

California Department of Transportation's

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

- Cycle 4 -

Submitted By

Agency: OAKLAND

Application Ranked #: 4

Out of : 4

Project Location

San Pablo Avenue at West Street and San Pablo Avenue at West Grand Avenue

Project Description

Installation of protected left-turn signal phasing and modification of intersection geometry.

Project Countermeasures

Countermeasure Type	Countermeasure Name	CM #
Signal Mod.	Provide protected left turn phase (with existing LT lane)	1
Ped and Bike	Install raised medians (refuge islands)	2

Project's Total Benefit / Cost Ratio

6.371

Caltrans District

04

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Attachments

Vincinity Map
Project map showing existing and proposed conditions
Collision diagram
Collision summary report/list
Detailed Engineer's Estimate

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Basic Project Information

Date	12/09/2010	Caltrans District	04	MPO	MTC
Agency	OAKLAND			Locode	5012
Total number of applications being submitted by your agency				4	
Rank of this project (each project application must have a different rank)				4	

Contact Person Information

Position/Title of Contact Person	Supervising Transportation Engineer				
Name	Joe S. Wang				
Email	jswang@oaklandnet.com				
Telephone	(510)238-6107				
Address	250 Frank Oagawa Plaza, Suite 4344				
County	ALAMEDA	City	OAKLAND	Zip	94612

Project Information

Project Location	San Pablo Avenue at West Street and San Pablo Avenue at West Grand Avenue				
- Be Brief - See Instructions					
Project Description	Installation of protected left-turn signal phasing and modification of intersection geometry.				
- Be Brief - See Instructions					
Functional Classification	14-Urban Other Principal Arterial	Posted Speed	30		
Current Average Daily Traffic	Major Street	27400	(Required)		
	Minor Street	4200	(For Intersection Projects)		
	Year Collected	2003			
Is the project focused primarily on "Intersection" or "Roadway" Improvement					
Intersection					
Number of Intersections	2	Number of Roadway miles	N/A		

Work on the State Highway System

Does the project include improvements on the State Highway System?	No
If Yes, is this a joint-funded project with Caltrans?	N/A
If Yes, confirm a "letter of support" is attached to the application.	N/A
If No, confirm in writing that Caltrans-District Traffic Office is in support or neutral to the proposed improvements within the State Right of Way.	N/A

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Narrative Questions

These narrative questions are intended to provide additional project details for the reviewers and project files. These questions will be used in the scoring of projects that do not make the initial funding cut based fully on their Benefit/Cost Ratios.

1. Identification and Demonstration of Need

Describe how was the problem identified. Provide information showing the agency identified the project based on a data-driven, comprehensive safety evaluation of their roadway infrastructure and crash data. Given that other problems may exist within the applicant's jurisdiction, explain why this problem was chosen to compete for federal safety funds. Provide some background information about the problem: How long has the problem existed? Have other countermeasures been deployed? Describe the primary cause(s) of the collisions that have occurred at the location. Are there patterns in the crash types? Attach and reference any collision data, traffic data, community surveys, reports, plans, pictures, etc. to illustrate the problem.

Upon reviewing the collision history along San Pablo Avenue, a major arterial which has been the subject of safety concern for bicyclist and pedestrians, the San Pablo Avenue/West Street intersection became a focus for improvement. In the most recent ten-year period where collision records are kept, there were one (1) fatal and five (5) property damage only accidents involving speeding vehicles turning right at the southwest corner. Given the existing soft turning radius, vehicles take the right turn without the physical need for proper deceleration. The attached street-view photo illustrates the subject intersection corner. This corner is also part of an unusually long intersection that is partially controlled by a traffic signal (see attached aerial-view photo).

Our review of the collision history along San Pablo Avenue also directed attention to the San Pablo Avenue/West Grand Avenue signalized intersection, where left turns from all four approaches are permitted but not protected by separate phasing. Currently, there are left-turn pockets on three of the approaches, and the fourth approach has the width to accommodate a left-turn pocket if an existing right-turn channelization island were removed. There were ten (10) injury and nine (9) property damage only accidents involving left-turning vehicles and opposing vehicles/bicycles/pedestrians proceeding straight in the same ten-year collision period. Installing exclusive left-turn phasing for all four approaches will eliminate the said conflicts.

2. Potential for Proposed Improvement to Correct or Improve the Problem

Describe how the proposed solution will improve the traffic safety at or near the project site. Clearly demonstrate the connection between the problem and the proposed solution. What other countermeasures were considered? Does the proposed solution provide safety benefits for all modes of travel? Does the countermeasure reduce speed? Increase visibility? Reduce collision severity? Reduce the occurrence of specific crash types? Enhance safety for persons with disabilities? Explain why the proposed solution is the preferred alternative.

San Pablo Avenue/West Street Intersection: The unusual length and geometry of the intersection have prevented City engineers from using traffic signal phasing/timing to slow down traffic and/or separate conflicting movements. The solution we propose is to separate the southwesterly leg of West Street from the signal operation.

Southbound-westbound West Street traffic will no longer be able to pass immediately across San Pablo and continue on West Street. They will be required to proceed on southbound San Pablo for 70 feet then make a right turn onto West or Isabella Street. The right turn will be at a near perpendicular angle to San Pablo and thereby reduce the turning speeds and better differentiate the movement of vehicles from pedestrians and bicycles. In addition to slowing down right-turn vehicles, pedestrians will stand more visible before crossing West Street and, along with bicyclist, have a shorter distance to cross. The West Street crosswalk will be reduced from 150 feet to 95 feet. The fatal accident in Aug 2007 involved a bicycle and a southbound-westbound right turn.

