HSIP ANALYZER (for Set-aside Applications)

Project Information and Cost Estimate for Highway Safety Improvement Program (HSIP) Set-aside Applications

Important: Review and follow the step-by-step instructions in the HSIP Analyzer Manual. Completing the HSIP Analyzer without referencing to the manual may result in an application with fatal flaws that will be disqualified from the ranking and selection process.

All fields must be filled in except the gray fields which are calculated and read-only. If any error messages appear, fix the errors prior to proceeding to the next steps.

Save this file using "HA" +Application ID as the file name (e.g. "HA03-Sacramento-01.pdf").

Section I: General Information

| 1. Application ID, Project Locat | tion and Project Description (copy from the HSIP Application Form): |
|---|---|
| Application ID: 04-H | Hercules-H1 HSX 1 |
| Project Location: The p (limited to 250 characters) railroa pathw | project is located along the Sycamore Avenue Corridor in Hercules, CA, under the I-80 and BNSF ad overcrossing, connecting the east and west sides of the city with safer pedestrian and cyclist vays. |
| (limited to 250 characters) and w | project is on Sycamore Avenue in Hercules, CA, under I-80 and the BNSF railroad. It connects the east yest sides of the city by adding a 10-ft multipurpose path and bike lanes to improve safety for atrians and cyclists. |
| 2. Which funding set-aside is t | his application for? (check one): |
| 🔲 Guardrail Upgrades | Pedestrian Crossing Enhancements |
| Installing Edgelines | ⊠ Bike Safety Improvements |
| Set-aside for Tribes | |
| Provide the number of intersectio | ns and the length of roadways included in the project (enter 0 if not applicable): |
| Number of Signalized Intersec | tions: 0 Number of Non-signalized Intersections: 0 |
| Miles of Roadways*: | 0.55 * Do not include the length of the intersections that have been accounted for in the number of intersections above. |
| | |
| | |
| | |

| 3. Other Project information | | | | |
|--|-----------------------------------|-------------------------------|--|-----------------------------------|
| Functional Classification (FC): | linor Arterial | | For California Road Sy maps to check the FC | - |
| Urban / Rural Area: 🛛 | rban | | | -, CICK <u>HEIC</u> . |
| What is the approximate total co | st percentage that is HR3 eligi | ible? 0% | | |
| Annual Average Daily Traffic (see | instructions): | | | |
| AADT (Major Road) | AADT (Minor Roa | ad) 23,072 | Year of AADT | 2021 |
| Posted Speed Limit (mph): 35 | | | | |
| Which of the California's Strategi Areas may be checked. For exam should be checked. For more info | ple, if this project is for pedes | trian safety at interse | ections, both "Intersed | |
| Intersections |] Lane Departures | 🔀 Pedestrians | 🔀 Bicy | clists |
| Emergency Response |] Emerging Technologies | Work Zones | | ed Management/ ressive Driving |
| How were the safety needs and p | ootential countermeasures for | r this project first ide | ntified? | |
| Community or Regional Plannin | g Process | | | |
| California established Systemic S Safety Plan (LRSP) Program in 20 | | | | LRSP |
| Is the project focused primarily o | n "spot location(s)" or "system | nic" improvements? | Systemic | |
| If it is systemic, the primary type | of the "systemic" improvemer | nts is: | | |
| Other | | | | |
| What is the primary mode of trav | el intended to be benefited b | y this project? | | |
| Non-motorized Users (Bicyclists | only) | | | |
| Approximate percentage of proje | ect cost going to improvemer | nts related to motor i | zed travel | |
| Based on project location(s), plea | ise provide: | | | |
| State Senate District(s): | 9 | (Use con | nmas to separate if m | ultiple) |
| State Assembly District(s): | 15 | (Use con | nmas to separate if m | ultiple) |
| | | | | |

| Will this project use HSIP funds for Pre Will an external consultant be hired to | eliminary Engineering (PE) Phase? | No |
|---|-----------------------------------|----|
| Will an external consultant be hired to | | |
| | o do the PE work? | No |
| Delivery Milestone to be met: CON Authoriz | ration by 12/31/2027. | |
| PE Authorization Date: | | |
| Environmental Clearance Date: | 8/9/2025 | |
| Right of Way Clearance Date: | | |
| Final PS&E Date: | 5/16/225 | |
| CON Authorization Date: | 8/19/2025 | |
| Construction Contract Award Date: | 1/20/2026 | |
| Construction Completion Date: | 7/20/2026 | |
| Project Close-Out Date: | 12/1/2026 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Section II. Construction Cost Estimate and Cost Breakdown

