

**APPLICATION FORM FOR
CYCLE 8 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)**

DLA-002 (NEW 04/2016)

Application ID 05-Monterey County-2

B/C Ratio (BCR) 0.00

APPLICATION SUMMARY

This summary page is filled out automatically once the application is completed.

After the application is finalized, please save this PDF form using the exact "Application ID" (shown below) as the file name.

Application ID 05-Monterey County-2

Important: Review and follow the [Application Instructions](#) step-by-step as you complete the application. Completing an application without referencing the instructions will likely result in an incomplete application or an application with fatal flaws that will be disqualified from the ranking and selection process.

Submitted By (Agency)
Monterey County

Caltrans District
05

Application Number
2

Out of
2

Project Location

Intersection of Castroville Boulevard and Elkhorn Road in the community of Castroville.
Intersection of Rio Road and Via Nona Marie in the community of Carmel Valley.

Project Description

Using a set-aside for crosswalk enhancements including:
- Castroville Boulevard and Elkhorn Road, install pedestrian activated overhead beacon and streetlights.
- Rio Road and Via Nona Marie, install rectangular rapid flashing beacons.

Countermeasure 1

Countermeasure 2

Countermeasure 3

Total Expected Benefit

Total Project Cost

B/C Ratio (BCR)

**APPLICATION FORM FOR
CYCLE 8 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)****I. Basic Project Information**

Date Caltrans District MPO

Agency County

Total number of applications being submitted by your agency

Application Number (each application must have a unique number)

Contact Person Information

Name (Last, First)

Position/Title of Contact Person

Email Telephone Extension

Address

City Zip Code (Enter only a 5-digit number)

Project Information

Project Location
-Be Brief (Limited to 250 Characters)
-See Instructions

Project Description
-Be Brief (Limited to 250 Characters)
-See Instructions

Functional Classification (For Functional Classification and CRS Maps, Visit http://www.dot.ca.gov/hq/tsip/hseb/crs_maps/)

CRS Map ID (e.g. 08E14) Urban/Rural Area (Visit <http://earth.dot.ca.gov/>)

High-Risk-Rural-Roads (HR3) Eligibility

If this project is not entirely HR3 eligible, what is the approximate total cost percentage that is HR3 eligible? %

Work on the State Highway System

Does the project include improvements on the State Highway System? If no, move on to the next page.
If yes, go to the below question.

Is this a jointly-funded project with Caltrans? (Must be jointly-funded if the project is for intersection safety improvement involving SHS.)

If yes, check this box to confirm a formal Letter of Support from Caltrans - District Traffic is attached to the application. The letter should include estimates of cost sharing.

If no, check this box to confirm a written correspondence from Caltrans District Traffic is attached to the application. The correspondence should indicate that Caltrans does not see issues that would prevent the proposed project from receiving an encroachment permit.

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Set-asides for Guardrail Upgrades and Crosswalk Enhancements/Pedestrian Countdown Heads

Are you applying for funding set-asides?

1. Set-aside for guardrail upgrades? OR

2. Set-aside for crosswalk enhancements at unsignalized locations and/or pedestrian countdown heads at signalized intersections?

If you answer yes to one of the above two questions, no crash data and Benefit/Cost Ratio are needed in Section V. See Instructions for more details about the funding set-asides.

Additional Information

1. Is the project focused primarily on "spot location(s)" or "systemic" improvements?

2. Which of the California's Strategic Highway Safety Plan (SHSP) Challenge Areas does the project address primarily?
(For more information on the SHSP and its Challenge Areas, see: <http://www.dot.ca.gov/SHSP/>)

3. How were the safety needs and potential countermeasures for this project first identified?

4. What is the primarily mode of travel intended to be benefited by this project?

5. Approximate percentage of project cost going to improvements related to motorized travel %

6. Approximate percentage of project cost going to improvements related to non-motorized travel %

7. Is the project focused primarily on "Intersection" or "Roadway" improvement?

Number of Intersections

8. Posted Speed Limit (mph)

9. Average Daily Traffic ([See Instructions](#))

ADT (Major Road)

ADT (Minor Road)

Year Collected

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II. Narrative Questions ([See Instructions](#))