San Pablo Avenue/West Grand Avenue Intersection: The left-turning vehicles searching for gaps in the opposing traffic flow may be less inclined to see or yield to pedestrians crossing the street on their left. Exclusive left-turn phasing is the most fitting solution to eliminate this type of vehicle-pedestrian accidents as well as head on collisions between left turns and opposing throughs.

3. Potential for Timely Implementation of Project

Describe the time frame to implement the project (This timeframe and follow-up discussion must match the "Implementation Schedule" section of the application). Identify any potential barriers to a timely implementation. Are there likely environmental issues that could delay the project? Are there seasonal considerations for the construction period? Are all construction improvements within existing public rights of way? Have other local, regional or state funds been targeted for the project that have not yet been secured? Is there community support for, or opposition to the project?

The City will have staff available to administer the grant, local procedures, design, and construction in the proposed time frame which would have a completed project in June of 2013. Staffing will include a Supervising Engineer, Associate Engineer, and Assistant Engineer. Design and Construction work will be contracted out. The left turn phasing at W. Grand Avenue and San Pablo Avenue will require a Traffic Study to determine the traffic impacts of the improvements. The City recently studied this intersection in 2009 and does not anticipate that HSIP Project Study will yield a significant impact. There are no ROW requirements for the improvements.

There are two project elements that may impact the schedule. All construction contracts of this size (\$280K) require City Council approval and the approval process typically takes 3 months. The project schedule has conservatively accounted for this in the Advetise, Bid, and Award schedule. The other long lead time element is the ordering of traffic signal oples.

Traffic signal poles can take from 3 to 6 months to receive from order. This project has two very large poles to order. Generally the City requires the Construction Contract to order the poles before purchasing them to insure the poles will be installed in time. The City will require the contrator to order the poles imediately upon contract award. The schedule also has an additional allowance for ordering the poles.

City funds are available for the local match (\$46,200).

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Project Cost Estimate

Project Costs

Preliminary Engineering Costs

(Preliminary Engineering costs should not exceed 25% of Construction Item costs)

Environmental	\$ 5,000
PS&E	\$ 67,000
PE Subtotal	\$ 72,000

Right of Way Costs

(Right of Way costs should not exceed 10% of Construction Item costs)

Engineering	\$ -
Appraisal and Acquisition	\$ -
Utilities	\$ -
ROW Subtotal	\$ -

Construction Costs

Construction Engineering	\$ 40,000
(Construction Engineering costs should not exceed 15% of Construction Item costs)	
Construction Items	\$ 310,000
(The cost for the "Construction Items" must match the Detail Engineer's Estimate)	
CON Subtotal	\$ 350,000

Project Cost Subtotal	\$ 422,000
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Contingencies

\$ 40,000

(Maximum of 10% of Project Costs Subtotal)

Total Project Cost

\$462,000

Federal Funds Requested

\$415,800

(Federal Funds must not exceed \$900,000 or 90% of Total Project Cost, whichever is less)

Local or other funds

\$46,200

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Implementation Schedule

*This schedule is based on the assumption that the
proposed project is amended into the FTIP on:*

6/1/2011

The Local Agency is expected to deliver the project per Caltrans Local Assistance HSIP Guidelines. Otherwise the project will be "flagged" in the program's delivery report.

Request Authorization to Proceed with Preliminary Engineering (PE)

If the PE phase for the project is already complete, check this box ☐

Time for agency to internally staff project and request PE authorization

1.5 Months

Time for Caltrans and FHWA to process and approve PE Auth

1.5 Months

Proposed PE Authorization Date:

8/31/2011

Estimated Durations for elements of the PE delivery phase

Will external consultants be required to complete the PE phase of this project? ☒

Additional time allocated to the Delivery Process for hiring PE consultant(s)

2.0 Months

Time to prepare environmental studies request

1.5 Months

Time to complete CEQA NEPA studies/approvals *

1.0 Months

Time to complete the Right of Way Acquisition (federal process)

Months

Time to complete final PS&E documentation

4.0 Months

Other :

Months

Expected Completion Date for the PE Phase:

5/15/2012

* See PES Form in the Local Assistance Procedures Manual for typical studies and permits

Request Authorization to Proceed with Construction (CON)

Time for agency to request CON authorization

1.0 Months

Time for Caltrans and FHWA to process and approve CON Auth

1.5 Months

Proposed CON Authorization Date:

7/30/2012

Estimated Durations for elements of the CON delivery phase

Time included for the Agency's workload-leveling or Construction-Window needs

1.0 Months

Time to award contract with CON contractor (using the federal process)

7.0 Months

Including: Board/Council approval, Advertise, Award, Execute, Mobilize

Time to complete Construction

2.0 Months

Time included for closing the CON contract

1.0 Months

Other : Additional lead time for Traffic Signal Poles

1.0 Months

Expected Completion Date for the CON Phase:

7/30/2013

Complete the Project Close-out Process

Time to complete the Project Close-out Process

1.0 Months

Time for Caltrans and FHWA to process and approve Project Close-out

1.5 Months

Expected Completion Date for the Project Close Out:

10/15/2013

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Benefit / Cost Ratio Result

1. Summary of Project Countermeasures

Project Type	Countermeasure	Crash Type	CRF	Life
Signal Mod.	Provide protected left turn phase (with existing LT lane)	All	20	20
Ped and Bike	Install raised medians (refuge islands)	Ped & Bike	50	20

2. Crash Data Time Period

From	7/1/1999	To	6/30/2009	Years	10.00
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3. Details of Each Countermeasures