The purpose of this section is to:

- Provide detailed engineer's estimate (for construction items only). The costs for other phases (PE, ROW, and CE) will be included in Section III. And
- Separate the cost percentages for 'Set-aside (SA)', 'Other Safety(OS)' and 'Non-Safety(NS)' components and determine the project's maximum Funding Reimbursement Ratio (FRR).

II.1. Detailed Engineer's Estimate for Construction Items:

<u>Cost breakdown:</u>

For each item, enter cost percentages for "Set-aside (SA)" and "Other safety (OS)" components respectively (e.g. enter 10 for 10%). The percentage for "Nonsafety (NS)" component is calculated. If a line is for a general item (such as traffic control, mobilization, etc.), check the "General item" box. A general item will not be used in determining the project's overall percentages of set-aside, other safety and non-safety costs.

| | | Construction items | | | | General item?* | Set-asic (SA) | le | Othe Safety (| | Non-Safety (NS) | |
|---|-----|--|------|----------|-----------------------------|-------------------|--------------------------|-----|------------------|-----|--------------------|------|
| | No. | Item Description | Unit | Quantity | Unit Cost | Total | Click center to check | % | | % | | % |
| + | 1 | miscellaneous items | 1 | 1 | \$ 94,700.00 | \$ 94,700 | x | 0 | % | 0 | % | 100% |
| + | 2 | Demolition | 1 | 1 | \$ 9,300.00 | \$ 9,300 | x | 0 | % | 0 | % | 100% |
| + | | Improvement - Bike Path Ramp/ Curb/Gutter | 1 | 1 | \$ 719,000.00 | \$ 719,000 | | 100 | % | | % | 0% |
| + | 4 | Railroad permit | 1 | 1 | \$ 100,000.00 | \$ 100,000 | | | % | 100 | % | 0% |
| + | 5 | Signing Striping | 1 | 1 | \$ 149,100.00 | \$ 149,100 | | 100 | % | | % | 0% |
| | | | | Weighted | l Average (%) Total (\$) | | | 90% | | 10% | | |

Contingencies, as % of the above "Total" of the construction items (e.g. enter 10 for 10%):



Total Construction Cost (Con Items & Contingencies) (Rounded up to the nearest hundreds):

\$1,286,600

II.2 Project's Maximum Funding Reimbursement Ratio

Project's Maximum Funding Reimbursement Ratio: 90.0%

Calculated as the smaller of 90% and (100%-the non-safety cost percentage). This is the maximum value allowed to be entered in "HSIP/ Total(%)" column in Section III (Project Cost Estimate).

Section III. Project Cost Estimate

All project costs, for all phases and by all funding sources, must be accounted for on this form.

- i. "Total Cost": Round all costs up to the nearest hundred dollars.
- ii. "HSIP/Total (%)": The maximum allowed is the project's Funding Reimbursement Ratio (FRR) as determined in Section II. Click the button to assign the maximum to all, OR enter if not the maximum.
- iii. "HSIP Funds" and "Local/Other Funds" are calculated.

Pay attention to the interactive warning/error messages below the table. The messages, if any, must be fixed, or exceptions should be justified in narrative question No. 3 in the HSIP Application Form.

