	0	1	0	0	2	1	2	0	3	0	0	3	0	3
16:15	0	0	0	2	0	0	2	0	0	2	0	0	0	2	0	0	2	0	0	2	0	2
16:30	0	0	0	3	0	0	5	0	0	5	0	0	2	3	2	0	2	0	0	2	0	2
Total Volume	0	0	0	10	0	1	9	0	0	10	0	0	4	7	4	0	8	0	0	8	0	22
% App Total	0.0%	0.0%	0.0%	0.0%	.000	10.0%	90.0%	0.0%	0.0%	.250	0.0%	0.0%	100.0%	0.0%	.500	0.0%	100.0%	0.0%	0.0%	.667	0.0%	.667
PHF	.000	.000	.000	.000	.000	.250	.450	.000	.000	.500	.000	.000	.500	.500	.500	.000	.667	.000	.000	.667	.000	.611

PM PEAK HOUR	Taylor Street Southbound					Buchanan Street Westbound					Taylor Street Northbound					Buchanan Street Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL		
Peak Hour Analysis From 17:00 to 18:00																						
17:00	0	0	0	1	0	1	2	0	0	3	0	0	0	0	2	0	0	0	0	0	0	4
17:15	0	0	0	4	0	0	7	0	0	7	0	0	3	1	3	0	4	0	0	4	0	14
17:30	0	0	1	2	1	0	2	0	0	2	0	0	3	2	3	0	7	0	0	7	0	13
17:45	0	0	0	4	0	0	5	0	0	5	0	0	0	3	0	0	2	0	0	2	0	7
Total Volume	0	0	0	11	1	1	16	0	0	17	0	0	6	8	6	0	17	0	0	17	0	41
% App Total	0.0%	0.0%	0.0%	0.0%	.250	5.9%	94.1%	0.0%	0.0%	.607	0.0%	0.0%	100.0%	0.0%	.500	0.0%	100.0%	0.0%	0.0%	.607	0.0%	.732
PHF	.000	.000	.000	.250	.250	.250	.571	.000	.000	.607	.000	.000	.500	.500	.500	.000	.607	.000	.000	.607	.000	.732

4-13

ALL TRAFFIC DATA

(916) 771-8700

orders@aldrtraffic.com

File Name : 14-7303-006 Buchanan Street-Marin Avenue Merge-Buchan
Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

START TIME	Buchanan Street-Marin Avenue Merge					Buchanan Street Westbound					Buchanan Street Northbound					Buchanan Street Eastbound					Total	Ped Total					
	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL	LEFT	THRU	RIGHT	PEDS	APP TOTAL							
07:00	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
07:15	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0	6	0
07:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0
07:45	0	0	0	8	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	6	0
Total	0	0	1	9	1	0	10	0	0	10	0	0	0	0	0	0	6	0	0	0	0	7	0	0	0	18	9
08:00	0	0	0	2	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	4	2
08:15	0	0	1	9	1	0	6	0	0	6	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	10	9
08:30	0	0	0	5	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5
08:45	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3	1
Total	0	0	1	17	1	0	13	0	0	13	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	19	17
14:00	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	4
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	4	0
14:30	0	0	0	4	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4
14:45	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	10	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	8	10
15:00	0	0	0	5	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	7	5
15:15	0	0	0	7	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	4	7
15:30	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	6
15:45	0	0	0	2	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
Total	0	0	0	20	0	0	9	0	0	9	0	0	0	0	0	0	9	0	0	0	0	9	0	0	0	18	20
16:00	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	5	6
16:15	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	1
16:30	0	0	0	6	0	0	2	0	0	2	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	7	6
16:45	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	4	1
Total	0	0	0	14	0	0	5	0	0	5	0	0	0	0	0	3	10	0	0	0	0	13	0	0	0	18	14
17:00	0	0	1	4	1	0	1	0	0	1	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	7	4
17:15	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	4	1
17:30	0	0	0	4	0	0	3	0	0	3	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	11	4
17:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	0
Total	0	0	1	9	1	0	7	0	0	7	0	0	0	0	0	1	15	0	0	0	0	16	0	0	0	24	9
Grand Total	0	0	3	79	3	0	47	0	0	47	0	0	0	0	0	5	50	0	0	0	0	55	0	0	0	105	79
Approach %	0.0%	0.0%	100.0%		2.9%	0.0%	44.8%	0.0%		44.8%	0.0%	0.0%	0.0%		0.0%	9.1%	90.9%	0.0%		52.4%						100.0%	
Total %	0.0%	0.0%	2.9%		2.9%	0.0%	44.8%	0.0%		44.8%	0.0%	0.0%	0.0%		0.0%	4.8%	47.6%	0.0%		52.4%						100.0%	

A-14

ALL TRAFFIC DATA

(916) 771-8700

orders@aldrtraffic.com

File Name : 14-7303-006 Buchanan Street-Marrin Avenue Merge-Buchan
Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	Buchanan Street-Marrin Avenue Merge Southbound					Buchanan Street Westbound					Buchanan Street-Marrin Avenue Merge Northbound					Buchanan Street Eastbound									
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
Peak Hour Analysis From 07:45 to 08:45																									
Peak Hour For Entire Intersection Begins at 07:45																									
07:45	0	0	0	8	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3
08:00	0	0	0	2	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	4
08:15	0	0	1	9	1	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	10
08:30	0	0	0	5	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	1	24	1	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	1	6	0	0	7
% App Total	0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	14.3%	85.7%	0.0%		14.3%	85.7%	0.0%		22
PHF	.000	.000	.250		.250	.000	.583	.000		.583	.000	.000	.000		.000	.250	.500	.000		.583	.250	.500	.000		.550

NOON PEAK	Buchanan Street-Marrin Avenue Merge Southbound					Buchanan Street Westbound					Buchanan Street-Marrin Avenue Merge Northbound					Buchanan Street Eastbound									
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
Peak Hour Analysis From 15:30 to 16:30																									
Peak Hour For Entire Intersection Begins at 15:30																									
15:30	0	0	0	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
15:45	0	0	0	2	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	5	1	4	0	0	5
16:15	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1
Total Volume	0	0	0	15	0	0	7	0	0	7	0	0	0	0	0	0	6	6	0	12	1	6	0	0	7
% App Total	0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	14.3%	85.7%	0.0%		14.3%	85.7%	0.0%		14
PHF	.000	.000	.000		.000	.000	.350	.000		.350	.000	.000	.000		.000	.250	.375	.000		.350	.250	.375	.000		.700

PM PEAK HOUR	Buchanan Street-Marrin Avenue Merge Southbound					Buchanan Street Westbound					Buchanan Street-Marrin Avenue Merge Northbound					Buchanan Street Eastbound									
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL					
Peak Hour Analysis From 16:45 to 17:45																									
Peak Hour For Entire Intersection Begins at 16:45																									
16:45	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2
17:00	0	0	1	4	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
17:15	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2	0	2	0	0	4
17:30	0	0	0	4	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
Total Volume	0	0	1	10	1	0	8	0	0	8	0	0	0	0	0	0	1	16	0	17	1	16	0	0	17
% App Total	0.0%	0.0%	100.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			5.9%	94.1%	0.0%			5.9%	94.1%	0.0%		26
PHF	.000	.000	.250		.250	.000	.667	.000		.667	.000	.000	.000		.000	.250	.500	.000		.531	.250	.500	.000		.591

4-15

ALL TRAFFIC DATA

(916) 771-8700

orders@aldtraffic.com

File Name : 14-7303-003 San Pablo Avenue-Washington Avenue.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

START TIME	San Pablo Avenue Southbound					Westbound					San Pablo Avenue Northbound					Washington Avenue Eastbound					Total	Ped Total		
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL				
07:00	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	
07:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	
07:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10	
07:45	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6	
Total	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	5	16	22
08:00	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4
08:15	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	18
08:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	6
08:45	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
Total	0	14	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	33
14:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	11
14:45	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	12
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	14
15:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	9
15:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	2	2	27
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2	0	16
15:45	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	4	4	23
Total	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	8	0	75
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	23
16:15	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	1	6
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	5
16:45	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	1	12
Total	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	8	2	24
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	0	16
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	2	0	25
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	5	0	21
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	4	0	18
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	14	1	80
Grand Total	0	25	1	0	26	0	0	0	0	0	12	32	0	201	44	8	0	5	100	13	83	301		
Approach %	0.0%	96.2%	3.8%	0.0%	31.3%	0.0%	0.0%	0.0%	0.0%	27.3%	72.7%	0.0%	53.0%	61.5%	0.0%	38.5%	6.0%	15.7%	100.0%					
Total %	0.0%	30.1%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.5%	38.6%	0.0%	9.6%	0.0%	6.0%	15.7%	100.0%							

4-16

ALL TRAFFIC DATA

(916) 771-8700

orders@aldrtraffic.com

File Name : 14-7303-003 San Pablo Avenue-Washington Avenue.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	San Pablo Avenue Southbound					Westbound					San Pablo Avenue Northbound					Washington Avenue Eastbound					Total	
	START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS		APP.TOTAL
Peak Hour Analysis From 07:45 to 08:45																						
Peak Hour For Entire Intersection Begins at 07:45																						
07:45	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	1
08:30	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1
Total Volume	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	2	10	0	2
% App Total	0.0%	100.0%	0.0%	0.0%	0.0%	.625	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	.700
PHF	.000	.625	.000	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.500	.500	.250	.500

NOON PEAK	San Pablo Avenue Southbound					Westbound					San Pablo Avenue Northbound					Washington Avenue Eastbound					Total	
	START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS		APP.TOTAL
Peak Hour Analysis From 15:30 to 16:30																						
Peak Hour For Entire Intersection Begins at 15:30																						
15:30	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App Total	0.0%	75.0%	25.0%	0.0%	0.0%	.500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	.667
PHF	.000	.375	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625	.250	.000	.250	.250	.250	.500

PM PEAK HOUR	San Pablo Avenue Southbound					Westbound					San Pablo Avenue Northbound					Washington Avenue Eastbound					Total	
	START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS		APP.TOTAL
Peak Hour Analysis From 16:45 to 17:45																						
Peak Hour For Entire Intersection Begins at 16:45																						
16:45	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App Total	0.0%	100.0%	0.0%	0.0%	0.0%	.250	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	.19
PHF	.000	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.250	.000	.250	.250	.250	.594

217

ALL TRAFFIC DATA

(916) 771-8700

orders@aldtraffic.com

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

File Name : 14-7303-003 San Pablo Avenue-Washington Avenue.ppd
Date : 5/6/2014

Bank 1 Count = Peds & Bikes

START TIME	San Pablo Avenue Southbound					Washington Avenue Westbound					San Pablo Avenue Northbound					Driveway Eastbound					Total	Ped Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
07:00	0	3	0	0	3	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	3	4
07:15	1	1	0	0	2	0	0	0	0	0	1	0	0	3	3	0	0	0	4	4	3	7
07:30	0	0	0	0	0	0	0	0	5	5	0	0	0	7	7	0	0	0	1	1	3	14
07:45	1	1	0	0	2	0	0	0	9	9	0	0	0	5	5	0	0	0	3	3	5	17
Total	2	5	0	0	7	0	0	0	16	16	0	0	0	15	15	0	0	0	10	10	14	42
08:00	1	2	0	0	3	0	0	0	6	6	0	0	0	0	0	0	0	0	1	1	0	7
08:15	2	1	0	0	3	1	0	0	11	11	0	0	0	0	0	0	0	0	6	6	0	18
08:30	1	2	0	0	3	0	0	0	4	4	0	0	1	1	1	0	0	0	5	5	0	10
08:45	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	3	0	4
Total	4	5	0	0	9	1	0	0	22	22	0	0	1	1	1	0	0	0	15	15	0	39
14:00	0	1	0	0	1	0	0	0	12	12	2	2	1	2	4	0	0	0	9	9	0	23
14:15	0	1	0	0	1	0	0	0	8	8	1	1	0	1	3	0	0	0	1	1	0	10
14:30	0	3	0	0	3	0	0	0	6	6	0	0	0	1	0	0	0	0	5	5	0	12
14:45	0	0	0	0	0	0	0	0	11	11	1	1	0	7	1	0	0	0	2	2	0	20
Total	0	5	0	0	5	0	0	0	37	37	4	4	1	11	8	0	0	0	17	17	0	65
15:00	0	0	0	0	0	0	0	0	12	12	0	0	0	0	2	0	0	0	2	2	0	14
15:15	0	1	0	0	1	0	0	0	16	16	0	0	0	6	3	0	0	0	12	12	0	34
15:30	1	0	0	0	1	0	0	0	11	11	2	2	0	0	1	0	0	0	8	8	0	19
15:45	0	1	0	0	1	0	0	0	16	16	0	0	1	4	3	0	0	0	4	4	0	26
Total	1	2	0	0	3	0	0	0	55	55	2	2	1	10	9	0	0	0	26	26	0	93
16:00	0	0	0	0	0	0	0	0	3	3	0	0	0	4	2	0	0	0	11	11	0	18
16:15	0	1	0	0	1	0	0	0	6	6	1	1	0	4	3	0	0	0	6	6	0	16
16:30	1	0	0	0	1	0	0	0	4	4	0	0	0	2	3	0	0	0	3	3	0	9
16:45	0	2	0	0	2	0	0	0	13	13	1	1	0	3	3	0	0	0	4	4	0	18
Total	1	3	0	0	4	0	0	0	26	26	2	2	1	11	11	0	0	0	24	24	0	61
17:00	0	1	0	0	1	0	0	0	8	8	1	1	0	2	1	0	0	0	8	8	0	18
17:15	0	0	0	0	0	0	0	0	9	9	3	3	1	2	6	0	0	0	3	3	0	15
17:30	0	0	0	0	0	0	0	0	10	10	0	0	1	0	5	0	0	0	3	3	0	13
17:45	0	1	0	0	1	0	0	0	18	18	1	1	0	4	1	0	0	0	2	2	0	24
Total	0	2	0	0	2	0	0	0	45	45	5	5	1	8	13	0	0	0	16	16	0	70
Grand Total	8	22	0	0	30	1	0	0	201	201	16	16	0	43	49	0	0	0	108	108	0	370
Approach %	26.7%	73.3%	0.0%	0.0%	31.6%	6.3%	0.0%	0.0%	15.8%	16.8%	0.0%	0.0%	87.8%	12.2%	51.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total %	8.4%	23.2%	0.0%	0.0%	31.6%	1.1%	0.0%	0.0%	15.8%	16.8%	0.0%	0.0%	45.3%	6.3%	51.6%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

4-18

ALL TRAFFIC DATA

(916) 771-8700

orders@aldtraffic.com

File Name : 14-7303-003 San Pablo Avenue-Washington Avenue.ppd
Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	San Pablo Avenue Southbound					Washington Avenue Westbound					San Pablo Avenue Northbound					Driveway Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 07:45 to 08:45																					
Peak Hour For Entire Intersection Begins at 07:45																					
07:45	1	1	0	0	2	0	0	0	9	0	0	3	0	0	5	0	0	0	3	0	5
08:00	1	2	0	0	3	0	0	1	6	1	0	0	0	0	0	0	0	0	1	0	4
08:15	2	1	0	1	3	1	0	1	11	2	0	0	0	0	0	0	0	0	6	0	5
08:30	1	2	0	0	3	0	0	0	4	0	0	1	1	1	1	0	0	0	5	0	4
Total Volume	5	6	0	1	11	1	0	2	30	3	0	3	1	6	4	0	0	0	15	0	18
% App Total	45.5%	54.5%	0.0%	0.0%	.917	33.3%	0.0%	66.7%	.375	0.0%	75.0%	25.0%	.333	0.0%	0.0%	0.0%	0.0%	.000	.000	.000	.900
PHF	.625	.750	.000	.000	.917	.250	.000	.500	.375	.000	.250	.250	.333	.000	.000	.000	.000	.000	.000	.000	.900

NOON PEAK	San Pablo Avenue Southbound					Washington Avenue Westbound					San Pablo Avenue Northbound					Driveway Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 15:45 to 16:45																					
Peak Hour For Entire Intersection Begins at 15:45																					
15:45	0	1	0	2	1	0	0	0	16	0	0	2	1	4	3	0	0	0	4	0	4
16:00	0	0	0	0	0	0	0	0	3	0	2	0	0	4	2	0	0	0	11	0	2
16:15	0	1	0	0	1	0	0	1	6	1	0	2	1	4	3	0	0	0	6	0	5
16:30	1	0	0	0	1	0	0	0	4	0	0	3	0	2	3	0	0	0	3	0	4
Total Volume	1	2	0	2	3	0	0	1	29	1	0	9	2	14	11	0	0	0	24	0	15
% App Total	33.3%	66.7%	0.0%	0.0%	.750	0.0%	0.0%	100.0%	.250	0.0%	81.8%	18.2%	.917	0.0%	0.0%	0.0%	0.0%	0.0%	.000	.000	.750
PHF	.250	.500	.000	.000	.750	.000	.000	.250	.250	.250	.000	.750	.500	.917	.000	.000	.000	.000	.000	.000	.750

PM PEAK HOUR	San Pablo Avenue Southbound					Washington Avenue Westbound					San Pablo Avenue Northbound					Driveway Eastbound					Total
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	2	0	0	2	0	0	0	13	1	0	3	0	1	3	0	0	0	4	0	6
17:00	0	1	0	0	1	0	0	1	8	1	0	1	0	2	1	0	0	0	8	0	3
17:15	0	0	0	1	0	0	0	3	9	3	0	5	1	2	6	0	0	0	3	0	9
17:30	0	0	0	0	0	0	0	0	10	0	0	4	1	0	5	0	0	0	3	0	5
Total Volume	0	3	0	1	3	0	0	5	40	5	0	13	2	5	15	0	0	0	18	0	23
% App Total	0.0%	100.0%	0.0%	0.0%	.375	0.0%	0.0%	100.0%	.417	0.0%	86.7%	13.3%	.625	0.0%	0.0%	0.0%	0.0%	0.0%	.000	.000	.639
PHF	.000	.375	.000	.000	.375	.000	.000	.417	.417	.417	.000	.650	.500	.625	.000	.000	.000	.000	.000	.000	.639

ALL TRAFFIC DATA

(916) 771-8700

orders@aldtraffic.com

File Name : 14-7303-002 San Pablo Avenue-Clay Street.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