A. Countermeasure #1: Provide protected left turn phase (with existing LT lane)

a) Crash Data Summary

Crash Type	Fatal	SI	Injury	MI	PDO	Total
All	0	0	10	0	9	19
Night						
Ped & Bike						
Animal						
Emerg Vehicle						

b) Result

Benefit (Annual)	\$11,014
Benefit (Life)	\$149,684

% of Total Cost	35
Cost	\$161,700

B/C Ratio	0.926
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B. Countermeasure #2: Install raised medians (refuge islands)

a) Crash Data Summary

Crash Type	Fatal	SI	Injury	MI	PDO	Total
All						
Night						
Ped & Bike	1		0		5	6
Animal						
Emerg Vehicle						

b) Result

Benefit (Annual)	\$205,575
Benefit (Life)	\$2,793,831

% of Total Cost	65
Cost	\$300,300

B/C Ratio	9.303
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C. Countermeasure #3:

a) Crash Data Summary

Crash Type	Fatal	SI	Injury	MI	PDO	Total
All						
Night						
Ped & Bike						
Animal						
Emerg Vehicle						

b) Result

Benefit (Annual)	
Benefit (Life)	

% of Total Cost	
Cost	

B/C Ratio	
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4. Total Benefit : \$2,943,515

5. Total Project Cost : \$462,000

6. Project's Total B/C Ratio : 6.371

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS

Applicant Data Verification and Signature

All HSIP applications (hard-copies only) must be signed by a registered engineer or the Agency's Transportation Manager in responsible charge of their Traffic Engineering section. By signing and submitting this application, the engineer/manager is attesting to :

1. All data in the application is accurate.
2. All likely project costs are included in the Total Project Cost.
3. Each countermeasure included represents a minimum of 20% of the Total Project Cost
4. All crash data is accurately shown in the application and applied to countermeasures using generally accepted traffic engineering principles.
5. The agency understands the Project Delivery Requirements for the HSIP Program and is prepared to deliver the Project with these requirements.

Agency Official Name _____

Engr. License # or Title _____

Signature _____

Date _____

Application Attachments

Attachments to be included in Application

Included	Not Included	
☒		Vicinity map
☒		Project map showing existing and proposed conditions
☒		Collision diagram
☒		Collision summary report/list
☒		Detailed Engineer's Estimate
☐	☒	Warrant studies (required when applicable to proposed improvement)
☐	☒	Letter of Support from Caltrans
☐	☒	Additional Narration, Documentation, Photographs, Letters of Support, etc.

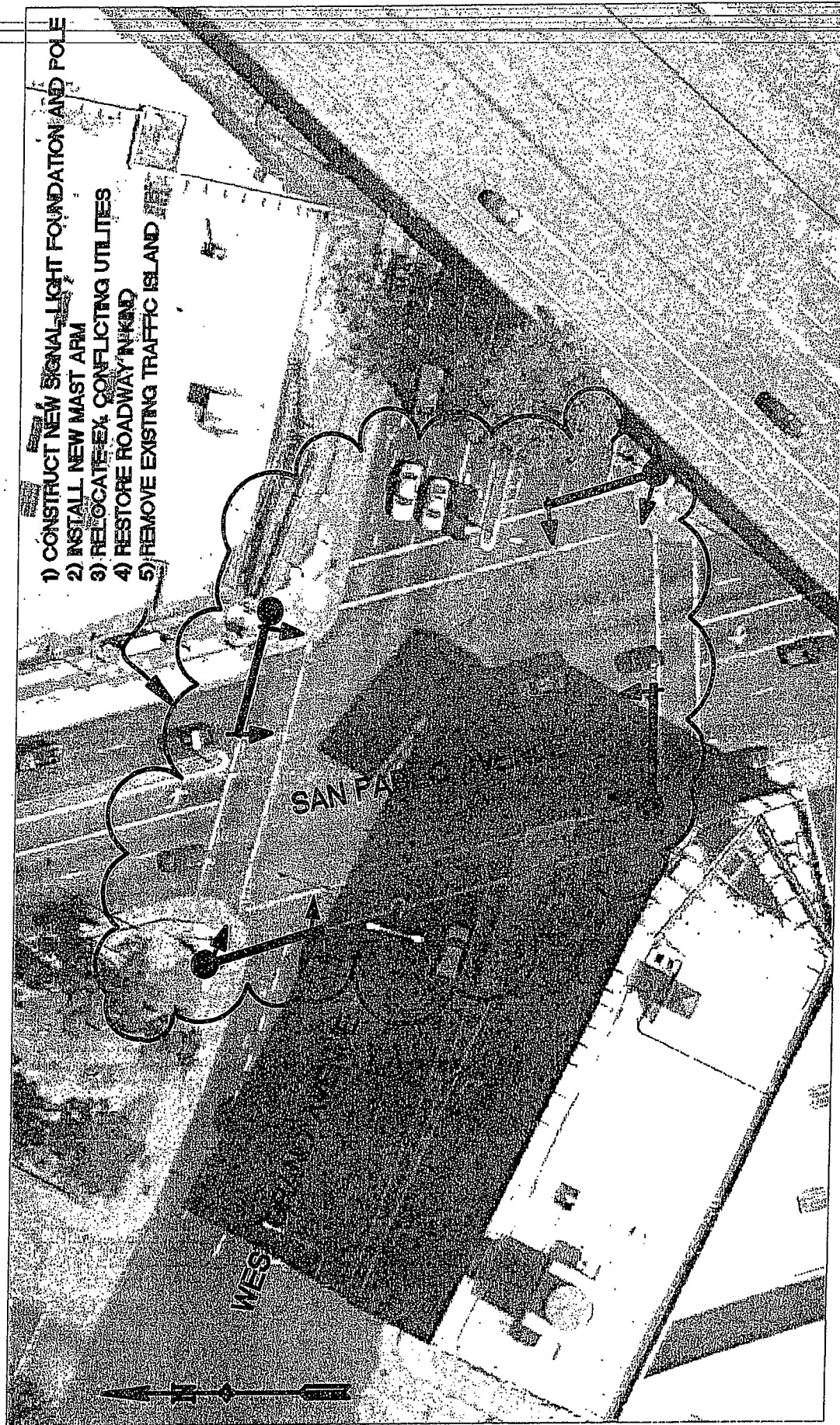
The map displays the Oakland area with various streets and landmarks. Two specific locations are marked with hatched circles and labeled as counter-measure sites:

- COUNTER MEASURE TWO (2):** Located near the intersection of Grand Ave and 25th St, near the Northgate Waverly area.
- COUNTER MEASURE ONE (1):** Located near the intersection of Grand Ave and 23rd St, near the San Pablo Gateway area.