These narrative questions are intended to provide additional project details for the application reviewers and project files. The reviewers will use the information in their "fatal flaw" assessment of the applications. Please make sure that:

- 1) The project scope is eligible for HSIP funding;
- 2) The countermeasures used in the B/C ratio calculation are appropriately applied based on the scope of the project;
- 3) The crash data used in the B/C ratio calculation is appropriately applied based on the scope of the project and countermeasures used;
- 4) The application data and attachments are reasonable and meet generally accepted traffic engineering and transportation safety principles

If significant inconsistencies or errors are found in the application information, the reviewers may conclude that the application includes "fatal flaws" and the application will be dropped from further funding considerations. The applicant will not be notified of findings until after the selection process is complete.

1. Overall Identification of Need

Describe how the agency identified the project as one of its top safety priorities. Was a data-driven safety evaluation of their entire roadway network completed? Do the proposed project locations represent some of the agency's highest crash concentrations?

(Limited to 5,000 characters)

Annually, RMA-PW evaluates reported collisions on all County maintained roads over the last three fiscal years. This analysis identifies high collision locations that are evaluated further, and collision rates are established for the majority of the roads maintained by the County. Based on recent requests from the community RMA-PW has reviewed several uncontrolled pedestrian crossing throughout the County and determined that these locations could benefit from the installation of a pedestrian activated warning beacon system. The RMA-PW reviewed collision histories, vehicle volumes, vehicle speeds, and roadway width when determining what improvements to recommend.

2. Potential for Proposed Improvements to Address the Safety Issues

Describe the primary causes of the collisions that have occurred within the project limits. Are there patterns in the crash types? Clearly demonstrate the connection between the problem and the proposed countermeasures utilized in the Benefit/Cost Ratio calculations. Depending on the nature of the project, explain why the agency choose to pursue "Spot location(s)" or "Systemic" improvements.

(Limited to 5,000 characters)

Note: Safety improvements that do not have countermeasures and crash reduction factors identified in the Excel Benefit Calculator can be included in the project scope and cost estimate as "Other Safety-Related" improvement; they just won't be added to the project's B/C ratio shown in the application.

The proposed improvements will provide beacons to alert the drivers when the crosswalk is in use. Neither of these locations has a collision history or pattern which is why the County is requesting crosswalk set aside funds to make these improvements.

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3. Crash Data Evaluation

What is the source of the crash data? For each countermeasure, describe how the influence areas and the limits of the crash data were established to ensure only appropriate crashes were included in the Collision Summary Report(s), Collision Diagram(s) and B/C calculations.

(Limited to 5,000 characters)

Note: If the project includes multiple locations and multiple countermeasures, group the locations so that within each group, the same countermeasures apply to all locations and their crash data. Describe the location groups. (These location groups must be consistent with the grouping in using the Excel Benefit Calculator.)

Neither of these locations has a collision history or pattern which is why the County is requesting crosswalk set aside funds to make these improvements.

4. Prior Attempts to Address the Safety Issue

List all other projects/countermeasures that have been (or are being) deployed at this location. Applicants must identify all federal funds that have been used or approved within or directly adjacent to the proposed project limits within the last 5 years. (HSIP funding cannot be used to construct the same general type of countermeasures within the same limits within 5 years to ensure agencies do not apply the same Crash Reduction Factors to the same crashes.)

For projects proposing high cost improvements/countermeasures such as shoulder widening and horizontal/vertical realignments, applicants must document that they have installed and monitored low-cost improvements which have not adequately addressed the safety issue ("**incremental approach**").

(Limited to 5,000 characters)

In many of these locations, there is already signage and markings in place. RMA-PW staff have reviewed these locations and have added high-visibility crosswalks, additional warning signs, and advance yield lines where it was deemed appropriate.

Over the past 5 years, Monterey County has applied for grants for the following projects on roadways that are included in this application:

Signage and Striping Audit (Cycle 7) - Conduct a Roadway Safety Signing and Striping Audit on approximately 250 miles of County roads. Based on the the audit findings; replace or relocate existing signs, install new signs, and replace existing striping with detail 22 where warranted. Castroville Boulevard is included in the project.

Castroville Boulevard (HSIP Cycle 5) - Install a modified detail 22 with enhanced marker placement (CM # R33), install a single driver feedback sign (CM # R30), and install flashing beacons at various intersections throughout the corridor (CM # NS8).

