

# **CITY OF HAYWARD**

Hayward City Hall  
777 B Street  
Hayward, CA 94541  
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CITY OF  
**HAYWARD**  
HEART OF THE BAY

## **Agenda**

**Wednesday, July 31, 2019**

**4:30 PM**

**Conference Room 2A**

## **Council Infrastructure Committee**

**CALL TO ORDER****PLEDGE OF ALLEGIANCE****ROLL CALL****PUBLIC COMMENTS:**

(The Public Comment section provides an opportunity to address the City Council Committee on items not listed on the agenda as well as items on the agenda. The Committee welcomes your comments and requests that speakers present their remarks in a respectful manner, within established time limits, and focus on issues which directly affect the City or are within the jurisdiction of the City. As the Committee is prohibited by State law from discussing items not listed on the agenda, any comments on items not on the agenda will be taken under consideration without Committee discussion and may be referred to staff.)

[MIN 19-101](#) Review and Approve the May 29, 2019 Council Infrastructure Committee (CIC) Meeting Minutes

**Attachments:** [Attachment I May 29, 2019 CIC Draft Meeting Minutes](#)

**REPORTS/ACTION ITEMS**

[ACT 19-155](#) Review and Approve the Council Infrastructure Committee 5-Year Planning Calendar

**Attachments:** [Attachment I 5-Year Planning Calendar](#)

[RPT 19-320](#) Public, Education, and Government (PEG) Broadcasting Discussion

**Attachments:** [Attachment I Staff Report](#)

[WS 19-046](#) Work Session: Policy Discussion Regarding Funding Level Recommendations for Pavement Rehabilitation versus Traffic Calming

**Attachments:** [Attachment I Staff Report](#)

[ACT 19-157](#) Review and Comment on Proposed A Street & Hesperian Boulevard Intersection Improvements

**Attachments:** [Attachment I Staff Report](#)  
[Attachment II AMG Hesperian Blvd & A St. Traffic Study](#)  
[Attachment III Alameda Co. Outreach Material](#)

**COMMITTEE MEMBER/STAFF ANNOUNCEMENTS AND REFERRALS**

**ORAL UPDATE: ACTC East Bay-Greenway Project**

**CIP ORAL UPDATE**

**ADJOURNMENT**



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**File #:** MIN 19-101

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**DATE:** July 31, 2019

**TO:** Council Infrastructure Committee

**FROM:** Director of Public Works

**SUBJECT**

Review and Approve the May 29, 2019 Council Infrastructure Committee (CIC) Meeting Minutes

**RECOMMENDATION**

That the Committee reviews and approves the meeting minutes from the May 29, 2019 Council Infrastructure Committee meeting.

**ATTACHMENTS**

Attachment I CIC Meeting Minutes from May 29, 2019





## COUNCIL INFRASTRUCTURE COMMITTEE MEETING

Hayward City Hall – Conference Room 2A  
777 B Street, Hayward, CA 94541-5007

May 29, 2019 – Special Meeting  
4:30 p.m.

### MEETING MINUTES

CALL TO ORDER: Meeting called to order at 4:30 PM by Chair Elisa Márquez

PLEDGE OF ALLEGIANCE: Led by Chair Elisa Márquez

ROLL CALL:

#### Members Present:

- Elisa Márquez, Chair
- Al Mendall, City Council Member
- Mark Salinas, City Council Member (Absent at roll call)

#### Staff Present:

- Alex Ameri, Director of Public Works
- Kathy Garcia, Deputy Director of Public Works
- Fred Kelley, Transportation Manager
- Kevin Briggs, Senior Civil Engineer
- Erik Pearson, Environmental Services Manager
- Charmine Solla, Senior Transportation Engineer
- Vasavi Pannala, Senior Transportation Engineer
- Liliana Ventura, Associate Transportation Engineer
- Ayeh Khajouei, Associate Transportation Planner
- Saeed Saebi, Associate Civil Engineer
- Noriel Panganiban, Traffic Signal Technician
- Carol Lee, Management Analyst II
- Angel Groves Administrative Secretary

PUBLIC COMMENTS:

There were no public comments.

COMMITTEE COMMENTS:

Chair Márquez acknowledged staff's significant improvements with preparation of the Capital Improvement Projects (CIP) budget and thanked staff for their work.

Director Ameri took the opportunity to introduce the Transportation Team to the Committee. Each staff member introduced themselves and provided a brief summary of their experience.

Special recognition was given to Traffic Signal Technician, Noriel Panganiban, for his extraordinary contribution in maintaining all citywide traffic lights and signals working properly.

1. Hayward Boulevard Safety Improvements Feasibility Study:

Fred Kelley, Transportation Manager, introduced the report and provided background information. Mr. Kelley confirmed that this item was going for Council consideration on the June 4, 2019 City Council agenda and that direction was being requested from the Committee at this time.

Public Comments/Discussion

Council Member Mendall asked why this corridor was selected and was it a technical reason or other. Mr. Kelley advised that a number of factors were taken into consideration but most importantly, the community feedback and their need for safety measures in this highly traveled area to be addressed. Residents and community leaders alike, offered countless examples to support the need for action in that area. Senior Transportation Engineer, Charmine Solla, explained that this area consists of various streets with varying street slopes that makes the work more complicated and requires the need of outside consultants versus current staff resources. The Tennyson Corridor, which was also considered, consists of more flat, leveled streets which could be addressed with current City resources.

Mr. Kelley also added that staff felt tying in safety improvements in the Tennyson Corridor with the Tennyson Corridor Strategic Initiative Plan made more sense for better use of staff time and inhouse resources.

Chair Márquez asked that staff be mindful of the growing needs of the communities from Hayward Blvd to the Stonebrae Elementary School area, such as increased attendance at Cal State East Bay, and would like to see other issues addressed in this area such as sidewalks. She also wanted to ensure that staff had a complete list of all Homeowner Associations in that area and that proper and thorough outreach was done using resources such as Nextdoor. Chair Márquez also added concerns she has with evacuation routes in case of an emergency in that area and the lack of direct access roads to safety. She would like to staff to look further into the possibility of opening side access roads.

Council Member Mendall thanked staff for the clarification of the process used for location selection and asked that for future projects, staff did their best to complete as much of the initial work inhouse versus expending funding on outside consultants, though acknowledged staffing shortages within the division.

Chair Márquez confirmed that the collision data collected and represented in the report is from 2014 to 2018, and that the same data is available and would be used in the future consideration of other corridors.

Council Member Mendall wanted new staff members to be aware of the attention that has been placed in the Downtown Area and asked that emphasis and direction be placed on other areas in need moving forward.

## 2. Bicycle and Pedestrian Master Plan:

Charmine Solla introduced the report and provided background information.

### Public Comments/Discussion

Council Member Mendall emphasized the history of the City building and rebuilding sidewalks and crosswalks in certain City streets, while others remain unattended and without needed safety features. Ms. Solla explained that staff is looking into additional funding sources to be able to complete more or bigger projects Citywide.

Director Ameri added that the next presentation brought before the Committee would focus more on funding sources.

Council Member Mendall added an observation he made in crosswalk timing in Foster City where there is a slight delay from when the walk signal comes on to when the traffic signal light turns, which provides pedestrians safer entry into the crosswalk. He asked staff if this was possible in all or most crosswalks in Hayward and if so, that staff make any necessary adjustments.

Ms. Solla advised that this was an improvement in programming staff was already looking into.

## 3. Safe Routes for Seniors (SRS) Program:

Ayeh Khajouei, Associate Transportation Planner, presented the report and provided background.

### Public Comments/Discussion

Chair Márquez was impressed with the number of senior centers located in or near the Downtown area. After reviewing the location map provided, she can see the higher immediate need in the Downtown but would also like to see other project areas in the future. She also asked that staff revise the current location map to include the Senior Center and Japanese Gardens.

Council Member Mendall asked that the next presentation include the Tennyson Corridor area and other areas that are equally as traveled by seniors.

Director Ameri advised that funding was an issue in including other areas with this project. However, staff understands the importance of the safety of all areas frequented

by seniors and as staff secures additional funding, more projects that expand beyond the Downtown area will be brought before the Committee.

Council Member Mendall confirmed that the design phase of the project would all be completed inhouse. Ms. Khajouei confirmed but advised that outside assistance will be used for the engineering part of the project.

#### 4. Future Agenda Items:

Council Member Mendall asked if staff was taking advantage of the software and technology we currently have for the City's traffic signals or if the staffing gap was preventing staff from using them to their full potential, and that a recommendation for additional staffing resources be brought back to the Committee on a future agenda.

He also expressed his concern with the high number of items being brought before the Committee on one agenda and would like to consider having a monthly meeting or extending the allotted time for each meeting.

Council Member Márquez asked that we track discussion times for each item in future meetings to determine if additional time per meeting is needed or more focus on the specifics of each item.

Director Ameri advised the Committee that Technology Services asked to add an item to the agenda for the July CIC meeting regarding public, education and government broadcasting. The Committee was comfortable with adding the item but asked that sufficient time be allocated for that meeting to account for anticipated public attendance.

Chair Márquez asked that item number four on the July 24, 2019 agenda, Receive Final Report on the Library Construction Project, be tabled to a future agenda; and, item number seven, Oral Update on the ACTC Eastbay-Greenway Project, be kept brief.

#### 5. Committee Member/Staff Announcements and Referrals:

There were no announcements or referrals.

#### 6. Oral Updates

Kevin Briggs, Senior Civil Engineer, provided an update pertaining to the opening of the 21<sup>st</sup> Century Library. He advised of a number of events currently planned at the library and confirmed that there is a fire watch for those events. Mr. Briggs also advised of the target date to open officially to the public of July 1, 2019.

Director Ameri updated the Committee with the progress and positive communication between the City and the Federal Aviation Association pertaining to the completion of Fire Station No. 6.

ADJOURNMENT: 6:09 PM



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**File #:** ACT 19-155

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**DATE:** July 31, 2019

**TO:** Council Infrastructure Committee

**FROM:** Director of Public Works

**SUBJECT**

Review and Approve the Council Infrastructure Committee 5-Year Planning Calendar

**RECOMMENDATION**

That the Committee reviews and approves the Council Infrastructure Committee (CIC) 5-Year Agenda Planning Calendar.

**SUMMARY**

For the CIC consideration, staff has revised the proposed 5-Year Agenda Planning Calendar. This calendar will be agendized at each CIC meeting for review and to ensure any updates are incorporated.

**ATTACHMENTS**

Attachment I CIC 5-Year Agenda Planning Calendar



DATE: July 31, 2019

TO: Council Infrastructure Committee

FROM: Director of Public Works

SUBJECT: Review and Approve the Council Infrastructure Committee 5-Year Agenda Planning Calendar

#### RECOMMENDATION

That the Council Infrastructure Committee reviews and approves the 5-Year Agenda Planning Calendar.

#### DISCUSSION

For the CIC consideration, staff has revised the proposed 5-Year Agenda Planning Calendar. This calendar will be agendized at each CIC meeting for review and to ensure any updates are incorporated.

Council Infrastructure Committee 5-Year Agenda Planning Calendar	
FY 2020	
October 23, 2019	
1.	Review and Approve the Meeting Minutes from July 24, 2019
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Funding Allocation for Pavement Rehabilitation vs. Traffic Calming from 7/31/19 CIC Work Session Discussion (PW)
4.	Work Session: Policy Discussion Regarding Funding Level Recommendations for Multi-Modal Study (PW)
5.	Receive Status Update on New Police Department Building Project and Provide Feedback (PW)
6.	Receive Final Report on the Library Construction Project (PW/LS)
7.	Review and Comment on the FY 2020 Pavement Rehabilitation Project (PW)
8.	Review and Comment on Water Pollution Control Facility (WPCF) Phase II Facilities Plan (PW)
9.	CIP Oral Update (If Applicable)

Council Infrastructure Committee 5-Year Agenda Planning Calendar	
January 22, 2020	
1.	Review and Approve the Meeting Minutes from October 23, 2019
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Funding Level Recommendations for the Multi-Modal Study Resulting from 10/23/19 CIC Work Session Discussion
4.	Work Session: Policy Discussion Regarding Scarcity of On-Street Parking
5.	Review and Comment on Draft Bike/Ped Master Plan Update (2 of 3)
6.	Review and Comment on the Hayward Boulevard (Traffic Calming) Feasibility Study (2 of 2) (PW)
7.	Review and Comment on the Main Street Complete Project (1 of 2) (PW)
8.	CIP Oral Update (If Applicable)
April 22, 2020	
1.	Review and Approve the Meeting Minutes from January 22, 2020
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Scarcity of On-Street Parking Resulting from the 1/22/20 CIC Work Session Discussion
4.	Work Session: Policy Discussion Regarding the Bicycle and Pedestrian Infrastructure Improvements
5.	Review and Comment on the FY 2021 Pavement Rehabilitation Project (PW)
6.	Review and Approve Bike/Ped Master Plan Update (3 of 3)
7.	Review and Comment on the Main Street Complete Project (2 of 2) (PW)
8.	CIP Oral Update ((If Applicable)
July 22, 2020	
1.	Review and Approve the Meeting Minutes from April 22, 2020
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Bicycle and Pedestrian Infrastructure Improvements Resulting from the 4/22/20 CIC Work Session Discussion (PW)
4.	Work Session: Policy Discussion Regarding the Implementation of Solar Projects (PW)
5.	Receive the Final Report on the Completed Fire Station 6 & Training Center Construction Project (PW/Fire)
6.	Review and Comment on the Long-Range Planning for the Sewer System Upgrades 2020 – 2030 (1 of 4) (PW)
7.	Receive Update on the I-880 Whipple/Industrial Interchange Project (PW)
8.	Review and Comment on the CIP Redesign (PW)
9.	CIP Oral Update (If Applicable)

Council Infrastructure Committee 5-Year Agenda Planning Calendar	
October 28, 2020	
1.	Review and Approve the Meeting Minutes from July 22, 2020
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Implementation of Solar Projects Resulting from the 1/22/20 CIC Work Session Discussion (PW)
4.	Work Session: Policy Discussion Regarding the Planned Implementation for Equity
5.	Review and Comment on the Long-Range Planning for the Sewer System Upgrades 2020 – 2030 (2 of 4) (U&ES)
6.	Review and Comment on the Citywide Intersection Study (3 of 3) (PW)
7.	Review and Comment on the Ten-Year Plan for Transportation, Water, and Sewer (U&ES)
8.	CIP Oral Update (If Applicable)
January 27, 2021	
1.	Review and Approve the Meeting Minutes from October 28, 2020
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the Planned Implementation for Equity Resulting from the 10/28/20 CIC Work Session Discussion
4.	Review and Comment on the Long-Range Planning for the Sewer System Upgrades 2020 – 2030 (3 of 4) (PW)
5.	Review and Comment on the Funding Mechanisms for Transportation (PW)
6.	CIP Oral Update
April 28, 2021	
1.	Review and Approve the Meeting Minutes from January 27, 2021
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the FY 2022 Pavement Rehabilitation Project (PW)
4.	Review and Comment on the Long-Range Planning for the Sewer System Upgrades 2020 – 2030 (4 of 4) (PW)
5.	Review and Comment on the Funding Mechanisms for Sidewalks (PW)
6.	Receive Final Report on the completed Mission Blvd. Phase 3 Project (PW)
7.	CIP Oral Update (If Applicable)
FY 2022	
July 28, 2021	
1.	Review and Approve the Meeting Minutes from April 28, 2021
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	CIP Oral Update (If Applicable)
October 27, 2021	
1.	Review and Approve the Meeting Minutes from July 28, 2021
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Receive Update on the I-880 Winton/A Street Interchange Project (PW)
4.	CIP Oral Update (If Applicable)