START TIME	San Pablo Avenue Southbound					Clay Street Westbound					San Pablo Avenue Northbound					Clay Street Eastbound					Total	Ped Total					
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL							
07:00	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
07:15	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	0	0	3	4
07:30	0	1	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	8
07:45	0	3	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	5	5
Total	0	8	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	0	0	14	17
08:00	0	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
08:15	0	4	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	11
08:30	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
08:45	0	1	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
Total	0	7	2	17	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	33
14:00	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	5	6
14:15	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	3	13
14:30	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	4	6
14:45	0	2	1	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	4	4
Total	0	4	2	13	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	9	0	0	16	29
15:00	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	4	6
15:15	0	1	2	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	0	0	8	16
15:30	0	0	1	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	2	17
15:45	0	2	1	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	6	18
Total	0	4	4	27	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	0	0	19	57
16:00	0	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	10
16:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	4	13
16:30	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
16:45	0	1	1	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	4	22
Total	0	5	1	20	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	0	0	12	53
17:00	0	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	5	12
17:15	0	1	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	4	11
17:30	0	1	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5	0	0	10	6
17:45	0	2	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	5	8
Total	0	6	3	12	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	13	0	0	24	37
Grand Total	0	34	12	97	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	44	44	0	0	96	226
Approch %	0.0%	73.9%	26.1%		47.9%	0.0%	100.0%	0.0%		0.0%	0.0%	100.0%	0.0%		45.8%	60.0%	0.0%	40.0%		5.2%	3.1%	0.0%	2.1%		100.0%		
Total %	0.0%	35.4%	12.5%		47.9%	0.0%	1.0%	0.0%		1.0%	0.0%	45.8%	0.0%		45.8%	60.0%	0.0%	2.1%		5.2%	3.1%	0.0%	2.1%		100.0%		

4-20

ALL TRAFFIC DATA

(916) 771-8700

orders@aldrtraffic.com

File Name : 14-7303-002 San Pablo Avenue-Clay Street.ppd

Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	San Pablo Avenue Southbound					Clay Street Westbound					San Pablo Avenue Northbound					Clay Street Eastbound					Total		
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
Peak Hour Analysis From 07:30 to 08:30																							
Peak Hour For Entire Intersection Begins at 07:30																							
07:30	0	1	0	4	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0
07:45	0	3	0	3	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0
08:00	0	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
08:15	0	4	1	4	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	7	7	2
Total Volume	0	9	2	14	11	0	0	0	0	0	0	3	0	0	3	2	0	0	0	0	18	2	2
% App Total	0.0%	81.8%	18.2%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			100.0%	18	2
PHF	.000	.563	.500		.550	.000	.000	.000		.000	.000	.375	.000		.375	.250	.000	.000		.250		.250	.571

NOON PEAK	San Pablo Avenue Southbound					Clay Street Westbound					San Pablo Avenue Northbound					Clay Street Eastbound					Total		
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
Peak Hour Analysis From 15:45 to 16:45																							
Peak Hour For Entire Intersection Begins at 15:45																							
15:45	0	2	1	7	3	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	11	0
16:00	0	2	0	3	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0
16:15	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	13	0
16:30	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	1
Total Volume	0	6	1	14	7	0	1	0	0	0	0	6	0	0	6	0	0	0	0	0	35	0	14
% App Total	0.0%	85.7%	14.3%			0.0%	100.0%	0.0%			0.0%	100.0%	0.0%			0.0%	0.0%	0.0%			0.0%	35	14
PHF	.000	.750	.250		.583	.000	.250	.000		.250	.000	.500	.000		.500	.000	.000	.000		.000		.000	.583

PM PEAK HOUR	San Pablo Avenue Southbound					Clay Street Westbound					San Pablo Avenue Northbound					Clay Street Eastbound					Total		
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL			
Peak Hour Analysis From 16:45 to 17:45																							
Peak Hour For Entire Intersection Begins at 16:45																							
16:45	0	1	1	13	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	9	0
17:00	0	2	0	3	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	9	0
17:15	0	1	0	5	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	0
17:30	0	1	3	1	4	0	0	0	0	0	0	5	0	0	5	1	0	0	0	0	5	1	10
Total Volume	0	5	4	22	9	0	0	0	0	0	0	13	0	0	13	1	0	0	0	0	29	1	23
% App Total	0.0%	55.6%	44.4%			0.0%	0.0%	0.0%			0.0%	100.0%	0.0%			100.0%	0.0%	0.0%			100.0%	29	23
PHF	.000	.625	.333		.563	.000	.000	.000		.000	.000	.650	.000		.650	.250	.000	.000		.250		.250	.575

4-21

ALL TRAFFIC DATA

(916) 771-8700

orders@caldrtraffic.com

File Name : 14-7303-001 San Pablo Avenue-Brighton Avenue.ppd
Date : 5/6/2014

City of Albany
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

	San Pablo Avenue Southbound					Brighton Avenue Westbound					San Pablo Avenue Northbound					Brighton Avenue Eastbound					Total	Ped Total			
	START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS			APP.TOTAL		
07:00	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	5	
07:15	1	1	0	0	0	2	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0	3	10	
07:30	0	1	1	0	0	1	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	0	3	9	
07:45	0	2	2	0	0	2	0	0	0	0	0	2	2	0	4	2	0	0	0	0	0	0	4	7	
Total	1	5	3	0	0	6	0	0	0	0	0	6	6	0	14	6	0	0	0	0	0	0	12	31	
08:00	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	
08:15	0	4	0	0	0	4	0	0	0	0	0	2	2	0	5	2	0	0	0	0	0	0	6	16	
08:30	0	2	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	4	9	
08:45	0	1	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	1	2	12	
Total	0	10	1	0	0	10	0	0	0	0	0	2	2	0	10	2	0	3	0	0	0	3	15	46	
14:00	0	2	0	0	0	2	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	0	5	22	
14:15	0	1	0	0	0	1	0	0	0	0	0	3	3	0	6	3	0	0	0	0	0	0	4	24	
14:30	0	1	0	0	0	1	0	0	0	0	0	5	5	0	6	5	0	0	0	0	0	0	6	22	
14:45	0	2	0	0	0	2	1	0	0	1	2	2	2	0	4	2	0	0	0	0	0	0	5	21	
Total	0	6	0	0	0	6	1	0	0	1	13	0	0	0	24	13	0	0	0	0	0	0	20	89	
15:00	0	2	0	0	0	2	0	0	0	0	0	2	2	0	8	2	0	0	0	0	0	0	5	30	
15:15	0	3	0	0	0	3	1	0	1	1	2	0	2	1	9	3	0	0	0	0	0	0	8	31	
15:30	0	0	0	0	0	0	0	1	1	1	2	0	2	0	10	2	0	0	0	0	0	0	3	31	
15:45	0	3	0	0	0	3	0	0	0	0	1	1	1	0	8	1	0	0	0	0	0	0	4	19	
Total	0	8	0	0	0	8	1	0	3	35	4	0	7	1	35	8	0	0	0	0	0	0	20	111	
16:00	0	2	0	0	0	2	0	0	0	0	0	2	2	0	7	2	0	0	0	0	0	0	4	17	
16:15	0	1	0	0	0	1	0	0	0	0	2	1	2	0	10	3	0	0	0	0	0	0	4	26	
16:30	0	2	0	0	0	2	0	1	2	1	0	0	0	0	4	0	0	0	0	0	0	0	3	7	
16:45	0	2	0	0	0	2	0	0	0	0	2	2	2	0	4	2	0	1	0	0	0	1	5	28	
Total	0	7	0	0	0	7	0	1	1	29	1	6	6	1	25	7	0	1	0	0	0	1	16	78	
17:00	0	1	0	0	0	1	0	0	1	3	1	0	2	0	4	2	0	0	0	0	0	0	4	18	
17:15	0	1	0	0	0	1	0	0	0	4	0	3	3	0	3	3	0	0	0	0	0	0	4	17	
17:30	0	4	0	0	0	4	0	0	0	12	0	6	6	0	6	6	0	0	0	0	0	0	10	32	
17:45	0	2	0	0	0	2	0	0	0	6	0	2	2	0	3	2	0	2	0	0	0	2	6	10	
Total	0	8	0	0	0	8	0	1	1	25	1	13	13	0	16	13	0	2	0	0	0	2	24	77	
Grand Total	1	44	0	0	0	45	2	0	5	149	7	0	47	2	124	49	0	6	0	0	0	6	159	6	432
Approch %	2.2%	97.8%	0.0%	0.0%	0.0%	42.1%	28.6%	0.0%	71.4%	6.5%	0.0%	95.9%	4.1%	1.9%	45.8%	0.0%	100.0%	0.0%	0.0%	0.0%	5.6%	5.6%	100.0%	107	432
Total %	0.9%	41.1%	0.0%	0.0%	0.0%	42.1%	1.9%	0.0%	4.7%	6.5%	0.0%	43.9%	1.9%	1.9%	45.8%	0.0%	5.6%	0.0%	0.0%	0.0%	5.6%	5.6%	100.0%	107	432

4-22

ALL TRAFFIC DATA

(916) 771-8700
orders@aldtraff.com

File Name : 14-7303-001 San Pablo Avenue-Brighton Avenue.ppd
Date : 5/6/2014

City of Albany
All Vehicles on Unshiftd
Peds & Bikes on Bank 1
Nothing on Bank 2

Bank 1 Count = Peds & Bikes

AM PEAK HOUR	San Pablo Avenue Southbound					Brighton Avenue Westbound					San Pablo Avenue Northbound					Brighton Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 07:30 to 08:30																						
Peak Hour For Entire Intersection Begins at 07:30																						
07:30	0	1	0	0	1	0	0	0	1	0	0	2	0	6	2	0	0	0	2	0	0	0
07:45	0	2	0	0	2	0	0	0	3	0	0	2	0	4	2	0	0	0	0	0	0	0
08:00	0	3	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	4	0	0	4	0	0	0	5	0	0	2	0	5	2	0	0	0	6	0	0	0
Total Volume	0	10	0	0	10	0	0	0	13	0	0	6	0	15	6	0	0	0	13	0	0	0
% App Total	0.0%	100.0%	0.0%	0.0%	.625	0.0%	0.0%	0.0%	.000	.000	0.0%	100.0%	0.0%	.750	.000	0.0%	0.0%	0.0%	.750	.000	0.0%	.667
PHF	.000	.625	.000	.000	.625	.000	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.750	.000	.000	.667

NOON PEAK	San Pablo Avenue Southbound					Brighton Avenue Westbound					San Pablo Avenue Northbound					Brighton Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 15:00 to 16:00																						
Peak Hour For Entire Intersection Begins at 15:00																						
15:00	0	2	0	0	2	0	0	1	12	1	0	2	0	8	2	0	0	0	10	0	0	0
15:15	0	3	0	0	3	1	0	1	8	2	0	2	1	9	3	0	0	0	14	0	0	0
15:30	0	0	0	0	0	0	0	1	8	1	0	2	0	10	2	0	0	0	13	0	0	0
15:45	0	3	0	0	3	0	0	0	7	0	0	1	0	8	1	0	0	0	4	0	0	0
Total Volume	0	8	0	0	8	1	0	3	35	4	0	7	1	35	8	0	0	0	41	0	0	0
% App Total	0.0%	100.0%	0.0%	0.0%	.667	25.0%	0.0%	75.0%	.750	.500	0.0%	87.5%	12.5%	.250	.667	0.0%	0.0%	0.0%	.000	.000	0.0%	.625
PHF	.000	.667	.000	.000	.667	.250	.000	.750	.500	.500	.000	.875	.250	.667	.667	.000	.000	.000	.000	.000	.000	.625

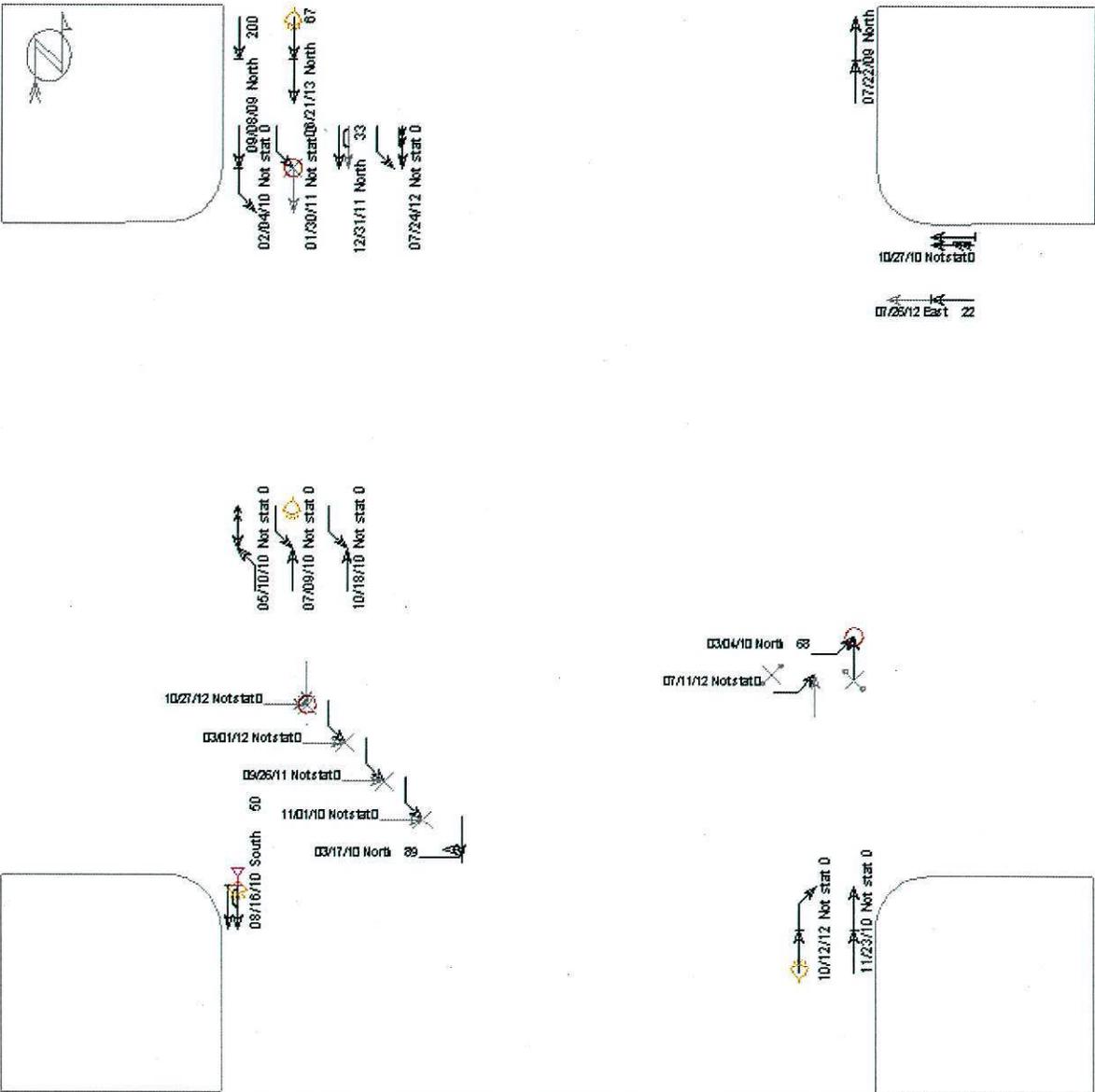
PM PEAK HOUR	San Pablo Avenue Southbound					Brighton Avenue Westbound					San Pablo Avenue Northbound					Brighton Avenue Eastbound					Total	
	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL		
Peak Hour Analysis From 17:00 to 18:00																						
Peak Hour For Entire Intersection Begins at 17:00																						
17:00	0	1	0	0	1	0	0	1	3	1	0	2	0	4	2	0	0	0	11	0	0	0
17:15	0	1	0	0	1	0	0	0	4	0	0	3	0	3	3	0	0	0	10	0	0	0
17:30	0	4	0	0	4	0	0	0	12	0	0	6	0	6	6	0	0	0	14	0	0	0
17:45	0	2	0	0	2	0	0	0	6	0	0	2	0	3	2	0	0	0	1	0	0	0
Total Volume	0	8	0	0	8	0	0	1	25	1	0	13	0	16	13	0	0	0	36	0	0	0
% App Total	0.0%	100.0%	0.0%	0.0%	.500	0.0%	0.0%	100.0%	.250	.250	0.0%	100.0%	0.0%	.542	.542	0.0%	0.0%	0.0%	.000	.250	0.0%	.600
PHF	.000	.500	.000	.000	.500	.000	.000	.250	.250	.250	.000	.542	.000	.542	.542	.000	.000	.000	.000	.250	.000	.600

4-23

Brighton Ave & San Pablo Av

22 Accidents

9/1/2008 - 09/28/13

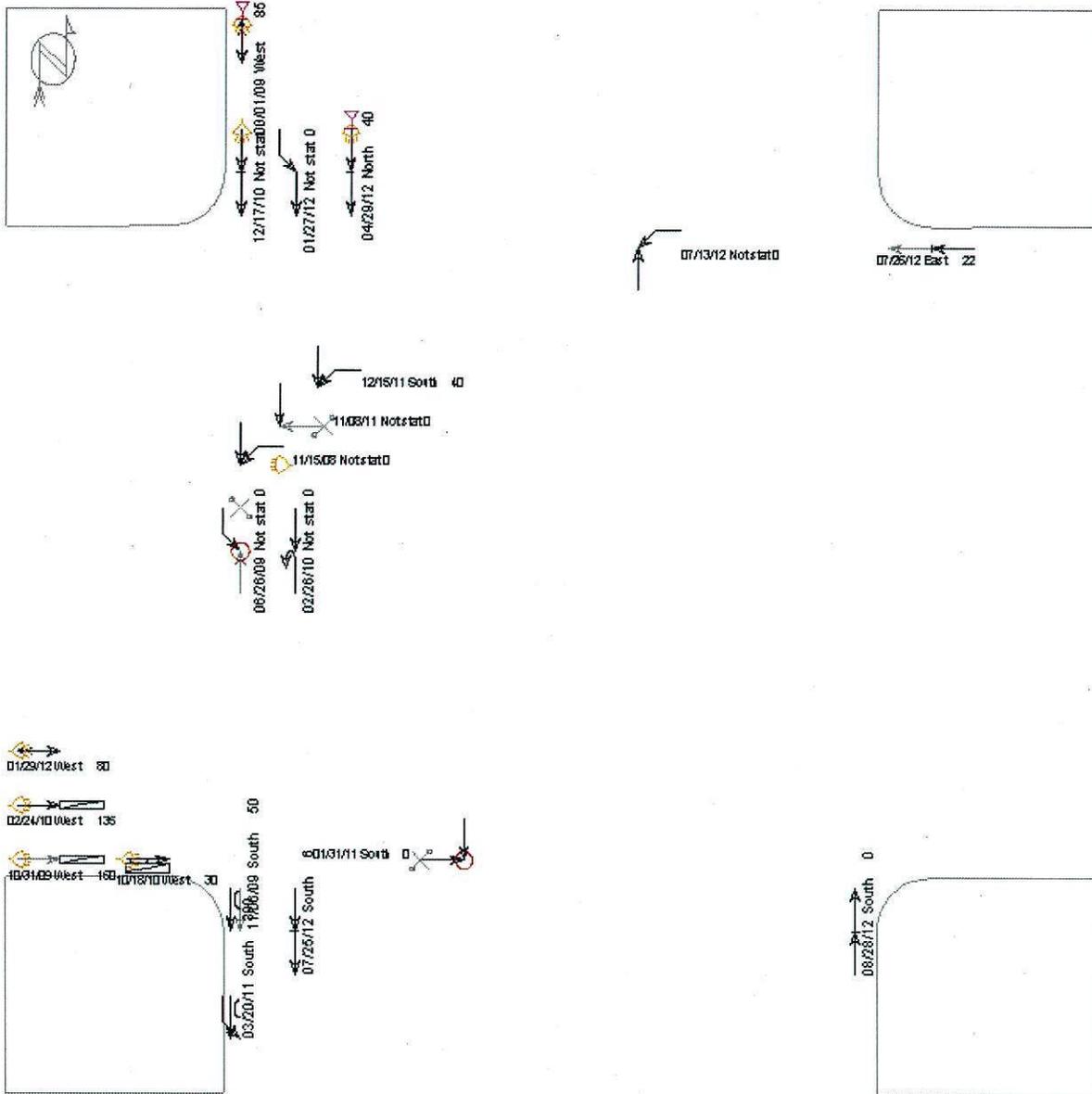


(clear filter), (0) accidents with insufficient data for display

- | | | | |
|--------------|------------------|--------------|----------------|
| ← Straight | ▭ Parked | × Pedestrian | Fixed objects: |
| ↔ Stopped | ⚡ Erratic | ⊗ Bicycle | □ General |
| ↔ Unknown | ⚡ Out of control | ○ Injury | ▣ Signal |
| ↔ Backing | ↘ Right turn | ⊙ Fatality | ▣ Tree |
| ↔ Overtaking | ↙ Left turn | ⚡ Nighttime | ▣ Pole |
| ↔ Sideswipe | ↻ U-turn | ⚡ DUI | ▣ Curb |
| | | | ⊗ Animal |
| | | | ◁ 3rd vehicle |
| | | | * Extra data |