Countywide Guardrail (HSIP cycle 2) - Install and upgrade guardrail at 6 locations in Monterey County including, Castroville Boulevard (MP 4.99 to 5.21), Arroyo Seco Road (MP 4.8), Blackie Road (MP 4.53 to 4.59) and River Road (MP 22.4 to 23.3).

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III. Project Cost Estimate

Important: Please review Appendix A of the [Application Form Instructions](#) before you start this section.

1. Construction Cost

The first step is to estimate the project construction cost by using the provided Excel template "Detailed Engineer's Estimate and Cost Breakdown by Countermeasure". Enter the results from the construction cost estimate below.

Total Construction Cost Maximum "HSIP/Total" Percentage (e.g. Enter 90 for 90%)

Cost Breakdown (%) (e.g. enter 20 for 20%. Total is 100.)

CM #1 CM #2 CM #3 Other Safety-Related Costs Non Safety-Related Costs

2. Project Costs - All Phases

Then project costs of all phases must be accounted for, even if substantial elements of the overall project are to be funded by other sources.

Shaded fields are calculated (read only). Round all costs up to the nearest hundred dollars. Once all costs and the desired HSIP/Total ratios are entered, click "Check Cost Estimate" to perform validation. If errors are detected, they will appear below the button. Click it to check again each time when the costs have been revised.

Phase	Total Cost	HSIP/Total (%)	HSIP Funds	Local/Other Funds
Preliminary Engineering	Environmental	<input type="text" value="100"/> (%)	<input type="text" value="\$8,500"/>	<input type="text" value="\$0"/>
	PS&E	<input type="text" value="100"/> (%)	<input type="text" value="\$35,000"/>	<input type="text" value="\$0"/>
	PE Subtotal		<input type="text" value="\$43,500"/>	<input type="text" value="\$0"/>
<input type="checkbox"/> Agency does NOT request HSIP funds for PE Phase (automatically checked if PE - HSIP funds is \$0).				
Right of Way	Right of Way Engineering	<input type="text" value="100"/> (%)	<input type="text" value="\$0"/>	<input type="text" value="\$0"/>
	Appraisals, Acquisitions & Utilities	<input type="text" value="100"/> (%)	<input type="text" value="\$0"/>	<input type="text" value="\$0"/>
	ROW Subtotal		<input type="text" value="\$0"/>	<input type="text" value="\$0"/>
Construction Engineering & Construction	Construction Engineering	<input type="text" value="100"/> (%)	<input type="text" value="\$26,000"/>	<input type="text" value="\$0"/>
	Construction	<input type="text" value="100"/> (%)	<input type="text" value="\$175,000"/>	<input type="text" value="\$0"/>
	CON Subtotal	(Read Only - From "1" above - "Total Construction Cost")	<input type="text" value="\$201,000"/>	<input type="text" value="\$0"/>
Total Cost		<input type="text" value="100"/> (%)	<input type="text" value="\$244,500"/>	<input type="text" value="\$0"/>

No errors have been found in the cost estimate.

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IV. Benefit/Cost Ratio Calculation

Important: Please review Appendix A of the [Application Form Instructions](#) before you start this section.

This section is utilized to calculate the Benefit/Cost (B/C) Ratio (BCR) of the project. Prior to this calculation, applicants are required to complete the following:

1. Use the Excel "Detailed Engineer's Estimate and Cost Breakdown by Countermeasure" template and Section III (Project Cost Estimate) of this application form to complete the construction cost estimate and the overall project cost estimate; and
2. Use the Excel "Benefit Calculator" to calculate the benefits of the safety countermeasures (the final printouts of the benefit calculation results must be provided as one of the application attachments).

1. Project Cost

Read Only - From Section III (Project Cost Estimate)

Total Project Cost

Cost Breakdown (%. Total is 100.)