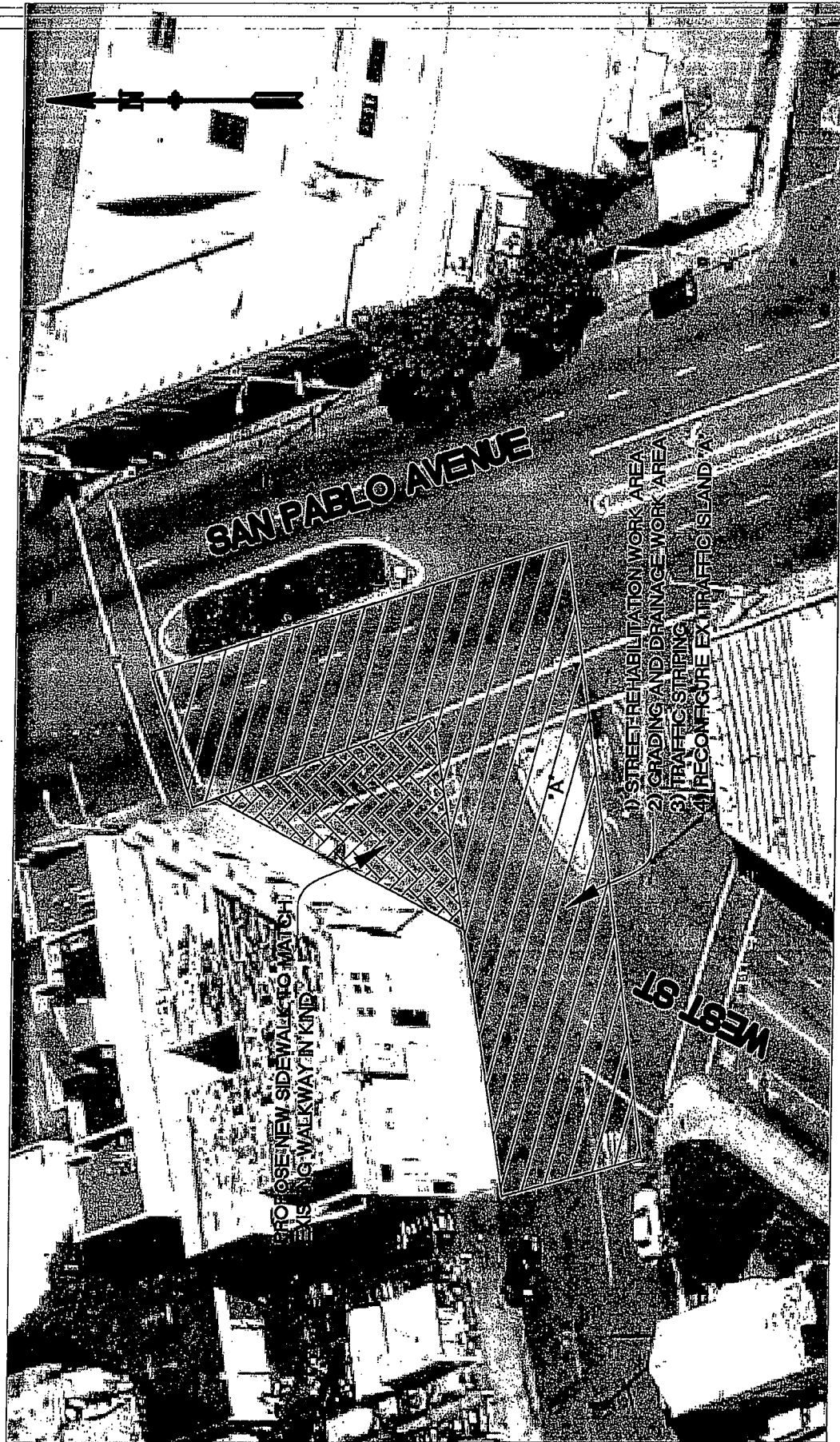
Other visible streets include Grand Ave, Broadway, Market St, and various numbered streets (e.g., 1st St, 2nd St, 3rd St, 4th St, 5th St, 6th St, 7th St, 8th St, 9th St, 10th St, 11th St, 12th St, 13th St, 14th St, 15th St, 16th St, 17th St, 18th St, 19th St, 20th St, 21st St, 22nd St, 23rd St, 24th St, 25th St, 26th St, 27th St, 28th St, 29th St, 30th St, 31st St, 32nd St, 33rd St, 34th St, 35th St, 36th St, 37th St, 38th St, 39th St, 40th St, 41st St, 42nd St, 43rd St, 44th St, 45th St, 46th St, 47th St, 48th St, 49th St, 50th St). Landmarks include Lakeside Park, the Oakland BART station, and the San Pablo Gateway area.