Council Infrastructure Committee 5-Year Agenda Planning Calendar	
January 26, 2022	
1.	Review and Approve the Meeting Minutes from October 27, 2021
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	CIP Oral Update (If Applicable)
April 27, 2022	
1.	Review and Approve the Meeting Minutes from January 26, 2022
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Review and Comment on the FY 2023 Pavement Rehabilitation Project (PW)
4.	Receive Update on the Whipple/Industrial Interchange Project (PW)
5.	CIP Oral Update (If Applicable)
FY 2023	
July 27, 2022	
1.	Review and Approve the Meeting Minutes from April 27, 2022
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	CIP Oral Update (If Applicable)
October 26, 2022	
1.	Review and Approve the Meeting Minutes from July 27, 2022
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	CIP Oral Update (If Applicable)
January 25, 2023	
1.	Review and Approve the Meeting Minutes from October 26, 2022
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Receive Update on the Clawiter/92 Interchange Project (PW)
4.	CIP Oral Update (If Applicable)
April 26, 2023	
1.	Review and Approve the Meeting Minutes from January 25, 2022
2.	Review and Approve the 5-Year Agenda Planning Calendar
3.	Receive Update on the Winton/A Street Interchange Project (PW)
4.	CIP Oral Update (If Applicable)
Unscheduled and/or Future Topics	
	Foothill Blvd./D Street Intersection Analysis Results
	Corporation Yard and Potential Funding Options
	La Vista Park Design
	Citywide Multi-Modal Study
	E 14 <sup>th</sup> /Mission Boulevard/Fremont Boulevard Transit Study
	Tennyson Road Feasibility Study
	Long-Range Planning for the Water System Upgrades (2020 – 2030)
	OHHA Street Improvement Plan

## NEXT STEPS

Upon consideration and approval by Council Infrastructure Committee, staff will schedule items accordingly for future CIC meeting.

Prepared by: Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Director of Public Works

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written over a horizontal line.

Kelly McAdoo, City Manager



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**File #:** RPT 19-320

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**DATE:** July 31, 2019

**TO:** Council Infrastructure Committee

**FROM:** Director of Information Technology/CIO

**SUBJECT**

Public, Education, and Government (PEG) Broadcasting Discussion

**RECOMMENDATION**

That the Council Infrastructure Committee reviews the report and provides direction.

**SUMMARY**

The City has undertaken review of the agreement with Chabot-Las Positas Community College District for Public, Education, and Government (PEG) Broadcasting Services involving a comprehensive approach leveraging analysis from multiple City departments. The outcome of this research is outlined in this report for committee review.

**ATTACHMENTS**

Attachment I Staff Report



DATE: July 31, 2019

TO: Council Infrastructure Committee

FROM: Director of Information Technology/CIO

SUBJECT: Public, Education, and Government (PEG) Broadcasting Discussion

## RECOMMENDATION

That the Council Infrastructure Committee reviews the report and provides direction.

## SUMMARY

The City has undertaken review of the agreement with Chabot-Las Positas Community College District for Public, Education, and Government (PEG) Broadcasting Services involving a comprehensive approach leveraging analysis from multiple City departments. The outcome of this research is outlined in this report for committee review.

## BACKGROUND

In 2010, the City of Hayward executed an interim agreement with Chabot-Las Positas Community College District to provide content creation and broadcasting services for local PEG cable television channels.

This agreement was prompted by the state's passage of the Digital Infrastructure and Video Competition Act (DIVCA) in 2006. Prior to the DIVCA, a single local cable franchise owner, Comcast Communications and its predecessors, was responsible for all local public access channel programming and content produced by local community members at the Comcast Studios.

Under DIVCA, the authority of local governments to grant a single local cable franchise was changed to multiple competing cable franchises issued by the California Public Utilities Commission (CPUC). With this change, Comcast no longer was required to produce content for the public access channel and closed its studio used for these purposes. The City selected Chabot Community College (CCC) to provide this service, as CCC was already broadcasting the local education channel, and had the facilities and equipment in place.

Currently, the City can broadcast to three main cable channels in our area. The Government channel is KHRT, Comcast Channel 15 (AT&T Uverse Channel 99), which broadcasts City Council meetings, Planning Commission meetings, Hayward Unified School District meetings, a bulletin board with local government events, and other City-produced content. Channel 15 broadcasts from the City Hall Council Chambers. The education Channel is KGTH, Comcast

Channel 27 (AT&T Uverse 99), which is managed by CCC, and broadcasts educational content. Comcast Channel 28 (also AT&T Uverse 99) is the Public Access Channel, broadcasting content from local area producers and CCC staff. Channels 27 and 28 are both broadcast from CCC studios.

## DISCUSSION

In reviewing the existing agreement, both Chabot and City staff recognized that terms within the agreement were no longer in effect, out of date, or not in-line with current community needs. This prompted a comprehensive review involving multiple internal and external resources and stakeholders. This approach included a legal review of DIVCA and PEG, PEG fee review, and contractual and ordinance language review.

### Legal Review

The City Attorney's Office conducted a review of two key elements concerning PEG channels that broadcast community events, City Council meetings, public service announcements, and other local original programming. The first element reviewed was the DIVCA. DIVCA is the California law that addresses the receipt of PEG fees by the City and the use of those funds. The second element reviewed was the language in the CCC agreement to ensure CCC is meeting expectations laid out in the agreement as well as satisfying relevant DIVCA and PEG legal standards or other applicable government codes outside of these key areas.

These reviews, coupled with engaging the Buske Group, outside legal counsel who specializes in the DIVCA and PEG area of the law, have resulted in a modernized agreement, which addresses key elements.

### Agreement Modifications

- **Modern terms and conditions:** To align with best practices and modern interpretations of the law, terminology has been updated throughout the agreement and ambiguous language has been removed. These updates clearly define the scope of services CCC offers to the City.
- **Scope of Services:** This section of the agreement has been updated to remove redundant and ambiguous language and most importantly, defines the exact scope of service provided.
- **Removed Insurance Requirements:** Requiring that our community members obtain insurance in order to utilize the PEG studios can be a challenge and cost-prohibitive, which may unintentionally serve as a barrier to use of the facility. This requirement has been removed.
- **Fair and equal access to the facility:** One area that needed further definition in the previous version of the agreement was how to gain access to the facility. A provision was added to explicitly define that when community members receive training and/or can demonstrate competency, they are given access per guidelines in the user agreement. This promotes fair and equal access to the facility.

- Training Requirement for Access: Language in the agreement states that training is offered at no/low cost. The intent of this provision is to remove barriers to access and promote the services of the facility.
- Hours of operation: To encourage and promote use for the community, hours of the facility remain explicitly defined to advertise and encourage use by the community.
- User Guide Update: CCC and the Buske Group are actively updating the user guide to reflect modern practices and procedures expected of a Community Media Center.

The central theme of these provisions is to remove barriers to access the facility and encourage the community to create opportunities to utilize this community resource for education and public access broadcasting and training.

#### Franchise Fee and PEG Fee Review and Summary

The CPUC grants state franchises to cable operators who wish to provide cable service to municipalities. The CPUC has granted a state franchise to AT&T and Comcast to provide cable service to the City of Hayward community. AT&T and Comcast each pay 5 percent of their gross revenues from Hayward operations to the City, or approximately \$1.67 million annually. These revenues are deposited into the General Fund for overall city operations. Additionally, AT&T and Comcast pay 1 percent of gross revenues as the PEG fee, or approximately \$220,000 annually. These revenues are budgeted in the IT Department for the CCC agreement and DIVCA-appropriate expenses.

Per the guidelines of DIVCA, the City requested a review of the PEG fees received from the cable providers. An internal review confirmed timely receipt of PEG fees by the cable providers but found a need to update the City Ordinance to reflect current franchise expiration dates. The City requested and received a multi-year review and summary from CCC that outlined the expenditure of PEG fees. A review of the expenditures confirmed that services received by the City are consistent with rules, regulations, and laws concerning PEG fee expenditure. Moving forward, provisions in the CCC agreement require an annual report from CCC regarding expenditures.

#### FISCAL IMPACT

The cost of this agreement with Chabot-Las Positas Community College District will not exceed \$117,000 and is included in the City's FY 2020 Operating Budget. Authorizing this agreement does not require an additional appropriation. It is projected that the cost of this agreement will be offset entirely by the PEG revenues received from AT&T and Comcast.

#### NEXT STEPS

After partnering with CCC for the last nine years to provide education and public channel content production and broadcasting, staff recommends continuing this relationship with the

revised agreement and extending the revised agreement for four years to align with best practices in the industry.

If the Infrastructure Committee approves the agreement structure and language, staff will move forward with adding this item to the earliest available City Council consent calendar agenda. It might also be necessary to recommend updating the City's franchise ordinance, to reflect current franchise agreement termination dates. Introductions of ordinances are required to be agendized on the Legislative Business agenda or Public Hearing agenda. Staff will advise the Committee accordingly.

Prepared by: Nathaniel Roush, Information Technology Manager

Recommended by: Adam Kostrzak, Director of Information Technology/CIO

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', is positioned above a horizontal line.

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Kelly McAdoo, City Manager



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**File #:** WS 19-046

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**DATE:** July 31, 2019

**TO:** Council Infrastructure Committee

**FROM:** Director of Public Works

**SUBJECT**

Work Session: Policy Discussion Regarding Funding Level Recommendations for Pavement Rehabilitation versus Traffic Calming

**RECOMMENDATION**

That the Committee discusses this policy item and provides direction to staff.

**SUMMARY**

The Pavement Rehabilitation and Preventative Maintenance Project is an annual program that is funded by a combination of Gas Tax, Measure B, Measure BB, Vehicle Registration Fee, and SB1 and Measure C funds.

Approximately \$7 million is allocated on an annual basis for Pavement Maintenance and Pavement Rehabilitation projects throughout the City. Deferred maintenance costs, however, will continue to increase and current funding levels will not provide the City with the ability to increase the Pavement Condition Index (PCI) beyond 70, or maintain it in the long term. If funding levels for the Pavement Rehabilitation and Maintenance Program were reduced, there would be a subsequent reduction in PCI in the outlying program years.

The City's Neighborhood (NTCP) Traffic Calming Program is currently funded at a level of approximately \$150,000 per year. Funding for the NTCP is derived from both General Fund and Measure BB revenue sources. This amount has been and continues to be inadequate to fund the increasing demand for traffic calming solutions. Complex corridor solutions can easily range from \$250,000 to \$2,000,000. The City's Traffic Calming efforts have historically been funded at less than 2.5% of the \$5 to \$7 million dollars spent annually on paving projects.

Staff recommends the Committee consider a reallocation of \$500,000 from Measure BB revenues to increase the effectiveness of the NTCP.

**ATTACHMENTS**

Attachment I      Staff Report





DATE: July 31, 2019

TO: Council Infrastructure Committee

FROM: Director of Public Works

SUBJECT: Work Session: Policy Discussion Regarding Funding Level Recommendations for Pavement Rehabilitation versus Traffic Calming

#### RECOMMENDATION

That the Committee discusses this policy item and provides direction to staff.

#### SUMMARY

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Approximately \$7 million is allocated on an annual basis for Pavement Maintenance and Pavement Rehabilitation projects throughout the City. Deferred maintenance costs, however, will continue to increase and current funding levels will not provide the City with the ability to increase the Pavement Condition Index (PCI) beyond 70, or maintain it in the long term. If funding levels for the Pavement Rehabilitation and Maintenance Program were reduced, there would be a subsequent reduction in PCI in the outlying program years.

The City's Neighborhood (NTCP) Traffic Calming Program is currently funded at a level of approximately \$150,000 per year. Funding for the NTCP is derived from both General Fund and Measure BB revenue sources. This amount has been and continues to be inadequate to fund the increasing demand for traffic calming solutions. Complex corridor solutions can easily range from \$250,000 to \$2,000,000. The City's Traffic Calming efforts have historically been funded at less than 2.5% of the \$5 to \$7 million dollars spent annually on paving projects.

Staff recommends the Committee consider a reallocation of \$500,000 from Measure BB revenues to increase the effectiveness of the NTCP.

#### BACKGROUND

The Pavement Rehabilitation and Preventative Maintenance Project is an annual program which is funded by a combination of Gas Tax, Measure B, Measure BB, Vehicle Registration Fee and SB1 and Measure C funds. The allocated amount of funding for this project for the last several years is as follows:

FY	Project Amount	# of Street Segments Treated
16*	\$18,783,122	329
17&18**	\$12,432,303	74
19	\$8,274,000	42

\*FY16 City Funding Allocation plus \$12 million in Measure C Funds

The average amount of funding allocated to the Pavement Rehabilitation and Preventative Maintenance Project is approximately \$7,000,000 per year (excluding FY16 which included \$12 million in Measure C funds).

The Council has established a goal of PCI 80 as the average desired standard for all City streets using the PCI rating system. On November 29, 2017, the Council Infrastructure Committee (CIC) agreed to the following allocations for the annual Pavement Rehabilitation and Preventative Maintenance Project:

- 20% minimum - Preventative Maintenance
- 80% maximum – Rehabilitation
- 15% minimum – Treatment for street section in industrial areas of Hayward

Currently, the PCI for the City is 70, which is above the average for Cities in the San Francisco Bay Area PCI of 67.

The PCI for the City went from 66 to 70 after the FY16 project. The PCI improved to 71 after FY 17 & 18; however it is currently at 70. The PCI is anticipated to maintain at 70 with the completion of the FY19 project in the Fall of this year.

Based on current conditions, approximately \$15 million annually is needed over the next five years to further increase the City's overall average PCI to 80, and another \$12 million annually to maintain that level.

Hayward's Neighborhood Traffic Calming Program (NTCP) was adopted by Council on July 3, 2018. The program aims to address traffic and safety related concerns through collaborative partnerships with the community. The NTCP proposes a three-tier system to classify problematic traffic conditions and associated remedies. A three-tier system allows for implementation of traffic calming measures in a timely manner, allowing problems to be resolved with routine solutions. When dealing with more complex issues, the process allows for effective management and allocation of resources by prioritizing project areas.

