

APPLICATION FORM FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) FUNDS
Cycle 3 – 2009/2010 Federal Fiscal Year

Applicants seeking Highway Safety Improvement Program (HSIP) funds must use this form. Applicants that do not provide information that is required or do not prepare the application in accordance with general instructions may have their application disqualified. See Exhibit 9-B ‘[Application Form Instructions for HSIP Funds](#)’ for assistance in completing this form.

This entire [Application Form](#) must be submitted. Applicants should download the Application Form from the Division of Local Assistance HSIP website at: http://www.dot.ca.gov/hq/LocalPrograms/HSIP/apply_now.htm.

Limit the application to ten (10) pages plus attachments. Do not provide brochures and samples of materials unless they are directly related to a response.

Date: 10/8/09 **Caltrans District:** 4 **MPO:** MTC

Agency: City of Oakland

Total number of applications being submitted by your agency: 3

Rank of this project (each project application must have a different rank): 3

Contact Information:

Position/Title of Contact Person: Transportation Engineer

Name: Gordon Lum

Mailing Address: 250 Frank H. Ogawa Plaza, Suite 4344

City: Oakland **County:** Alameda **Zip:** 94612

Telephone: 510-238-3172

Email: glum@oaklandnet.com

Project Category: ☒ **Safety Index** ☐ **Work Type**

Project Location (Be brief. See instructions):

Nine intersections: (1) Broadway/5th St, (2) Broadway/6th St, (3) Franklin St/14th St, (4) Webster St/14th St, (5) International Blvd/Fruitvale Ave, (6) Foothill Blvd/22nd Ave, (7) West St/35th St, (8) MacArthur Blvd & Beaumont/E 33rd St & I-580 EB Ramps, and (9) MacArthur Blvd & Beaumont/Chatham & I-580 WB Off-Ramp.

Description of Proposed Improvements (Be brief. See instructions):

Upgrade traffic signals to full detection. This includes video detection, wireless detection (where freeway obstructs video camera line of sight),

audible signals, pedestrian countdown devices, pedestrian push buttons, and ADA compliant curb ramps.

Type of Improvement (check boxes that apply to primary items of work)

- | | |
|--|---|
| <input type="checkbox"/> Roadway illumination (where no lighting exists) | <input type="checkbox"/> New left-turn lane at signalized intersection (with left-turn phase) |
| <input type="checkbox"/> Relocated or breakaway utility poles | <input type="checkbox"/> New left-turn lane at non-signalized intersection |
| <input type="checkbox"/> Traffic signs (general) | <input type="checkbox"/> Two-way left-turn lane |
| <input type="checkbox"/> Curve warning arrows | <input type="checkbox"/> Pavement markings and delineation |
| <input type="checkbox"/> Advance curve warning signs with advisory speed | <input type="checkbox"/> Widen or improve shoulder |
| <input type="checkbox"/> 4-way stop control | <input type="checkbox"/> Flatten side slopes |
| <input type="checkbox"/> Upgrade posts with breakaway supports | <input type="checkbox"/> Realign roadway |
| <input type="checkbox"/> Upgrade or new median barrier | <input type="checkbox"/> Overlay for skid treatment |
| <input type="checkbox"/> Remove obstacles | <input type="checkbox"/> Reconstruction (combinations and miscellaneous) |
| <input type="checkbox"/> New traffic signals | <input type="checkbox"/> Emergency vehicle priority systems |
| <input type="checkbox"/> Upgrade or new guardrail | <input type="checkbox"/> Bicycle/pedestrian improvements |
| <input type="checkbox"/> Impact attenuators | <input type="checkbox"/> Public transportation facility |
| <input checked="" type="checkbox"/> Upgrade traffic signals (includes interconnect) | <input type="checkbox"/> Traffic calming |
| <input type="checkbox"/> Sight distance improvement | <input type="checkbox"/> Red light running detection system |
| <input type="checkbox"/> Construct raised median for traffic separation | <input type="checkbox"/> In-pavement crosswalk lights |
| <input type="checkbox"/> Groove pavement for skid treatment | <input checked="" type="checkbox"/> Other (Describe below) |
| <input type="checkbox"/> Turning lanes and traffic channelization | <u>ADA Compliant Curb Ramps</u> |
| <input type="checkbox"/> New left-turn lane at signalized intersection (with no left-turn phase) | |

Do the proposed improvements include Intelligent Transportation System (ITS) components as defined in Chapter 12.6 of the Local Assistance Program Guidelines? ☐ YES ☒ NO

Does the project include improvements on the State Highway System? ☐ YES ☒ NO

If YES, is this a 'joint-funded project' as described under Section 9.6? ☐ YES ☒ NO

(If yes, a letter of support from Caltrans must be attached.)