CM #1 CM #2 CM #3 Other Safety-Related Costs Non Safety-Related Costs **Total: 100%**

2. Countermeasures and Benefits

Enter the Exact Data from the Excel "Benefit Calculator" Results

Crash Data Period: from to

Number of Countermeasures Utilized (Max 3)

	Countermeasures	Life Benefit (\$)
#1	<input type="text"/>	<input type="text"/>
#2	<input type="text"/>	<input type="text"/>
#3	<input type="text"/>	<input type="text"/>

3. BCR Calculation

	Life Benefit	Expected Cost	Resulting BCR
Countermeasure #1	<input type="text"/>	<input type="text" value="\$244,500"/>	<input type="text" value="0.00"/>
Countermeasure #2	<input type="text"/>	<input type="text" value="\$0"/>	<input type="text" value="0.00"/>
Countermeasure #3	<input type="text"/>	<input type="text" value="\$0"/>	<input type="text" value="0.00"/>
Project's Total (Overall)	<input type="text"/>	<input type="text" value="\$244,500"/>	<input type="text" value="0.00"/>

(Project BCR Used in Ranking)

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V. Implementation Schedule (See Instructions)

The local agency is expected to deliver the project per Caltrans Local Assistance [Safety Program Delivery requirements](#). In order for the milestones to be calculated correctly, all fields needs to be filled in. For steps that are not applicable, enter "0".

Target Date for the Project's Amendment into the FTIP:

01/01/2017

Time for agency to internally staff project and request PE authorization

2

Month(s)

Typical Time for Caltrans and FHWA to process and approve PE authorization

2

Month(s)

Proposed PE Authorization Date:

05/02/2017

(PE Authorization Delivery Milestone)

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

Yes

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

6

Month(s) (0 - 6)

Time to prepare environmental studies request

2

Month(s)

Time to complete CEQA/NEPA studies/approvals

2

Month(s)

See PES Form in the LAPM for Typical studies and permits

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

0

Month(s)

Plan on 18 months minimum for federal process including a condemnation

Time to complete final PS&E documentation

2

Month(s)

Other

2

Month(s)

Expected Completion Date for the PE Phase:

07/01/2018

Time for agency to request CON authorization

2

Month(s)

Typical Time for Caltrans and FHWA to process and approve CON authorization

3

Month(s)

Proposed CON Authorization Date:

11/30/2018

(CON Authorization Delivery Milestone)

Time included for the agency's workload-leveling or construction-window needs

4

Month(s)

Time to award contract with CON contractor (following the federal process, including Board/Council approval, advertise, award, execute and mobilize)

4

Month(s)

Time to complete construction

6

Month(s)

Time included for closing the CON contract

3

Month(s)

Other

2

Month(s)

Expected Completion Date for the CON Phase:

06/29/2020

Time to complete the project close-out process

3

Month(s)

Typical Time for Caltrans and FHWA to process and approve project close-out

3

Month(s)

Expected Completion Date for the project Close-Out:

12/28/2020

(Close-Out Delivery Milestone)

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VI. Application Attachments ([See Instructions](#))

Check All Attachments Included in this Application

- Engineer's Checklist (Required)
- Vicinity map/Location map (Required)
- Project maps/plans showing existing and proposed conditions (Required)
- Pictures of Existing Condition (Required)
- Collision diagram(s) (Required)
- Collision List(s) (Required)
- Collision Summary/Summaries (Required)
- Detailed Engineer's Estimate (Required)
- Excel Benefit Calculator Printout(s) (Required)
- Warrant studies (Required when applicable)
- Letter/email of Support from Caltrans (Required when applicable)
- Additional narration, documentation, letters of support, etc. (Optional)

Cycle 8 HSIP Application – Engineer's Checklist

This application checklist is to be used by the engineer in "responsible charge" of the preparation of this HSIP application to ensure all of the primary elements of the application are included and the application is free of errors in the calculation of the Benefit/Cost Ratio (BCR); allowing the application to be accurately ranked in the statewide selection process. Applications with errors in the supporting data for the BCR calculation will not be considered in the application process.

Special Considerations for Engineers before they Sign and Stamp 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 calculation(s) or report(s) 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.

The following checklist is to be completed by the engineer in "responsible charge" 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 is complete and in final form.