Tier I measures can be quickly implemented, are cost-effective, and promote awareness while Tiers II and III involve comprehensive analysis and design. By utilizing this broader approach, the City can begin addressing traffic calming concerns with the most effective and least intrusive solution first, such as Tier I, and seek out costlier improvements only when appropriate and feasible, such as Tier II and Tier III.

Hayward has limited funds available through the annual budgetary process, and the number of requests for improvements far exceeds the number of projects that can be funded. Therefore, the goal of the program is to seek out low-cost, high-return improvements before implementing high-cost alternatives, and to maximize the use of available resources.

Establishing a project priority list is essential to allocating resources more appropriately. The NTCP outlines a priority system that places heavy emphasis on speeds, accidents, volumes, schools, and pedestrian generators pertinent to traffic calming. With a prioritization system, the City can budget funding more efficiently, and provide improvements at the most needed locations.

In the past several years, the City's total budget for traffic calming ranged from \$130,000 to \$150,000. Unfortunately, requests far outpace the available resources needed to address each potential improvement. While this program provides a well-defined set of traffic calming measures, it can only be as successful as the level of funding allocated to it.

## DISCUSSION

For consideration by CIC, is the existing allocation of funding between the two programs and potential revisions to the programs funding levels. Key to this discussion is the ability to quantify the overall impact to the Pavement Maintenance and Rehabilitation Program if program funding levels are reduced to provide an increased allocation to the NTCP. The Committee can discuss the rationale for the current funding allocation for Pavement Rehabilitation versus traffic calming efforts and determine whether the allocation disbursement between the two should be reconsidered.

As previously mentioned, approximately \$7 million is allocated on an annual basis for Pavement Maintenance and Pavement Rehabilitation projects throughout the City. Deferred maintenance costs, however, will continue to increase and current funding levels will not provide the City with the ability to increase the PCI beyond 70, or maintain it in the near term. If funding levels for the Pavement Rehabilitation and Maintenance Program were reduced, there would be a subsequent reduction in PCI in the outlying program years.

A reallocation of approximately \$500,000 from Measure BB to the NTCP would result in a reduction in overall PCI over the next ten years from an existing PCI level anywhere from 66 to 69.

The City's Traffic Calming Program is currently funded at a level amount of approximately \$150,000 per year. Funding for the NTCP, is derived from both General Fund and Measure

BB revenue sources. This amount has been and continues to be inadequate to fund the increasing demand for traffic calming solutions. The City's Traffic Calming efforts have historically been funded at less than 2.5% of the \$5 to \$7 million dollars spent annually on paving projects. This limited funding allocation has necessitated that staff prioritize the implementation of traffic calming projects with a heavy reliance on Tier I and Tier II solutions. This level of funding has also resulted in the deferment of more complex and/or costly implementation.

Staff is recommending a reallocation of \$500,000 from Measure BB revenues to bolster the City's ongoing efforts to combat speeding and safety concerns. This additional allocation would be combined with the existing funding levels (\$150,000) to provide a more effective and robust program. This would provide approximately \$200,000 annually for low cost neighborhood improvements (Tiers I and II) with approximately \$450,000 available to address a specific corridor with more complex solutions.

Staff envisions utilizing approximately a third of the proposed increase in funding to address concerns on neighborhood streets, which is the foundation of the NTCP program. This amount would be an increase in revenue beyond what is currently available. The balance of the increased allocation would be utilized to address either more costly Tier III projects on neighborhood streets or used to address speeding and safety concerns on collector streets such as Sleepy Hollow Avenue, Gading Road/Patrick Avenue, D Street, Hayward Boulevard, and Vanderbilt Street. These more complex infrastructure improvements can vary in cost depending on the context. Below are examples of various traffic calming strategies and their cost range.

**Pedestrian Bulb-outs**  
**\$25,000 - \$150,0000**



**Road Diet**  
**\$110,000 - \$800,000 per mile**



**High-Intensity Activated Crosswalk (HAWK)  
Signals  
\$200,000 - \$300,000**



**Radar Speed Signs  
\$15,000 - \$20,000 per sign**



**Traffic Circles  
\$50,000 - \$350,000**



**Chicane  
\$75,000- \$200,000**



Staff envisions the possibility of “banking” more than one to two years revenue to address more costly projects. To reiterate, the goal of the increased allocation would be to address neighborhood streets at a higher coverage level than is currently possible and to address more complex traffic calming issues one corridor at a time over a one to two-year period. This is currently an endeavor, in which we have no designated funding source.

Staff recommends the Committee consider a reallocation of \$500,000 from Measure BB revenues to increase the effectiveness of the NTCP.

## **ECONOMIC IMPACT**

The action taken for this item will not directly result in physical development, purchase or service. Any resulting project or infrastructure improvements will depend upon future CIC and Council action.

## FISCAL IMPACT

There will be no fiscal impact to the City's General Fund. Alameda County Measure BB sales tax revenues will be reallocated from one internal City program to the other.

## STRATEGIC INITIATIVES

This agenda item supports the Complete Streets Strategic Initiative. The purpose of the Complete Streets initiative is to build streets that are safe, comfortable, and convenient travel for everyone, regardless of age or ability, including motorists, pedestrians, bicyclists, and public transportation riders. This item supports the following goal and objective:

Goal 2: Balance the diverse needs of users of the public right-of-way

Objective 1: Increase walking, biking, transit usage, carpooling, and other sustainable modes of transportation by designing and retrofitting streets to accommodate all modes

## SUSTAINABILITY FEATURES

Resulting projects, will provide complete streets that balance the diverse needs of users of the public right-of-way by reducing speeds and fostering a pedestrian and bicycle friendly environment.

## PUBLIC CONTACT

The public will have opportunities to review and comment upon CIP policy discussion topics at this and future CIC meetings, and other appropriate standing Council Committee meetings. The public will have the opportunity to review the proposed CIP each year at the appropriate CIC, City Council, and Planning Commission meetings. Individual projects will continue to receive City Council review and public input as appropriate.

## NEXT STEPS

This Policy Discussion/Work Session item is scheduled for return at the upcoming October 23, 2019 CIC meeting. It will allow CIC members to provide additional comment for consideration by staff.

Prepared by: Kathy Garcia, Deputy Director of Public Works  
Fred Kelley, Transportation Division Manager

Recommended by: Alex Ameri, Director of Public Works

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written in a cursive style.

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Kelly McAdoo, City Manager





# CITY OF HAYWARD

Hayward City Hall  
777 B Street  
Hayward, CA 94541  
[www.Hayward-CA.gov](http://www.Hayward-CA.gov)

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**File #:** ACT 19-157

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**DATE:** July 31, 2019

**TO:** Council Infrastructure Committee

**FROM:** Director of Public Works

**SUBJECT**

Review and Comment on Proposed A Street & Hesperian Boulevard Intersection Improvements

**RECOMMENDATION**

That the Committee reviews this report and provides feedback on the proposed improvements and implementation plan for A Street and Hesperian Boulevard as part of Alameda County's (County) Hesperian Boulevard Corridor Improvement Project.

**SUMMARY**

Hesperian Boulevard and A Street are major corridors that connect to major commercial areas, schools, transit, and freeways in Hayward. The current intersection configuration is not ideal for cyclists or pedestrians. The adjacent sidewalks are not currently designed in a way that encourages pedestrian traffic. This is largely contributed to long crossing distances and high vehicular speeds.

Staff seeks feedback from the Committee on a proposal to implement pedestrian improvements to the intersection of A Street and Hesperian Boulevard. The County is currently finalizing the design for the Hesperian Boulevard Corridor Improvement Project and this intersection improvement project presents an opportunity for the City to join this effort.

The proposed intersection improvements would include eliminating the free right turn lane on the northeast corner of the intersection, building corners with smaller curb radii, directional curb ramps, and sidewalk extension at the intersection (also known as pedestrian bulb-outs), installing high visibility crosswalks, and implementing signal upgrades.

If the Committee directs staff to present this item to Council and funds are secured, design would be completed by the end of August 2019, construction work at the intersection could start in Summer of 2021, and end by January 2022. The estimated cost for design and construction is approximately \$1.2 million.

**ATTACHMENTS**

Attachment I	Staff Report
Attachment II	AMG Hesperian Blvd. & A Street Traffic Study



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**File #:** ACT 19-157

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Attachment III      Alameda County Outreach Material



DATE: July 31, 2019

TO: Council Infrastructure Committee

FROM: Director of Public Works

SUBJECT: Review and Comment on Proposed A Street & Hesperian Boulevard Intersection Improvements

#### RECOMMENDATION

That the Committee reviews this report and provides feedback on the proposed improvements and implementation plan for A Street and Hesperian Boulevard as part of Alameda County's (County) Hesperian Boulevard Corridor Improvement Project.

#### SUMMARY

Hesperian Boulevard and A Street are major corridors that connect to major commercial areas, schools, transit, and freeways in Hayward. The current intersection configuration is not ideal for cyclists or pedestrians. The adjacent sidewalks are not currently designed in a way that encourages pedestrian traffic. This is largely contributed to long crossing distances and high vehicular speeds.

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If the Committee directs staff to present this item to Council and funds are secured, design would be completed by the end of August 2019, construction work at the intersection could start in Summer of 2021, and end by January 2022. The estimated cost for design and construction is approximately \$1.2 million.

#### BACKGROUND

A Street and Hesperian Boulevard are major corridors within the City. A Street runs east-west from Hesperian Boulevard to Redwood Road and provides local access to residential areas, Downtown Hayward, commercial developments, and the I-580 and I-880 freeways.

Hesperian Boulevard is a six-lane, north-south roadway that runs from E 14th Street to the Alameda Creek and provides local access to residential and commercial developments and the SR-92, I-880 and I-238 freeways.

The location where these two corridors meet is a major intersection with shopping centers on all corners, a gas station, and access to the Hayward Executive Airport. On average, 3,590 and 4,073 vehicles travel through the intersection daily during the morning and evening peak commute hours, respectively.

There are also major transit transfer stops that connect riders to Downtown Hayward, California State University East Bay, Chabot College, Southland Mall, BART Stations, and San Francisco. Per Alameda County Transit ridership data, there is an average of 360 riders using the stops at this intersection daily.

Given the intensity of transit usage at this location, transit riders are likely to be the predominant users of the sidewalks in this area. Although transit upgrades have been made along the Hesperian corridor, this specific intersection is not a model of walkability. The width of the intersection, heavy truck traffic, the free right-turn lane on the northeast corner, the absence of bicycle facilities, and inadequate pedestrian facilities (see Figure 1), are all factors that give rise to safety concerns. Between January 2016 and April 2019, eight reported collisions occurred within 250 feet of the intersection, two of which involved pedestrians.

In 2003, the County adopted the Hesperian Corridor Streetscape Master Plan. Since then the County has been working with the San Lorenzo community to develop the Hesperian Boulevard Corridor Improvement Project (Project). The Project's main goal is to beautify and revitalize the Hesperian Corridor into an inviting streetscape from the I-880 overcrossing to the limits with the City of Hayward at A Street. The Project is a complete streets project aimed to benefit motorists, pedestrians, bicyclists, and transit by providing wider sidewalks, directional curb ramps, reduced curb return radii, upgraded traffic signals, resurfaced streets, landscaped median islands, buffered bicycle lanes, gateway features, street tree planting, and landscaping. Additional details are provided in Attachment III.

By collaborating with the County, the two improvements become one unified project, thereby reducing overall costs and eliminating staged construction impacts.

## DISCUSSION

City staff was recently contacted by the County who proposed extending the Hesperian Boulevard Corridor improvement project southbound to the intersection of A Street and Hesperian Boulevard. This presents an opportunity to reconstruct one of many intersections within the City that does not meet current design standards (i.e., enabling high speed movements with resulting collisions and pedestrian challenges).

As a result of the opportunity presented by the County, staff evaluated different options to improve the overall safety and experience of pedestrians and bicyclist traveling through this area, see Attachment II. Based on this evaluation, it is staff's recommendation that the items

listed below, and shown in Figure 2, for the intersection of A Street and Hesperian Boulevard, be included in the detail design and construction of Alameda County's Hesperian Blvd Improvements Project:

Figure 1: A Street and Hesperian Boulevard Existing Conditions

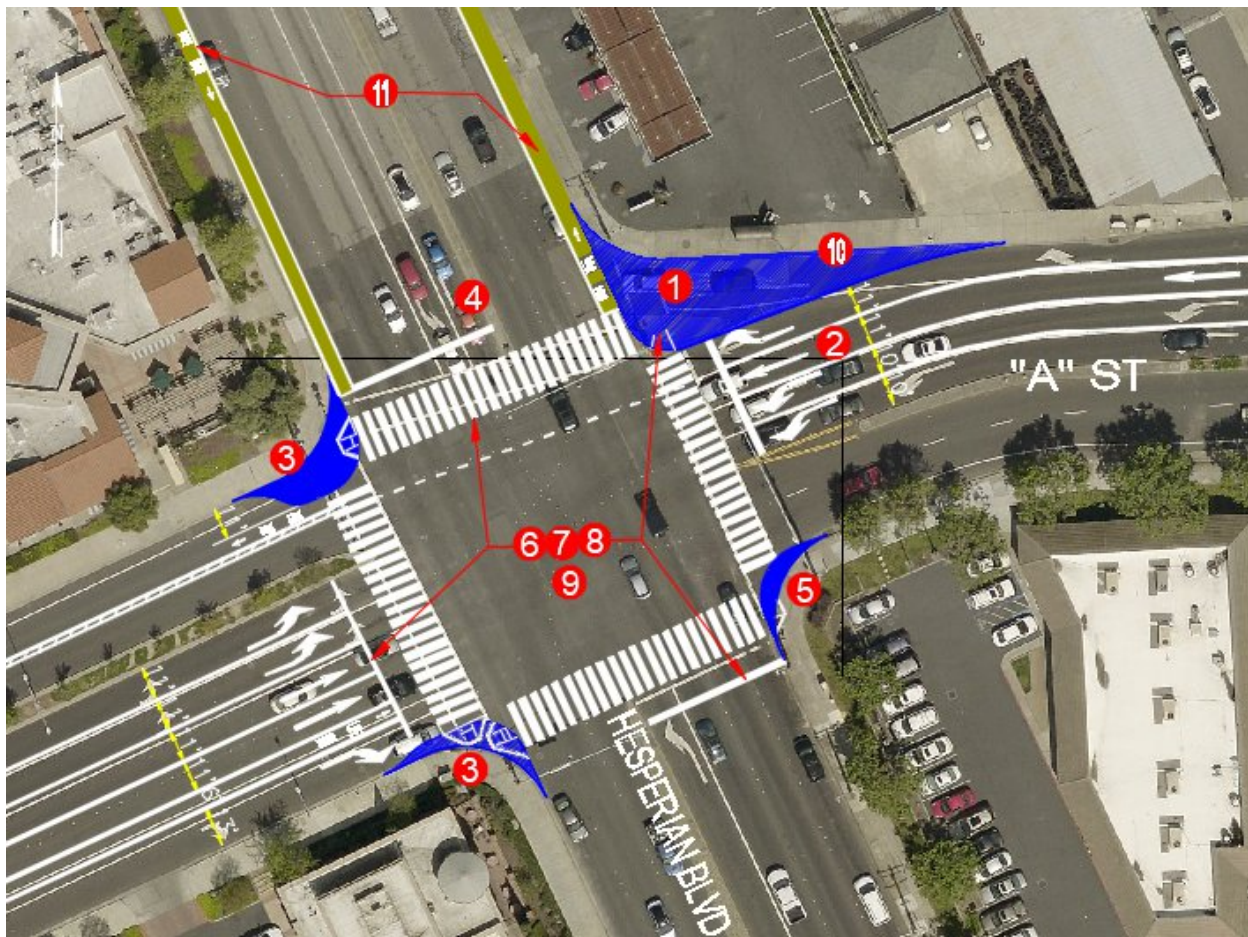


1. Eliminate one westbound through lane to square off the intersection and provide better visibility for vehicles and pedestrians
2. Install pedestrian bulb-outs on the northwest and southwest corner on A Street to reduce the crossing distance on the west side of the intersection
3. Modify median island nose on the north side to accommodate the new intersection alignment
4. Reduce the curb radii on the southeast corner to reduce the pedestrian crossing distance on the south and east side of the intersection. This proposal needs further evaluation to ensure that large trucks and fire truck can be accommodated
5. Directional curb ramps at all four corners to make it easier for everyone, especially seniors and people with disabilities, to travel through the intersection
6. High visibility crosswalks