Is the improvement at an intersection or on a section of road? Select primary one. If it is a road section, indicate section length.

☒ Intersection

☐ Road Section Section Length (Miles): _____

Posted Speed Limit – primary road (mph): 30

Functional Classification (select one): 16-Urban Minor ArterialVisit http://www.dot.ca.gov/hq/tsip/hseb/crs_maps/ to determine the functional classification.Current Average Daily Traffic (all directions) **Required for Safety Index Project:**

<u>Beaumont Ave</u>	<u>ADT 16,000</u>
<u>Broadway</u>	<u>ADT 19,400</u>
<u>Foothill Blvd</u>	<u>ADT 18,900</u>
<u>Franklin St</u>	<u>ADT 7,700</u>
<u>Fruitvale Ave</u>	<u>ADT 19,200</u>
<u>International Blvd</u>	<u>ADT 28,400</u>
<u>MacArthur Blvd</u>	<u>ADT 24,300</u>
<u>Webster St</u>	<u>ADT 13,700</u>
<u>West St</u>	<u>ADT 7,100</u>
<u>5th St</u>	<u>ADT 13,000</u>
<u>6th St (I-880 NB off-ramp)</u>	<u>ADT 7,500</u>
<u>14th St</u>	<u>ADT 21,300</u>
<u>22nd Ave</u>	<u>ADT 3,800</u>
<u>35th St</u>	<u>ADT 8,000</u>

Year of Traffic Count: 0Traffic Collision Information - **Required for Safety Index Project:**

Time Period (3 years min.; 10 years max.)	<u>July 1, 2005 to June 30, 2008</u>		
Collision Type	Fatal	Injury	Property Damage Only (PDO)
Number of Collisions (<u>NOT</u> Number of Victims)	<u>0</u>	<u>40</u>	<u>186</u>

Caltrans will calculate the Safety Index for all project applications that contain sufficient data to compete under the Safety Index Project Category. See the [HSIP SI Calculation Procedure](#) for assistance and additional details.**Project Cost Estimate**

Identify all costs associated with the project, rounded to the nearest \$100.

Preliminary Engineering

Environmental	<u>\$0.00</u>
PS&E	<u>\$31,100.00</u>

Right of Way

Engineering	<u>\$0.00</u>
Appraisal and Acquisition	<u>\$0.00</u>
Utilities.....	<u>\$0.00</u>
Construction	
Construction Engineering	<u>\$46,600.00</u>
Construction	<u>\$310,800.00</u>
Subtotal	<u>\$388,500.00</u>
Contingencies (10% of Subtotal; max)	<u>\$38,800.00</u>
Total Project Cost	<u>\$427,300.00</u>
*Federal Funds Requested	<u>\$384,500.00</u>
Local or other funds	<u>\$42,800.00</u>

Preliminary Engineering costs should not exceed 25% of Construction costs

Right of Way costs should not exceed 10% of Construction costs

Construction Engineering costs should not exceed 15% of Construction costs

*Amount must not exceed \$900,000 or 90% of Total Project Cost, whichever is less

The following three (3) questions will be used to rate projects competing under the Work Type category. Safety Index projects that do not get funded under the SI category will also be rated as a Work Type project using these questions. All applications should contain answers to these 3 questions.

1. IDENTIFICATION AND DEMONSTRATION OF NEED (20 points)

Provide some background information about the problem. How was the problem identified? How long has the problem existed? Have other countermeasures been deployed? Describe the primary cause(s) of the collisions that have occurred at the location. Are there patterns in the crash types? Given that other problems may exist within the applicant's jurisdiction, explain why this problem was chosen to compete for federal safety funds. Reference any collision data, traffic data, community surveys, reports, plans, etc. to support the problem. Attach pictures, maps, exhibits, data, diagrams, etc. to illustrate the problem.