- 1. **Vicinity map /Location map** Engineer's Initials: NA
 - a. The project limits must be clearly depicted in relationship to the overall agency boundary

- 2. **Project layout-plan** showing existing and proposed conditions must: Engineer's Initials: NA
 - a. Be to a scale which allows the visual verification of the overall project limits and the "construction" limits of each safety countermeasure included in the application's BCR
 - b. Show the full scope of the proposed project, including any non-safety construction items
 - c. Show the "Influence Area" for each safety countermeasure (CM) included in the application's BCR
 - d. Show all changes to existing lane and shoulder widths. Label the proposed widths
 - e. Show limits of all roadway excavation/demolition
 - f. Show agency's right of way (ROW) lines. (Also show Caltrans', Railroad, and all other government agencies)

- 3. **Project cross-section** showing existing and proposed conditions. Engineer's Initials: NA
(Only required for projects with roadway excavation, cut/fill slopes, and changes to lane widths)
 - a. Show and dimension: changes, ROW lines, safety countermeasures, etc.

- 4. **Countermeasure Selection** (used throughout the application): Engineer's Initials: NA
 - a. The CMs used are appropriate and reasonable based specifically on the guidance in the HSIP call-for-projects guidelines and application instructions, including Appendix B of the Local Roadway Safety Manual.

- 5. **Crash Data** used in the BCR calculations must be: Engineer's Initials: NA
 - a. From a reliable and well documented source
 - b. Within influence area of CM and applied to CMs using generally accepted traffic engineering principles *(Example: If the CM only addresses the northbound lanes of a divided roadway, then southbound crashes should be excluded.)*
 - c. Accurately shown in collision diagram(s) and collision lists(s) attached to this application.
 - d. Crashes are presented in terms of the number of crashes (**not** the number of injuries and fatalities)
 - e. The most recent crash data available and a minimum 3 years and maximum 5 years of data

6. **Collision Diagram(s)** (Shown separately or combined) Engineer's Initials: NA
- a. Should be to scale with crash locations accurately plotted
 - b. Reveals collision pattern(s) necessary to justify CM(s)
 - c. The influence area for each CM is shown separately on the diagrams (unless the areas are identical)
 - d. All crashes, included in the BCR Calculation, must be clearly shown within the influence area of that CM
 - e. Totals for each Location and/or CM are shown with crashes segregated based on Crash Severity
 - f. The totals shown match the totals shown in the Collision List and Collision Summary

7. **Collision List(s)** (Shown separately or combined) Engineer's Initials: NA
- a. Totals for each Location and/or CM are shown with crashes segregated based on Crash Severity
 - b. If the List(s) includes crashes that were not appropriate to include in the project BCR calculations, these crashes must be crossed through or removed and not included in the totals
 - c. The totals shown match the totals shown in the Collision Diagram and Collision Summary
 - d. Each crash is only counted as one, even if there were multiple victims and/or vehicles involved

8. **Collision Data Summary/Summaries (HSIP Form in Excel)** Engineer's Initials: NA
- a. Totals for each Location are shown with crashes segregated based on Crash Severity
 - b. The totals for each Location/ match the totals shown in the Collision Diagram and Collision List
 - c. One Collision Data Summary is needed for each benefit calculation run. The totals at the bottom of the form match the totals in the Crash Data Table in the benefit calculation run.

9. **Detailed Engineer's Estimate (HSIP Form in Excel)** Engineer's Initials: [Signature]
- a. All likely construction costs associated with the project are identified and included in the estimate
 - b. Each of the main project elements are broken out into separate construction items. The costs for each item are based on calculated quantities and appropriate corresponding unit costs
 - c. Costs for each item are distributed between CMs using a logical method to fairly calculate each CM's cost
 - d. Each CM included in the BCR calculation must represent a minimum of 15% of the construction costs
 - e. "Other Safety" and "Non-Safety" construction items/costs are identified and properly accounted for
 - f. The total construction cost in the estimate must match the "Construction" cost in Section III of the application

10. **Benefit Results and Benefit Summary (Excel Benefit Calculator)** Engineer's Initials: NA
- a. Project locations are grouped appropriately per Appendix A of the application form instructions
 - b. For each of the benefit calculation run, the CMs and crash data shown match the totals shown in the corresponding Collision Data Summary
 - c. The calculation sheets from all benefit calculation runs must be signed by the Engineer in Responsible Charge and attached to the application
 - d. When multiple benefit calculation runs are utilized in a project, the results of all runs are summarized in the Benefit Summary sheet which is also attached to the application

11. **Benefit/Cost Ratio (BCR) Calculation (Section IV of the application form)** Engineer's Initials: NA
- a. The CMs, the crash data period and the benefits by CM shown match the output of the Excel Benefit Calculator / Benefit Summary sheet
 - b. The total project cost in the BCR calculation must match the total project cost in Section III of the application

12. **Warrant studies/guidance (Check if not applicable)** Engineer's Initials: NA
- N/A a. Traffic Signal Warrants – Warrant 4, 5 or 7 met (CA MUTCD): Signal warrants must be documented as having been met based on the CA MUTCD.