7. Limit lines to provide more distance between stopped vehicles and pedestrians using the crosswalks
8. Traffic signal improvements to accommodate the above-mentioned improvements
9. Staff will work with BKF Engineers (BKF), the consultant hired by Alameda County, to evaluate an alternative for a westbound bike channel within the new sidewalk at the intersection (not shown in Figure 2)
10. New bike lanes to be installed by the Hesperian Boulevard Corridor Improvement Project

Figure 2: A Street and Hesperian Boulevard Proposed Conditions



Staff has begun the process of identifying intersections within the City that currently incorporate non-standard design as part of the on-going Citywide Multi-modal Study. Collisions at this intersection, including those involving pedestrians, have doubled in the last several years. Although the intersection's current design needs to be addressed at some point, it is not one of the City's most problematic intersections based on overall collision history. What this does present is an opportunity for the City to join the County in a collaborative effort to move this intersection improvement forward and ultimately save the City future resources in the outlying years.

Should the City agree to move forward with the project at this time, costs for bidding, awarding, construction management and mobilization would be significantly reduced as these costs would be covered by the County. Currently the construction costs for the project are estimated to be \$1.1 million.

By collaborating with the County, the City could save an estimated \$120,000 to \$150,000, in today's costs, should the project move forward. In addition, according to the California Construction Cost Index, construction and materials costs continue to escalate anywhere from 1.5% to 6% per year.

As part of the County's project, utility work is currently underway at the intersection. Once construction begins within the County limits, lane closures, construction noise, and delays will be on-going within the corridor. By collaborating with the County, the two improvements become one project, thereby reducing overall costs and staged construction impacts.

## ECONOMIC IMPACT

Active transportation options like bicycling and walking foster economic health by creating dynamic, connected communities with a high quality of life that helps support business development. Improving this intersection will increase the number of people who walk, bike or use public transportation to visit stores in the area. Making the intersection more pedestrian and bike friendly will also encourage people to walk and bike from shopping center to shopping center.

## FISCAL IMPACT

BKF provided a cost estimate of \$70,000 to design this intersection. This amount would be transferred to the County before the consultant completes the design work in late August 2019.

The preliminary construction cost estimated by BKF is \$1.1 million. Securing funds to improve this intersection in a short timeframe will be challenging. County staff has verbally agreed to allow the City to sign a Memorandum of Understanding (MOU) to transfer construction funds to the County prior to the commencement of work by the contractor at the intersection in Summer 2021. This would give the City approximately eighteen months to secure and transfer funds to the County.

## STRATEGIC INITIATIVES

This agenda item supports the Complete Streets Strategic Initiative. The purpose of the Complete Streets initiative is to build streets that are safe, comfortable, and convenient travel for everyone, regardless of age or ability, including motorists, pedestrians, bicyclists, and public transportation riders. This item supports the following goal and objective:

Goal 2: Balance the diverse needs of users of the public right-of-way

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## SUSTAINABILITY FEATURES

Reduced crossing distances, directional Americans with Disabilities Act (ADA) compliant accessible curb ramps, pedestrian bulb-outs, high visibility crosswalks, tighter curb returns, limit lines, etc., promote walking as an alternative mode of transportation by making it safer, more comfortable and convenient for pedestrians traveling through the area. This would result in a reduction in vehicular trips and greenhouse gas emissions while also improving public health.

## PUBLIC CONTACT

As part of the Hesperian Corridor Streetscape Master Plan and the Hesperian Boulevard Corridor Improvement Project, the County did extensive outreach that started in 2006 and included public meetings within San Lorenzo, a project website, social media blasts, a walkthrough, press releases to San Lorenzo and San Leandro local newspapers, a construction Hotline, and other means. Since this work was originally planned to be only within County limits, the City of Hayward was not involved.

If approved, City staff will develop and implement public outreach to inform Hayward residents and businesses in the area of the proposed improvements to the intersection and project schedule.

## NEXT STEPS

If approved, design and implementation of A Street and Hesperian Boulevard improvements will follow the anticipated Hesperian Boulevard Corridor Improvement Project schedule below:

Finalize Detail Design	Late August 2019
Request for Bids	September 2019
Construction Start	Summer 2021
Construction Completion	January 2022

Prepared by: Lilitana Ventura, Associate Transportation Engineer

Recommended by: Alex Ameri, Director of Public Works

Approved by:



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Kelly McAdoo, City Manager

June 24, 2019

Liliana Ventura, PE  
Transportation Division Associate Engineer  
Public Works - Engineering and Transportation  
Phone No: 510-583-4792  
Email: Liliana.ventura@hayward-ca.gov

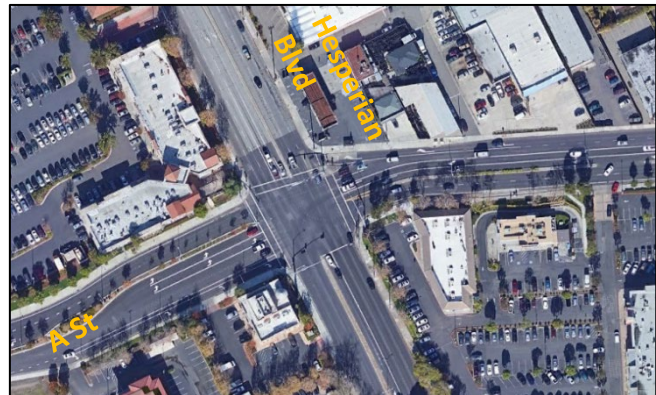
### Reference: Traffic Analysis for Hesperian Boulevard/A Street Intersection

Dear Liliana,

This brief technical memorandum summarizes the traffic analysis conducted by Advanced Mobility Group (AMG) per the City's request to evaluate the following options at the intersection of Hesperian Boulevard/A Street.

The traffic analysis was conducted for the weekday a.m. (7:00 a.m. – 9:00 a.m.) and p.m. (4:00 p.m. – 6:00 p.m.) peak periods utilizing intersection turning movement counts provided by the City (collected in June 2019). Additionally, traffic signal timings for this intersection were obtained from KITS/Kadence adaptive signal software since the intersection operates under adaptive control. Three options were evaluated as a part of the study for existing conditions scenario:

1. Existing Conditions (2019)
2. Eliminate one westbound (WB) through lane on A Street
3. Eliminate one westbound left-turn lane on A Street



**Figure 1: Study Intersection**

Additionally, proposed conditions options 2 and 3 include new bike lanes along Hesperian Boulevard in both the northbound and southbound directions and relocation of existing bus stop on westbound A Street to the northeast corner of the intersection on Hesperian Boulevard, per the City's request.

AMG developed Synchro models under existing conditions for the three options to evaluate level of service (LOS), delay and 95<sup>th</sup> percentile queue lengths at the intersection. **Tables 1, 2 and 3** summarize the results of the analysis. **Appendix A** contains the traffic counts utilized for this study and **Appendix B** contains the Synchro LOS, delay and 95<sup>th</sup> percentile queue length reports.

The results of the existing conditions analysis show a substantial increase in delay and 95<sup>th</sup> percentile queue lengths during the weekday a.m. peak period for Option 3 – Eliminate one westbound left-turn lane. The p.m. peak period experiences a slight increase in delay for options 2 and 3, however, the



queue lengths for both options are more than doubled. There is a slight increase in the northbound through movement queues under options 2 and 3 because of the relocation of the bus stop. However, this increase is not expected to significantly impact traffic operations for the northbound through movement. **Based on the results of the analysis conducted, Option 2 – Eliminate one westbound through lane is the more feasible alternative.**

**Table 1: Intersection LOS and Delay Comparison**

Intersection	Peak Period	Options	Delay (sec)	LOS
Hesperian Boulevard/A Street	AM	Option 1-Existing conditions	40.8	D
		Option 2-Eliminate one through WB lane	41.0	D
		Option 3-Eliminate one left-turn WB lane	66.1	E
	PM	Option 1-Existing conditions	39.2	D
		Option 2-Eliminate one through WB lane	40.8	D
		Option 3-Eliminate one left-turn WB lane	45.8	D

Note: Highway Capacity Manual (HCM), 2010 Edition LOS Methodology was utilized for analysis.

**Table 2: 95th Percentile Queue Length (ft) Comparison**

Intersection	Peak Period	Options	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBTR	SBL	SBTR
Hesperian Boulevard/A Street	AM	Option 1-Existing conditions	30	53	0	378	99	60	177	182	172	475
		Option 2-Eliminate one through WB lane	30	54	0	378	207	60	179	186	170	472
		Option 3-Eliminate one left-turn WB lane	30	54	0	945	81	49	238	228	172	598
	PM	Option 1-Existing conditions	69	114	0	209	116	108	256	643	215	237
		Option 2-Eliminate one through WB lane	69	115	0	207	243	121	255	652	230	243
		Option 3-Eliminate one left-turn WB lane	69	131	0	473	115	124	255	663	244	251

Note: 95<sup>th</sup> Percentile Queue Length is obtained from Synchro Queues Report.

EBL=Eastbound left-turn; EBT=Eastbound through; EBR=Eastbound right-turn; WBL=Westbound left-turn; WBT=Westbound through; WBR=Westbound right-turn; NBL=Northbound left-turn; NBTR=Northbound shared through and right-turn; SBL=Southbound left-turn; SBTR=Southbound shared through and right-turn.

**Table 3: Synchro Intersection Bicycle LOS and Delay Comparison**

Intersection	Peak Period	Options	Bicycle LOS & Score	EB	WB	NB	SB
Hesperian Boulevard/A Street	AM	Option 1-Existing conditions	Score	1.80	4.08	3.20	4.09
			LOS	A	D	C	D
		Option 2- Eliminate one through WB lane	Score	1.74	5.05	2.23	3.02
			LOS	A	F	B	C
		Option 3- Eliminate one left-turn WB lane	Score	1.72	4.01	2.26	3.24
			LOS	A	D	B	C
	PM	Option 1-Existing conditions	Score	1.95	3.82	3.80	3.71
			LOS	A	D	D	D
		Option 2- Eliminate one through WB lane	Score	1.90	4.54	2.82	2.64
			LOS	A	E	C	B
		Option 3- Eliminate one left-turn WB lane	Score	1.90	3.83	2.85	2.64
			LOS	A	D	C	B

Note: Highway Capacity Manual (HCM), 2010 Edition LOS Methodology was utilized for analysis.

### Collision Analysis

There were a total of eight collisions within 250 feet of the intersection of Hesperian Boulevard/A Street between January 2016 and April 2019 as provided in **Table 4** below and in **Appendix C**. There were no reported collisions in 2019.

2016	2017	2018
Vehicle/Pedestrian with Pedestrian at Fault	Motorcycle/Scooter, Hit Object with Fatal Injury, Unsafe Speed	Rear End - DUI
Rear End - Unsafe Speed	-	Vehicle/Pedestrian
Broadside - DUI	-	Hit Object - DUI
Broadside - Unsafe Speed	-	-
<b>Total - 4</b>	<b>Total - 1</b>	<b>Total - 3</b>

## Appendix A – Traffic Counts

### Intersection Turning Movement Counts (Average)

#### Traffic Volumes - 6/4/19 - 6/6/19

Peak Hour	DOW	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU
AM	Tuesday	65	481	208	73	255	1261	17	9	25	68	29	0	575	169	202	0
	Wednesday	50	501	203	86	257	1453	15	8	30	63	13	0	703	184	193	0
	Thursday	59	467	224	45	260	1337	25	7	33	58	14	0	685	178	183	0
	<b>Average</b>	<b>58</b>	<b>483</b>	<b>212</b>	<b>68</b>	<b>257</b>	<b>1350</b>	<b>19</b>	<b>8</b>	<b>29</b>	<b>63</b>	<b>19</b>	<b>0</b>	<b>654</b>	<b>177</b>	<b>193</b>	<b>0</b>
PM	Tuesday	120	1484	293	44	277	690	9	12	81	160	34	0	312	174	294	0
	Wednesday	130	1405	342	66	287	632	8	13	62	133	50	0	267	180	239	0
	Thursday	142	1510	294	38	340	978	13	15	95	179	44	0	340	194	242	0
	<b>Average</b>	<b>131</b>	<b>1466</b>	<b>310</b>	<b>49</b>	<b>301</b>	<b>767</b>	<b>10</b>	<b>13</b>	<b>79</b>	<b>157</b>	<b>43</b>	<b>0</b>	<b>306</b>	<b>183</b>	<b>258</b>	<b>0</b>

#### Peak Hour Factors - 6/4/19 - 6/6/19

Peak Hour	DOW	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND	
AM	Tuesday	0.81		0.86		0.68		0.93	
	Wednesday	0.81		0.89		0.80		0.87	
	Thursday	0.70		0.86		0.88		0.89	
	<b>Average</b>	<b>0.77</b>		<b>0.87</b>		<b>0.79</b>		<b>0.90</b>	
PM	Tuesday	0.92		0.92		0.79		0.90	
	Wednesday	0.92		0.95		0.84		0.89	
	Thursday	0.91		0.89		0.91		0.91	
	<b>Average</b>	<b>0.91</b>		<b>0.92</b>		<b>0.85</b>		<b>0.90</b>	

Note: Average of the three day intersection turning movement counts as summarized above was utilized for the study and Wednesday, June 5, 2019 Pedestrian and Bicycle Counts which were the highest were used.