San Pablo Ave & Washington Ave

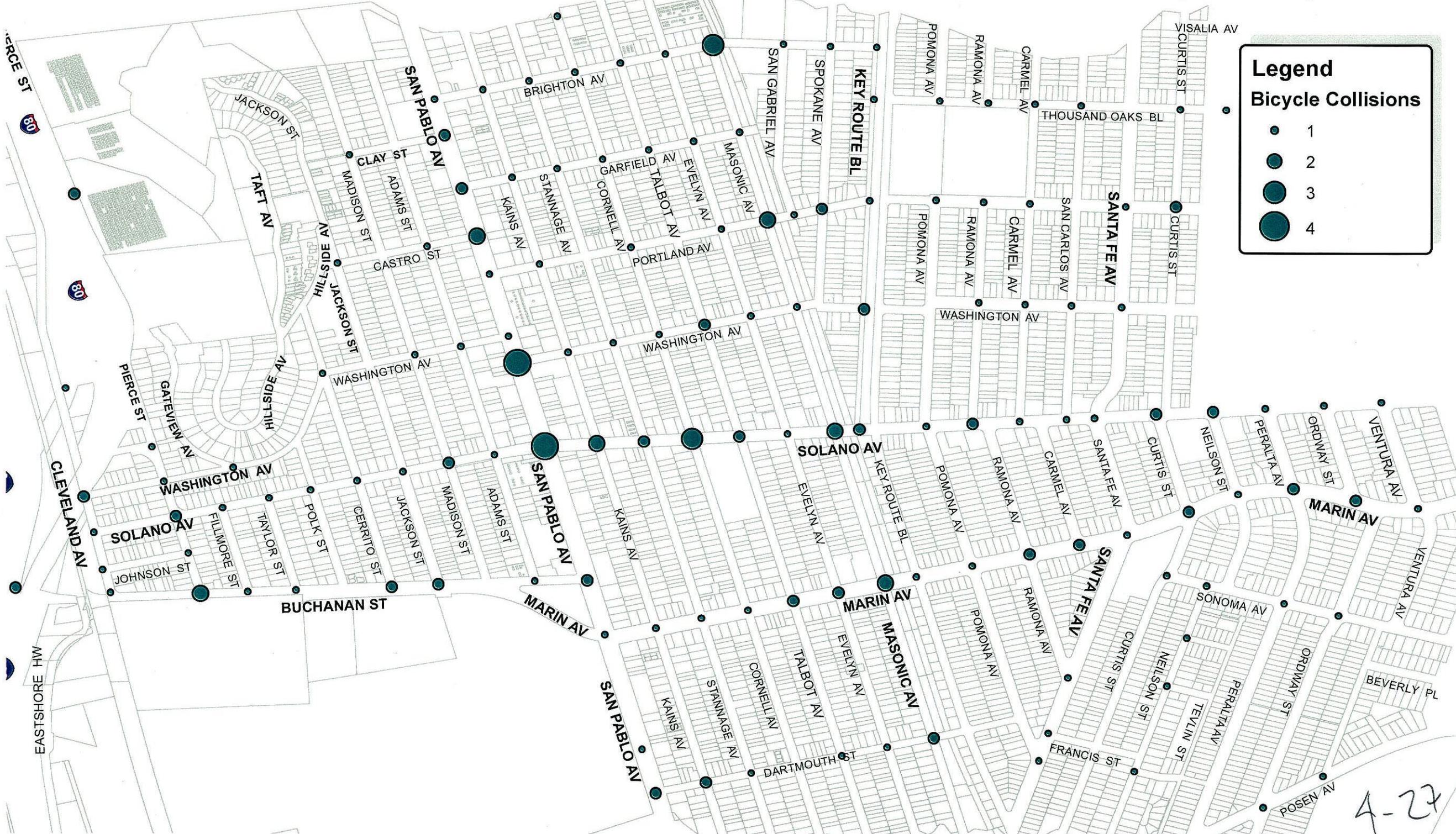
20 Accidents 09/01/2008 - 09/28/13



(clear filter), (0) accidents with insufficient data for display

- | | | | |
|--------------|------------------|--------------|----------------|
| ← Straight | ▭ Parked | × Pedestrian | Fixed objects: |
| ↔ Stopped | ⚡ Erratic | ⊗ Bicycle | □ General |
| ↔ Unknown | ⚡ Out of control | ○ Injury | ▣ Signal |
| ↔ Backing | ↘ Right turn | ⊙ Fatality | ▣ Tree |
| ↔ Overtaking | ↙ Left turn | 🕒 Nighttime | ◁ 3rd vehicle |
| ↔ Sideswipe | ↻ U-turn | 🚔 DUI | * Extra data |
| | | | ▣ Pole |
| | | | ▣ Curb |
| | | | ⊗ Animal |

Bicycle Collisions City of Albany 2007 - 2012



Legend

Bicycle Collisions

- 1
- 2
- 3
- 4

4-27

Total Collisions City of Albany 2007 - 2012



Albany Unified School District Percent of Students Eligible for Free or Reduce Lunch

County Code	District Code	School Code	Direct Funded Charter School Number	Provision 2 or 3 School (Y/N)	Data Source for Provision 2 or 3 School	County Name	LEA Name	School Name	Low Grade	High Grade	CALPADS October 2012 Enrollment (K-12)	October 2012 Free Meal Count (K-12)	October 2012 Percent Eligible Free (K-12)	October 2012 FRPM Total Unduplicated Count (K-12)	October 2012 Percent Eligible FRPM (K-12)	CALPADS October 2012 Enrollment (Ages 5-17)	October 2012 Free Meal Count (Ages 5-17)	October 2012 Percent Eligible Free (Ages 5-17)	October 2012 FRPM Total Unduplicated Count (Ages 5-17)	October 2012 Percent Eligible FRPM (Ages 5-17)
01	61127	0130294		N	CALPADS	Alameda	Albany City U	MacGregor High (Continuation)	10	12	28	9	32.14	10	35.71	27	9	33.33	10	37.04
01	61127	0130450		N	CALPADS	Alameda	Albany City U	Albany High	09	12	1162	230	19.79	289	24.87	1132	219	19.35	276	24.38
01	61127	6090146		N	CALPADS	Alameda	Albany City U	Cornell Elementary	KK	05	590	66	11.19	83	14.07	588	66	11.22	83	14.12
01	61127	6090161		N	CALPADS	Alameda	Albany City U	Albany Middle	06	08	890	189	21.24	232	26.07	890	189	21.24	232	26.07
01	61127	6095376		N	CALPADS	Alameda	Albany City U	Marin Elementary	KK	05	514	44	8.56	63	12.26	512	44	8.59	63	12.3
01	61127	6116222		N	CALPADS	Alameda	Albany City U	Ocean View Elementary	KK	05	599	155	25.88	188	31.39	592	152	25.68	185	31.25

Source: <http://www.cde.ca.gov/ds/sd/sd/files.asp>

4-29

Pollution Risk--Albany Score

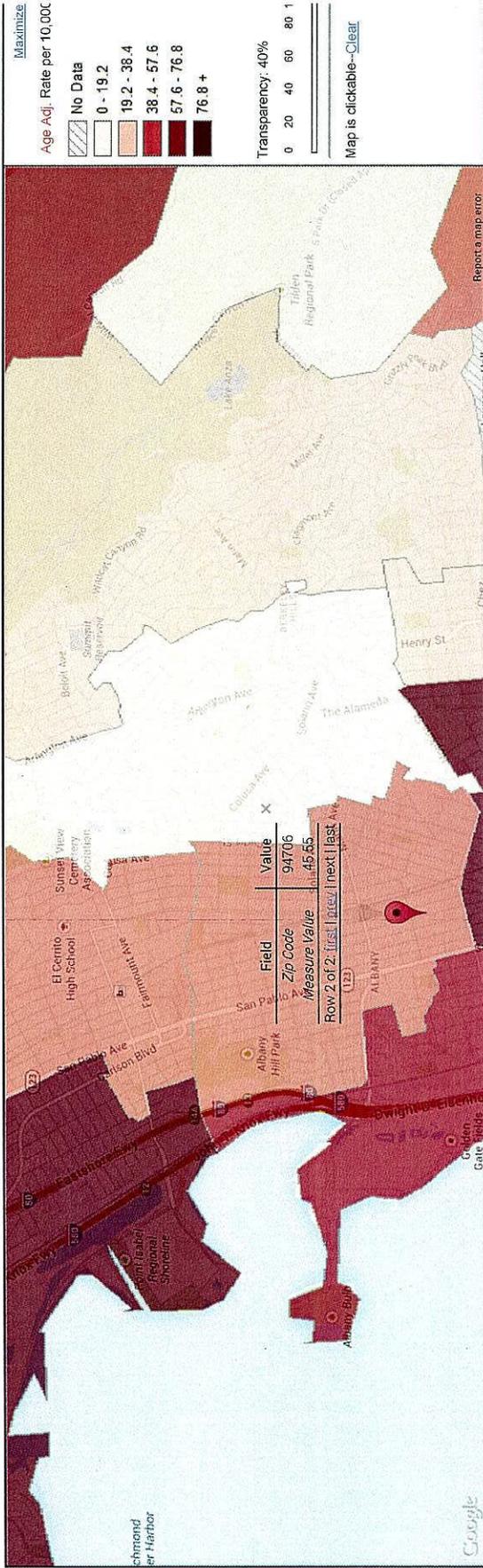
ZIP Code	Total Population	CES 1.1 Score	CES 1.1 Percentile Range
94706	19615		
94595	16425	12.15	36-40%
94597	20277	12.03	36-40%
94596	20037	11.5	31-35%
94598	25818	8.79	21-25%

Source: California Dept. of Health

4-30

- Table
- Map
- Chart
- Info
- Sources

Emergency department visits due to asthma by zip code, All Ages, 2009 [Notes]



NOTES ABOUT THE DATA

- Asthma emergency department (ED) visits represent people with severe asthma or poorly managed asthma who end up visiting an ED because of their asthma. Although there is no cure, asthma can be controlled with regular preventative healthcare, a clear asthma action plan, medication, and by avoiding known asthma triggers.
- For more information...
- Asthma symptoms and asthma attacks have been found to be associated with both indoor and outdoor environmental factors.
- For more information...
- Data Source: Emergency Department data from the California Office of Statewide Health Planning and Development, 2012.
- California statewide age adj. rate per 10,000 of emergency department visits due to asthma is 49.69 with a 95% confidence interval of 49.69 - 49.92.
- Counts are based on the number of visits to the ED, not the number of unique individuals. That is, some people may visit the ED multiple times in one year and will be counted for each visit.
- If an area is filled with a hatch pattern, the data are not available due to the number of events being less than 12, or the population estimates for that area were not available.
- Please note that zip codes do not have exact spatial boundaries, change very frequently, and can cross city and county boundaries.
- For more information...
- Zip code data can be downloaded here:
http://www.cerhp.org/data/Asthma_ED_children_byzip_2009.csv
http://www.cerhp.org/data/Asthma_ED_adults_byzip_2009.csv
http://www.cerhp.org/data/Asthma_ED_allages_byzip_2009.csv

Conditions of Use | Privacy Policy
Copyright © 2013 State of California

4-31

U.S. Department of Commerce

Home Blogs About Us Index A to Z Glossary FAQs

People Business Geography Data Research Newsroom

State & County QuickFacts

Albany (city), California

People QuickFacts	Albany	California
Population, 2012 estimate	18,969	37,999,878
Population, 2010 (April 1) estimates base	18,541	37,253,959
Population, percent change, April 1, 2010 to July 1, 2012	2.3%	2.0%
Population, 2010	18,539	37,253,956
Persons under 5 years, percent, 2010	7.6%	6.8%
Persons under 18 years, percent, 2010	25.0%	25.0%
Persons 65 years and over, percent, 2010	10.0%	11.4%
Female persons, percent, 2010	52.4%	50.3%
<hr/>		
White alone, percent, 2010 (a)	54.6%	57.6%
Black or African American alone, percent, 2010 (a)	3.5%	6.2%
American Indian and Alaska Native alone, percent, 2010 (a)	0.5%	1.0%
Asian alone, percent, 2010 (a)	31.2%	13.0%
Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a)	0.2%	0.4%
Two or More Races, percent, 2010	6.7%	4.9%
Hispanic or Latino, percent, 2010 (b)	10.2%	37.6%
White alone, not Hispanic or Latino, percent, 2010	49.3%	40.1%
<hr/>		
Living in same house 1 year & over, percent, 2008-2012	82.5%	84.2%
Foreign born persons, percent, 2008-2012	32.2%	27.1%
Language other than English spoken at home, pct age 5+, 2008-2012	37.8%	43.5%
High school graduate or higher, percent of persons age 25+, 2008-2012	95.5%	81.0%
Bachelor's degree or higher, percent of persons age 25+, 2008-2012	72.5%	30.5%
Veterans, 2008-2012	633	1,952,910
Mean travel time to work (minutes), workers age 16+, 2008-2012	28.5	27.1
Housing units, 2010	7,889	13,680,081
Homeownership rate, 2008-2012	46.7%	56.0%
Housing units in multi-unit structures, percent, 2008-2012	44.9%	30.9%
Median value of owner-occupied housing units, 2008-2012	\$626,000	\$383,900
Households, 2008-2012	7,359	12,466,331
Persons per household, 2008-2012	2.51	2.93
Per capita money income in past 12 months (2012 dollars), 2008-2012	\$39,483	\$29,551
Median household income, 2008-2012	\$73,728	\$61,400
Persons below poverty level, percent, 2008-2012	10.4%	15.3%
<hr/>		
Business QuickFacts	Albany	California
Total number of firms, 2007	2,281	3,425,510
Black-owned firms, percent, 2007	S	4.0%
American Indian- and Alaska Native-owned firms, percent, 2007	S	1.3%
Asian-owned firms, percent, 2007	17.0%	14.9%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.3%
Hispanic-owned firms, percent, 2007	S	16.5%
Women-owned firms, percent, 2007	33.9%	30.3%
<hr/>		
Manufacturers shipments, 2007 (\$1000)		0 ¹ 491,372,092
Merchant wholesaler sales, 2007 (\$1000)	10,738	598,456,486
Retail sales, 2007 (\$1000)	183,653	455,032,270
Retail sales per capita, 2007	\$11,619	\$12,561
Accommodation and food services sales, 2007 (\$1000)	23,027	80,852,787

4-32

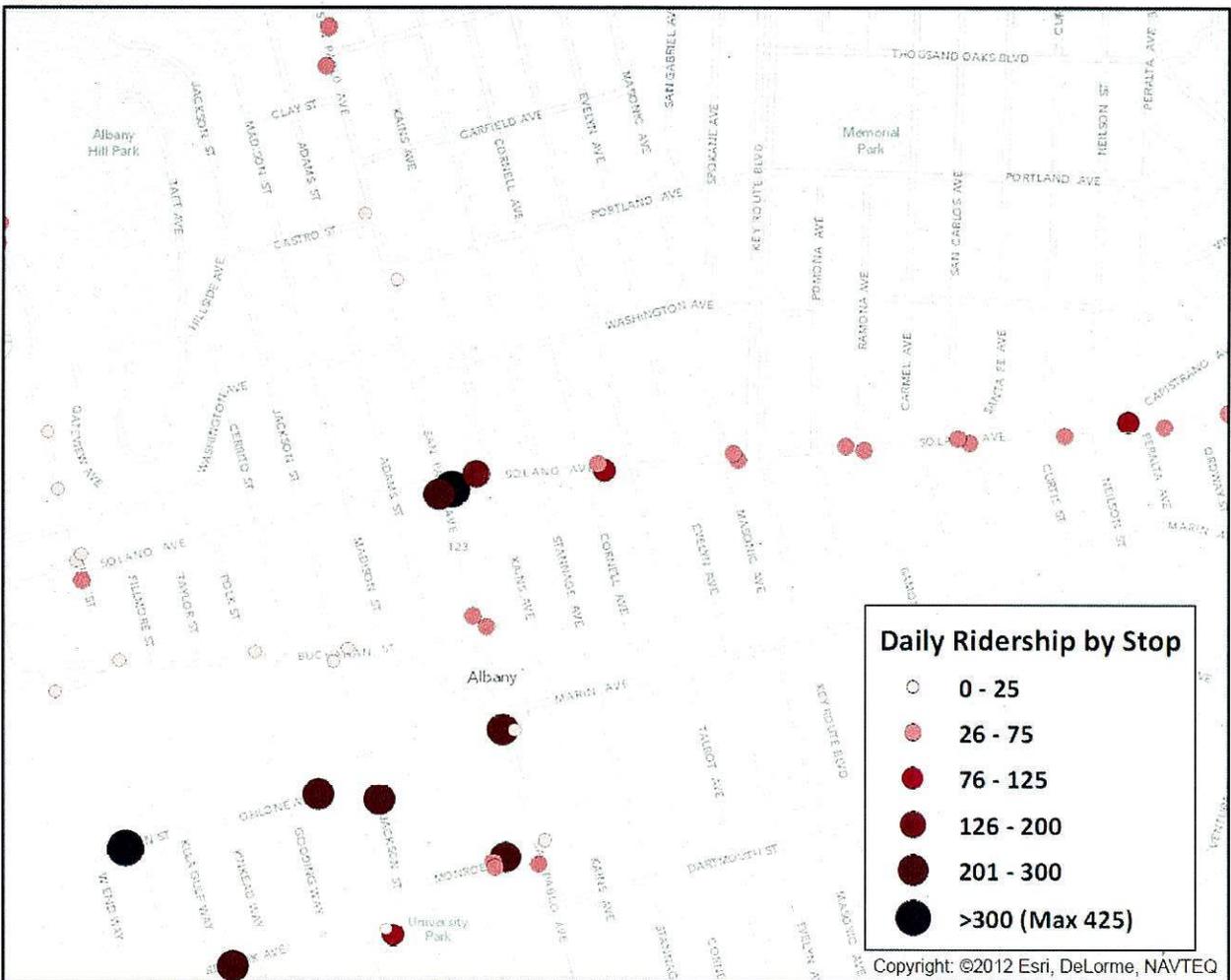
Hand Tally--Mode choice for trip to school-Albany -One week in Spring 2014

Mode School	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other	Total
Cornell	1774 39%	58 1%	0 0%	2644 57%	99 2%	1 0%	31 1%	1
Ocean View	2156 48%	221 5%	0 0%	1763 40%	105 2%	11 0%	192 4%	1
Albany Middle	585 49%	45 4%	11 1%	409 34%	101 8%	10 1%	28 2%	1

May 2012 Walk to School Day-Welcome table survey
Favorite Way to get to School -Albany Middle School

Mode	Tally	Percentage	mode choice daily trip to school
Walk (or Gangnam Style)	106	77%	689
Roll (Scooter or Skateboard)	6	4%	39
Bike	17	12%	110
Carpool or Transit	1	1%	6
Car	7	5%	45
Total	137	100%	890

Bus Stop Activity in the City of Albany



Based on this information, the City should prioritize San Pablo Ave for transit customers by locating stops in convenient and safe locations, and providing lighting and amenities that make bus stops attractive and comfortable places to board and alight at all hours of the day. Priority should be given to bus stops with the greatest volume of transit activity so that the greatest number of transit customers benefit.