SAN PABLO AT WEST GRAND AVENUE
COUNTER MEASURE ONE (1)

- 1) CONSTRUCT NEW SIGNAL LIGHT FOUNDATION AND POLE
- 2) INSTALL NEW MAST ARM
- 3) RELOCATE EX. CONFLICTING UTILITIES
- 4) RESTORE ROADWAY IN/KNAD
- 5) REMOVE EXISTING TRAFFIC ISLAND



SAN PABLO AVENUE AT WEST STREET COUNTER MEASURE TWO (2)



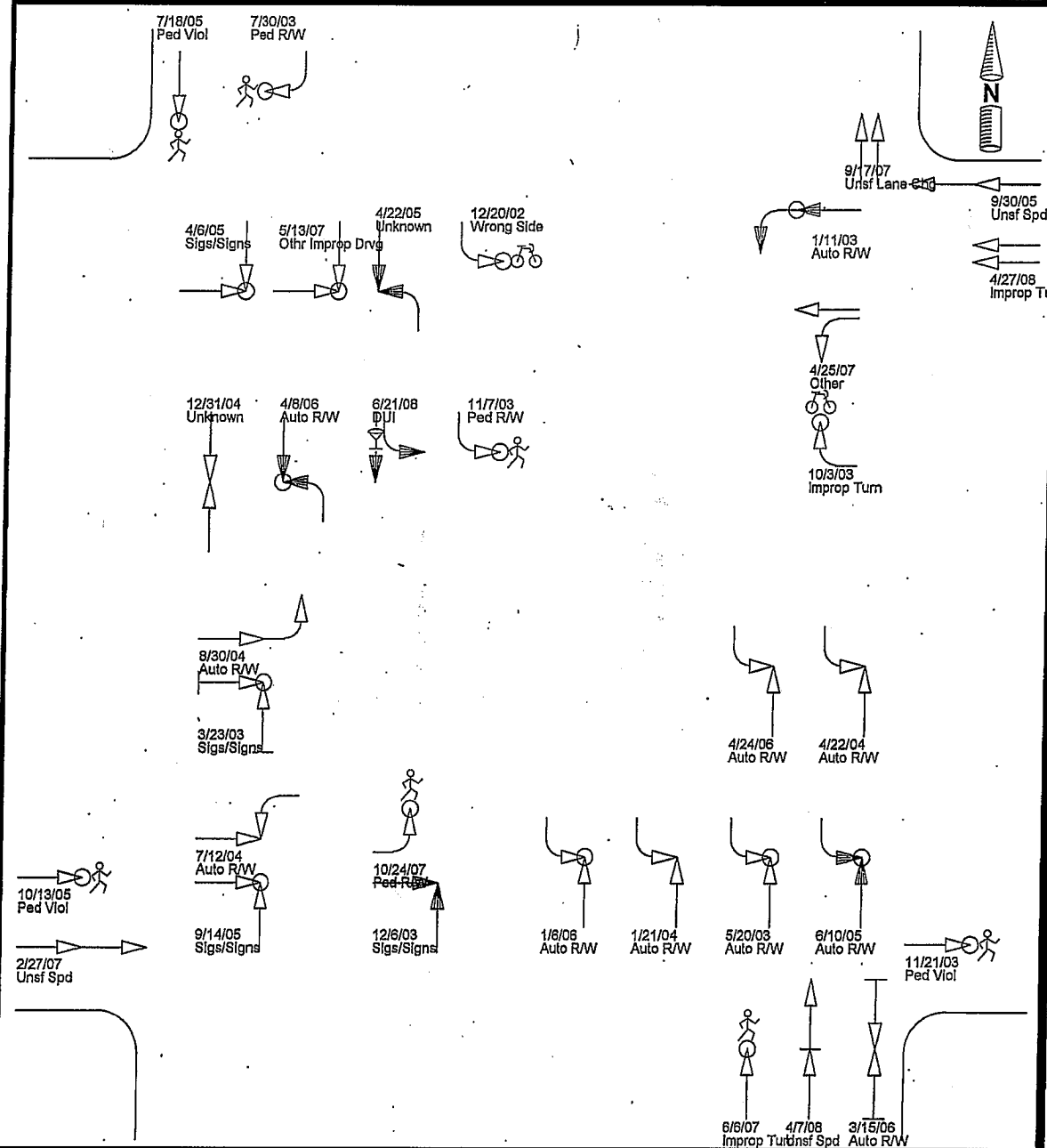
Collision Diagram

Horizontal Street: W GRAND AV

Vertical Street: SAN PABLO AV

From: 7/1/1999 To: 6/30/2009

Date Prepared: 12/8/2010



Number of Collisions

16 Property Damage Only
18 Injury Collisions
0 Fatal Collisions
34 Total Collisions

Legend

Moving Vehicle
 Stopped Vehicle
 Backing Vehicle
 Ran Off Road
 Movement Unknown

Right Turn
 Left Turn
 Sideswipe
 Day
 Night

Pedestrian
 Fixed Object
 Bicycle
 DUI
 Injury
 Fatal

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 1

Location: San Pablo Av / W Grand Av
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 34