13. Additional narration, documentation, letters of support:

Engineer's Initials: *[Handwritten Signature]*

- a. The text in the "Narrative Questions" in the application is consistent with and supports the engineering logic and calculations used in the development of the application's BCR
- b. When needed, clarify non-standard application of countermeasures, crashes and/or costs; appropriate documentation is attached to the application to document the engineering decisions and calculations

Licensed Engineer:

Name:

Title:

Engineer License Number:

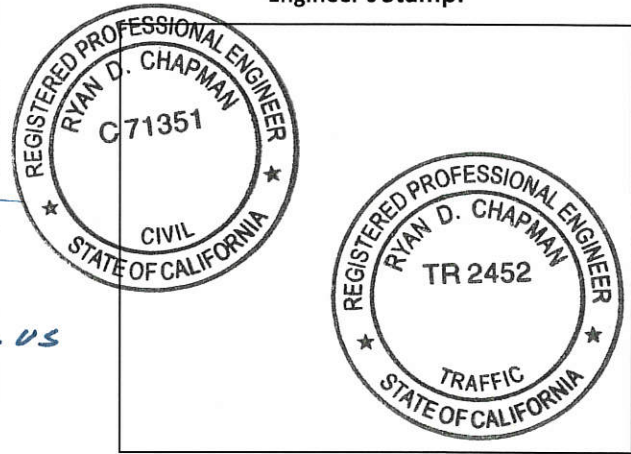
Signature: *[Handwritten Signature]*

Date:

Email:

Phone:

Engineer's Stamp:



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 federal safety funding. Due to time constraints in the evaluation process, applicants will not be notified until after the selection process is complete. Refer to Application Form Instructions for more information.