Screenline Activity

Screenline-activity describes the number of customers traveling through a given intersection on the bus. These customers are already on-board and want to reach their destination quickly. Although these passengers are overwhelmingly “through trips” (i.e. people whose trip neither begins nor ends in Albany), the City nonetheless has an incentive to improve their transit experience because each of these passengers represents one less automobile through-trip.

Bus stop activity continued...

When all other factors are held constant, these customers are sensitive to transit speed and reliability on the corridor. They expect the City to provide transit priority measures that minimize travel time and delay.

Each weekday, *more than 4,300 transit customers pass through Albany via San Pablo Ave.* This information is summarized in **Table 1**, which tabulates “transit passengers through-put” on San Pablo Ave by intersection, route, and direction. As shown in the table, the greatest number of transit customers are affected by the San Pablo/Solano intersection. Marin and Buchanan facilitate a similar number of transit trips each weekday.

Table 1. Average Daily Weekday Transit Customer Through-Trips on San Pablo Ave, Northbound and Southbound

Cross-Street	Northbound						Southbound						Grand Total	
	72	72M	72R	18	G	SubTotal	72	72M	72R	18	G	Z		SubTotal
Page	444	403	973			1,820	482	432	1,034		100		2,048	3,868
Gilman	446	404	973		74	1,897	480	427	1,034		100		2,041	3,938
Harrison	443	400	973		74	1,890	462	407	995		96	3	1,963	3,853
Monroe	441	398	973		71	1,883	461	407	995		96	3	1,962	3,845
Marin	440	398	973	140	69	2,020	457	407	995	166	90	3	2,118	4,138
Buchanan	442	400	973	150	67	2,032	457	406	995	166	89		2,113	4,145
Solano	453	410	974	298	57	2,192	456	405	995	199	86		2,141	4,333
Portland/Castro	453	408	974			1,835	449	409	995				1,853	3,688
Brighton	444	401	974			1,819	448	409	995				1,852	3,671
Carlson	456	410	954			1,820	444	406	995				1,845	3,665

Based on this information, the City should adopt recommendations that minimize delay at this San Pablo and Solano. Furthermore, the significance of the Solano, Buchanan, and Marin intersections suggest that treatments which minimize delay at all three intersections would benefit the greatest number of roadway users.

The volume of transit customers through an intersection can also be examined by time of day. **Error! Reference source not found.** illustrates the number of transit customers passing through the intersection of San Pablo Ave and Solano Ave for each route, direction, and hour of day. This figure demonstrates the consistently high volume of transit activity throughout the day, and the particular significance of this intersection during peak-commute hours. For the majority of the day, AC Transit carries more than 300 customers through this intersection each hour. During the peak demand hour (7:00 am – 8:00 am), AC Transit moves almost 450 people through the intersection.

Investments

4

CHANGE IN MOTION

agencies — MTC, the Bay Area Air Quality Management District (BAAQMD), the Bay Conservation and Development Commission and the Association of Bay Area Governments — are sponsoring a Transportation Climate Action Campaign.

The Commission has earmarked \$400 million toward the Transportation Climate Action Campaign, which aims to enable individuals to develop climate-friendly behaviors, reduce the Bay Area's carbon footprint, and lay the groundwork for ongoing future climate change initiatives. The Transportation Climate Action Campaign focuses on public outreach and education efforts to alter driving and travel behaviors and to offer a suite of complementary grants, incentives and action-oriented programs. In addition to the public outreach, education and advocacy efforts, specific programs to be pursued include, but are not limited to, the following:

Climate Grants Program

The Climate Grants Program will fund major demonstration projects to test the most innovative strategies to promote changes in driving and travel behaviors. Given that this is the first time that the region has focused its energies on a climate protection initiative, this program provides a great opportunity to learn what kinds of strategies can most effectively reduce GHG emissions. Potential projects may seek to



increase the use of low-GHG alternative fuels, expand car-sharing programs, or implement low-GHG tire incentive programs or pricing demonstration projects.

Safe Routes to Schools

The Safe Routes to Schools Program aims to increase the number of children who walk or bicycle to school by funding projects that remove barriers to such activities. Barriers often include lack of infrastructure, unsafe facilities that result in uninviting walking and bicycling conditions, and lack of education and enforcement programs aimed at children, parents and

the community at large. Through the Safe Routes to School program, local champions work with parents, schools, and transportation, health and law enforcement providers to implement community solutions. This program would provide additional funding to expand existing Safe Routes to Schools programs that are being implemented successfully in Marin, Alameda and Contra Costa counties, and offer new funding to implement similar programs in other counties.

Change in Motion

To promote walking and bicycling as viable, safe transportation choices for Bay Area residents, the Transportation 2035 Plan:

- Commits \$1 billion in discretionary funds to finance the Regional Bikeway Network. The top priority is to complete the on-street portion of the 2,100-mile network.

Keep Walking and Rolling

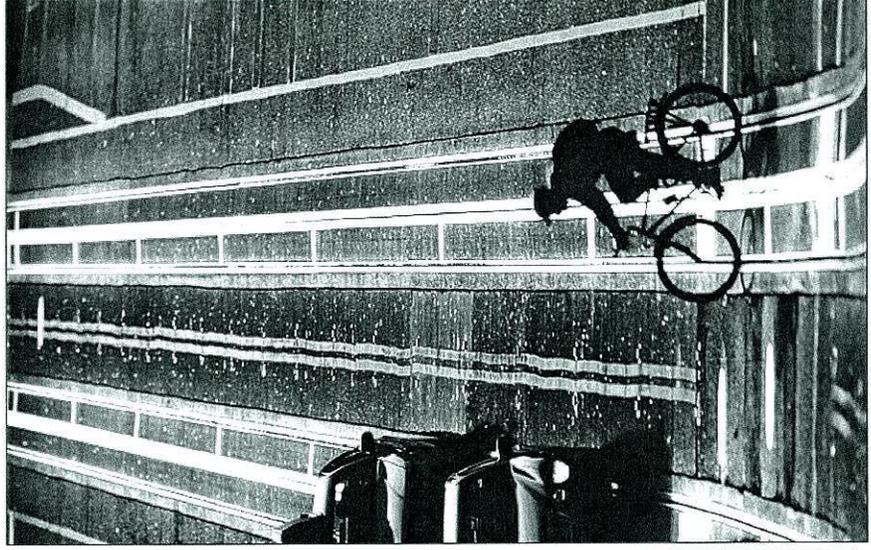
Each day in the Bay Area, residents use their bikes and feet to take over 3 million trips that do not rely upon a car. Yet despite the already high number of cyclists and pedestrians going to work, school, shopping and elsewhere, much more can be done to encourage these trips — and to make them safer and more convenient.

Bicycles

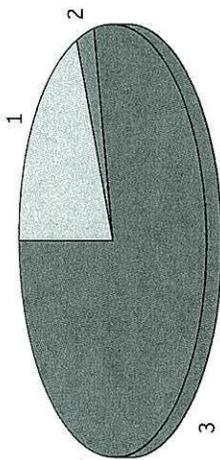
MTC in 2001 identified a 2,100-mile network of regionally significant bicycle routes that will cost an estimated \$1 billion to complete. (This estimate excludes the cost of providing bicycle access across the three toll bridges that do not already have bicycle paths in place or planned: the Richmond-San Rafael and San Mateo-Hayward bridges, and the west span of the San Francisco-Oakland Bay Bridge.) Selected from the nine Bay Area counties' own bicycle plans, routes included in the Regional Bikeway Network link neighborhoods to work, transit and major activity centers. Routes within Priority Development Areas (PDAs, see page 72) account for approximately 84 percent of the Regional Bikeway Network.

In the Transportation 2035 Plan, MTC has committed \$1 billion to finance this Regional Bikeway Network. The top priority is to complete the on-street portion of the 2,100-mile

network. While most of the Regional Bikeway Network consists of on-street bike lanes and bike routes, the network also includes the Bay Trail and other dedicated bicycle/pedestrian paths that connect on-street bicycle routes. A recent study by the city of San Jose found that 38 percent of the bicyclists on a city trail that is part of the Bay Trail network were using the path as a commute route to and from work.

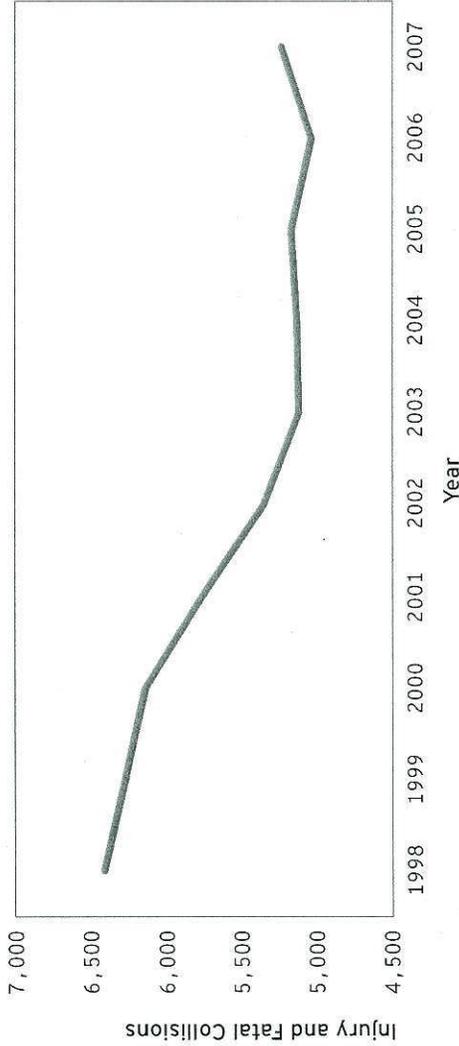


Average Annual Fatal Vehicle Collisions Bay Area Roadways, 1998 - 2007



	Number of Collisions	Percent of Total
1 Involving Pedestrians	110	19%
2 Involving Bicyclists	18	3%
3 All Other Fatal Collisions	442	78%
Annual Average	570	100%

Injury and Fatal Vehicle Collisions Involving Bicyclists and Pedestrians on Bay Area Roadways, 1998 - 2007



Source: California Highway Patrol

Pedestrians

Due to the varying costs and scopes for street improvements such as sidewalks, crosswalks and countdown signals, it is hard to accurately gauge the regional investment needed for pedestrian upgrades and safety countermeasures. As a result, the Transportation 2035 Plan contains no analog to the Regional Bikeway Network for pedestrians.

However, the Transportation 2035 Plan does double funding for MTC's Transportation for

Livable Communities (TLC) program to

\$2.2 billion over the next 25 years. The TLC commitment will likely be used to finance projects that improve pedestrian access to housing and transit. In addition, the new multiagency Transportation Climate Action Campaign will be a funding source for much-needed pedestrian improvements. Safe Routes to Schools and Safe Routes to Transit projects will be eligible for funding under this innovative climate initiative (See page 47 for more information).

Safety

Around the Bay Area, the number of crashes that result in injuries or fatalities has been gradually declining for the past 10 years. This includes both vehicle-to-vehicle collisions and motor vehicle collisions involving bicyclists or pedestrians (see chart above). But walkers and bicyclists are disproportionately involved in fatal collisions. Pedestrians are especially vulnerable, as 19 percent of all fatal collisions nationwide over the past decade have involved pedestrians (see pie chart above). Combined,

Appendices

CHANGE IN MOTION

07-12-8

Appendix 1 – Projects by County

Bay Area Region/Multi-County

(In millions of year-of-expenditure dollars)

Reference Number	Project/Program	Total Project Cost	Committed Funds ¹	Discretionary Funds ²	Project Notes
21002	Implement Freeway Service Patrol, Call Box and Incident Management programs (includes incident detection equipment and incident management systems)	\$ 219.9	\$ 0.0	\$ 219.9	
21005	Fund and implement TransLink®	\$ 408.0	\$ 0.0	\$ 408.0	
21006	Fund and implement Regional Transportation Marketing Program	\$ 27.5	\$ 0.0	\$ 27.5	
21008	Fund and implement 511 Traveler Information	\$ 453.7	\$ 0.0	\$ 453.7	
21011	Transportation for Livable Communities (TLC): provide planning and capital funds to improve pedestrian, bicycle and transit access; and support station development areas and FOCUS Priority Development Areas (PDAs)	\$ 2,200.0	\$ 0.0	\$ 2,200.0	
21012	Golden Gate Bridge seismic retrofit (completes Phase 3)	\$ 699.6	\$ 523.4	\$ 176.2	Phases 1 and 2 complete
21013	Rehabilitate state-owned toll bridges in the Bay Area	\$ 309.5	\$ 309.5	\$ 0.0	
21015	Fund Toll Bridge Seismic Retrofit Program	\$ 8,685.0	\$ 8,685.0	\$ 0.0	
21017	Small transit operators in Alameda, Contra Costa, Marin, Napa, Solano and Sonoma counties – transit operating and capital improvement program (including replacement, rehabilitation and minor enhancements for rolling stock, equipment, fixed facilities and other capital assets; does not include system expansion)	\$ 5,769.2	\$ 4,608.9	\$ 187.7	Shortfall remains
21154	Procure buses for AC Transit transbay, express and local services	\$ 22.0	\$ 0.0	\$ 22.0	
21320	Construct Golden Gate Bridge moveable median barrier	\$ 26.9	\$ 26.9	\$ 0.0	
21342	Extend Caltrain to Transbay Terminal and replace Transbay Terminal, including the construction of the new Transbay Transit Center building and rail foundation (Phase 1)	\$ 1,189.0	\$ 1,189.0	\$ 0.0	Resolution 3434 Regional Transit Expansion Program and Regional Measure 2 Toll Bridge Program; for phases 2a and 2b, see Bay Area Region/Multi-County projects #22008 and #230290
21618	Implement commuter rail service on the Dumbarton Bridge (environmental, design and right-of-way phases)	\$ 301.0	\$ 301.0	\$ 0.0	Resolution 3434 Regional Transit Expansion Program; shortfall remains for construction phase

¹ Committed Funds have been reserved by law for specific uses, or allocated by MTC action prior to the development of the Transportation 2035 Plan.

² Discretionary Funds are flexible funds available to MTC (and not already programmed in Committed Funds) for assignment to projects via the Transportation 2035 Plan planning process.

4-41

Alameda County

(In millions of year-of-expenditure dollars)

Reference Number	Project/Program	Total Project Cost	Committed Funds ¹	Discretionary Funds ²	Project Notes
221992	Implement AC Transit transit priority measures (TPM) and corridor improvements (Element 1)	\$ 14.8	\$ 0.0	\$ 14.8	
22002	Extend I-880 northbound HOV lane from Maritime Street to the Bay Bridge toll plaza	\$ 19.0	\$ 19.0	\$ 0.0	Regional Measure 2 Toll Bridge Program
22007	Implement bicycle and pedestrian projects/programs in Alameda County	\$ 305.5	\$ 305.5	\$ 0.0	Partially funded by 2000 Measure B sales tax
22013	Construct I-580 eastbound truck climbing lane at the Altamont Summit	\$ 64.2	\$ 64.2	\$ 0.0	Proposition 1B Trade Corridor Improvement Fund (TCIF) and State Highway Operations and Protection Program (SHOPP) project
22021	Expand AC Transit transfer centers and park-and-ride facilities in central Alameda County	\$ 2.0	\$ 0.0	\$ 2.0	
22056	Improve Ashby BART station to support Ed Roberts Campus and future transit-oriented development	\$ 43.5	\$ 43.5	\$ 0.0	
22062	Construct infrastructure to support future Irvington BART station	\$ 2.6	\$ 2.6	\$ 0.0	
22063	Improve Route 238 corridor near Foothill Boulevard/I-580 by removing parking during peak periods and spot widening	\$ 116.0	\$ 116.0	\$ 0.0	
22082	Correct grade separation at 7th Street/Union Pacific Railroad entry at Port of Oakland intermodal yards and improve connecting roadways through former Oakland Army Base	\$ 427.0	\$ 427.0	\$ 0.0	Proposition 1B Trade Corridors Improvement Fund (TCIF) project
22084	Improve access to Oakland International Airport's North Field, connecting Route 61 (Doolittle Drive) with Earhart Road and extending infield area at North Field	\$ 10.0	\$ 5.0	\$ 5.0	
22087	Reconstruct I-880/Oak Street on-ramp	\$ 26.7	\$ 26.7	\$ 0.0	
22089	Improve Martinez Subdivision for freight and passenger rail	\$ 100.0	\$ 100.0	\$ 0.0	Proposition 1B Trade Corridor Improvement Fund (TCIF) project
22100	Replace overcrossing structure at I-880/Davis Street interchange and add additional travel lanes on Davis Street (includes ramp, intersection and signal improvements)	\$ 24.4	\$ 24.4	\$ 0.0	Coordinates with Alameda County project #22670
22106	Construct street extensions in Hayward near Clawiter and Whitesell streets	\$ 26.9	\$ 26.9	\$ 0.0	2000 Measure B sales tax project; coordinates with Alameda County project #21093
22455	Implement Bus Rapid Transit service on the Telegraph Avenue/International Boulevard/E. 14th Street corridor	\$ 250.0	\$ 176.0	\$ 74.0	Resolution 3434 Regional Transit Expansion Program and Regional Measure 2 Toll Bridge Program

Albany Active Transportation Plan

April 2012



Prepared for: City of Albany



Prepared by: Fehr & Peers, Bicycle Solutions, Questa Engineering

FEHR & PEERS | BICYCLE SOLUTIONS



4-43



1.