Project's maximum Funding Reimbursement Ratio (FRR) (from Section II, rounded up to integer)

| 90 |
|----|
|----|

Set

To set all "HSIP/Total (%)" in the below table to the above maximum FRR, click "Set":

| Description | Total Cost | HISP/Total (%) | HSIP Funds | Local/Other Funds |
|---|---|-------------------|------------|-------------------|
| | Preliminary E | ngineering (PE) | Phase | |
| Environmental | \$0 | 0 % | \$0 | \$0 |
| PS&E | \$0 | 0 % | \$0 | \$0 |
| Subtotal - PE | \$0 | % | \$0 | \$0 |
| | Right of W | /ay (ROW) Pha | se | |
| Right of Way Engineering | \$0 | 0 % | \$0 | \$0 |
| Appraisals, Acquisitions & Utilities | \$0 | 0 % | \$0 | \$0 |
| Subtotal - Right of Way (ROW) | \$0 | % | \$0 | \$0 |
| | Construct | ion (CON) Phas | 5e | |
| Construction Engineering (CE) | \$129,000 | 0 % | \$0 | \$129,000 |
| Construction Items | \$1,286,600 (Read only - from Section I) | 27 % | \$349,955 | \$936,645 |
| Subtotal - Construction | \$1,415,600 | 24.7 % | \$349,955 | \$1,065,645 |
| PROJECT TOTAL | \$1,415,600 | 24.7 % | \$349,955 | \$1,065,645 |

Agency does NOT request HSIP funds for PE Phase (automatically checked if PE - HSIP funds is \$0).

Interactive Warning/Error Messages:

If there are any messages in the below box, please fix OR explain justification for exceptions in narrative question No.3 in the HSIP application form.

Section IV: Summary

This section is generated automatically once the data entry and calculation have been completed. Transfer the "Total Project Cost" and the "HSIP Funds Requested" to Page 2 of the HSIP Application Form.

Total Project Cost, HSIP Funds Requested and Maximum Funding Reimbursement Ratio:

| Total Project Cost: | \$1,415,600 |
|----------------------------------|-------------|
| HSIP Funds Requested: | \$349,955 |
| Max Funding Reimbursement Ratio: | 90% |

HSIP Cycle 12 Application – Engineer's Checklist (For Set-aside Applications)

This application checklist is to be used by the engineer in "responsible charge" of the preparation of this HSIP application, based on the final application and application attachments as submitted to Caltrans. The engineer's initials and stamp should not be placed until the application has been finalized.

The purpose of this checklist is to ensure all of the primary elements of the application are included and the application is free of errors. Applications with errors in the supporting data will not be considered in the project selection process.

Special Considerations for Engineers before signing and stamping this document attesting to the accuracy of the application: Chapter 7; Article 3; Section 6735 of the Professional Engineer's Act of the State of California requires engineering calculations or reports be either prepared by or under the responsible charge of a licensed civil engineer. Since the corresponding HSIP application defines the scope of work of a future civil construction project and requires complex engineering principles and calculations which are based on the best data available at the time of the application, the application must be signed and stamped by a licensed civil engineer. By signing and stamping this document, the engineer is attesting to this application's technical information and engineering data upon which local agency's recommendations, conclusions, and decisions are made. This action is governed by the Professional Engineer's Act and the corresponding Code of Professional Conduct, under Sections 6775 and 6735.

1. Vicinity map /Location map

- a. The project limits must be clearly depicted in relation to the overall agency boundary
- 2. **Project layout-plan** showing existing and proposed conditions must:
 - a. Be to a scale which allows the visual verification of the overall project limits
 - b. Show the full scope of the proposed project, including any non-safety construction items
- 3. Scope of Work:
 - a. The scope of work must be consistent with the type of the funding set-aside that the application targets at

4. Detailed Engineer's Estimate and Project Cost Estimate (HSIP Analyzer – Sections II & III)

- a. All likely construction costs associated with the project are identified and included in Section II (Construction Cost Estimate and Cost Breakdown)
- b. Each of the main project elements are broken out into separate construction items. The costs for the construction items are based on calculated quantities and appropriate corresponding unit costs
- c. For each non-general construction item, "Set-aside", Other Safety" and "Non-Safety" components must be properly identified and accounted for
- d. The Total Construction Cost in Section II must match the "Construction Items Total Cost" in Section III (Project Cost Estimate) (automatic in the HSIP Analyzer)
- e. The project costs of all phases must be properly accounted for in Section III

5. Additional narration, documentation, letters of support:

a. The answers to the "Narrative Questions" in the application form are consistent with and support the engineering logic