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hesperian Blvd & W A St  
City: Hayward  
Control: Signalized

Project ID: 19-08330-001  
Date: 6/5/2019

NS/EW Streets:		Hesperian Blvd				Hesperian Blvd				W A St				W A St						
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND						
	1 NL	3 NT	0 NR	0 NU	2 SL	3 ST	0 SR	0 SU	2 EL	2 ET	1 ER	0 EU	2 WL	2 WT	1 WR	0 WU	TOTAL			
7:00 AM 7:15 AM 7:30 AM 7:45 AM	7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
	7:15 AM	0	2	0	0	1	1	0	0	0	0	0	0	1	0	0	5			
	7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	3			
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2			
8:00 AM 8:15 AM 8:30 AM 8:45 AM	8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	3			
	8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2			
	8:30 AM	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	4			
	8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1			
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL			
	0	4	0	0	1	7	1	0	1	0	1	0	1	3	2	0	21			
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	11.11%	77.78%	11.11%	0.00%	50.00%	0.00%	50.00%	0.00%	16.67%	50.00%	33.33%	0.00%				
PEAK HR :	07:45 AM - 08:45 AM																TOTAL			
PEAK HR VOL :	0	0	0	0	0	4	1	0	1	0	1	0	1	2	1	0	11			
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.250	0.000	0.250	0.000	0.250	0.500	0.250	0.000	0.688			
0.6250.5000.500																				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND						
	1 NL	3 NT	0 NR	0 NU	2 SL	3 ST	0 SR	0 SU	2 EL	2 ET	1 ER	0 EU	2 WL	2 WT	1 WR	0 WU	TOTAL			
4:00 PM 4:15 PM 4:30 PM 4:45 PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1			
	4:15 PM	0	3	0	0	0	1	0	0	0	1	0	0	0	0	0	5			
	4:30 PM	0	1	0	0	0	2	0	0	0	2	0	0	0	0	0	5			
	4:45 PM	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	3			
5:00 PM 5:15 PM 5:30 PM 5:45 PM	5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2			
	5:15 PM	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4			
	5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
	5:45 PM	0	0	0	0	0	1	0	0	0	2	0	1	0	0	0	4			
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL			
	0	7	0	0	1	9	0	0	1	5	0	0	1	1	0	0	25			
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	10.00%	90.00%	0.00%	0.00%	16.67%	83.33%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%				
PEAK HR :	04:00 PM - 05:00 PM																TOTAL			
PEAK HR VOL :	0	5	0	0	1	3	0	0	1	3	0	0	0	1	0	0	14			
PEAK HR FACTOR :	0.00	0.417	0.000	0.000	0.250	0.375	0.000	0.000	0.250	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.700			
0.4170.5000.5000.250																				

# National Data & Surveying Services

## Intersection Turning Movement Count

Location: Hesperian Blvd & W A St  
City: Hayward

Project ID: 19-08330-001  
Date: 6/5/2019

### Pedestrians (Crosswalks)

NS/EW Streets:	Hesperian Blvd		Hesperian Blvd		W A St		W A St	
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
	7:00 AM	10	0	0	0	1	1	0
	7:15 AM	1	3	0	0	3	3	0
	7:30 AM	0	3	0	0	4	0	0
	7:45 AM	0	0	0	0	2	3	0
	8:00 AM	1	3	0	0	2	0	1
	8:15 AM	5	7	0	0	5	8	5
	8:30 AM	2	1	0	0	3	5	1
	8:45 AM	0	3	1	1	2	2	2
TOTAL VOLUMES : APPROACH %'s :	EB 10 33.33%	WB 20 66.67%	EB 1 50.00%	WB 1 50.00%	NB 21 48.84%	SB 22 51.16%	NB 9 60.00%	SB 6 40.00%
	PEAK HR : 07:45 AM - 08:45 AM		0	0	12 0.600	16 0.500	6 0.300	5 0.625
PEAK HR VOL : PEAK HR FACTOR :								
8 0.400 0.396		0.538						

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
	4:00 PM	4	6	0	0	4	2	2	1
	4:15 PM	4	1	0	0	1	1	0	1
	4:30 PM	2	5	0	0	5	2	0	2
	4:45 PM	9	6	0	0	8	9	3	6
	5:00 PM	5	5	0	0	1	3	1	4
	5:15 PM	1	3	0	1	3	5	1	4
	5:30 PM	2	4	1	0	3	3	5	2
	5:45 PM	3	2	0	0	8	4	3	0
TOTAL VOLUMES : APPROACH %'s :	EB 30 48.39%	WB 32 51.61%	EB 1 50.00%	WB 1 50.00%	NB 33 53.23%	SB 29 46.77%	NB 15 42.86%	SB 20 57.14%	
	PEAK HR : 04:00 PM - 05:00 PM		0	0	18 0.563	14 0.389	5 0.417	10 0.417	
PEAK HR VOL : PEAK HR FACTOR :									
19 0.528 0.617		0.471							0.417



























## Appendix B – Synchro LOS, Delay and 95th Percentile Queue Length Reports

# HCM 2010 Signalized Intersection Summary

## 1: Hesperian Blvd & A St

Existing Conditions  
Timing Plan: A.M. Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Future Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	37	80	24	727	197	0	164	627	275	305	1552	22
Adj No. of Lanes	2	2	1	2	2	1	1	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.90	0.90	0.90	0.77	0.77	0.77	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	239	107	804	925	411	190	1333	571	586	2353	33
Arrive On Green	0.04	0.07	0.07	0.23	0.26	0.00	0.11	0.38	0.38	0.17	0.46	0.46
Sat Flow, veh/h	3442	3539	1583	3442	3539	1571	1774	3466	1485	3442	5165	73
Grp Volume(v), veh/h	37	80	24	727	197	0	164	613	289	305	1019	555
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1571	1774	1695	1562	1721	1695	1848
Q Serve(g_s), s	1.4	2.8	1.9	26.7	5.7	0.0	11.8	17.7	18.2	10.5	30.4	30.4
Cycle Q Clear(g_c), s	1.4	2.8	1.9	26.7	5.7	0.0	11.8	17.7	18.2	10.5	30.4	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.04
Lane Grp Cap(c), veh/h	137	239	107	804	925	411	190	1304	601	586	1544	842
V/C Ratio(X)	0.27	0.33	0.22	0.90	0.21	0.00	0.86	0.47	0.48	0.52	0.66	0.66
Avail Cap(c_a), veh/h	185	256	114	927	1015	451	246	1304	601	586	1544	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	57.8	57.4	48.4	37.5	0.0	57.1	30.0	30.2	49.1	27.6	27.6
Incr Delay (d2), s/veh	1.1	0.8	1.0	11.1	0.1	0.0	21.2	1.2	2.7	0.8	2.2	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.8	14.0	2.8	0.0	6.9	8.5	8.2	5.1	14.6	16.4
LnGrp Delay(d),s/veh	61.6	58.6	58.4	59.6	37.7	0.0	78.3	31.3	33.0	49.9	29.8	31.6
LnGrp LOS	E	E	E	E	D		E	C	C	D	C	C
Approach Vol, veh/h		141			924			1066			1879	
Approach Delay, s/veh		59.4			54.9			39.0			33.6	
Approach LOS		E			D			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	64.2	9.2	38.7	27.1	55.0	34.4	13.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	* 4.7	5.0	* 5	4.0	* 4.7				
Max Green Setting (Gmax), s	18.0	50.0	7.0	* 37	18.0	* 50	35.0	* 9.4				
Max Q Clear Time (g_c+I1), s	13.8	32.4	3.4	7.7	12.5	20.2	28.7	4.8				
Green Ext Time (p_c), s	0.2	15.4	0.0	1.3	0.5	15.3	1.7	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay				40.8								
HCM 2010 LOS				D								
Notes												













## Queues

## 1: Hesperian Blvd &amp; A St

## Existing Conditions

Timing Plan: A.M. Peak

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	80	24	727	197	214	164	902	305	1574
v/c Ratio	0.20	0.32	0.09	0.90	0.20	0.39	0.76	0.43	0.69	0.73
Control Delay	61.6	61.2	0.7	61.2	35.8	6.7	76.9	25.1	62.2	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	61.2	0.7	61.2	35.8	6.7	76.9	25.1	62.2	34.3
Queue Length 50th (ft)	15	34	0	299	66	0	134	183	127	429
Queue Length 95th (ft)	30	53	0	#378	99	60	177	182	172	475
Internal Link Dist (ft)		543			25			1247		831
Turn Bay Length (ft)	170		310				245		245	
Base Capacity (vph)	184	255	258	862	1021	572	245	2078	443	2155
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.31	0.09	0.84	0.19	0.37	0.67	0.43	0.69	0.73

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 2010 Signals-Bicycles  
1: Hesperian Blvd & A St

























Existing Conditions  
Timing Plan: A.M. Peak

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	2	0	4
Total Flow Rate (veh/h)	141	1138	1066	1879
Effct. Green for Bike (s)	9.1	36.7	55.0	57.1
Cross Street Width (ft)	91.9	89.2	69.2	83.9
Through Lanes Number	2	2	3	3
Through Lane Width (ft)	12.0	11.0	12.0	11.0
Bicycle Lane Width (ft)	6.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	140	565	846	878
Bicycle Delay (s/bike)	56.2	33.5	21.6	20.5
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.80	4.08	3.20	4.09
Bicycle LOS	A	D	C	D

# HCM 2010 Signalized Intersection Summary

## 1: Hesperian Blvd & A St

Existing Conditions  
Timing Plan: P.M. Peak











												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Future Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	93	185	51	340	203	0	198	1611	341	341	834	11
Adj No. of Lanes	2	2	1	2	2	1	1	3	0	2	3	0
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	324	142	398	561	249	447	2311	485	394	2105	28
Arrive On Green	0.05	0.09	0.09	0.12	0.16	0.00	0.25	0.55	0.55	0.11	0.41	0.41
Sat Flow, veh/h	3442	3539	1553	3442	3539	1571	1774	4187	878	3442	5171	68
Grp Volume(v), veh/h	93	185	51	340	203	0	198	1302	650	341	547	298
Grp Sat Flow(s),veh/h/ln	1721	1770	1553	1721	1770	1571	1774	1695	1675	1721	1695	1849
Q Serve(g_s), s	3.7	7.0	2.8	13.6	7.2	0.0	13.2	39.1	39.8	13.6	16.0	16.0
Cycle Q Clear(g_c), s	3.7	7.0	2.8	13.6	7.2	0.0	13.2	39.1	39.8	13.6	16.0	16.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.04
Lane Grp Cap(c), veh/h	167	324	142	398	561	249	447	1871	924	394	1380	753
V/C Ratio(X)	0.56	0.57	0.36	0.85	0.36	0.00	0.44	0.70	0.70	0.86	0.40	0.40
Avail Cap(c_a), veh/h	172	490	215	516	842	374	447	1871	924	467	1380	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	61.0	24.9	60.8	52.6	0.0	44.1	22.8	23.0	60.9	29.3	29.3
Incr Delay (d2), s/veh	3.7	1.6	1.5	10.7	0.4	0.0	0.7	2.2	4.5	13.7	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.5	1.8	7.1	3.6	0.0	6.5	18.8	19.6	7.2	7.6	8.5
LnGrp Delay(d),s/veh	68.8	62.5	26.5	71.4	53.0	0.0	44.8	25.0	27.5	74.7	30.2	30.9
LnGrp LOS	E	E	C	E	D		D	C	C	E	C	C
Approach Vol, veh/h		329			543			2150			1186	
Approach Delay, s/veh		58.7			64.5			27.5			43.2	
Approach LOS		E			E			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.3	62.0	10.8	26.9	20.0	82.3	20.2	17.5				
Change Period (Y+Rc), s	5.0	* 5	4.0	* 4.7	4.0	5.0	4.0	* 4.7				
Max Green Setting (Gmax), s	25.0	* 57	7.0	* 33	19.0	63.0	21.0	* 19				
Max Q Clear Time (g_c+I1), s	15.2	18.0	5.7	9.2	15.6	41.8	15.6	9.0				
Green Ext Time (p_c), s	0.4	15.9	0.0	1.3	0.4	19.9	0.6	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			39.2									
HCM 2010 LOS			D									
Notes												

## Queues

## 1: Hesperian Blvd &amp; A St

## Existing Conditions

Timing Plan: P.M. Peak

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	93	185	51	340	203	287	198	1952	341	845
v/c Ratio	0.54	0.41	0.16	0.79	0.28	0.58	0.63	0.82	0.82	0.40
Control Delay	77.2	58.5	1.0	71.8	46.2	12.3	63.0	35.3	75.4	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	58.5	1.0	71.8	46.2	12.3	63.0	35.3	75.4	28.6
Queue Length 50th (ft)	43	81	0	155	79	20	169	571	156	198
Queue Length 95th (ft)	69	114	0	209	116	108	256	643	#215	237
Internal Link Dist (ft)		543			25			1247		831
Turn Bay Length (ft)	170		310				245		245	
Base Capacity (vph)	171	508	343	480	813	525	316	2375	438	2120
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.36	0.15	0.71	0.25	0.55	0.63	0.82	0.78	0.40

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM 2010 Signals-Bicycles  
1: Hesperian Blvd & A St

Existing Conditions  
Timing Plan: P.M. Peak

























Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	5	3
Total Flow Rate (veh/h)	329	830	2150	1186
Effct. Green for Bike (s)	17.9	29.8	67.2	60.5
Cross Street Width (ft)	91.9	89.2	69.2	83.9
Through Lanes Number	2	2	3	3
Through Lane Width (ft)	12.0	11.0	12.0	11.0
Bicycle Lane Width (ft)	6.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	256	426	960	864
Bicycle Delay (s/bike)	53.3	43.4	19.0	22.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.95	3.82	3.80	3.71
Bicycle LOS	A	D	D	D