Buchanan Bikeway and Buchanan/Marin Merge Improvements

The Buchanan Street/ Marin Avenue corridor is Albany's only continuous east-west link from the Bay to the Berkeley hills. It consists of the Buchanan Street Extension west of I-80 along the north edge of Golden Gate Fields, the I-80 interchange and Overpass, a four-lane arterial segment between Pierce Street and San Pablo Avenue, and Marin Avenue to the east. Important connections and destinations along the corridor include Eastshore Frontage Road, USDA Research Center, Ocean View Park and Albany Friendship Club, Ocean View Elementary, and City Hall.

Background

There currently exists a heavily used informal off-street path/wide sidewalk on the south side of Buchanan Street between San Pablo Avenue and Ocean View Park. This project would improve and extend the subject trail and provide safer crossing opportunities that would link the trail to neighborhoods on the north side of Buchanan Street and to the Bay Trail. At the eastern end of the current trail there is a bikeway gap between San Pablo Avenue and Cornell Street, where bike lanes installed as part of the Marin Avenue road diet project begin.

Issues and Opportunities

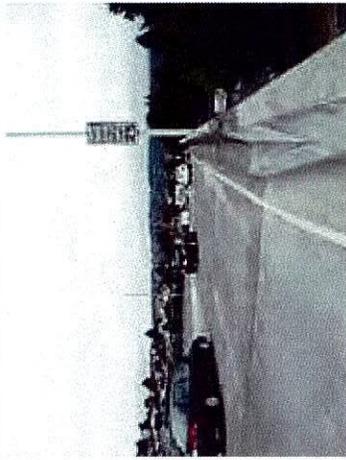
- Between Pierce Street and Jackson Street, walking demand exists between north-side residences and south-side destinations; however, no controlled walking crossings other than the Jackson signal are present.
- Children and parents cross Buchanan Street at Jackson Street; however, the eastern crosswalk is currently closed.
- The Buchanan Street/Jackson Street signal operates with permitted left-turn phasing for turns onto Jackson.
- No sidewalk is present along the south side of Buchanan Street west of the Ocean View Park driveway.
- No sidewalk is present along the north side of Marin Avenue/Buchanan Street between the Fire Station and Madison Street.
- The primary westbound bicycling route on Marin Avenue ends at Cornell Avenue.
- Other than a locked gate (University Village resident access only) just north of the Ohlone Avenue/Kinkead Way intersection, no walking or bicycling connections are present between Buchanan Street and University Village other than Jackson Street.

Detail of Proposed Improvements

- Between Pierce Street and San Pablo Avenue
 - Along the south side, add a shared use path and on-street Shared Lane Markings (sharrows);
 - Along the north side, add a westbound bicycling lane;
 - Explore the possible relocation of the bus stop from under Buchanan overpass to a more pedestrian accessible location, and/or make sidewalk on south side of Buchanan Street continuous to Cleveland Avenue.

Relative Project Priority:

Tier 0



From top: Existing Buchanan Overpass, looking west;
Existing Marin Class II bicycling lanes

4-44

Detail of Proposed Improvements (con't)

- At Pierce Street;
 - Install a new traffic signal, with a marked crosswalk on the west leg;
 - Close Buchanan Avenue west of Pierce Street to motor traffic and extend the existing shared use path on the Buchanan Street overpass from its current terminus to Pierce.
 - At Taylor Street;
 - Narrow the USDA driveway and eliminate inbound and outbound slip lanes;
 - Mark a crosswalk across the USDA driveway;
 - Add a flashing beacon at the realigned USDA driveway stop sign that is interconnected with the new signal at the intersection of Pierce and Buchanan;
 - At Jackson Street;
 - Paint a bicycle box on northbound approach.
 - At San Pablo Avenue;
 - Add an eastbound right turn only lane;
 - Provide a protected eastbound right turn phase for path users to access the south crosswalk;
 - Restrict Right Turn on Red
 - Extend Marin Avenue bike lanes from Cornell Avenue to San Pablo Avenue
- Timeline**
- Stage 1 – Buchanan bikeway, signals, and pavement markings
 - Add Pierce Street signal and west crosswalk
 - Modify south curb line and drainage. Construct shared use path, Pierce Street to San Pablo.
 - Reconfigure Buchanan-Marin median and curbs
 - Add westbound bike lane and eastbound Shared Lane Markings
 - Stage 2 – San Pablo Avenue to Cornell Avenue and Utility Undergrounding;
 - Extend bicycle lanes from Cornell Avenue to San Pablo Avenue;
 - Underground utilities along both sides of Marin Avenue between San Pablo Avenue and Masonic Avenue and along the north side of Buchanan Street from San Pablo Avenue to Cleveland Avenue.

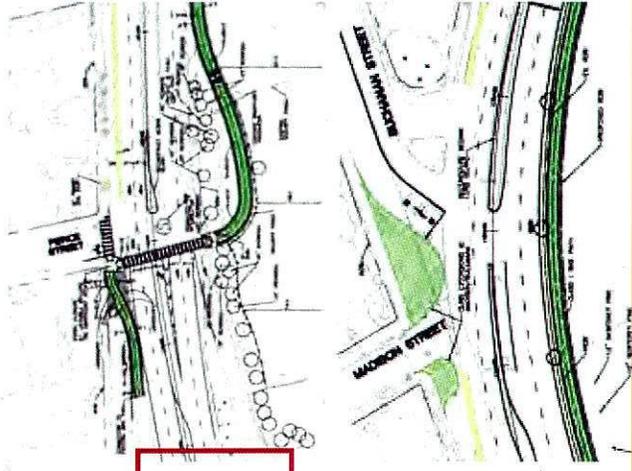
Cost \$ 2.5 million

Other Related Projects

Eastshore Frontage Road Path (Project 13): This project would include a sidewalk extension along the southern side of the Buchanan overpass, connecting to the Buchanan bikeway.

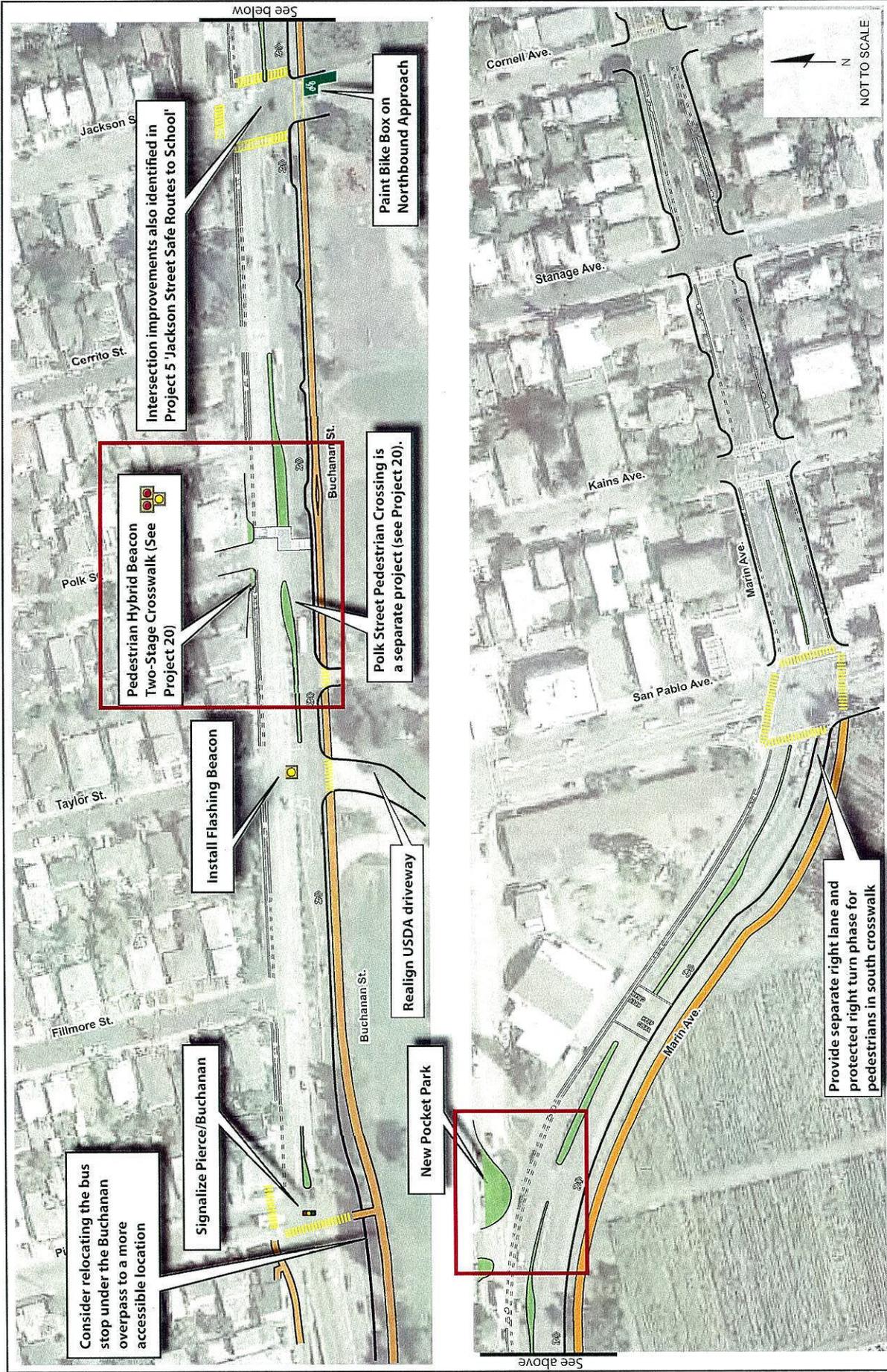
Polk Street / UC Village Connection (Project 20): This project would add a new pedestrian hybrid beacon and crosswalk across Buchanan Avenue at Polk Street and Ocean View Park.

Buchanan/Jackson Safe Routes to School: This project, funded through a Caltrans Safe Routes to School grant, would reconfigure the Buchanan/Jackson intersection. Protected left-turn signal phasing, pedestrian countdown heads, ladder-style crosswalks and advance stop bars, and directional curb ramps. Construct of these improvements is expected Summer 2011. This project is separate from the Jackson Street Safe Routes to School (Project 5) project identified in this Plan.



From top: Proposed Pierce Street intersection improvements; Proposed Buchanan Street realignment and Madison Pocket Park (Source: AECOM).

4-45



Albany Active Transportation Plan

BUCHANAN BIKEWAY AND BUCHANAN/MARIN MERGE IMPROVEMENTS

Project 1

A-46

FEHR & PEERS

July 2011
SF10-0482(graphics)Recom Projects/City Hall

12.

San Pablo Avenue Streetscape and Pedestrian Safety Project

San Pablo Avenue is the major north-south arterial connecting Albany to the neighboring cities of Berkeley and El Cerrito. The roadway is challenging to cross as a walking or cyclist and is a substantial barrier separating the eastern residential areas from the Albany Hill neighborhood and Albany Bulb coastal areas. Additionally, San Pablo Avenue is a major automobile-focused commercial area. The proposed median, sidewalk, and crosswalk improvements in this Plan would make San Pablo Avenue easier and safer to cross as a walking or cyclist; create a distinctive roadway that identifies the City to drivers passing through; and shift the commercial focus from auto-centric to one that is attractive to pedestrians and cyclists.

Background

At one time, San Pablo Avenue was the major north-south circulator serving inner East Bay cities. When I-80/I-580 was built, its auto-carrying functions diminished, but it is still a major automobile street and is controlled by Caltrans. In addition to its auto function it is a very heavy transit street carrying AC Transit's first "rapid," the 72R, as well as numerous local bus routes and one TransBay bus route.

Issues and Opportunities

- o San Pablo Avenue is a Caltrans facility and a regionally significant vehicle route.
- o Several businesses along San Pablo Avenue have parking lots and driveways that currently have full access.
- o Due to higher vehicle volumes and speeds, crosswalks on San Pablo Avenue would need enhanced treatments.

Detail of Proposed Improvements

- o Basic Improvements
 - Install high-visibility crosswalk striping, advanced yield lines ("sharks teeth"), and "YIELD HERE TO PEDESTRIANS" signage at un-signalized crosswalks.
 - Add crosswalk to the northern side of Brighton and San Pablo intersection and other T intersections on San Pablo Avenue, subject to Caltrans approval;
- o Mid-term Improvements
 - Install a landscaped median where feasible. This would require further study and public outreach to identify the location of existing driveway curb cuts and needs of business owners; however, opportunities exist to consolidate turn pockets and provide a median in several areas along the roadway.
 - Explore using the median as part of a storm water Best Management Practices (BMP);
- o At San Pablo Avenue/Washington Avenue
 - Install a new signal at the southern Washington Avenue intersection;

Relative Project Priority:

Tier 1



From top: Existing Washington Avenue Crossing; Proposed Streetscape Improvements, 14th Street, San Leandro; Mid-block crosswalk, Boulder, Colorado

4-47



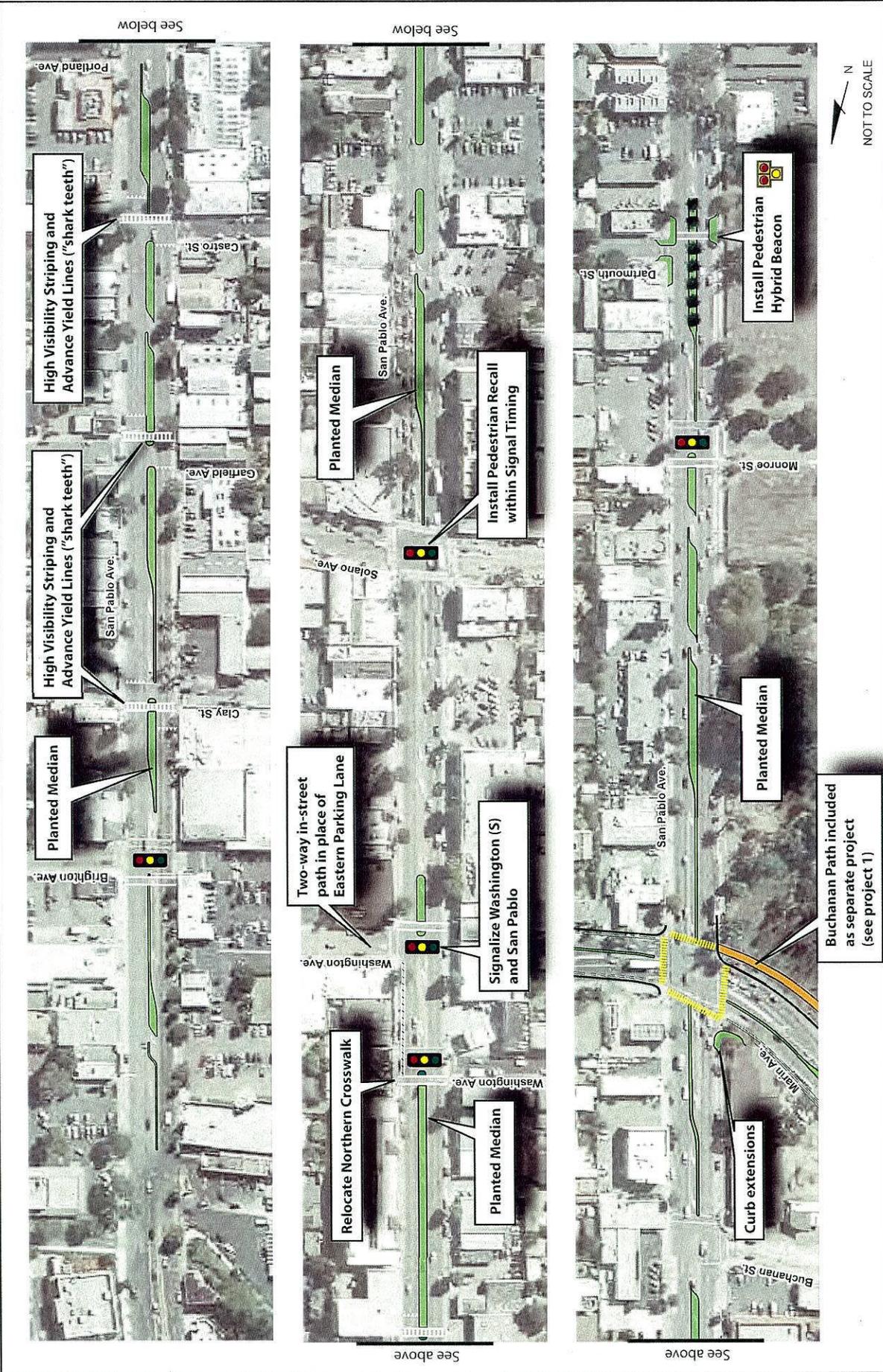
Detail of Proposed Improvements (con't)	<ul style="list-style-type: none"> ▪ Relocate the existing northern crosswalk to the south side of the northern intersection of Washington Avenue; ▪ Install median walking refuge islands on both north and south intersections; ▪ Remove parking on the eastern side of San Pablo Avenue between the two intersections and install a two-way, on-street separated bicycling path ▪ Restrict right-turns-on-red at the westbound approach of Washington Avenue and southbound approach of San Pablo Avenue to manage conflicts between vehicles and bicycles using the new two-way bicycling path. ○ At San Pablo Avenue/Dartmouth Street <ul style="list-style-type: none"> ▪ Convert Dartmouth Street to a right-in/right-out only street by constructing a median within the center turn lane on San Pablo Avenue; ▪ Install a marked crosswalk and walking hybrid beacon on the south side of the intersection.
Timeline	Stage 1 – Enhanced Crosswalk Treatments Stage 2 – Landscaped Median
Cost	\$ 1.7 million

Other Related Projects	<p><u>Dartmouth Bicycling Boulevard (Project 15)</u>: This project would include a new walking hybrid beacon at Dartmouth Street.</p> <p><u>Washington Avenue Bicycling Boulevard (Project 18)</u>: This project would include a new traffic signal at Washington Avenue and a Class I path along the east side of San Pablo Avenue to facilitate crossings.</p>
-------------------------------	--



San Pablo Avenue Streetscape Elements in El Cerrito

4-48



SAN PABLO AVENUE STREETSCAPE AND PEDESTRIAN ENHANCEMENTS

4-49

- **ATTACHMENT 5: Public Participation**
 - **Charette Pictures**
 - **Traffic & Safety Agendas**
 - **City Council Minutes**
 - **Complete Street Flyer**
 - **Announcements**

Albany Complete Streets Plan

San Pablo Avenue & Buchanan Street



Thursday, December 6

7:00-9:00 p.m.

Saturday, December 8

9:00 a.m.-2:00 p.m.

Wednesday, December 12

7:00-8:30 p.m.

— *locations to be determined* —

The City of Albany, in partnership with the Local Government Commission, will be hosting several community workshops and design activities to explore ways to make it easier and safer to walk, bike, ride the bus, and drive along San Pablo Avenue and Buchanan Street. **Please join us in December to help shape this exciting "Complete Streets" plan.**

Renowned walkable communities expert Dan Burden will lead these public events. A multidisciplinary team will help translate your input into detailed designs that balance the needs of all modes and users of all ages and abilities.