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
0592341	12/20/02	13:20	0	In Int.	Broadside	Bicycle	South	Making Left Turn	South	Proceeding Straight	Wrong Side of Road	1	0
0607857	1/11/03	23:05	0	In Int.	Head-On	Other Motor Vehicle	West	Making U Turn	West	Proceeding Straight	Auto RW Violation	1	0
0739854	3/23/03	13:18	0	In Int.	Broadside	Other Motor Vehicle	North	Stopped in Road	East	Stopped in Road	Traffic Signals and Signs	1	0
0812611	5/20/03	07:49	0	In Int.	Broadside	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto RW Violation	2	0
0834298	7/30/03	13:40	6	West	Vehicle - Pedestrian	Pedestrian	South	Making Right Turn	South	Proceeding Straight	Ped-RW Violation	1	0
1058374	10/3/03	13:20	0	In Int.	Sideswipe	Bicycle	Not Stated	Proceeding Straight	West	Making Right Turn	Improper Turning	1	0
1132349	11/7/03	08:30	5	East	Vehicle - Pedestrian	Pedestrian	South	Making Left Turn	South	Other	Ped RW Violation	1	0
1445456	11/21/03	08:50	30	East	Vehicle - Pedestrian	Pedestrian	North	Other	East	Proceeding Straight	Pedestrian Violation	1	0
1445587	12/6/03	16:55	0	In Int.	Head-On	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	0	0
1248722	1/21/04	11:00	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto RW Violation	0	0
1416330	4/22/04	07:27	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto RW Violation	0	0
1525003	7/12/04	17:15	0	In Int.	Broadside	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto RW Violation	0	0
1597182	8/30/04	16:30	0	In Int.	Head-On	Other Motor Vehicle	East	Proceeding Straight	East	Making Left Turn	Auto RW Violation	0	0
1834041	12/31/04	13:45	0	In Int.	Head-On	Other Motor Vehicle	South	Proceeding Straight	North	Proceeding Straight	Unknown	0	0
1952266	4/6/05	08:50	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	1	0

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 2

Location: San Pablo Av / W Grand Av
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 34

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
1993522	4/22/05	21:20	0	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Unknown	0	0
2085045	6/10/05	22:40	0	In Int.	Broadside	Other Motor Vehicle	North	Proceeding Straight	South	Making Left Turn	Auto R/W Violation	2	0
2139068	7/18/05	14:55	24	North	Vehicle - Pedestrian	Pedestrian	South	Passing Other Vehicle	East	Other	Pedestrian Violation	1	0
2234831	9/14/05	16:14	0	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	North	Proceeding Straight	Traffic Signals and Signs	2	0
2257339	9/30/05	15:00	20	East	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Stopping/Stopping	Unsafe-Speed	0	0
2330867	10/4/05	09:30	0	In Int.	Vehicle - Pedestrian	Pedestrian	Not-Statd	Other	East	Proceeding Straight	Pedestrian Violation	1	0
2409444	1/6/06	14:01	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	1	0
2550100	3/4/06	15:32	0	In Int.	Head-On	Other Motor Vehicle	North	Stopped-in Road	South	Stopped-in Road	Auto R/W Violation	0	0
2711295	4/8/06	22:22	0	In Int.	Head-On	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	3	0
2602164	4/24/06	17:06	0	In Int.	Head-On	Other Motor Vehicle	South	Making Left Turn	North	Proceeding Straight	Auto R/W Violation	0	0
3063623	2/27/07	16:57	30	West	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Proceeding Straight	Unsafe-Speed	0	0
3149919	4/25/07	10:45	0	In Int.	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Making Left Turn	Other	0	0
3247916	5/19/07	18:00	0	In Int.	Broadside	Other Motor Vehicle	South	Proceeding Straight	East	Proceeding Straight	Other-Improper Driving	1	0
3222155	6/6/07	15:10	0	In Int.	Vehicle - Pedestrian	Pedestrian	North	Proceeding Straight	East	Not Stated	Improper Turning	1	0
3360051	9/17/07	12:55	30	North	Sideswipe	Other Motor Vehicle	North	Changing Lanes	North	Entering Traffic	Unsafe-lane Change	0	0

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 3

Location: San Pablo Av / W Grand Av
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 34

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
3442859	10/24/07	10:27	0	In Int.	Vehicle - Pedestrian	Pedestrian	East	Making Left Turn	North	Proceeding Straight	Ped R/W Violation	1	0
3683443	4/7/08	09:30	25	South	Rear End	Other Motor Vehicle	North	Stopped in Road	North	Slowing/Stopping	Unsafe-Speed	0	0
3735171	4/27/08	16:45	50	East	Sideswipe	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Improper Turning	0	0
3817124	6/21/08	23:08	0	In Int.	Sideswipe	Other Motor Vehicle	Not Stated	Making Left Turn	South	Proceeding Straight	Driving Under Influence	0	0

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Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 4

Location: San Pablo Av / W Grand Av
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 34

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
Total Number of Collisions: 34													

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Street Name	SAN PABLO AV
Cross Street	W GRAND AV
Starting Date	7/1/1999
Ending Date	6/30/2009
Intersection	Intersection Related