1 | Page

Engineer's Initials: _____

Engineer's Initials: ______

Engineer's Initials:



Engineer's Initials: 7

Signature and Stamp Page

| Licensed Engineer: | Engineer's Stamp: |
|---|--------------------------|
| Name: Mile Roberts Public Works Director/ city Engineer | STRED PROFESSIONA |
| Engineer License Number: <u>C50426</u> | No. C50426 |
| Signature: 111-11-11 | * Exp. <u>6/3 0/25</u> * |
| Date: <u>9/9/2024</u> | FIT OF CALIFORNIA |
| Email: MikeRobertsaberenesca.gov | |
| Date: Email: <u>MikeRobertsaherenlesca.gov</u> Phone: <u>(516)799-924</u> | |

To ensure the application's quality and the agency's commitment to deliver the safety project in an expedited manner, the application must be signed by the Agency's Transportation/Traffic Engineering Manager.

By signing this application, the manager is attesting to:

1. All data in the application is accurate and represents the total scope of the planned project;

2. The agency understands the Project Delivery Requirements for the HSIP Program and is prepared to deliver the project per these requirements; and

3. The agency understands if Caltrans staff determine that any of the above requirements are not met, or data is inaccurate, or the application fails to meet the program guidelines and application instructions, the application will be rejected and will not be eligible to receive HSIP funding. Due to time constraints in the evaluation process, applicants will not be notified until after the selection process is complete. Refer to the Application Instructions for more information.

Transportation Manager:

| Name: Mile Robert |
|--|
| Name: Mile Robert Public Works A. rector/ City Engineer |
| Signature: |
| Date: 9/9/2024 |

2 | Page

1. City of Hercules – Vicinity Map



1. City of Hercules – Vicinity Map





| CONSTRUCTION NOTES: | LEGEN |
|---|----------|
| INSTALL CURB RAMP PER CALTRANS STD PLAN A88A | |
| INSTALL REINFORCED CONCRETE RETAINING WALL (HEIGHT 4'± TO 10'±). SEE SECTION A-A THIS SHEET | T VARIES |
| ADJUST TO GRADE UTILITY BOX | ↔ |
| RELOCATE SIGN & POST | |
| RELOCATE CLOCK TOWER | |
| 6 REMOVE ISLAND TO INSTALL BIKE LANE | |
| 7 INSTALL SIGN R81 (CA) ON NEW POST | |
| 8 INSTALL SIGN R10-15b ON NEW POST | |

| | | SYCAMORE MULTIPURPOSE PATH AND BIKE LANE PROJECT |
|---|--------------------------|---|
| | | NO. DESCRIPTION BY DATE 19 1 1 1 |
| | | City of Hercules Engineering Department 111 Civic Drive Hercules, CA 94547 Tel: (510) 799-8244, Fax: (510) 799-8249 www.ci.hercules.ca.us |
| | | Post Deleccion Deleccion Post 255.456 Beleccion |
| END: CONCRETE BIKE PATH (4" CONC OVER 4" AB) LED PEDESTRIAN LIGHT | SCALE: 1"=20' | SYCAMORE AVENUE |
| APPROXIMATE CITY RIGHT OF WAY | EXHIBIT JULY 12, 2022 | Scale: As Shown Design By: MA Drawn By: MA Checked By: RB Sheet Number 1 1 of 6 Sheets |









| | INSTALL CURB RAMP PER CALTRANS STD PLAN A88A |
|---|---|
| | INSTALL REINFORCED CONCRETE RETAINING WALL (HEIGHT VARIES 4' \pm TO 10' \pm). SEE SECTION A-A THIS SHEET |
| 3 | ADJUST TO GRADE UTILITY BOX |
| | RELOCATE SIGN & POST |
| 5 | RELOCATE CLOCK TOWER |
| 6 | REMOVE ISLAND TO INSTALL BIKE LANE |
| | INSTALL SIGN R81 (CA) ON NEW POST |
| 8 | INSTALL SIGN R10-15b ON NEW POST |