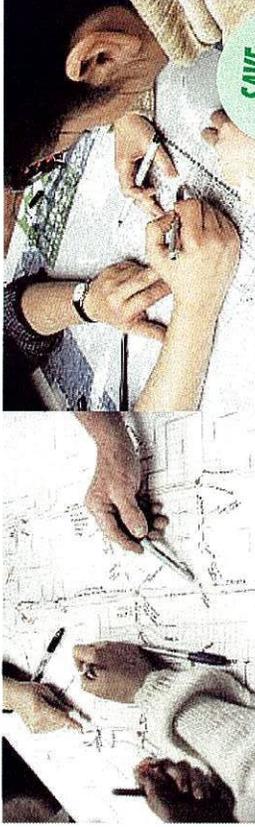
For more information

Aleida Andrimo-Chavez, City of Albany
achavez@albanyca.org, (510) 528-5759



Albany Complete Streets Plan

San Pablo Avenue & Buchanan Street



Thursday, December 6

7:00-9:00 p.m.

Saturday, December 8

9:00 a.m.-2:00 p.m.

Wednesday, December 12

7:00-8:30 p.m.

— *locations to be determined* —

The City of Albany, in partnership with the Local Government Commission, will be hosting several community workshops and design activities to explore ways to make it easier and safer to walk, bike, ride the bus, and drive along San Pablo Avenue and Buchanan Street. **Please join us in December to help shape this exciting "Complete Streets" plan.**

Renowned walkable communities expert Dan Burden will lead these public events. A multidisciplinary team will help translate your input into detailed designs that balance the needs of all modes and users of all ages and abilities.



For more information

Aleida Andrimo-Chavez, City of Albany
achavez@albanyca.org, (510) 528-5759



5-1

Help Create "Complete Streets" in Albany

San Pablo and Buchanan Corridors Improvement Plan



safer crossings, better bike, bus and ADA access, beautification, improved traffic flow

Community Design Charrette

"Complete Streets" are streets that are designed with users of all types and abilities in mind: pedestrians, cyclists, transit riders, seniors, children, people with disabilities, and motorists. The City of Albany is creating plans to make it easier and safer to walk, bike, ride the bus, and drive along San Pablo Ave. and Buchanan St.

You are invited to participate in a community design charrette that will bring residents and stakeholders together with a multidisciplinary consultant team in a series of events to identify problems and develop potential solutions. Your input is extremely valuable. We encourage you and your neighbors to attend these important events. The consultant team will translate your input into a plan with detailed designs for future implementation.



For more information
Aleida Andrino-Chavez, City of Albany
achavez@albanyca.org
(510) 528-5759

Thursday, December 6

Kickoff Community Meeting

■ 7:00 - 9:00 p.m.

Saturday, December 8

Community Walk and Design Workshop

■ 9:00 a.m. - 2:00 p.m.

Wednesday, December 12

Presentation of Plan Concepts

■ 7:00 - 8:30 p.m.

Location for all events: Ocean View Elementary School
Multipurpose Room ■ 1000 Jackson St. (@ Buchanan)

Food & refreshments provided! Children are welcome.

For more project info: albanyca.org/Index.aspx?page=1170



Organized by the City of Albany, in partnership with the Local Government Commission,
with support from a Caltrans Community-Based Transportation Planning Grant.

5-2

**SAN PABLO AVE. AND BUCHANAN ST-PUBLIC
DESIGN CHARRETTE**



COMMUNITY MEMBERS LISTEN
TO ONE OF THE WALKING AUDIT
GROUP PRESENTATION DURING THE
CHARETTE EVENT FOR THE
DEVELOPMENT OF THE COMPLETE
STREETS FOR SAN PABLO AVE. AND
BUCHANAN STREET.



INPUT FROM THE COMMUNITY
AT THE DESIGN CHARRETE FOR
IMPROVEMENTS ON SAN PABLO
AND BUCHANAN ST.



COMMUNITY WALKING AUDIT
TO OBSERVE AND LOCATE
SAFETY ISSUES ALONG THE SAN
PABLO AVE/BUCHANAN STREET
CORRIDORS

Focus groups participants

School Focus Group			
NAME	SCHOOL REPRESENTED	CONTACT INFORMATION	Staff responsible
Diane Delaney	Cornell Elementary-Parent	Ph. 528-1166; email: stripylizard@comcast.net	Claire
Jill Cooper	Albany Middle School-Parent	Ph. 528-4242 Email: jillcoop@gmail.com	Claire
Joanna Pace	Albany Middle School-Teacher	Email: jpace@ausdk12.org	Claire
Tom O'Brien	Marin Elementary	tomo@berkeley.edu ; (510) 527-7995	Claire
Stefan Cajina		stefan.cajina@cdph.ca.gov ; (510) 900-2251	Claire
	High School (sports participants)		Claire
	High School Student		Claire
Sarah Oldershaw, Anne Hsu to find one more	Ocean View Parents		Anne Hsu to help
Terry Georgeson	Ocean View Principal	tgeorgeson@ausd.k12.org	Anne Hsu to Remind Terry
Bicycle and Pedestrian Advocacy			
NAME	Agency REPRESENTED	CONTACT INFORMATION	Staff responsible
Harry Chomsky to recommend reps	Albany Strollers and Rollers	Harry@chomsky.net	Aleida to ask him
Erik Anderson	Cyclist/resident/city of Berkeley bike ped. planner	eanderson@ci.berkeley.ca.us	Aleida
			Aleida
ADA Access/Special Accessibility Concerns			
NAME	Agency REPRESENTED	CONTACT INFORMATION	Staff responsible
Peggy McQuaid	Disabled community (Wheelchair)	Poolpeggy1@yahoo.com	Aleida
	Center for the Blind	ocbinfo@dor.ca.gov (510) 559-1208	Aleida
	Seniors		Aleida to contact Isabelle Leduc
Michelle Jordan	Disabled	talbotalbany@yahoo.com	Aleida to ask her
Margaret Tong	Disabled	mamtong@tonghall.com	Referred by

			Peggy McQuaid
Fire and Police			
Tentatively scheduled for Friday, December 8 th from 1:30-2:30pm.			
NAME	Department REPRESENTED	CONTACT INFORMATION	Staff responsible
Brian Crudo to recommend staff	Fire Department	bcrudo@albanyca.org	Claire
Chief McQuiston, Lt. Geissberger and one other staff	Police Department	mmcquiston@albanyca.org jgeissberger@albanyca.org	
Brian Parsley to nominate	UC Berkeley Police		
Agency Stakeholders			
NAME	Agency REPRESENTED	CONTACT INFORMATION	Staff responsible
Anh to recommend staff from Caltrans traffic operations/planning	Caltrans	Anh_phan_Nguyen@dot.ca.gov	Aleida
Kevin Hufferd	UC Berkeley	khufferd@cp.berkeley.edu	Aleida
Marla Stephenson	AUSD	mstephenson@ausdk12.org	Aleida
Tom Moreno/Dr. Zhang	USDA	<u>Thomas.Moreno@ARS.USDA.GOV</u> <u>Howard.Zhang@ARS.USDA.GOV</u> <u>Gwyn.Watson@ARS.USDA.GOV</u>	Aleida
Lee Huo	ABAG-Bay Trail Access	leeh@abag.ca.gov 464-7915	Aleida
Stephen Newhouse/Nathan Landau	AC Transit	snewhouse@actransit.org nlandau@actransit.org	Aleida
Farid Javandel	City of Berkeley	farid-j@pacbell.net	Aleida
Melanie Mintz	City of El Cerrito		Aleida
Economic Development			
NAME	Business or Agency REPRESENTED	CONTACT INFORMATION	Staff responsible
	Business Owners - Auto related - Restaurants/food - Retail		Winkie to suggest names
	Commercial Property Owners		
	Multi-family development owners		
Nearby Residents			
NAME	Area REPRESENTED	CONTACT INFORMATION	Staff

5-5

			responsible
Jordan Sampietro	Washington/Madison	jsampietro@hotmail.com	Aleida
Susan Moffat	Kains	Moffat.susan@gmail.com	Aleida
Tavie Tipton	UC Village	Tippy@ Berkeley.edu	Aleida –Ask her to bring a couple of student residents
			Jeff to suggest individuals
Tess Lengyel		tlengyel@alamedactc.org	Aleida

City Commissions/Committees

NAME	Commission REPRESENTED	CONTACT INFORMATION	Staff Liaison
Bernard Knapp/Susan Reeves	Traffic and Safety	bernardknapp@gmail.com/sreeves@annies.com	Aleida-include item in Dec 4 meeting to discuss talking points to convey commission message
David Arkin???	Planning and Zoning		Anne: Please include discussion item in your November meeting and assign rep with Commission's concerns
	Parks and Rec		Penelope: Please include this item in your November agenda and assign a rep from your commission for this focus group
	Sustainability		Claire: Please include item on your November

			agenda and assign one rep from your commission for the focus group
	Waterfront		Jeff: Please include item on your November agenda and assign one rep from your commission for the focus group
	Arts		Isabelle: Please include item on your November agenda and assign one rep from your commission for the focus group
Tony Wolcott	Urban forester	twolcott@albanyca.org	Aleida

Feedback from Focus Groups 12/06/2012

1, Schools

1. Student parents; topics and concerns

1.1 Cornell parent

1.1.1. Biking with son

1.1.2. Need to use Marin crossing at San Pablo but currently no easy bike connection

1.1.3. Concerned with no easy crossing of San Pablo; anywhere

1.1.4. Son walks down Marin to and from Ocean View, cars don't stop at non signaled crossings, signaled crossing take too long and unsafe as well.

1.1.5. Better connection to bay trail

1.2. Albany Middle School parent

1.2.1. Uncomfortable with bike routes to and from school

1.2.2. Parents have to drive kids to school because there is no safe routes

1.2.3. Wants a safer North to South Route through and around city w/o San Pablo

1.3. Cornell Parent

1.3.1. Increased bike and ped safety at Marin & Santa Fe

1.3.2. Make San Pablo more walkable and bikeable

1.3.3. Safer connections to regional bike and walking paths

1.3.4. Make San Pablo 'Better'

1.3.4.1. Medians

1.3.4.2. More trees

1.3.4.3. Obvious crossings bigger and bolder

1.3.5. When given the opportunity drivers speed all around Albany

1.4. Albany Middle and Cornell parent

1.4.1. City has made great steps to improve bike and walking corridors

1.4.2. Specific issues "devil is in the details"

1.4.2.1. Crossing San Pablo

1.4.2.2. Right turn lane at Buchanan and San Pablo

1.4.2.3. Bike connection to Bay Trail

1.4.2.4. Ohlone green way

1.5. Teacher Albany Middle School

1.5.1. Has been biking to Albany middle since 1981

1.5.2. 6th grade survey; Kids saw concerns in

1.5.2.1. Cars turning into crosswalks, covering up crosswalk

1.5.2.2. Not enough time to cross street

1.5.2.3. "need crossing guards"

1.5.2.4. Kids have hard time figuring out cross walks

1.5.2.5. More signals

1.6. City representative for Albany High

1.6.1. Unsafe crossing at night

- 1.6.2. Certain crossings stop and hinder access to parts of the city
- 1.6.3. Brighton and Solano crosswalks take too long
- 1.6.4. Not enough time to cross at Jackson
- 1.6.5. parents won't let kids walk to school if they have to cross San Pablo
- 2. Dan Burnden
 - 2.1. Loss of street crossing on North side of Brighton = 18 extra conflicts
 - 2.2. Crossing at Marin and Santa Fe would give peds head start
- 3. Examples of Success
 - 3.1. Signal Ped Crossings (EL Cerrito) (parents comments)
 - 3.1.1. Road & overhead crossing markings
 - 3.1.2. Seems successful
 - 3.1.3. Plenty of visibility
 - 3.1.4. Automatic signal, soon as peds access street
 - 3.1.5. Increased safety
 - 3.2. Bulb outs & raised entrances (El Cerrito & Berkeley)
 - 3.2.1. Raised crossings
 - 3.2.2. No right turn on red
 - 3.3. Traffic Tracking (U.C Village)
 - 3.4. Bolder Street Crossing Paint
- 4. Other Concerns
 - 4.1. Olani Greenway & Albany Middle School
 - 4.1.1. Difficulty crossing Masonic
 - 4.1.2. Kids and parents crossing street jump stop signs
 - 4.1.3. Not all bikes will stop, most use stop signs on olani as suggestion
 - 4.1.4. Most bikes will meet intent of stop sign "but then they can be a sitting duck"
 - 4.1.5. Bikers know risks
 - 4.2. Green sharrow lanes
 - 4.3. Entrance to Albany Middle School and Green way too close
 - 4.3.1. Car confused about where people on bikes are coming from
 - 4.4. Dartmoth → Ocean View
 - 4.4.1. Need stop lights that sense bikes
 - 4.4.2. No easy crossing SP
 - 4.4.3. Making left on to SP very dangerous
 - 4.4.4. Make Dartmouth safer in general
 - 4.5. Students find it hard to get from Albany Middle to Albany High
 - 4.5.1. Not enough time to cross streets
 - 4.6. Drivers on cell phones aren't paying enough attention to what is happening around them
 - 4.7. "light automatically change for drivers why not me, I feel like a second class citizen"
 - 4.7.1. Walkers should get a walk sign at every change in lights

Economic Development

1. Albany Bowl
 - 1.1. Wants to retain potential of property for retail purposes
 - 1.2. Walkability
 - 1.2.1. Because of generations of people who frequent A.B, parking needs to retain behind A.B, keep kids off streets
 - 1.3. Past design studies of San Pablo
 - 1.3.1. Enhance walking & development is hard because number of small prosperities, hard to create cohesion
 - 1.3.2. Downgraded A.B development potential from 4 stories to 3 stories
 - 1.3.3. Cognizant of traffic changes
 - 1.3.3.1. Doesn't want "improvements to affect business"
 - 1.3.4. Wears two hats (business owner and representative of city)
2. Chamber of Commerce
 - 2.1. Has vested interest in San Pablo
 - 2.1.1. Wants to make more inviting and welcoming
 - 2.1.2. Make passerby's notice the city more
 - 2.2. Find new ways to get people to stop in Albany
 - 2.2.1. Develop exclusive walking districts
3. Solano Merchants Association
 - 3.1. City Maintenance dept does a good job
 - 3.1.1. But only 4 ppl
 - 3.1.2. Increase in area could mean less attention to any given area
 - 3.2. 5 schools in area results in lots of kids walking through the town which makes safe crossing difficult to achieve
 - 3.3. Increase flow of traffic
 - 3.3.1. Caltrans focuses on safety vs flow of travel
 - 3.3.2. Desires no traffic jams on Solano
 - 3.4. Different business have different parking desires, hard to plan for all needs
4. Chamber of Commerce Manager
 - 4.1. Supports businesses on San Pablo
 - 4.2. San Pablo business are the face of the city
 - 4.3. More consistence is needed
 - 4.3.1. Will help traffic flow
 - 4.4. Better parking
 - 4.4.1. Most businesses are "drive by"
 - 4.4.2. Need people to stop consistently to go inside
5. Albany Ford
 - 5.1. Walkability of San Pablo
 - 5.1.1. The longer you can keep people in the area the higher the business
 - 5.1.2. Increased seating areas

- 5.2. Different members of Albany have different needs
 - 5.2.1. Business needs creates complications with residential needs
 - 5.2.2. Wants San Pablo and Solano to create a beneficial relationship
- 5.3. Unhappy with root encroachment
 - 5.3.1. Needs a more defined space for trees
 - 5.3.2. Trees that don't break up sidewalks
 - 5.3.3. Trees that don't cover his signage
- 6. Mechanics Bank
 - 6.1. Concerned with high traffic and speeds
 - 6.1.1. Customers scared to cross San Pablo, effects business
 - 6.2. Safe traffic crossings needed
 - 6.3. Diagonal crossings at major intersections
 - 6.4. Large trees
 - 6.4.1. Take away from signage
 - 6.4.2. Safety issues
 - 6.4.3. Too dark at night
 - 6.4.4. Creates traffic
 - 6.4.5. More maintenance needed
 - 6.5. Bike racks are necessary around the city
- 7. Kaddy Car Wash
 - 7.1. Tree concerns with visibility
 - 7.2. Had to tear out sidewalk because of tree roots
 - 7.3. Driveway recognition is very difficult because of so many driveways, hard to tell where to enter and exit
- 8. Ideas for success
 - 8.1. Trees need to be planned better, they take too much away from businesses without giving enough back
 - 8.2. What does "Urban Village by the Bay" mean
 - 8.2.1. Small town feel
 - 8.2.2. "what something that we never had"
 - 8.2.3. Major thoroughfare
 - 8.2.4. Desire to make outside slowdown and enjoy the town
 - 8.2.5. Connection to larger bay area but still has a smaller feel
 - 8.2.6. Organically grown
 - 8.2.6.1. Independently owned businesses
 - 8.2.6.2. Diversity
 - 8.2.6.3. Business owners live in city
 - 8.2.6.4. Community enrichment
- 9. Identity
 - 9.1. "if we are gonna market the city what are we gonna market?"
 - 9.2. Selling points
 - 9.2.1. Great place to serve Berkeley and the greater east bay

9.2.2. Neutral spaces

9.3. Anchoring institution?

10. Public Art

10.1. "need to fix every other aspect before"

10.2. Public art seems to be branded as "big Box" stores and we don't want that

10.3. "you don't see tattoos on a super model for a reason"

11. Medians

11.1. No left turn = loss of business

11.2. NO!!

11.2.1. This was a very contentious point

11.3. Deliveries

11.3.1. Studies must be done to make sure deliveries aren't hindered

11.3.2. "no access to business

11.3.3.