# HCM 2010 Signalized Intersection Summary

## 1: Hesperian Blvd & A St

# Proposed Conditions-Remove 1 WB Thru Ln

Timing Plan: A.M. Peak

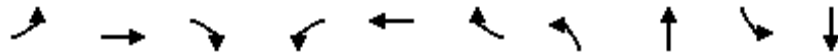
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Future Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	37	80	24	727	197	0	164	627	275	305	1552	22
Adj No. of Lanes	2	2	1	2	1	1	1	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.90	0.90	0.90	0.77	0.77	0.77	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	239	107	804	487	414	190	1317	564	602	2353	33
Arrive On Green	0.04	0.07	0.07	0.23	0.26	0.00	0.11	0.38	0.38	0.17	0.46	0.46
Sat Flow, veh/h	3442	3539	1583	3442	1863	1583	1774	3466	1485	3442	5165	73
Grp Volume(v), veh/h	37	80	24	727	197	0	164	613	289	305	1019	555
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1863	1583	1774	1695	1561	1721	1695	1848
Q Serve(g_s), s	1.4	2.8	1.9	26.7	11.4	0.0	11.8	17.8	18.3	10.4	30.4	30.4
Cycle Q Clear(g_c), s	1.4	2.8	1.9	26.7	11.4	0.0	11.8	17.8	18.3	10.4	30.4	30.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.04
Lane Grp Cap(c), veh/h	137	239	107	804	487	414	190	1288	593	602	1544	842
V/C Ratio(X)	0.27	0.33	0.22	0.90	0.40	0.00	0.86	0.48	0.49	0.51	0.66	0.66
Avail Cap(c_a), veh/h	185	245	110	927	529	449	246	1288	593	602	1544	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	57.8	57.4	48.4	39.6	0.0	57.1	30.5	30.7	48.5	27.6	27.6
Incr Delay (d2), s/veh	1.1	0.8	1.0	11.1	0.5	0.0	21.2	1.3	2.8	0.7	2.2	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.8	14.0	5.9	0.0	6.9	8.6	8.3	5.0	14.6	16.4
LnGrp Delay(d),s/veh	61.6	58.6	58.4	59.6	40.2	0.0	78.3	31.8	33.5	49.2	29.8	31.6
LnGrp LOS	E	E	E	E	D		E	C	C	D	C	C
Approach Vol, veh/h		141			924			1066			1879	
Approach Delay, s/veh		59.4			55.4			39.4			33.5	
Approach LOS		E			E			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	64.2	9.2	38.7	27.7	54.4	34.4	13.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	* 4.7	5.0	* 5	4.0	* 4.7				
Max Green Setting (Gmax), s	18.0	50.4	7.0	* 37	19.0	* 49	35.0	* 9				
Max Q Clear Time (g_c+I1), s	13.8	32.4	3.4	13.4	12.4	20.3	28.7	4.8				
Green Ext Time (p_c), s	0.2	15.7	0.0	1.1	0.6	15.1	1.7	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				41.0								
HCM 2010 LOS				D								
<b>Notes</b>												

## Queues

## Proposed Conditions-Remove 1 WB Thru Ln

## 1: Hesperian Blvd &amp; A St

Timing Plan: A.M. Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	80	24	727	197	214	164	902	305	1574
v/c Ratio	0.20	0.33	0.09	0.90	0.39	0.39	0.79	0.46	0.65	0.73
Control Delay	61.6	61.5	0.7	61.2	40.1	6.7	81.0	26.0	59.7	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	61.5	0.7	61.2	40.1	6.7	81.0	26.0	59.7	34.5
Queue Length 50th (ft)	15	34	0	299	134	0	134	187	126	433
Queue Length 95th (ft)	30	54	0	#378	207	60	179	186	170	472
Internal Link Dist (ft)		543			932			1247		831
Turn Bay Length (ft)	170		310	520			245		245	
Base Capacity (vph)	184	245	253	862	533	572	228	1975	468	2143
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.33	0.09	0.84	0.37	0.37	0.72	0.46	0.65	0.73

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	2	0	4
Total Flow Rate (veh/h)	141	1138	1066	1879
Effct. Green for Bike (s)	9.0	36.6	54.1	56.8
Cross Street Width (ft)	88.5	91.2	61.3	83.9
Through Lanes Number	2	1	3	3
Through Lane Width (ft)	12.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	6.0	0.0	5.0	5.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	138	563	832	874
Bicycle Delay (s/bike)	56.3	33.6	22.2	20.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.74	5.05	2.23	3.02
Bicycle LOS	A	F	B	C



# HCM 2010 Signalized Intersection Summary 1: Hesperian Blvd & A St

Proposed Conditions- Remove 1 WB Thru Ln  
Timing Plan: P.M. Peak

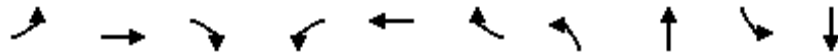
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Future Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	93	185	51	340	203	0	198	1611	341	341	834	11
Adj No. of Lanes	2	2	1	2	1	1	1	3	0	2	3	0
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	402	177	399	337	287	433	2219	465	392	2031	27
Arrive On Green	0.05	0.11	0.11	0.12	0.18	0.00	0.24	0.53	0.53	0.11	0.39	0.39
Sat Flow, veh/h	3442	3539	1555	3442	1863	1583	1774	4186	878	3442	5171	68
Grp Volume(v), veh/h	93	185	51	340	203	0	198	1302	650	341	547	298
Grp Sat Flow(s),veh/h/ln	1721	1770	1555	1721	1863	1583	1774	1695	1674	1721	1695	1849
Q Serve(g_s), s	3.7	6.8	2.7	13.6	14.0	0.0	13.3	41.0	41.8	13.6	16.3	16.4
Cycle Q Clear(g_c), s	3.7	6.8	2.7	13.6	14.0	0.0	13.3	41.0	41.8	13.6	16.3	16.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.04
Lane Grp Cap(c), veh/h	167	402	177	399	337	287	433	1797	887	392	1332	726
V/C Ratio(X)	0.56	0.46	0.29	0.85	0.60	0.00	0.46	0.72	0.73	0.87	0.41	0.41
Avail Cap(c_a), veh/h	172	465	204	541	443	377	433	1797	887	442	1332	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	58.0	23.8	60.7	52.7	0.0	45.0	25.1	25.3	61.0	30.8	30.8
Incr Delay (d2), s/veh	3.7	0.8	0.9	9.4	1.7	0.0	0.8	2.6	5.3	15.6	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.4	1.8	7.0	7.4	0.0	6.6	19.8	20.5	7.3	7.8	8.7
LnGrp Delay(d),s/veh	68.8	58.8	24.7	70.1	54.4	0.0	45.8	27.7	30.6	76.6	31.7	32.5
LnGrp LOS	E	E	C	E	D		D	C	C	E	C	C
Approach Vol, veh/h		329			543			2150			1186	
Approach Delay, s/veh		56.4			64.3			30.2			44.8	
Approach LOS		E			E			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	39.1	60.0	10.8	30.0	19.9	79.2	20.2	20.6				
Change Period (Y+Rc), s	5.0	* 5	4.0	* 4.7	4.0	5.0	4.0	* 4.7				
Max Green Setting (Gmax), s	27.0	* 55	7.0	* 33	18.0	64.0	22.0	* 18				
Max Q Clear Time (g_c+I1), s	15.3	18.4	5.7	16.0	15.6	43.8	15.6	8.8				
Green Ext Time (p_c), s	0.4	15.5	0.0	1.0	0.3	19.0	0.7	0.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			40.8									
HCM 2010 LOS			D									
<b>Notes</b>												

## Queues

## Proposed Conditions- Remove 1 WB Thru Ln

## 1: Hesperian Blvd &amp; A St

Timing Plan: P.M. Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	93	185	51	340	203	287	198	1952	341	845
v/c Ratio	0.54	0.42	0.16	0.77	0.53	0.59	0.62	0.85	0.84	0.41
Control Delay	77.2	59.1	1.1	70.0	53.4	13.9	61.5	36.2	78.4	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	59.1	1.1	70.0	53.4	13.9	61.5	36.2	78.4	30.1
Queue Length 50th (ft)	43	81	0	155	161	30	167	578	158	204
Queue Length 95th (ft)	69	115	0	207	243	121	255	652	#230	243
Internal Link Dist (ft)		543			1017			1247		831
Turn Bay Length (ft)	170		310	520			245		245	
Base Capacity (vph)	171	493	337	503	428	518	318	2308	417	2050
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.38	0.15	0.68	0.47	0.55	0.62	0.85	0.82	0.41

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.
































Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	5	3
Total Flow Rate (veh/h)	329	830	2150	1186
Effct. Green for Bike (s)	17.5	29.8	67.8	58.5
Cross Street Width (ft)	88.5	91.2	60.9	83.9
Through Lanes Number	2	1	3	3
Through Lane Width (ft)	12.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	6.0	0.0	5.0	5.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	250	426	969	836
Bicycle Delay (s/bike)	53.7	43.4	18.7	23.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.90	4.54	2.82	2.64
Bicycle LOS	A	E	C	B

# HCM 2010 Signalized Intersection Summary

## 1: Hesperian Blvd & A St

Proposed Conditions-Remove 1 WB LT Ln

Timing Plan: A.M. Peak

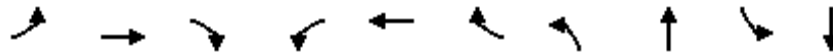
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			  		 	  	
Traffic Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Future Volume (veh/h)	29	63	19	654	177	193	126	483	212	265	1350	19
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1788	1863	1900
Adj Flow Rate, veh/h	37	80	24	727	197	0	164	627	275	305	1552	22
Adj No. of Lanes	2	2	1	1	2	1	1	3	0	2	3	0
Peak Hour Factor	0.79	0.79	0.79	0.90	0.90	0.90	0.77	0.77	0.77	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	239	107	696	1487	665	164	915	391	435	1609	23
Arrive On Green	0.04	0.07	0.07	0.39	0.42	0.00	0.09	0.26	0.26	0.13	0.31	0.31
Sat Flow, veh/h	3442	3539	1583	1774	3539	1583	1774	3456	1479	3304	5165	73
Grp Volume(v), veh/h	37	80	24	727	197	0	164	615	287	305	1019	555
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1774	1770	1583	1774	1695	1545	1652	1695	1848
Q Serve(g_s), s	1.4	2.8	1.9	51.0	4.4	0.0	12.0	21.2	21.8	11.5	38.4	38.4
Cycle Q Clear(g_c), s	1.4	2.8	1.9	51.0	4.4	0.0	12.0	21.2	21.8	11.5	38.4	38.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.04
Lane Grp Cap(c), veh/h	137	239	107	696	1487	665	164	897	409	435	1056	576
V/C Ratio(X)	0.27	0.33	0.22	1.04	0.13	0.00	1.00	0.69	0.70	0.70	0.96	0.96
Avail Cap(c_a), veh/h	185	245	110	696	1487	665	164	897	409	457	1056	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	57.8	57.4	39.5	23.1	0.0	59.0	42.9	43.2	54.0	44.0	44.0
Incr Delay (d2), s/veh	1.1	0.8	1.0	46.3	0.0	0.0	70.7	4.2	9.7	4.5	20.3	29.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.8	33.9	2.2	0.0	9.1	10.4	10.4	5.5	21.0	24.3
LnGrp Delay(d),s/veh	61.6	58.6	58.4	85.8	23.2	0.0	129.7	47.2	52.9	58.5	64.4	73.7
LnGrp LOS	E	E	E	F	C		F	D	D	E	E	E
Approach Vol, veh/h		141			924			1066			1879	
Approach Delay, s/veh		59.4			72.5			61.4			66.2	
Approach LOS		E			E			E			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	45.5	9.2	59.3	22.1	39.4	55.0	13.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	* 4.7	5.0	* 5	4.0	* 4.7				
Max Green Setting (Gmax), s	12.0	40.4	7.0	* 53	18.0	* 34	51.0	* 9				
Max Q Clear Time (g_c+I1), s	14.0	40.4	3.4	6.4	13.5	23.8	53.0	4.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.4	7.2	0.0	0.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				66.1								
HCM 2010 LOS				E								
<b>Notes</b>												

## Queues

## Proposed Conditions-Remove 1 WB LT Ln

## 1: Hesperian Blvd &amp; A St

Timing Plan: A.M. Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	80	24	727	197	214	164	902	305	1574
v/c Ratio	0.20	0.33	0.09	1.12	0.14	0.30	0.93	0.66	0.71	1.05
Control Delay	61.6	61.5	0.7	111.0	23.8	4.2	108.0	40.3	63.8	80.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	61.5	0.7	111.0	23.8	4.2	108.0	40.3	63.8	80.7
Queue Length 50th (ft)	15	34	0	~705	54	0	~154	230	128	~537
Queue Length 95th (ft)	30	54	0	#945	81	49	#238	228	172	#598
Internal Link Dist (ft)		543			25			1247		831
Turn Bay Length (ft)	170		310				245		245	
Base Capacity (vph)	184	245	253	648	1450	727	177	1374	427	1498
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.33	0.09	1.12	0.14	0.29	0.93	0.66	0.71	1.05

## Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

























Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	2	0	4
Total Flow Rate (veh/h)	141	1138	1066	1879
Effct. Green for Bike (s)	9.0	54.6	37.1	41.1
Cross Street Width (ft)	86.9	84.7	63.2	84.4
Through Lanes Number	2	2	3	3
Through Lane Width (ft)	12.0	11.0	11.0	10.0
Bicycle Lane Width (ft)	6.0	0.0	5.0	5.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	138	840	571	632
Bicycle Delay (s/bike)	56.3	21.9	33.2	30.5
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	1.72	4.01	2.26	3.24
Bicycle LOS	A	D	B	C

# HCM 2010 Signalized Intersection Summary

## 1: Hesperian Blvd & A St

Proposed Conditions-Remove 1 WB LT Ln

Timing Plan: P.M. Peak











												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Future Volume (veh/h)	79	157	43	306	183	258	180	1466	310	314	767	10
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	93	185	51	340	203	0	198	1611	341	341	834	11
Adj No. of Lanes	2	2	1	1	2	1	1	3	0	2	3	0
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	234	102	365	791	354	385	2044	428	389	1950	26
Arrive On Green	0.05	0.07	0.07	0.21	0.22	0.00	0.22	0.49	0.49	0.11	0.38	0.38
Sat Flow, veh/h	3442	3539	1548	1774	3539	1583	1774	4185	877	3442	5171	68
Grp Volume(v), veh/h	93	185	51	340	203	0	198	1302	650	341	547	298
Grp Sat Flow(s),veh/h/ln	1721	1770	1548	1774	1770	1583	1774	1695	1672	1721	1695	1849
Q Serve(g_s), s	3.7	7.2	3.1	26.4	6.6	0.0	13.8	44.7	45.5	13.7	16.8	16.8
Cycle Q Clear(g_c), s	3.7	7.2	3.1	26.4	6.6	0.0	13.8	44.7	45.5	13.7	16.8	16.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.04
Lane Grp Cap(c), veh/h	167	234	102	365	791	354	385	1656	817	389	1279	697
V/C Ratio(X)	0.56	0.79	0.50	0.93	0.26	0.00	0.51	0.79	0.80	0.88	0.43	0.43
Avail Cap(c_a), veh/h	197	243	106	418	872	390	385	1656	817	418	1279	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.1	64.4	30.3	54.6	44.8	0.0	48.3	29.8	30.0	61.1	32.4	32.4
Incr Delay (d2), s/veh	2.9	15.6	3.7	25.6	0.2	0.0	1.2	3.9	7.9	17.6	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.0	1.9	15.5	3.3	0.0	6.9	21.7	22.7	7.4	8.0	8.9
LnGrp Delay(d),s/veh	68.0	80.0	34.0	80.2	44.9	0.0	49.5	33.6	37.9	78.8	33.4	34.3
LnGrp LOS	E	F	C	F	D		D	C	D	E	C	C
Approach Vol, veh/h		329			543			2150			1186	
Approach Delay, s/veh		69.5			67.0			36.4			46.7	
Approach LOS		E			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.4	57.8	10.8	36.0	19.8	73.4	32.8	14.0				
Change Period (Y+Rc), s	5.0	* 5	4.0	* 4.7	4.0	5.0	4.0	* 4.7				
Max Green Setting (Gmax), s	27.0	* 53	8.0	* 35	17.0	62.8	33.0	* 9.6				
Max Q Clear Time (g_c+I1), s	15.8	18.8	5.7	8.6	15.7	47.5	28.4	9.2				
Green Ext Time (p_c), s	0.4	14.9	0.0	1.3	0.2	14.5	0.5	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			45.8									
HCM 2010 LOS			D									
Notes												