| | | SYCAMORE MULTIPURPOSE PATH AND BIKE LANE PROJECT |
|-----------------------|---|---|
| MATCHLINE: SEE PAGE 5 | | NO. DESCRIPTION BY DATE 8249 |
| | | City of Hercules Engineering Department Engineering Department 111 Civic Drive Hercules, CA 94547 Tel: (510) 799-8244, Fax: (510) 799-8249 www.ci.hercules.ca.us |
| | SCALE: 1"=20' | Participant Participant Date Date Date Date |
| LEGEND: | CONCRETE BIKE PATH (4" CONC OVER 4" AB) | No. 87131 |
| \$ | LED PEDESTRIAN LIGHT APPROXIMATE CITY RIGHT OF WAY | SYCAMORE AVENUE |
| ≫. → | BIKE FACILITIES | Scale: As Shown Design By: MA Drawn By: MA Checked By: RB Sheet Number 4 of 6 Sheets |





City of Hercules

Sycamore Multipurpose Path and Bike Lane Project

Preliminary Submittal - Engineer's Estimate

| tem # | Description | Quantity | Unit | Unit Price | Item Total |
|-------|---|-----------------|------|--------------|-------------|
| | Miscellaneous Items | Quantity | onne | | |
| 1 | Mobilization | 1 | LS | \$49,800.00 | \$49,800 |
| 2 | Traffic Control | 1 | LS | \$29,900.00 | \$29,900 |
| 3 | Storm Water Pollution Control | 1 | LS | \$5,000.00 | \$5,000 |
| 4 | Clearing & Grubbing | 1 | LS | \$10,000.00 | \$10,000 |
| | Demolition | | | | |
| 5 | Remove Concrete Median | 300 | SF | \$5.00 | \$1,500 |
| 6 | Remove Landscape Area | 7,800 | SF | \$1.00 | \$7,800 |
| | Improvements | | | | |
| 7 | Install Concrete Bike Path | 7,800 | SF | \$30.00 | \$234,000 |
| 8 | Install PCC Curb & Gutter | 100 | LF | \$100.00 | \$10,000 |
| 9 | Install PCC Curb Ramp | 4 | EA | \$8,000.00 | \$32,000 |
| 10 | Reinforced Concrete Retaining Wall | 1 | LS | \$300,000.00 | \$300,000 |
| 11 | Pedestrian Light (Including Pull Boxes, Conduits, Conductors) | 6 | EA | \$15,000.00 | \$90,000 |
| 12 | Adjust to Grade Utility Box | 3 | EA | \$1,000.00 | \$3,000 |
| 13 | Relocate Clock Tower | 1 | EA | \$50,000.00 | \$50,000 |
| 14 | Railroad Permit | 1 | LS | \$100,000.00 | \$100,000 |
| | Signing & Striping | | | | |
| 15 | Detail 39 | 4,000 | LF | \$5.00 | \$20,000 |
| 16 | Detail 39A | 1,430 | LF | \$5.00 | \$7,150 |
| 17 | 6" White Stripe Spaced at 15' | 250 | LF | \$6.00 | \$1,500 |
| 18 | 12" White Stripe | 470 | LF | \$5.00 | \$2,350 |
| 19 | Bike Lane (Greenback) | 6,910 | SF | \$15.00 | \$103,650 |
| 20 | Bike Lane Symbol with Person | 16 | EA | \$500.00 | \$8,000 |
| 21 | Bike Lane Arrow | 9 | EA | \$300.00 | \$2,700 |
| 22 | Type IV Arrow | 6 | EA | \$300.00 | \$1,800 |
| 23 | Type VII (R) Arrow | 1 | EA | \$400.00 | \$400 |
| 24 | Install Sign R81 (CA) on New Post | 4 | EA | \$500.00 | \$2,000 |
| 25 | Install Sign R10-15b on New Post | 3 | EA | \$500.00 | \$1,500 |
| 26 | Relocate Sign & Post | 1 | EA | \$750.00 | \$750 |
| | | | | Subtotal | \$1,074,800 |
| | | 20% Contingency | | | \$214,960 |