Public Agencies

1. Medians
 - 1.1. Large bushes
 - 1.2. Increased visibility
 - 1.3. Emergency access
 - 1.3.1. N bound on San Pablo
 - 1.3.2. Wrong way up Solano hill
 - 1.4. Jump lanes
 - 1.4.1. Emergency only access
 - 1.4.2. Near fire and police
 - 1.5. Speed on median streets vs no medians?
 - 1.5.1. Speed increases, greater sense of protection
 - 1.6. Reduce crashes
 - 1.6.1. +12% efficiency on streets
 - 1.7. Bike access?
 - 1.7.1. Intimidated by traffic
 - 1.7.2. One way access on certain blocks
 - 1.7.2.1. Sidewalk bulb-outs
2. San Pablo Façade
 - 2.1. Directional driving gives different ideas of the city
 - 2.2. Majority of traffic passes through the city
 - 2.2.1. Place making issues
 - 2.2.1.1. Identity
 - 2.3. San Pablo and Solano
 - 2.3.1. Terrible intersection
3. Albany Image
 - 3.1. 2 perceived notions
 - 3.1.1. San Pablo vs Solano
 - 3.2. Identifiable Gateways
 - 3.2.1. Specific locations
 - 3.2.2. Art, Arches
 - 3.2.3. Tree gateways
 - 3.2.4. Albany becomes a speedway
 - 3.3. "not going to stop being a thoroughfare so we should make it more of a place"
4. Widths and continuity
 - 4.1. Changes that won't affect transit and commute
 - 4.1.1. Rapid and local busses
 - 4.2. Maintain 2 11' lanes is ac code
 - 4.3. Bikes still need to finish journey on San Pablo even if bike boulevard isn't
 - 4.4. Safe, uncontrolled crossings
 - 4.4.1. Too many in Albany

- 4.4.2. Hawk signal & flashing beacon
- 4.5. Protected turns on to Solano from San Pablo

ADA/Bike and Pedestrian/seniors

1. Demand a bike path along San Pablo
2. Sidewalks are impassable
 - 2.1. Uneven and tree up-roots
3. Lack of Handicap parking along San Pablo
4. Landscaping
 - 4.1. Tree limbs over sidewalk
5. Biking up and down San Pablo
 - 5.1. Bikes on Sidewalk
 - 5.2. No easy way to the Bay Trail
6. crossings
 - 6.1. Cars turning right onto San Pablo don't look left for Peds and Bikes
 - 6.2. Avoid crossing San Pablo at all costs
 - 6.3. Timed crossings take too long
 - 6.4. Crossing button at an odd location
 - 6.5. Cars don't care about people
 - 6.6. Not enough time to cross
7. Security concerns
 - 7.1. High crime on San Pablo
 - 7.2. Assault on and off streets
 - 7.3. Police don't have ability to see everything
8. Vision concern
 - 8.1. Peds can't see bikers headed same direction when approaching from behind
9. Safety
 - 9.1. Cars speeding off freeway at Buchannan
 - 9.2. Cars crossing Marin at night
 - 9.3. Speeds down Marin
 - 9.4. Peds crossing Marin at night
10. Other areas of need(blind)
 - 10.1. Alameda
 - 10.2. Hienz and San Pablo
 - 10.2.1. Audible signal
 - 10.2.2. Brail info
 - 10.3. *common thought is that only busy streets need audible crossings, blind people can hear the busy streets, then need help with the slow ones
 - 10.4. Power line guid cables need to be at 90 degree angle, otherwise they get caught in canes

- 10.5. Ease of discovery for crossing signals
- 10.6. Sidewalk ramps aren't in useful location for crossing the street
- 11. (ADA)
 - 11.1. Hard to cross San Pablo
 - 11.2. Cars intruding in to crossings
- 12. (bike) need buffer between street and sidewalk to use San Pablo
 - 12.1. Green space or green lane would help cars and bikes to use road safely
- 13. (Senior and ADA)
 - 13.1. Need straight shot ramps when crossing streets
 - 13.1.1. 2 ramps per corner, one each direction
 - 13.2. Drainage at corner
 - 13.2.1. Too flooded at corners
- 14. Medians
 - 14.1. Would like refuge at middle, but need guaranteed safety
 - 14.2. Hybrid beacon would be nice so cars can see them and stop with a safe distance
 - 14.3. Longer lights when crossing
 - 14.4. Lower threshold for necessity



TRAFFIC AND SAFETY COMMISSION
REGULAR MEETING

City Hall - Council Chambers
1000 San Pablo Avenue
February 28, 2013 – 7:00 pm.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF MINUTES - Minutes for January 24, 2013
4. PUBLIC COMMENT – For persons desiring to address the Commission on an item that is NOT on the agenda, please note that each speaker is limited to three (3) minutes. The Brown Act limits the Committee's ability to take and/or discuss items that are not on the agenda; therefore, such items are normally referred to staff for comment or to a future agenda.
5. PRESENTATION
 - 5-1 Police Report
Recommended Action: No action required. For information only.
6. DISCUSSION AND POSSIBLE ACTION ON MATTERS RELATED TO THE FOLLOWING ITEMS:
(Limited public comment will be taken for reports)
 - 6-1 **San Pablo & Buchanan Complete Streets Study: Selection of preferred design alternative for San Pablo Avenue and pedestrian crossing for Buchanan Street**
Recommended Action: Receive presentation of the three alternatives developed during the charette process in December 2012 and select preferred alternative for further development of design concept.
 - 6-2 **Review of proposed new commercial building at 1600 Solano Avenue.**
Recommended Action: Discuss potential traffic calming, pedestrian safety, and on-street parking measures to address neighborhood concerns about the proposed project.
 - 6-3 **Streets Smarts Program cost proposal.**
Recommended Action: Discuss the cost proposal and provide direction to staff on next steps.
 - 6-4 **Report on construction activities for the Marin/Santa Fe Safe Routes to School Project**
Recommended Action: For information only.
 - 6-5 **Report on construction activities for the Buchanan Bikeway Project**
Recommended Action: For information only.
 - 6-6 **Report on the Marin Bikeway from San Pablo Avenue to Cornell Avenue and the Marin Undergrounding Utility District from San Pablo to Masonic.**
Recommended Action: For information only.
(Note: substantive discussion of design of the proposed project will be scheduled for a forthcoming meeting.)
7. ANNOUNCEMENTS AND COMMUNICATIONS



**TRAFFIC AND SAFETY COMMISSION
REGULAR MEETING**

**City Hall - Council Chambers
1000 San Pablo Avenue
April 25, 2013 – 7:00 pm.**

REVISED AGENDA

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. APPROVAL OF MINUTES - Minutes for March 28, 2013**
- 4. PUBLIC COMMENT** – *For persons desiring to address the Commission on an item that is **NOT** on the agenda, please note that each speaker is limited to three (3) minutes. The Brown Act limits the Committee's ability to take and/or discuss items that are not on the agenda; therefore, such items are normally referred to staff for comment or to a future agenda.*
- 5. PRESENTATION**
 - 5-1 Police Report**
Recommended Action: No action required. For information only.
- 6. DISCUSSION AND POSSIBLE ACTION ON MATTERS RELATED TO THE FOLLOWING ITEMS:**
(Limited public comment will be taken for reports)
 - 6-1 Disabled Parking request on Washington Avenue, approximately 40 feet from the intersection of Cerrito and Washington in the back of 802 Cerrito Street.**
Recommended Action: Approve request.
 - 6-2 San Pablo & Buchanan Complete Streets Study: Selection of preferred design alternative for San Pablo Avenue and pedestrian crossing for Buchanan Street**
Recommended Action: Continue discussion from February meeting regarding preferred alternative for further development of design concept.
 - 6-3 Albany 2035 General Plan Update**
Recommended Action: Receive report on the legal requirements for the General Plan, a recap of the existing (1992) General Plan, and discuss process for preparation of the update.
 - 6-4 Disabled Parking on Solano Avenue**
Recommended Action: Receive map with potential disabled parking locations and direct staff of next steps.
 - 6-5 Pedestrian and Bicycle Way finding Plan for the City of Albany**
Recommended Action: Approve 35% Plan for recommendation for Council adoption in May 2013.
 - 6-6 Ad-hoc Sub Committees for Municipal Code revisions**
Recommended Action: Briefly check in on schedule of initial meeting.
 - 6-7 Selection of two members of the Commission to sit on the Arts/Traffic Joint Street Painting Sub-Committee**
Recommended Action: Appoint two members of the Commission to serve on this Sub Committee



**TRAFFIC AND SAFETY COMMISSION
REGULAR MEETING**

**City Hall - Council Chambers
1000 San Pablo Avenue
July 25, 2013-7:00 PM**

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **APPROVAL OF MINUTES - Minutes for June 27, 2013**
4. **PUBLIC COMMENT** – For persons desiring to address the Commission on an item that is NOT on the agenda, please note that each speaker is limited to three (3) minutes. The Brown Act limits the Committee's ability to take and/or discuss items that are not on the agenda; therefore, such items are normally referred to staff for comment or to a future agenda.
5. **PRESENTATION**
 - 5-1 **Police Report**
Recommended Action: No action required. For information only.
6. **DISCUSSION AND POSSIBLE ACTION ON MATTERS RELATED TO THE FOLLOWING ITEMS:**
(Limited public comment will be taken for reports)
 - 6-1 **Request from AC Transit to relocate the 25 and transbay bus stop from the near side of Washington and Pierce to the far side of Solano and Pierce** –This item was discussed back in March, but in order to ensure all interested parties have an opportunity to discuss this request, this item is back before the Commission.
Recommended Action: Action to approve or reject AC Transit request.
 - 6-2 **Complete Streets Draft Report presentation**
The Complete Streets Draft Report is being presented to the Commission for comments leading to developing a final draft that will be presented to Council for consideration in the fall of 2013.
Recommended Action: Receive presentation and provide comments. A final draft will be presented to the Commission in September for recommendation to Council.
 - 6-3 **Report on UC Village Mixed Use Development Project.**
Recommended Action: For information only.
 - 6-4 **Report on the Albany Active Transportation Plan Striping and Signage projects**
Recommended Action: For information only.
 - 6-5 **Report on Buchanan Marin Bikeway Construction activities.**
Recommended Action: For information only.
 - 6-6 **Report on developments related to the General Plan Update**
Recommended Action: For information only
 - 6-7 **Report on initial meetings from the Ad-hoc Sub Committee to work on updates to the Municipal Code.**
Recommended Action: For information only.



**TRAFFIC AND SAFETY COMMISSION
REGULAR MEETING**

**City Hall - Council Chambers
1000 San Pablo Avenue
October 24, 2013-7:00 PM**

- 1. CALL TO ORDER**
- 2. ROLL CALL**
- 3. APPROVAL OF MINUTES - Minutes for September 26th, 2013**
- 4. PUBLIC COMMENT** – *For persons desiring to address the Commission on an item that is NOT on the agenda, please note that each speaker is limited to three (3) minutes. The Brown Act limits the Committee’s ability to take and/or discuss items that are not on the agenda; therefore, such items are normally referred to staff for comment or to a future agenda.*
- 5. PRESENTATION**
 - A. Police Report**
Recommended Action: No action required. For information only.
- 6. DISCUSSION AND POSSIBLE ACTION ON MATTERS RELATED TO THE FOLLOWING ITEMS:**
(Limited public comment will be taken for reports)

A. Albany Complete Streets Concept Plans for San Pablo Avenue and Buchanan Street—The City has been conducting a planning effort for a Complete Streets concept design for San Pablo Avenue and Buchanan Street since December 2012 when a charrette process to gather public input and concerns about these two corridors took place. The Commission has also received public input on the different design features proposed in the Plan. At this meeting, the Commission will receive the Final Draft Report that incorporates the comments received from the public and stakeholders and will provide a recommendation to Council for plan adoption.

Recommended Action: Receive Final Albany Complete Streets Draft Report and issue recommendation to Council to adopt the Complete Streets Plan for San Pablo Avenue and Buchanan Street.

- B. Request installation of two disabled parking stalls at 956 Castro Street**—The City received a petition to install two disabled parking stalls at 956 Castro Street. The block has been notified.
Recommended Action: Evaluate petition for two disabled stalls at one location and provide direction to staff.
- C. Report on UC Village Mixed Use Project**-The 6.3-acre project site in University Village is located to the northwest and southwest of the Monroe Street/San Pablo Avenue intersection. The proposed project includes a 27,000 square foot grocery store, 17,000 square feet of associated retail space, and a 175-unit senior housing project. The purpose of the agenda is to provide an update on the status of the project application and to obtain the Commission’s perspective on the pedestrian, bicycle, transit and vehicle circulation features of the project.
Recommended Action: Receive report from staff.
- D. Report on the Update to the General Plan process.**
Recommended Action: For information only.
- E. Report on Washington Avenue Traffic Calming Project**- Staff will provide an update on the proposed options to be discussed at the next meeting to address sidewalk parking on Washington Avenue between Pierce and Cerrito Streets.
Recommended Action: For information only.
- F. Report on Buchanan Marin Bikeway Construction activities.**
Recommended Action: For information only.

5-19



CITY OF ALBANY

**MINUTES OF THE ALBANY CITY COUNCIL
CITY COUNCIL CHAMBER, 1000 SAN PABLO AVENUE
MONDAY, DECEMBER 16, 2013**

6:00 p.m. – SPECIAL MEETING

CLOSED SESSION

1. CALL TO ORDER

**2. OPPORTUNITY FOR THE PUBLIC TO SPEAK ON CLOSED SESSION
ITEMS**

City Council convenes in the Council Chamber and then adjourns to Closed Session to discuss the following items:

a) Labor Negotiations pursuant to Government Code Section 54957.6

Agency Negotiator: Mayor Peggy Thomsen

Unrepresented Employee: Assistant City Manager/Recreation & Community
Services Director Penelope Leach

b) Labor Negotiations pursuant to Government Code Section 59457.6

Agency Negotiator: Interim City Manager Patrick O’Keeffe & Glenn
Berkheimer, IEDA

Employee Organization: Albany Fire Fighters’ Association

c) Labor Negotiations pursuant to Government Code Section 59457.6

Agency Negotiator: Interim City Manager Patrick O’Keeffe & Glenn
Berkheimer, IEDA

Employee Organization: SEIU

ADJOURNMENT

- 7-1. Ordinance No. 2013-04 Amending Section 8-4.4 of the Albany Municipal Code to Make Clarifying Changes to Prohibition on Camping in Parks, Recreation, Open Space, Waterfront, and Albany Hill Areas of the City

Staff recommendation: that the Council introduce for First Reading Ordinance No. 2013-04 amending Section 8-4.4 of the Albany Municipal Code to make clarifying changes to the prohibition on camping in parks, recreation, open space, waterfront and Albany Hill areas of the City

City Attorney Craig Labadie delivered the staff report. At the Council Meeting of October 21, 2013 meeting, Council gave direction to staff to provide edits to Section 8-4.4 of Municipal Code. Chapter VIII, Section 8-4 of the Albany Municipal Code establishes various rules and regulations governing activities in park, recreation, open space, waterfront and Albany Hill areas of the City. Section 8-4.4 provides that no person shall loiter, camp or lodge in any of these areas. To clarify the intended scope of this prohibition, the proposed Ordinance deletes the terms "loiter" and "lodge" and makes other grammatical corrections.

Mayor Thomsen opened the public hearing.
There was no public comment regarding the agenda item.

MOTION:

Moved by Council Member Barnes, seconded by Vice Mayor Wile to introduce for First Reading Ordinance No. 2013-04 amending Section 8-4.4 of the Albany Municipal Code to make clarifying changes to the prohibition on camping in parks, recreation, open space, waterfront and Albany Hill areas of the City

AYES: Council Members Barnes, Maass, Vice Mayor Wile, Mayor Thomsen.

ABSENT: Council Member Atkinson

NOES: None

Motion carried and so ordered.

8. UNFINISHED BUSINESS

- 8-1. Albany Complete Streets Concept Plans for San Pablo Avenue and Buchanan Street

Staff recommendation: that Council adopt the Complete Streets Study for San Pablo Avenue and Buchanan Street

Community Development Director Jeff Bond delivered the staff report. The City has been conducting a planning effort for a Complete Streets concept design for San Pablo Avenue and Buchanan Street since December 2012 when a charrette process to gather public input and concerns about these two corridors took place. The Traffic and Safety Commission (T&S) has also received public input on the

different design features proposed in the Plan, and has recommended that the Council adopt the Complete Streets Plan.

The purpose of the Complete Street Study is to create a new vision for improvements to San Pablo Avenue and Buchanan Street, designed to be safe for all users. The plan can be used for three purposes including incorporation into the General Plan, serving as the basis of project-specific grant applications, and the basis for the design of projects. The plan is intended to be incremental in terms of how it is implemented.

Nelson Nygard Consultants provided an overview of the project and conceptual design of improvements.

The following people spoke: Allen Cain, Solano Avenue Association; Preston Jordan, Carbon Neutral Albany and Albany Strollers & Rollers; Sangeeta Garcha, Max's Liquors; Erika Lockhart; Chris Cole; Vikas Garcha; James Silva; Ramon Padilla; John Nakamura; Stephen Newhouse - AC Transit; Edwin Kaintu.

A summary of comments is as follows: Expressed concern with potential loss of parking and negative impact on businesses, raised concern with the inefficiency of the street light at Pierce street resulting in a number of idling vehicles; expressed support for the project and bicycle boulevards on parallel streets to San Pablo Avenue, expressed support for relocation of the bus stop; questioned accuracy of parking study, parking is in high demand on San Pablo between Solano to Washington Avenues; delivery trucks will be adversely impacted by the elimination of parking, recommended keeping the bus stop at current location; asked that more parking studies be conducted.

A summary of Council comments is as follows: Acknowledged parking issues, expressed support for bicycle boulevards on streets parallel to San Pablo, parked cars can serve as protection for pedestrians, expressed support for the concept of gateway improvements; expressed support for needs of small businesses, interest in additional studies and to have discussions with AC Transit to determine how to minimize impacts on traffic, expressed support for bike lanes on side streets going with the flow of traffic, expressed support for the plan, with the plan serving as a guiding document.

MOTION:

Moved by Council Member Barnes, seconded by Council Member Maass to adopt the Complete Streets Study for San Pablo Avenue and Buchanan Street, with further research to be conducted concerning the bus stop and parking around the intersection of San Pablo & Solano Avenues.

AYES: Council Members Barnes, Maass, Vice Mayor Wile, Mayor Thomsen.

ABSENT: Council Member Atkinson

NOES: None

Motion carried and so ordered.

December 16, 2013

11. ADJOURNMENT

10:00 p.m. There being no further business before the City Council it was moved and seconded to adjourn the meeting.

Minutes submitted by Nicole Almaguer, City Clerk.



Peggy Thomsen
Mayor

Attest:



Nicole Almaguer
City Clerk

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

RESOLUTION NO. 2013-4

**A RESOLUTION OF THE ALBANY CITY COUNCIL ADOPTING
A COMPLETE STREETS POLICY**

WHEREAS, the term "Complete Streets" describes a comprehensive, integrated transportation network with infrastructure and design that allows safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial goods, users and operators of public transportation, seniors, children, youth, and families;

WHEREAS, the City of Albany recognizes that the planning and coordinated development of Complete Streets infrastructure provides benefits for local governments in the areas of infrastructure cost savings, public health, and environmental sustainability;

WHEREAS, the City of Albany acknowledges the benefits and value for the public health and welfare of reducing vehicle miles traveled and increasing transportation by walking, bicycling, and public transportation;

WHEREAS, the State of California has emphasized the importance of Complete Streets by enacting the California Complete Streets Act of 2008 (also known as AB 1358), which requires that when cities or counties revise general plans, they identify how they will provide for the mobility needs of all users of the roadways, as well as through Deputy Directive 64, in which the California Department of Transportation explained that it "views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system";

1 **WHEREAS**, the California Global Warming Solutions Act of 2006 (known as
2 AB 32) sets a mandate for the reduction of greenhouse gas emissions in California, and
3 the Sustainable Communities and Climate Protection Act of 2008 (known as SB 375)
4 requires emissions reductions through coordinated regional planning that integrates
5 transportation, housing, and land-use policy, and achieving the goals of these laws will
6 require significant increases in travel by public transit, bicycling, and walking:
7

8 **WHEREAS**, the Metropolitan Transportation Commission, through its One Bay
9 Area Grant (OBAG) program, described in Resolution 4035, requires that all
10 jurisdictions, to be eligible for OBAG funds, need to address complete streets policies at
11 the local level through the adoption of a complete streets policy resolution or through a
12 general plan that complies with the California Complete Streets Act of 2008:
13

14 **WHEREAS**, the Alameda County Transportation Commission, through its
15 Master Program Funding Agreements with local jurisdictions, requires that all
16 jurisdictions must have an adopted complete streets policy, which should include the
17 "Elements of an Ideal Complete Streets Policy" developed by the National Complete
18 Streets Coalition, in order to receive Measure B pass-through and Vehicle Registration
19 Fund funding:
20

21 **WHEREAS**, the City of Albany therefore, in light of the foregoing benefits and
22 considerations, wishes to improve its commitment to Complete Streets and desires that its
23 streets form a comprehensive and integrated transportation network promoting safe and
24 convenient travel for all users while preserving flexibility, recognizing community
25 context, and using design guidelines and standards that support best practices:
26
27
28
29

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

EXHIBIT A

COMPLETE STREETS POLICY OF THE CITY OF ALBANY

This Complete Streets Policy was adopted by Resolution No. 2013-4 by the City Council of the City of Albany on January 22, 2013.