## Queues

## Proposed Conditions-Remove 1 WB LT Ln

## 1: Hesperian Blvd &amp; A St

Timing Plan: P.M. Peak

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	93	185	51	340	203	287	198	1952	341	845
v/c Ratio	0.49	0.75	0.21	0.92	0.25	0.56	0.62	0.89	0.89	0.44
Control Delay	73.0	82.2	2.0	83.5	43.8	13.4	61.5	40.2	85.3	32.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	82.2	2.0	83.5	43.8	13.4	61.5	40.2	85.3	32.9
Queue Length 50th (ft)	43	88	0	300	78	33	167	588	159	210
Queue Length 95th (ft)	69	#131	0	#473	115	124	255	663	#244	251
Internal Link Dist (ft)		543			25			1247		831
Turn Bay Length (ft)	170		310				245		245	
Base Capacity (vph)	196	249	243	389	843	524	318	2197	389	1900
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.74	0.21	0.87	0.24	0.55	0.62	0.89	0.88	0.44

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	5	3
Total Flow Rate (veh/h)	329	830	2150	1186
Effct. Green for Bike (s)	9.8	33.3	64.4	54.2
Cross Street Width (ft)	88.8	89.7	63.1	83.9
Through Lanes Number	2	2	3	3
Through Lane Width (ft)	12.0	11.0	11.0	11.0
Bicycle Lane Width (ft)	6.0	0.0	5.0	5.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	140	476	920	774
Bicycle Delay (s/bike)	60.6	40.7	20.5	26.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	1.90	3.83	2.85	2.64
Bicycle LOS	A	D	C	B



## Appendix C – Collision Reports

# Collision Details for: Case ID 7185118

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	01/16/2016 23:03
Location (Intersection)	Hesperian Bl & W A St
Dist. & Dir. from Intersection	316.00 ft South
State Highway	No
Latitude & Longitude	37.66477605, -122.11763103

Type of Collision	D - Broadside		
Motor Vehicle Involved With	I - Fixed Object		
Collision Severity	4 - Injury (Complaint of Pain)		
PCF Violation Category	03 - Unsafe Speed		
Weather	B - Cloudy		
Alcohol Involved	No		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	South	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	19	7 - Possible Injury

# Collision Details for: Case ID 8024579

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	04/10/2016 00:40
Location (Intersection)	West A St & Hesperian Bl
Dist. & Dir. from Intersection	469.00 ft East
State Highway	No
Latitude & Longitude	37.66574801, -122.11650787

Type of Collision	G - Vehicle/Pedestrian		
Motor Vehicle Involved With	B - Pedestrian		
Collision Severity	3 - Injury (Other Visible)		
PCF Violation Category	11 - Pedestrian Violation		
Weather	C - Raining		
Alcohol Involved	Yes		
Pedestrian Accident	Yes	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	2 - Pedestrian	N - Pedestrian	Yes	-	L - Entering Traffic
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	3 - Pedestrian	M - Male	39	6 - Suspected Minor Injury

# Collision Details for: Case ID 8087221

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	06/24/2016 12:57
Location (Intersection)	Hesperian Bl & W A St
Dist. & Dir. from Intersection	150.00 ft South
State Highway	No
Latitude & Longitude	37.66518787, -122.11787739

Type of Collision	C - Rear End		
Motor Vehicle Involved With	C - Other Motor Vehicle		
Collision Severity	4 - Injury (Complaint of Pain)		
PCF Violation Category	03 - Unsafe Speed		
Weather	A - Clear		
Alcohol Involved	No		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	North	H - Slowing/Stopping
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	A - Stopped

## Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	F - Female	1	0 - No Injury
2	1 - Driver	M - Male	37	7 - Possible Injury



# Collision Details for: Case ID 8193229

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	10/15/2016 22:34
Location (Intersection)	Hesperian Bl S & A St
Dist. & Dir. from Intersection	243.00 ft South
State Highway	No
Latitude & Longitude	37.66495715, -122.11773937

Type of Collision	D - Broadside		
Motor Vehicle Involved With	C - Other Motor Vehicle		
Collision Severity	3 - Injury (Other Visible)		
PCF Violation Category	01 - Driving or Bicycling Under the Influence of Alcohol or Drug		
Weather	C - Raining		
Alcohol Involved	Yes		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	South	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	5	6 - Suspected Minor Injury

# Collision Details for: Case ID 7200179

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	02/25/2017 16:35
Location (Intersection)	W A St & Hesperian Bl
Dist. & Dir. from Intersection	164.00 ft East
State Highway	No
Latitude & Longitude	37.66567185, -122.11755646

Type of Collision	E - Hit Object		
Motor Vehicle Involved With	I - Fixed Object		
Collision Severity	1 - Fatal		
PCF Violation Category	03 - Unsafe Speed		
Weather	B - Cloudy		
Alcohol Involved	No		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	Yes	Truck Accident	No

## Map View



## Street View



## Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	Yes	East	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	33	1 - Killed

# Collision Details for: Case ID 8650522

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	07/29/2018 18:04
Location (Intersection)	Hesperian Bl & A St
Dist. & Dir. from Intersection	52.00 ft West
State Highway	No
Latitude & Longitude	37.66568977, -122.11817513

Type of Collision	C - Rear End		
Motor Vehicle Involved With	C - Other Motor Vehicle		
Collision Severity	3 - Injury (Other Visible)		
PCF Violation Category	01 - Driving or Bicycling Under the Influence of Alcohol or Drug		
Weather	A - Clear		
Alcohol Involved	Yes		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	Yes	Truck Accident	No

## Map View



## Street View



## Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	C - Motorcycle/Scooter	No	West	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	62	6 - Suspected Minor Injury



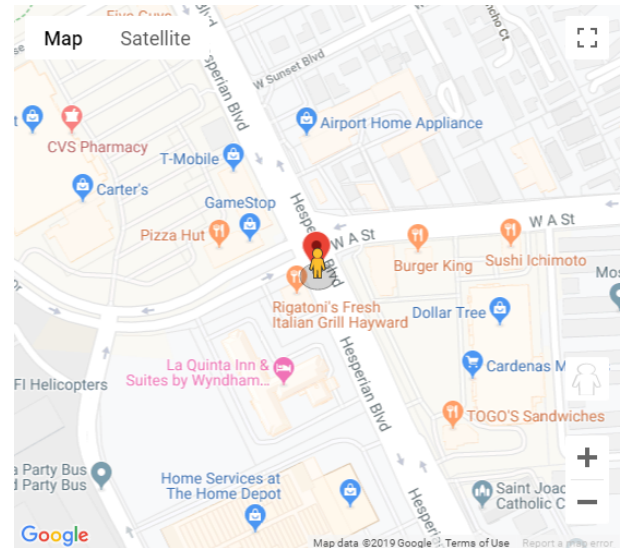
# Collision Details for: Case ID 8699604

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	08/16/2018 02:18
Location (Intersection)	Hesperian Bl & W A St
Dist. & Dir. from Intersection	81.00 ft South
State Highway	No
Latitude & Longitude	37.66535905, -122.11797979

Type of Collision	E - Hit Object		
Motor Vehicle Involved With	I - Fixed Object		
Collision Severity	2 - Injury (Severe)		
PCF Violation Category	01 - Driving or Bicycling Under the Influence of Alcohol or Drug		
Weather	A - Clear		
Alcohol Involved	Yes		
Pedestrian Accident	No	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	North	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	M - Male	26	5 - Suspected Serious Injury

# Collision Details for: Case ID 8751579

## Collision Information

County	Alameda
City	Hayward
Date & Time (M/D/Y HH:MM)	10/29/2018 13:52
Location (Intersection)	N Hesperian Bl & W A St
Dist. & Dir. from Intersection	0.00 ft East
State Highway	No
Latitude & Longitude	37.66555999, -122.11809993

Type of Collision	G - Vehicle/Pedestrian		
Motor Vehicle Involved With	B - Pedestrian		
Collision Severity	3 - Injury (Other Visible)		
PCF Violation Category	11 - Pedestrian Violation		
Weather	A - Clear		
Alcohol Involved	No		
Pedestrian Accident	Yes	Bicycle Accident	No
Motorcycle Accident	No	Truck Accident	No

## Map View



## Street View



## Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	Yes	East	D - Making Right Turn
2	2 - Pedestrian	N - Pedestrian	No	-	B - Proceeding Straight

## Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	3 - Pedestrian	M - Male	54	6 - Suspected Minor Injury



Public Works Agency  
— Alameda County —

# Hesperian Boulevard

## CORRIDOR IMPROVEMENT PROJECT

### Construction Overview — March 2019



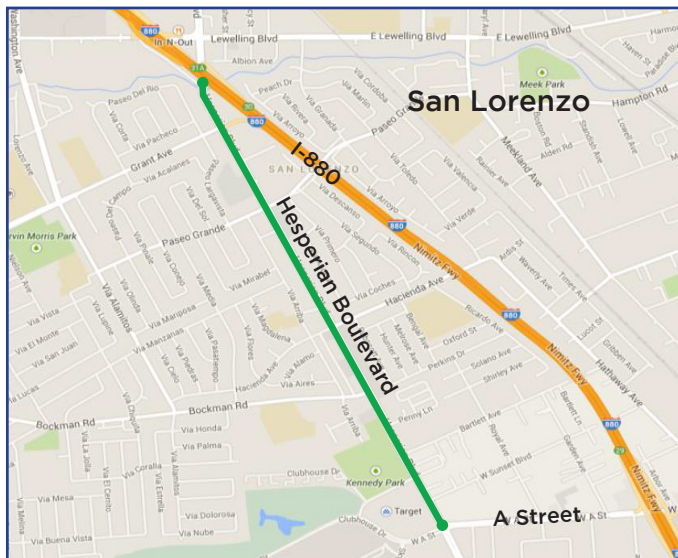
Primary Gateway  
at Embers Way

#### CONSTRUCTION DETAILS

The Hesperian Boulevard Corridor Improvement Project, located in the heart of the San Lorenzo community, will beautify and revitalize the Hesperian Corridor with an inviting streetscape between the I-880 (near Embers Way) overcrossing and A Street. The project is designed to benefit motorists, residents, businesses, pedestrians, and bicyclists.

#### PROJECT LIMITS

Hesperian Boulevard between  
I-880 overcrossing and A Street



#### PHASES OF CONSTRUCTION

This project will be constructed in two phases. *(Schedule subject to change)*

**PHASE I**  
Utility  
Undergrounding

March 2019 through  
December 2019

**PHASE II**  
Corridor  
Improvements

January 2020 to  
January 2022

#### Phase I (currently in progress)

- Utility Undergrounding

#### Phase II (anticipated to start immediately after Phase I)

- Wider Sidewalks with Aesthetic Elements
- Class II Buffered Bicycle Lanes with Green Pavement Treatments
- Community Gateway Features
- High Visibility Crosswalk Treatments
- Street Trees and Landscaping
- Fiberoptic Conduit
- Roadway and Pedestrian Lighting
- Pavement Rehabilitation
- Transit Priority System
- Adaptive Traffic Signal Control Technology

For project updates visit: [www.acpwa.org](http://www.acpwa.org) or call (510) 670-5591



# Hesperian Boulevard

## CORRIDOR IMPROVEMENT PROJECT

### FREQUENTLY ASKED QUESTIONS

**When will construction begin and how long will it last?**

The work to underground the utilities Corridor will begin in March 2019 and is scheduled to be completed by December 2019. Following utility undergrounding, in January 2020, construction of the corridor improvements including wider sidewalks, upgraded traffic signals, resurfaced streets, landscaped median islands, buffered bicycle lanes, gateway features, street tree planting, and landscaping will begin. All construction work is scheduled to be completed by January 2022.

**How will construction impact my business?**

The Public Works Agency is committed to minimizing the construction impacts. Whenever possible, access to all businesses will remain. Signs will be posted to facilitate access to businesses during construction.

The Project Contractor will coordinate with each property owner/resident to ensure access to their property is maintained during construction. The public can call (510) 670-5591 with concerns related to construction impacts.

**Will cars be able to access my business easily when the project is completed?**

Yes, patrons will continue to enjoy access to your business. The existing left-turn and U-turn access along Hesperian Boulevard will not change. The ability to access your business from Hesperian Boulevard will remain unchanged. Right turns will also be maintained.

**Will construction take place during holiday season?**

No construction activities will be conducted during the time period from Thanksgiving to New Year's Day.



Intersection of Hesperian Boulevard and Paseo Grande

**Will residents and businesses be informed before construction starts?**

Residents and business owners along Hesperian Boulevard will be notified in advance of all construction activities in their areas.

**Who will maintain the new landscaping and streets trees being installed?**

Landscaped medians will be maintained by the Public Works Agency. Street trees will be installed in many of the sidewalk areas. However, in accordance with the County's Tree Ordinance, property owners are required to maintain a quality neighborhood, which includes maintaining trees within the sidewalk area after the plant establishment period.