Studies/Plans (3% of Total) \$39,000

Final Design (10% of Total) \$129,000

Construction Management (10% of Total) \$129,000





Existing Conditions – Looking North along Sycamore Avenue at Railroad/Freeway Overcrossings Sycamore Avenue Bicycle & Pedestrian East-West City Connector Project





Existing Conditions – Looking South along Sycamore Avenue from Willow Ave

Sycamore Avenue Bicycle & Pedestrian East-West City Connector Project

Scope of Work:

The city of Hercules is divided by the I-80 and SR 4 freeways, making it difficult for non-motorists to travel between the east and west sides of town. The only options are to use Sycamore Avenue or the Willow Avenue interchange, which is currently the only connection across SR 4. There are recreational bike and pedestrian trails east of I-80, along Refugio Creek, and on parts of the San Francisco Bay Trail. Some nearby roads have bike lanes, such as San Pablo Avenue, Willow Avenue, and Refugio Valley Road. However, there are gaps in the network, the most significant being the Sycamore Avenue Corridor.

To solve this problem, this project will install a 10-ft wide multipurpose pathway and Class II bicycle lanes in the Sycamore Avenue Corridor, under the I-80 and the BNSF railroad overcrossing. On the south side of Sycamore Avenue, this new pathway will link the bike lanes on San Pablo Avenue to the bike lane on Sycamore Avenue at Refugio Valley Road and a multipurpose pathway in Refugio Park leading out the Refugio Valley. On the north side, a bike lane will connect the Creekside Center to a 10 ft multipurpose trail that will be installed westerly, tying into the recently installed multipurpose trail leading to John Muir Parkway, and ultimately to the planned Regional Intermodal Transit Center on the Hercules waterfront. This will connect the east and west sides of town, thus eliminating a major gap in the pedestrian and bicycle network. The present condition is dangerous for both cyclists and pedestrians. Currently, pedestrians heading west on the north side of Sycamore must climb up a steep dirt footpath and scramble down an even steeper loose gravel area to cross under I-80 and railroad overcrossing. Meanwhile, cyclists must take the outside vehicular lane, which has limited sight distance due to the bridge column and poor visibility because of the shadows from the overcrossing. The danger of this situation is demonstrated by the 17 accidents recorded along this section over a recent 4year period. This project is particularly important as it is within the last half-mile on the route to the Hercules Transit Center and connects to the San Pablo Avenue Priority Development Area. It is also in close proximity to the Waterfront District Priority Development Area. Crucially, it links all the schools (elementary, middle, and high) on the east side of town to the Civic Center on the west side, which includes the library, city hall, and senior center, as well as with the community swim and teen centers. The project links three different Plan Bay Area 2050 Growth Geographies: the Waterfront and San Pablo Avenue Corridor PDAs to the west, and the Transit-Rich Area, which is centered on the Hercules Transit Center to the east. The entire project is within one mile of a PDA boundary. The completion of this project will improve the safety of pedestrian and cyclist traffic through the Sycamore Avenue Corridor, crossing I-80 and the BNSF railroad overpass. Beyond the project site, this new, safe connection between the east and west of the city will increase the viability of pedestrian and cyclist travel throughout the city of Hercules, creating a safer, more accessible network.



CITY OF HERCULES Mike Roberts, Public Works Director/City Engineer

Local Roadway Safety Plan (LRSP) Certification

Date: September 9, 2024 Caltrans Local Assistance To:

In order to apply for the local Highway Safety Improvement Program (HSIP) funds, an agency must have completed their Local Roadway Safety Plan (LRSP) or an equivalent of the LRSP, such as Systemic Safety Analysis Report (SSAR), Vision Zero Action Plan or Comprehensive Safety Action Plan. The LRSP or its equivalent must be updated and validated at least every five years. It is strongly recommended that the LRSP (or its equivalent) and its update be approved by the agency's Board or Council.

The City of Hercules certifies that it has completed an LRSP (or its equivalent). The LRSP (or its equivalent) is data driven and facilitates a comprehensive approach to addressing road safety.

You may direct any questions regarding the LRSP to Mike Roberts at (510)799-8241 or MikeRoberts@herculesca.gov.

- Title: PW Director/City Engineer Signature:

Sincerely,

Mike Roberts Public Works Director/City Engineer