VISION STATEMENT

Over the past several years, the City of Albany has prepared and adopted two significant policy documents that provide the vision for the Complete Streets Policy. In 2010, the City approved a Climate Action Plan, which included a vision for an interconnected transportation system and land use pattern that shifts travel from autos to walking, biking, and public transit. In addition, in 2011, the City approved an Active Transportation Plan, which was based on a vision of a community in which adults and children can walk or bike to meet their travel needs and improve their health and the environment. Using these adopted policies as a foundation, the vision statement for the City of Albany’s Complete Street policy is:

In order to promote public health and reduce the production of greenhouse gases, all transportation improvements in the City of Albany will be planned and implemented to provide safe access for children and adults to walking, biking, and public transit facilities.

A. COMPLETE STREETS PRINCIPLES

1. Complete Streets Serving All Users and Modes.

The City of Albany expresses its commitment to creating and maintaining Complete Streets that provide safe, comfortable, and convenient travel along and

1 across streets (including streets, roads, highways, bridges, and other portions of
2 the transportation system) through a comprehensive, integrated transportation
3 network that serves all categories of users, including but not limited to
4 pedestrians, bicyclists, persons with disabilities, motorists, movers of commercial
5 goods, users and operators of public transportation, emergency responders,
6 seniors, children, youth, and families.

7
8 **2. Context Sensitivity.**

9 In planning and implementing street projects, departments and agencies of the
10 City of Albany will maintain sensitivity to local conditions in both residential and
11 business districts and will work with residents, merchants, and other stakeholders
12 to ensure that a strong sense of place ensues. Improvements that will be
13 considered include sidewalks, shared use paths, bicycle lanes, bicycle routes,
14 paved shoulders, street trees and landscaping, planting strips, accessible curb
15 ramps, crosswalks, refuge islands, pedestrian signals, signs, street furniture,
16 bicycle parking facilities, public transportation stops and facilities, transit priority
17 signalization, and other features assisting in the provision of safe travel for all
18 users, such as identified in the adopted City of Albany Active Transportation
19 Plan.

20
21 **3. Complete Streets Routinely Addressed by All Departments.**

22 All relevant departments and agencies of the City of Albany will work towards
23 making Complete Streets practices a routine part of everyday operations,
24 approach every relevant project, program, and practice as an opportunity to
25 improve streets and the transportation network for all categories of users, and
26 work in coordination with other departments, agencies, and jurisdictions to
27 maximize opportunities for Complete Streets, connectivity, and cooperation.
28
29

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

4. All Projects and Phases.

Complete Streets infrastructure sufficient to enable reasonably safe travel along and across the right of way for each category of users will be incorporated into all planning, funding, design, approval, and implementation processes for any construction, reconstruction, retrofit, maintenance, operations, alteration, or repair of streets (including streets, roads, highways, bridges, and other portions of the transportation system), except that specific infrastructure for a given category of users may be excluded if an exception is approved via the process set forth in section C.1 of this policy.

B. IMPLEMENTATION

1. Design.

The City of Albany will generally follow its own accepted or adopted policies and design standards, including the adopted City of Albany Climate Action Plan and City of Albany Active Transportation Plan. In addition, the City will use planning and engineering design standards published by national, state or regionally recognized organizations, with a goal of providing for and balancing all user and travel mode needs. Design of transportation improvements shall be sensitive to the quality of life of nearby residents, the function and vitality of nearby businesses and institutions, and enhance the urban design of the surrounding area. The City will consider innovative or non-traditional design options where a comparable level of safety can be provided.

2. Network/Connectivity.

City of Albany will incorporate Complete Streets infrastructure into existing streets to improve the safety and convenience of all users, with the particular goal of creating a connected network of facilities accommodating each category of

1 users, and increasing connectivity across jurisdictional boundaries and for
2 anticipated future transportation investments.

3
4 **3. Implementation Next Steps.**

5 City of Albany will take the following specific next steps to implement this
6 Complete Streets Policy:

7 A. Plan Consultation and Consistency: Maintenance, planning, and design of
8 projects affecting the transportation system will be consistent with local bicycle,
9 pedestrian, transit, multimodal, and other relevant plans.

10 B. Stakeholder Consultation: Develop a public process to allow for
11 stakeholder involvement on projects and plans including, but not limited to, the
12 Traffic and Safety Commission to support implementation of this Complete
13 Streets policy by the City of Albany.

14
15 **4. Performance Measures.**

16 All relevant agencies or departments will perform evaluations of how well the
17 streets and transportation network of City of Albany are serving each category of
18 users by collecting baseline data and collecting follow-up data on a regular basis.

19
20 **C. EXCEPTIONS**

21
22 **1. Exception Approvals.**

23 A process will be developed for approving exceptions, including who is allowed
24 to sign off on exceptions. Written findings for exceptions must be included in a
25 memorandum, signed off by a high level staff person, such as the Public Works
26 Director, or senior-level designee, and made publicly available. Exceptions must
27 explain why accommodations for all users and modes were not included in the
28 plan or project.



City of Albany

1000 San Pablo Avenue • Albany, California 94706
(510) 528-5710 • www.albanyca.org

RESOLUTION NO. 2013-4

PASSED AND APPROVED BY THE COUNCIL OF THE CITY OF ALBANY,

The 22nd day of January, 2013, by the following votes:

AYES: Council Members Atkinson, Barnes, Maass, Vice Mayor Wile & Mayor Thomsen

NOES: none

ABSENT: none

ABSTAINED: none

RECUSED: none

WITNESS MY HAND AND THE SEAL OF THE CITY OF ALBANY, this 23rd

Day of January, 2013.

Eileen Harrington
DEPUTY CITY CLERK

5-31

The City of Albany is dedicated to maintaining its small town ambiance, responding to the needs of a diverse community, and providing a safe, healthy and sustainable community.

- **ATTACHMENT 6: Letters of Support**

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29

RESOLUTION NO. 2014-45

**A RESOLUTION OF THE ALBANY CITY COUNCIL APPROVING THE
SUBMISSION OF TWO GRANT APPLICATIONS TO THE CALTRANS
ACTIVE TRANSPORTATION PROGRAM FOR IMPROVEMENTS TO
MARIN AVENUE, SAN PABLO AVENUE, AND BUCHANAN STREET**

WHEREAS, through the award of a Caltrans Planning grant and a Measure B grant, the City of Albany has completed planning processes that included extensive public outreach and participation and resulted in the project recommendations included in the grant applications; and

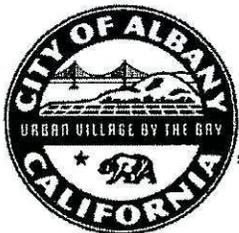
WHEREAS, the City of Albany has adopted policies that encourage the use of alternative transportation choices, promoting public health and emissions reductions, and

WHEREAS, the City has Safe Routes to School Educational Program that was endorsed by the Albany Board of Education, and has been implementing infrastructure projects around schools, which increase pedestrian and bicycle safety and encourage the use of alternative modes of transportation; and

WHEREAS, the City has obtained multiple grants that would help meet the required match for the Marin Bicycle and Pedestrian Enhancements project and is committed to meet the matching requirements for the San Pablo and Buchanan Complete Streets project ;

NOW THEREFORE, BE IT RESOLVED, that the Albany City Council does support submission of two grant applications for the Marin Pedestrian and Bicycle Enhancements project and for the San Pablo and Buchanan Complete Streets project;


MAYOR



City of Albany

1000 San Pablo Avenue • Albany, California 94706
(510) 528-5710 • www.albanyca.org

RESOLUTION NO. 2014-45

PASSED AND APPROVED BY THE COUNCIL OF THE CITY OF ALBANY,

The 5th day of May, 2014, by the following votes:

AYES: Council Members Atkinson, Barnes, Maass, Vice Mayor Wile
And Mayor Thomsen

NOES: none

ABSENT: none

ABSTAINED: none

RECUSED: none

WITNESS MY HAND AND THE SEAL OF THE CITY OF ALBANY, this 6th
day of May, 2014.

Eileen Harrington
DEPUTY CITY CLERK

6-2

The City of Albany is dedicated to maintaining its small town ambiance, responding to the needs of a diverse community, and providing a safe, healthy and sustainable community.

May 20, 2014

Ms. April Nitsos
Division of Local Assistance, MS 1
Attn. Office of Active Transportation
P.O. Box 942874
Sacramento, CA 94724

Dear Ms. Nitsos,

As the students of the Orientation Center for the Blind, we are enthusiastically writing this letter in support of the City of Albany application for the Caltrans Active Transportation Grant for the implementation of pedestrian improvements on the northern segment of Solano Avenue from Washington Avenue to the El Cerrito City Limit.

The Orientation Center for the Blind houses up to 30 students at a time and provides training in all aspects of independent living for qualified participants from around California. The Center's mission is to equip visually impaired individuals with skills that will allow them to reach their maximum potential as fully integrated members of the community.

The intersection enhancements that are proposed for San Pablo Avenue will help the Center train us on safe street crossing. We will be able to hear the tones at a signalized intersection that indicates when it is safe to cross the street. We will be able to use our canes to know when we are approaching an intersection by detecting the different texture of a curb ramp. High visibility crosswalks will also help us be more visible to motorists, and the medians will provide a rest area when crossing San Pablo Avenue.

Currently, only one intersection along San Pablo Avenue is equipped with audible pedestrian devices. San Pablo Avenue is one of the streets we travel on a lot. It is challenging and many of the stores and businesses we want to access require us to get across San Pablo. And we are not the only ones who use the audible signals and curb cuts to cross this main street. Many people move to this community after training and rent in the local area. The project will help the City comply with ADA standards in order to accommodate the needs of all the users of the street.

If you have any questions, feel free to contact the members of the Orientation Center for the Blind Student Council through the President Larry Gonzales at (559)312-8845 or Vice President Jessica Quinonez at (510)680-8016.

Sincerely,


Larry Gonzales
President

6-3

Jessica Quinonez

Jessica Quinonez
Vice President

TRAVIS Erdmann

Travis Erdmann
Secretary

Sergio Martinez

Sergio Martinez
Co-Treasurer

Christopher Metcalf

Christopher Metcalf
Co-Treasurer

Daniel Wilson

Daniel Wilson
Student

Patrick Wilkus

Patrick Wilkus
Student

David Avina

David Avina
Student

Ocean View Elementary School

Dignity, Respect, High Expectations

1000 Jackson Street, Albany CA. 94706 (510) 558-4800

Terry Georgeson
Principal (510) 558-4800
tgeorgeson@ausdk12.org

May 9, 2014

Ms. April Nitsos
Caltrans
Division of Local Assistance, MS 1
Attn. Office of Active Transportation and Spec. Programs
P.O. Box 942874 Sacramento, CA 94724-0001

Dear Ms. Nitsos,

I am writing this letter in support for the City of Albany's application for the implementation of the Complete Streets Pedestrian Enhancements along San Pablo Avenue and Buchanan Street

Ocean View Elementary is a school located at the intersection of Buchanan Street and Jackson Street.

The City of Albany has been working with the Albany Unified School District on the implementation of educational activities that promote walking and bicycling to school. Ocean View Elementary established the first Wednesday of every month as the Walk and Roll to School Day. That day children and families who walk and roll to school get a treat and stickers recognizing their efforts to save the environment and be active. Thanks to this program, our school has a bicycle education and training during P.E. and encouragement contests such as the Golden Sneaker, the Door Decoration with recycled materials, and curriculum activities that promote the use of active transportation.

The proposed crossing at Buchanan and Taylor and the Marin/Buchanan merge will provide another option for the pedestrian route to school by creating sidewalks and crosswalks on the north side of Marina and providing protection for pedestrians when crossing Taylor.

Our school community will welcome these enhancements and support this application for funding. If you have questions about this letter, please do not hesitate to contact me. I can be reached by email at tgeorgeson@ausdk12.org or by phone at 510-558-4800

Sincerely,



Terry Georgeson
Principal

6-5

ALBANY MIDDLE SCHOOL
1259 BRIGHTON AVE.
ALBANY, CA.

DEBORAH BRILL
PRINCIPAL

DAVID NEUMANN
ASSISTANT PRINCIPAL

May 9, 2014

Ms. April Nitsos
Caltrans
Division of Local Assistance, MS 1
Attn. Office of Active Transportation and Spec. Programs
P.O. Box 942874 Sacramento, CA 94724-0001

Dear Ms. Nitsos,

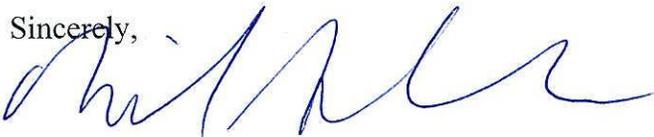
I am writing this letter in support for the City of Albany's application for the implementation of the Complete Streets Pedestrian Enhancements along San Pablo Avenue and Buchanan Street

Albany Middle School teachers were involved in the open studio and focus groups that led to the development of the Complete Streets project for San Pablo Avenue and Buchanan Streets. The proposed project includes the implementation of high visibility crosswalks and bulb outs and medians on San Pablo Avenue, reducing the crossing distance for pedestrians. This is a significant improvement as our students who live west of San Pablo have to cross San Pablo Avenue on the way to and from school.

The City of Albany has been working with the Albany Unified School District on the implementation of educational activities that promote walking and bicycling to school. The Albany Middle School established the first Wednesday of every month as the Walk and Roll to School Day. That day we celebrate the students who walk, bike, or scooter to school. The program also conducts incentive activities, such as the Golden Sneaker Contest, the bike rodeo on bicycle education for safe riding on public streets during P.E. and bike mobile. These activities have been funded by previous SR2S educational grants the City has obtained and we hope the City have the capacity to continue to fund these wonderful programs.

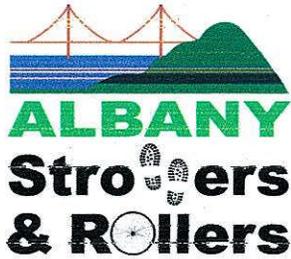
Implementation of the pedestrian safety features will complement the educational activities by heightening pedestrian safety on this major thoroughfare. I am very excited for the possibility of implementing this project. If you have questions about this letter, please do not hesitate to contact me. I can be reached by email at dnewman@ausdk12.org or by phone at (510) 558-3600.

Sincerely,



David Neumann
Vice-Principal

6-6



Albany Strollers and Rollers
634 San Carlos Avenue
Albany, CA 94706

14 May 2014

Ms. April Nitsos
Division of Local Assistance, MS 1
Attn. Office of Active Transportation
P.O. Box 942874
Sacramento, CA 94724

Dear Ms. Nitsos,

On behalf of the Albany Strollers and rollers (AS&R), I am writing in support of the City of Albany application to the Caltrans Active Transportation Grant Program for the implementation of the Complete Streets pedestrian improvements along the northern segment of San Pablo Avenue from Washington Avenue to the El Cerrito City Limit and for the remaining improvements for Buchanan Street recommended in the recently adopted Complete Streets Plan

The AS&R actively participated and provided input in the planning effort that led to the Complete Streets Plan for San Pablo and Buchanan St. and we are pleased to see the City apply for this funding opportunity to implement the features that would make San Pablo Avenue pedestrian friendly and those remaining features on Buchanan St. that will remove the last barriers for this corridor to become a Complete Street. This project would help the City achieve the Council goal to reduce emissions to 24% below 2004 levels by the year 2020 by promoting walking. In addition, it would bring non-motorized transportation to the same level with motorized travel and it will send a message to the community and to visitors that streets are for all modes of transportation: Motorists' expectation of pedestrians and bicyclists on City roads must be high in Albany and all modes must share the road.

Currently, San Pablo Avenue does not carry that message as its physical configuration is not pedestrian or bicycle friendly. Wide cross-sections without medians, lack of crosswalks, and signals that are designed to move motorized traffic, do not serve the needs of pedestrians along this corridor. Buchanan Street has undergone a major enhancement with the recent implementation of the Buchanan Marin Bikeway and the installation of the traffic signal at the intersection with Pierce for the bikeway crossing. Signal synchronization plans to keep speeds at 25 mph are on board and ready to be implemented along Buchanan Street. The last two components recommended in the Complete Streets Plan for Buchanan and included in the grant application will make this corridor "Complete."

AS&R strongly supports this grant application and hopes it gets considered for funding.

Sincerely,

Nick Pilch
Co-Founder

6-7

EAT
SHOP
PLAY
LIVE

do it here



The Solano Avenue
Association

SolanoStroll.org
info@SolanoStroll.org

510.527.5358

1563 Solano Avenue
#101
Berkeley, California 94707

President - John Cowee
Architectural Concepts

Vice President - Jason Bellevue,
RAF Investments

Treasurer - Jason Alabanza
Mechanics Bank (Albany)

Secretary
Janet Snidow, The Mane Alley

Immediate Past President
Harry Pruyn
Solano Cleaning Center

Audi Constance
CFP Financial Solutions

Jason Haight,
North Berkeley Resident and
Solano Avenue Consumer

Jenny Schmidt
Frank Bliss Insurance
I Scream!

Richard Hong
California Bank and Trust

David Krebs,
Whole Health Apothecary

Debbie Perkins - Kalama
KNA Copy Centre

Memo Robles, Casa Oaxaca

**Allen Cain, Executive Director
and Events Manager**

May 14, 2014

Ms. April Nitsos
Division of Local Assistance, MS 1
California Department of Transportation
Office of Active Transportation
P.O. Box 942874
Sacramento, California - USA 94724-0001

Dear Ms. Nitsos:

We support of the City of Albany application for the Caltrans Active Transportation Grant for the implementation of pedestrian improvements on the northern segment of Solano Avenue from Washington Avenue to the El Cerrito City Limit.

The project will improve the physical environment of San Pablo Avenue by installing high visibility crosswalks and bulb outs and raised medians along the northern segment of this corridor. The proposed plans for Buchanan Street will complement the enhancements the City installed in 2013 and will help calm this main roadway.

The gateway improvements proposed for Buchanan and for San Pablo Avenue at the City Limit with El Cerrito, will carry the message that this is a community that promotes place making, alternative modes of transportation, and local economy. Increasing pedestrian activity along the San Pablo corridor would translate into more potential customers to our shopping areas.

If you have any questions, feel free to contact me. Thank you.

Allen Cain
Executive Director and Events Manager

6-8