**Where can I get additional information?**

Website: [www.acpwa.org](http://www.acpwa.org)

Call: (510) 670-5591

Email: [info@acpwa.org](mailto:info@acpwa.org)



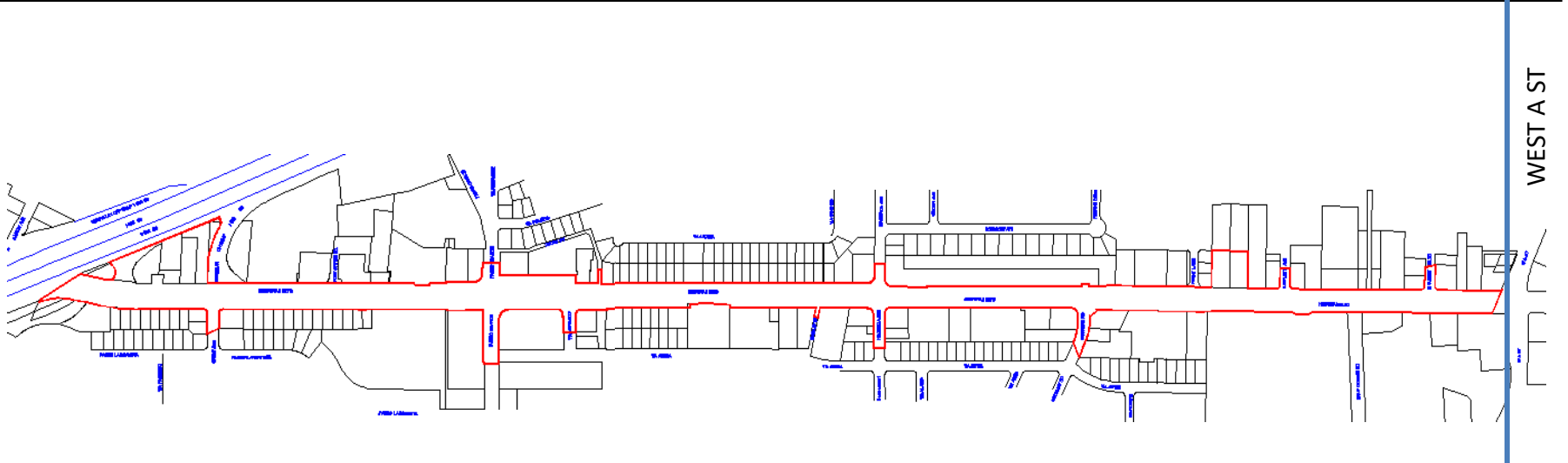
# Hesperian Boulevard Corridor Improvement Project

# Hesperian Boulevard Project Update

- Update Utility Undergrounding
- Update Streetscape Features
- Update Project Schedules
- Communicating with you
- Questions and Comments



# Hesperian Boulevard Corridor Improvement Project I-880 to A Street

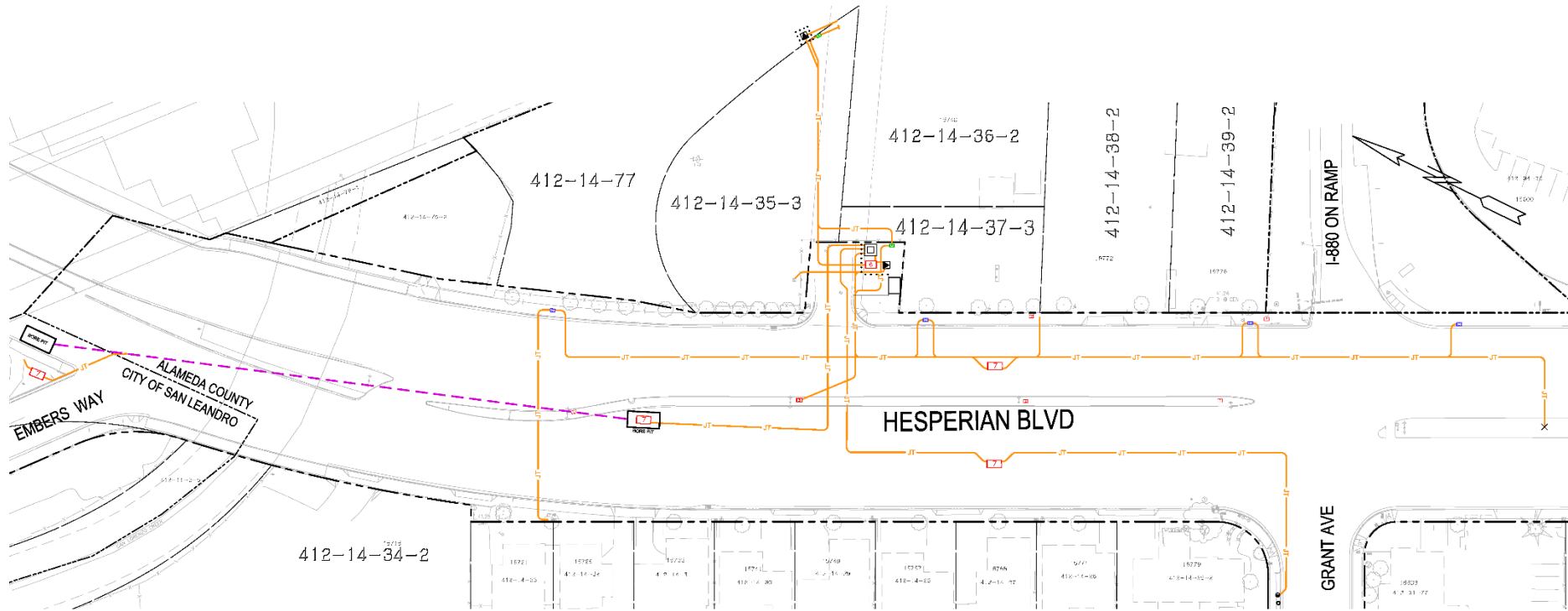


# Hesperian Boulevard Project Features

- Phase 1 – Utility Undergrounding
- Phase 2 – Streetscape Improvements



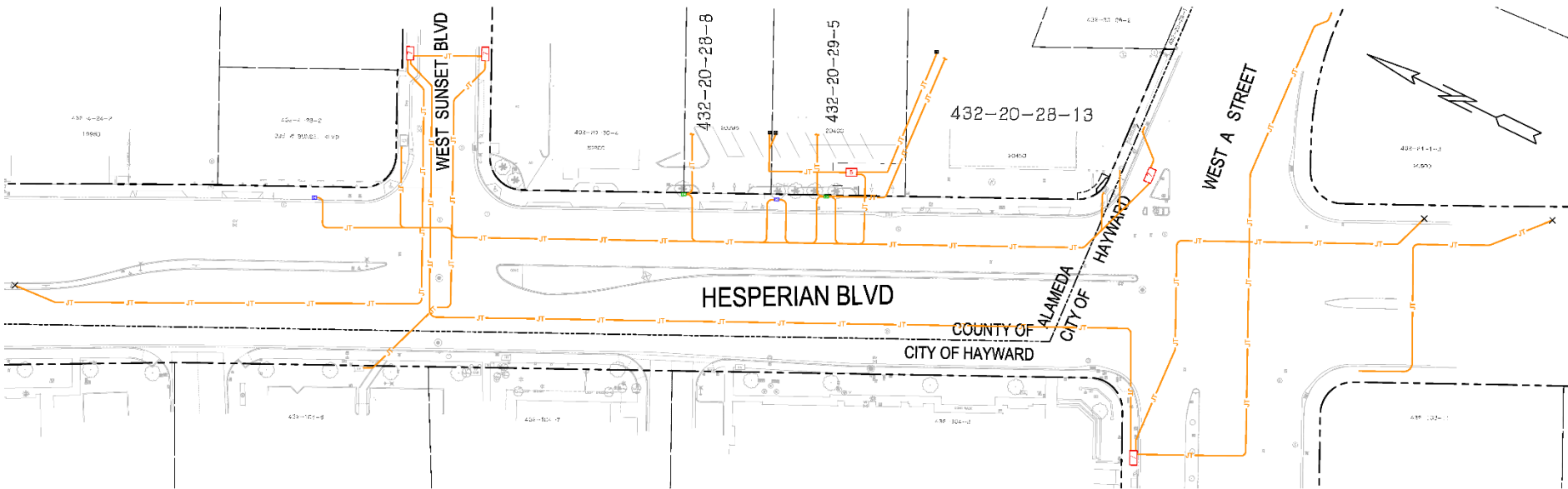
# Utility Undergrounding Limit of Work North Section



# Utility Undergrounding

## Limit of Work

### South Section



# Non-Streamlined Overhead Utilities to be undergrounded.

The Undergrounding Design is complete  
Construction begins in March 2019



# Undergrounding Construction Overview

- Starts in early March 2019
- Total construction duration for both Alameda County and PG&E's Contractors is approximately 8 months
- Working hours are M-F 9 am - 3 pm for any work that requires lane closures
- Traffic flow
- Install utility boxes and joint trench conduits
- PG&E will follow to install conductors, transformers etc.
- PG&E to discuss schedule and power outages

# PG&E Presence and Sequence of Work

## Presented by Matt Herron



Shortly after the installation of the boxes and conduit by County contractor, PG&E will mobilize electric construction contract crews to install electric equipment

### **CONSTRUCTION TIMEFRAME – 16 WEEKS (NORTH AND SOUTH SECTIONS 8 WEEKS EACH)**

- ✓ Install conductor (wires)
- ✓ Install electric equipment (switches, transformers)

### **WHAT TO EXPECT**

PG&E contractor will install and energize cable and equipment during which time property owners can expect to have at least one power outage lasting up to 8 hours. Any impacted properties will receive a notice via letter 7 – 9 days prior to the outage outlining the date, times and duration that their power will be interrupted.

For specific questions or more information, please contact:

*Linda Swartz, PG&E Project Manager - (925) 866-5353 or [linda.swartz@pge.com](mailto:linda.swartz@pge.com)*

# Project Features

- Widened Sidewalks with Aesthetic Elements
- Class II Buffered Bicycle Lanes with Green Pavement Treatments
- Community Gateway Features
- High Visibility Crosswalk Treatments
- Fiberoptic Conduit

# Project Features (cont'd)

- Roadway and Pedestrian Lighting
- Pavement Rehabilitation
- Transit Priority System
- Adaptive Traffic Signal Control Technology
- Streetscape

# Update of Streetscape Features

- Construction starting in 2020
- Update of streetscape plan accommodates existing underground utilities
- Bike friendly bus stop improvements
- Widened median for improved pedestrian safety and landscaping opportunities



# PLANT PALETTE

## Medians

Small Trees/Large Shrubs/Structural



*Olea europaea* 'Monher' or 'Swan Hill'  
Fruitless Olive  
H: 25 ft



*Lagerstroemia indica* x *fauriei* 'Muskogee'  
Lavender Crepe Myrtle  
H: 20-25 ft



*Arctostaphylos* 'Sunset'  
Manzanita  
7'x7'



*Rhamnus californica* 'Mound San Bruno'  
Coffeeberry  
4.5'x6'



*Arctostaphylos edmundii* 'Carmel Sur'  
Manzanita  
1'x6'



*Juniperus horizontalis* 'Blue Chip'  
Blue Chip Juniper  
1'x7'



*Muhlenbergia rigens*  
Deer Grass  
3.5'x3.5'

Accent Plants



*Hemerocallis minor*  
Grassleaf Day Lily  
1.5'x1.5'



*Lavatera* x *clementii*  
Tree Mallow  
3'x3'



*Eriogonum nudum* 'Ella Nelson'  
Yellow Naked Buckwheat  
3'x2'



*Limonium perezii*  
Sea Lavender  
2.5'x2.5'



*Galvezia speciosa*  
Island Snapdragon  
3.5'x4.5'

Ground Covers



*Myoporum parvifolium*  
Prostrate Myoporum  
8'x7'



*Cistus salvifolius prostratus*  
Sageleaf Rockrose  
1'x6'



*Allium cristophii*  
Star of Persia  
1.5'x1'



*Iris douglasiana*  
Douglas Iris  
1.5'x2.5'



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# PLANT PALETTE

## Sidewalks

### Trees



*Ginkgo biloba* 'Princeton Sentry'  
Maidenhair Tree  
45'x25'



*Acer rubrum*  
Red Maple  
45'x15'



*Platanus acerifolia* 'Columbia'  
London Plane Tree  
60'x35'



*Lagerstroemia indica* 'Natchez'  
Hybrid Crape Myrtle  
25'x15'



*Pyrus calleryana* 'Aristocrat'  
Bradford Pear  
35'x20'

### Plaza Trees



*Chitalpa tashkentensis* 'Pink Dawn'  
Chitalpa  
H: 25 ft



*Cercidium x 'Desert Museum'*  
Palo Verde  
H: 25 ft

### Flowering Accent Plants



*Grevillea lanigera* 'Mt. Tamboritha'  
Woolly Grevillea  
1'x4.5'



*Armeria maritima*  
Sea Thrift  
1'x1'



*Bulbine frutescens*  
Bulbine  
1'x1' v



*Calandrinia spectabilis*  
Rock Purslane  
2'x4'



*Limonium perezii*  
Sea Lavender

### Base Plants



*Nepa racemosa*  
Walker's Low Catmint  
2'x2'



*Lomandra longifolia*  
Dwarf Mat Rush  
3'x3'



*Diets bicolor*  
Fortnight Lilly  
3'x3'

*Rhamnus californica*  
Coffeeberry  
1.5'x3'

### Rain Garden



*Achillea x kellereri*  
Yarrow  
1'x1'



*Carex pansa*  
California Meadow Sedge  
1'x1'



*Elymus condensatus* 'Canyon Prince'  
Canyon Prince Giant Rye Grass  
2'x2'



*Rhamnus californica* 'Seaview'  
Coffeeberry  
1.5'x3'



*Lupinus albus*  
Silver Leaf Lupine  
3.5'x3.5'



## HESPERIAN BLVD STREETSCAPE ALAMEDA COUNTY PUBLIC WORKS AGENCY





PRIMARY GATEWAY AT EMBERS WAY



SECONDARY GATEWAYS IN CENTER MEDIANS  
POST OFFICE DRIVE AND WEST SUNSET BLVD

Concrete:  
Light Warm-Gray



Accent: Burgundy



Text:  
Dark Bronze



**HESPERIAN BLVD STREETSCAPE** ALAMEDA COUNTY PUBLIC WORKS AGENCY

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# COMMUNITY IDENTITY ELEMENTS



SEATWALLS AND FENCING AT CORNER BULB OUTS AND PLAZA

# SITE FURNISHINGS + MATERIALS



D.M. Braun & Company  
City Bench  
Color: Black Powder Coat Finish





Forms and Surfaces  
Custom Urban Renaissance  
Double line Litter and Recycling Receptacle  
Color: Black Powder Coat Finish



Street Furniture Australia  
Semi-Narrow Hoop  
Color: Black Powder Coat Finish



Colored Concrete Paving

	SAWCUT JOINT, TYP.	ENHANCED CIP CONC. PAVING B AND C	CORNER AND MAIN PLAZA	LIGHT AND MEDIUM EXPOSED FINISH PER SPEC.
	SCORELINE, TYP.	ENHANCED CIP CONC. PAVING B	BUS STOP	MEDIUM EXPOSED FINISH PER SPEC.



## HESPERIAN BLVD STREETSCAPE ALAMEDA COUNTY PUBLIC WORKS AGENCY

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PERSPECTIVE VIEW



INTERSECTION OF HESPERIAN BOULEVARD AND PASEO GRANDE



## HESPERIAN BLVD STREETSCAPE ALAMEDA COUNTY PUBLIC WORKS AGENCY

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# Anticipated Project Schedule:

- Undergrounding Construction 3/2019 – 10/2019
- Advertise Streetscape 7/2019 – 10/2019
- Streetscape Construction start 1/2020

## *Communicating with you*

- Public meetings and notices
- Fact Sheets / Newsletters
- Letters to property owners  
(tenants ask your landlords)
- Barricade signs
- Door hangers or notices
- Website / Social Media and Phone



*Thank you for coming tonight!*

## Questions and Comments

**Alameda County Public  
Works Agency**

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Project Engineer  
(510) 670-5758 or  
[tam@acpwa.org](mailto:tam@acpwa.org)*

**PG&E**

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