The City of Oakland annually evaluates intersections with top collision rates. In 2009, 8 intersections have a top collision rate of 0.96 collisions/MVM or greater, or 1.7 times the average rate of 0.56 collisions/MVM for 169 signalized intersections citywide where ADTs were available to calculate collision rates. Broadway/6th was also selected due to its close proximity to Broadway/5th.

Scoring Rubrics:

- Applicant provides a clear, detailed description of the safety risks and problems for the location; Cites recent collision facts with documentation; Explains primary causes and patterns of collision history; Attaches collision diagram and collision summary table; Includes warrant studies for installing traffic control devices; Explains the methodology used to prioritize and select the location for improvement; References and connects the [Strategic Highway Safety Plan \(SHSP\)](#) Challenge Areas and Safety Needs Action Plans (SNAPs) to the problem; Confirms location is included in California's [5% Report](#). (16-20 points)

- Applicant provides a brief description of the safety risks and problems; cites recent collision facts without documentation; explains primary causes and patterns of collision history; includes some documentation of data sets used to identify the problem and explains the methodology used to prioritize and select the location for improvement. (11-15 points)
- Applicant provides a vague description of the safety risks and problems; cites recent collision facts without documentation; does not explain primary causes and patterns of collision history; does not include documentation of data sets used to identify the problem; does not explain the methodology used to prioritize and select the location for improvement. (6-10 points)
- Applicant provides little or no information regarding the safety risks, problems, causes, patterns, and methodologies; does not cite or provide supporting documentation. (0-5 points)

2. **POTENTIAL FOR PROPOSED IMPROVEMENT TO CORRECT OR IMPROVE THE PROBLEM** (20 points)

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

The proposed signalized intersections were installed many years ago and lack state-of-the-art full detection. Propose to install video detection and audible signal to improve operations and safety. With detection, signals can be properly timed to serve all users. The current fixed time operation is not responsive to changing traffic demands or vehicle arrival patterns. Drivers who unexpectedly receive a yellow light may be trapped in a "dilemma zone" and may be forced to enter the intersection on red. A red light or DON'T WALK indication is more likely to be violated without the presence of demand from conflicting movements. Detection will allow more efficient use of green time and allow surplus green to be allocated to the coordinated movements. The City has received complaints on the lack of signal coordination on 14th Street. Detection was installed at International Boulevard/Fruitvale Avenue as part of a transit signal coordination project funded by an outside agency. Given current budget limitations, the City seeks funding to install detection on Fruitvale Avenue and full detection at the other eight intersections.

Scoring Rubrics:

- Applicant provides a clear, detailed description of the potential for the proposed improvement to correct or improve the problem; demonstrates the connection between the problem and how the proposed solution will correct or improve it; cites investigation into other countermeasures to compare costs, collision reduction factors, and benefits; explains how proposed improvements benefit and provide safety to other modes of travel; provides documentation on proposed countermeasures effectiveness in correcting problem and why it is the preferred alternative; cites and

correlates actions contained in the Implementation of the [Strategic Highway Safety Plan \(SHSP\)](#) to the proposed solution. (16-20 points)

- Applicant provides a brief description of the potential for the proposed improvement to correct or improve the problem; demonstrates the connection between the problem and how the proposed solution will correct or improve it; does not cite investigation into other countermeasures to compare costs, collision reduction factors, and benefits; briefly explains how proposed improvements benefit and provide safety to other modes of travel; provides some documentation on proposed countermeasures effectiveness in correcting problem. (11-15 points)
- Applicant provides a vague description of the potential for the proposed improvement to correct or improve the problem; poorly demonstrates the connection between the problem and the how the proposed solution will correct or improve it; does not investigate or document other countermeasures to compare costs, collision reduction factors, and benefits; does not explain how proposed improvements benefit and provide safety to other modes of travel; provides minimal documentation on proposed countermeasures effectiveness in correcting problem. (6-10 points)
- Applicant provides little or no information regarding the potential for the proposed improvement to correct or improve the problem; does not provide documentation or explanations to support the selection of the countermeasure. (0-5 points)

3. **POTENTIAL FOR TIMELY IMPLEMENTATION OF PROJECT** (10 points)

Describe the time frame to implement the project. Identify any potential barriers to a timely implementation. Are there likely environmental issues that could delay the project? Are there seasonal considerations for the construction period? Are all construction improvements within existing public rights of way? Have other local, regional or state funds been targeted for the project that have not yet been secured? Is there community support for, or opposition to the project?