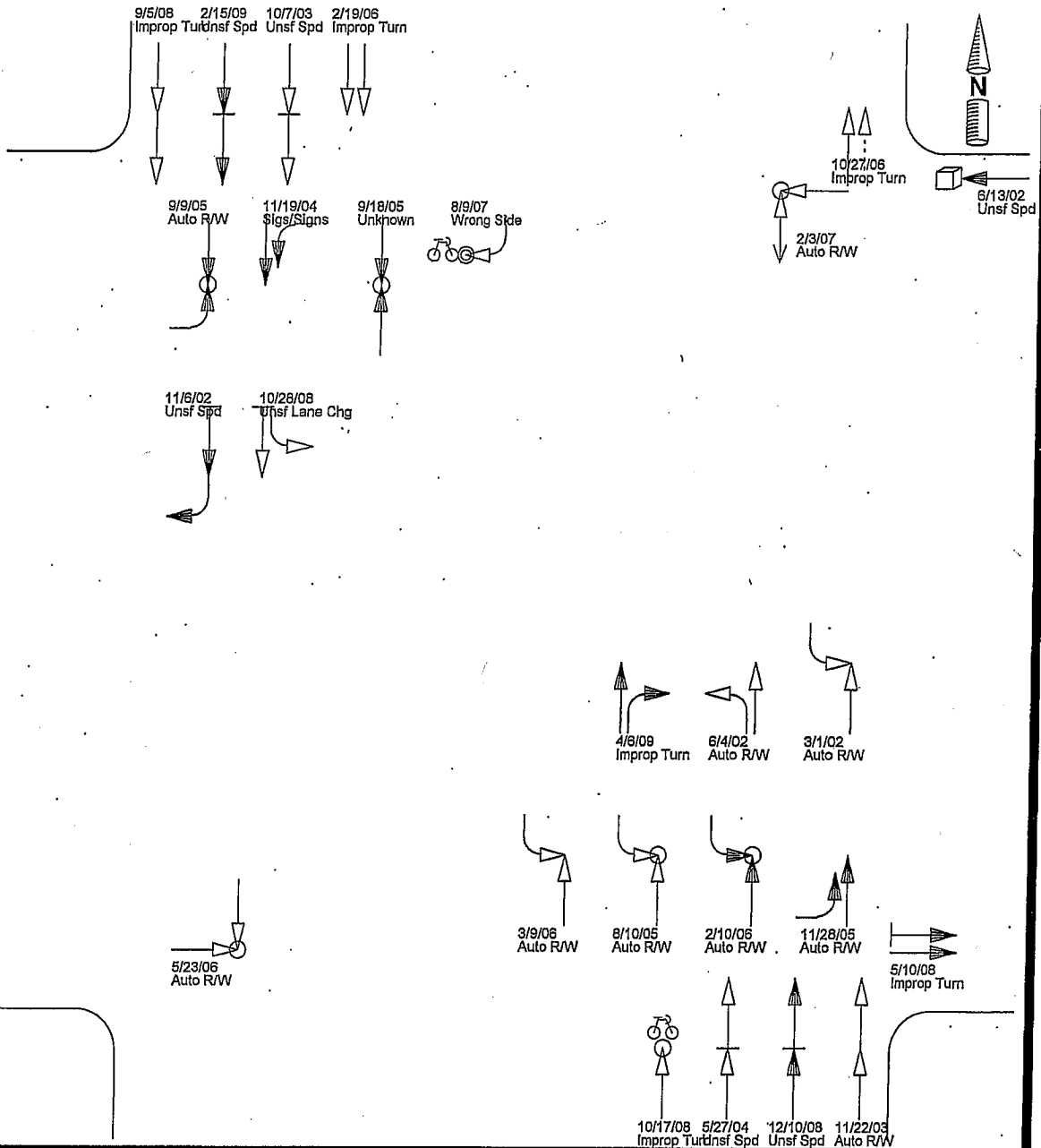
Collision Diagram

Horizontal Street: WEST ST (N)

Vertical Street: SAN PABLO AV

From: 7/1/1999 To: 6/30/2009

Date Prepared: 12/8/2010



Number of Collisions

19 Property Damage Only
7 Injury Collisions
1 Fatal Collisions
27 Total Collisions

Collisions Not Plotted: 1

Legend

← Moving Vehicle
 ← Stopped Vehicle
 ← Backing Vehicle
 ← Ran Off Road
 ← Movement Unknown

↶ Right Turn
 ↷ Left Turn
 ↔ Sideswipe
 ← Day
 ← Night

⤴ Pedestrian
 📦 Fixed Object
 🚲 Bicycle
 🍷 DUI
 ○ Injury
 ⊙ Fatal

Collisions Not Plotted

Date	Time	Dist.	Dir.	Motor Veh. Involved With	Direct. of Movement Travel 1	Prec. Coll. 1	Direct. of Movement Travel 2	Prec. Coll. 2	Collision Type
1/22/00	10:00	45	East	Parked Motor Vehicle	Not Stated	Backing	Not Stated	Parked	Other

PCF: Unsafe Starting or Backing

Reason: No Direction of Travel

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 1

Location: San Pablo Av / West St (N)
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
0045920	4/22/00	10:00	45	East	Other	Parked-Motor Vehicle	Not-Statd	Parked	Not-Statd	Backing	Unsafe-Starting or Backing	0	0
0273034	3/4/02	14:01	0	In-Int.	Rear-End	Other-Motor Vehicle	South	Making-Left Turn	North	Proceeding Straight	Auto-RW Violation	0	0
0588999	6/4/02	14:05	0	In-Int.	Sideswipe	Other-Motor Vehicle	North	Making-Left Turn	North	Proceeding Straight	Auto-RW Violation	0	0
0495091	6/13/02	02:45	0	In-Int.	Head-On	Fixed-Object	West	Proceeding Straight			Unsafe-Speed	0	0
1050479	11/6/02	00:20	0	In Int.	Rear-End	Motor Vehicle on Other	South	Making Right Turn	South	Stopped in Road	Unsafe Speed	0	0
4445483	10/7/03	11:45	10	North	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
4454483	11/22/03	15:05	0	In-Int.	Broadside	Other-Motor Vehicle	North	Entering-Traffic	North	Proceeding Straight	Auto-RW Violation	0	0
4752944	5/27/04	15:25	30	South	Rear-End	Other-Motor Vehicle	North	Stopped-in Road	North	Proceeding Straight	Unsafe-Speed	0	0
2178974	11/19/04	18:45	0	In-Int.	Broadside	Motor-Vehicle on Other	South	Proceeding Straight	West	Making-Left Turn	Traffic-Signals and Signs	0	0
2244152	8/10/05	17:50	0	In-Int.	Broadside	Other-Motor Vehicle	South	Making-Left Turn	North	Proceeding Straight	Auto-RW Violation	0	0
2234952	9/9/05	21:40	0	In-Int.	Broadside	Other-Motor Vehicle	East	Making-Left Turn	South	Proceeding Straight	Auto-RW Violation	2	0
2366994	01/19/05	23:40	0	In-Int.	Not-Statd	Other-Motor Vehicle	South	Proceeding Straight	North	Proceeding Straight	Unknown	1	0
2508487	11/29/05	18:50	0	In-Int.	Broadside	Other-Motor Vehicle	East	Making-Left Turn	North	Proceeding Straight	Auto-RW Violation	0	0
2494961	2/19/06	07:50	0	In Int.	Sideswipe	Other Motor Vehicle	South	Proceeding Straight	South	Proceeding Straight	Improper Turning	0	0

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 2

Location: San Pablo Av / West St (N)
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
2522330	3/9/06	15:55	0	In-Int.	Head-On	Other-Motor Vehicle	South	Making-Left Turn	North	Proceeding Straight	Auto-RAW Violation	0	0
2660555	5/23/06	09:06	0	In-Int.	Head-On	Other-Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Auto-RAW Violation	13	0
2870558	10/27/06	12:14	15	North	Sideswipe	Other-Motor Vehicle	North	Other-Unsafe Turning	North	Proceeding Straight	Improper-Turning	0	0
3009976	2/3/07	15:00	50	North	Other	Other-Motor Vehicle	West	Proceeding Straight	North	Backing	Auto-RAW Violation	1	0
3470348	8/9/07	08:25	0	In Int.	Other	Bicycle	North	Proceeding Straight	South	Making Right Turn	Wrong Side of Road	0	1
3745761	5/10/08	21:02	40	East	Sideswipe	Parked-Motor Vehicle	East	Parked	East	Parked	Improper-Turning	0	0
3918383	9/5/08	09:15	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Changing Lanes	Improper Turning	0	0
39559140	10/17/08	14:24	0	In-Int.	Sideswipe	Bicycle	North	Proceeding Straight	North	Proceeding Straight	Improper-Turning	1	0
39550401	10/28/08	15:04	0	In-Int.	Sideswipe	Other-Motor Vehicle	South	Stopped-in Road	South	Making-Left Turn	Unsafe-Lane Change	0	0
4057894	12/10/08	18:10	20	South	Rear-End	Other-Motor Vehicle	North	Proceeding Straight	North	Stopped-in Road	Unsafe-Speed	0	0
4105554	2/15/09	23:01	0	In Int.	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped in Road	Unsafe Speed	0	0
4224625	4/6/09	04:59	0	In-Int.	Sideswipe	Other-Motor Vehicle	South	Parked	North	Making-Right Turn	Improper-Turning	0	0

City of Oakland
Traffic Engineering Department
Traffic Collision History Report

12/8/2010
Page 3

Location: San Pablo Av / West St (N)
Date Range Reported: 7/1/1999 - 6/30/2009
Total Number of Collisions: 27

Report No.	Date	Time	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Direct. of Travel 1	Movement Prec. Coll. 1	Direct. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil
Total Number of Collisions: 27													

Settings Used For Query

Parameter	Setting
Street Name	SAN PABLO AV
Cross Street	WEST ST (N)
Starting Date	7/1/1999
Ending Date	6/30/2009
Intersection	Intersection Related

Detailed Engineer's Estimate

Agency: City of Oakland

Project Name: 2010 HSIP

Project Location: Traffic Signal Modification and Roadway Re-alignment

Date of Estimate: December 7, 2010

Prepared by: P. Chun

Item No.	Description	Quantity	Units	Unit Cost	Total
1	Mobilization	1	LS	\$ 5,000	\$5,000
2	Traffic Control	1	LS	4,000	\$4,000
3	Sawcut	100	LF	8	\$800
4	Remove Existing Curb and Gutter (6ft)	10	LF	35	\$350
5	Remove and Salvage Existing Signal Pole	4	EA	600	\$2,400
6	Restore sidewalk at Signal Foundation	4	EA	200	\$800
7	Signal Pole, 40' Mast Arm, Foundation	2	EA	6,000	\$12,000
8	Signal Pole, 50' Mast Arm, Foundation	2	EA	8,000	\$16,000
9	Install Left Turn Signal Heads	8	EA	700	\$5,600
10	Install Signal Head 12"	8	EA	700	\$5,600
11	Video Detection Camera and System	1	LS	30,000	\$30,000
12	Video Cables	400	LF	20	\$8,000
13	Conduit 3" HDPE	40	LF	60	\$2,400
14	No. 6 Electrical Box	4	EA	600	\$2,400
15	Splice Chamber	4	EA	125	\$500
16	Conductors	280	LF	30	\$8,400
	Subtotal				104,250
16	Mobilization	1	LS	\$ 11,000	\$11,000
17	Traffic Control	1	LS	8,000	\$8,000
18	Sawcut	36	LF	8	\$289
19	Unclassified Excavation	36	CY	150	\$5,422
20	Type B Curb and Gutter	150	LF	70	\$10,500
21	Remove Pavement	6,500	SF	10	\$65,000
22	Crushed Miscellaneous Base	78	CY	85	\$6,611
23	AC Pavement	10	TON	220	\$2,251
24	Minor Grading	341	SY	30	\$10,233
25	Adjust Utility to Grade	2	LS	500	\$1,000
26	Trench Drain	100	LF	100	\$10,000
27	Concrete Trench	100	LF	50	\$5,000
28	Rectangular steel pipe	15	LF	25	\$375
29	Remove existing Traffic Island	1	LS	5,000	\$5,000
30	Reconstruct Traffic Island	1	LS	15,000	\$15,000
31	PCC 4" sidewalk	2,800	SF	12	\$33,600
32	Curb Ramp, City Standard	4	EA	3,000	\$12,000
33	12 in. Thermoplastic Striping	180	LF	5	\$900
34	8 in. Thermoplastic Striping	90	LF	5	\$450
35	4 in. Thermoplastic Striping	150	LF	4	\$600
36	Pavement Arrow or Legend	4	EA	450	\$1,800
37	Install Traffic Signs	3	EA	250	\$750
	Subtotal				\$205,782

Grand Total \$310,032