All construction are within existing public right of way. The public has complained about the lack of signal coordinaton on 14th Street which is one of the few two way, east-west street in downtown Oakland. This project would address their concerns. Also, the City Council office supports the improvement in traffic operations at International Blvd/Fruitvale Ave as recommended in the TETAP Study funded by MTC. The project will be completed in 16 months as noted in the implementation schedule.

Complete the Implementation Schedule below. Assume the project is amended into the FTIP on January 1, 2010.

IMPLEMENTATION SCHEDULE

Request Authorization to Proceed with Preliminary Engineering	<u>February 1, 2010</u>
Request Authorization to Proceed with Construction	<u>August 1, 2010</u>
Complete Construction of Project	<u>June 30, 2011</u>

Scoring Rubrics:

- Applicant provides evidence that there are no barriers or issues that will delay the project; implementation schedule is realistic and consistent with the barrier assessments provided by applicant. (7-10 points)
- Applicant identifies barriers or issues that may delay the project; explains actions and time it will take to remediate and resolve; estimates maximum and minimum durations of the delay; implementation schedule is realistic and consistent with the barrier assessments provided by applicant. (4-6 points)
- Applicant provides little or no information on barriers or issues that may delay the project; does not explain actions it would take to resolve potential issues; implementation schedule is optimistic and inconsistent when compared to other similar projects. (0-3 points)

In addition to the 3 questions above, the following factors will also be used to rate project applications:

Agency's Past Performance of Delivering Federal-aid Projects (5 points)

Scoring Rubrics:

- Caltrans will review the delivery history of the applicant to determine the score. Agencies that have had a federal-aid project on the Inactive List during the last 4 quarters (July 2008 through June 2009) will receive zero points. Applicants that have not had a project on the Inactive List will receive 5 points.

Application Attachments (10 points)

1. Vicinity map
2. Project map showing existing and proposed conditions
3. Photographs
4. Warrant studies (required when applicable to proposed improvement)
5. Collision diagram and collision summary report (required for Safety Index projects)
6. [Detailed Engineer's Estimate](#) (required for all projects)
7. Letter of Support from Caltrans (required for joint funded projects only)

Scoring Rubrics:

- Caltrans will review the attachments to determine the score. 10 points will be awarded to applications that contain all of the attachments applicable for the type of improvement. Two (2) points will be deducted for each attachment that is missing from the list above, up to a maximum of 10 points, resulting in a net score of zero (0).
- Any application that does not include a Detailed Engineer's Estimate will be disqualified.
- Any application that does not include a Warrant Study for an improvement that requires a warrant study to justify the installation of a particular traffic control device will be disqualified.
- Any application submitted as a joint funded project with Caltrans that does not include a letter of support will be disqualified.

- Any application submitted as a Safety Index project that does not include a collision diagram and collision summary report will be placed under the Work Type category and will not be eligible to compete for SI funding.

APPLICATION SIGNATURES

An agency official representing the applicant must sign the application. The undersigned affirms that the statements contained in the application package are true and complete to the best of the applicant's knowledge. The undersigned also affirms that the applicant's agency owns, operates and maintains the facility upon which the proposed improvements will be constructed. If portions of the improvements extend into areas where the applicant has no jurisdictional authority, a notation must be made that officials representing the affected local agencies support the project. In the notation, provide names and telephone numbers of whom to contact for corroboration. Only one agency official needs to sign the application. "Agency Official" means Director, Assistant Director, Executive Director, Assistant Executive Director, or their respective designated administrators, engineers, or planners.

Agency Official Name: City of Oakland

Signature _____ Date _____

Title: Wladimir Wlassowsky, P.E., Transportation Services Division Manager

Phone Number: 510-238-6383

E-mail: wlassowsky@oaklandnet.com (If available)

Notation: (If applicable) _____

Submit original plus one copy of your application to your [District Local Assistance Engineer](#) (DLAE) by the due date.