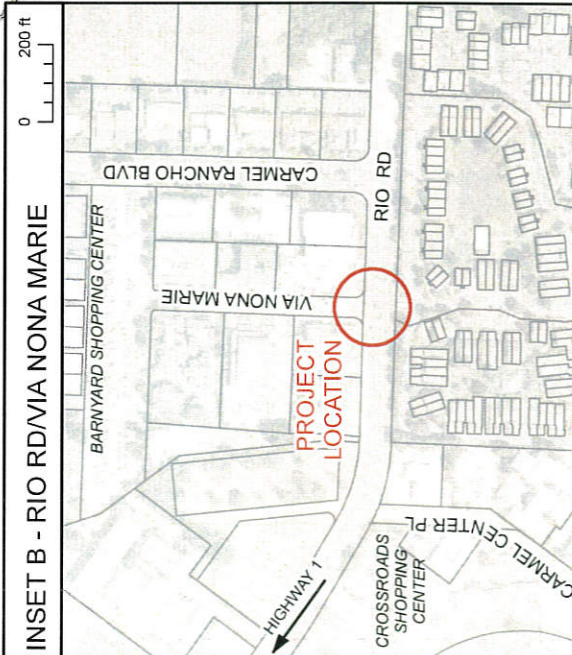
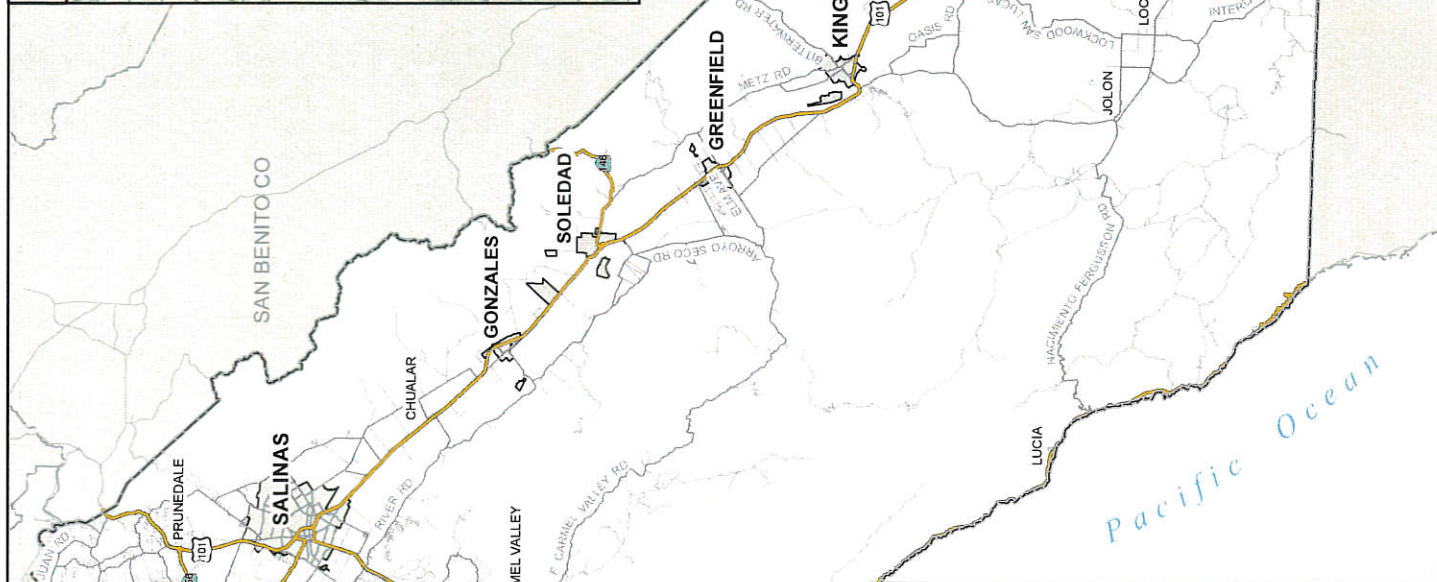
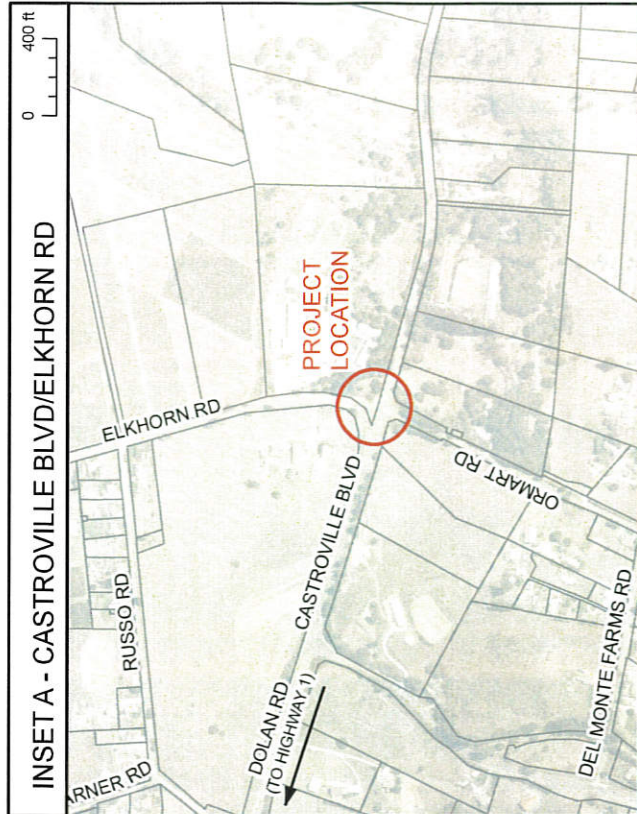
Transportation Manager:

Name:

Title:

Signature: *[Handwritten Signature]*

Date:



CASTROVILLE BLVD AND ELKHORN RD INTERSECTION PROJECT LOCATION SEE INSET A

RIO RD AND VIA NONA MARIE INTERSECTION PROJECT LOCATION SEE INSET B

INSET A - CASTROVILLE BLVD/ELKHORN RD

INSET B - RIO RD/VIA NONA MARIE



County of Monterey
Resource Management Agency
Public Works Division
Map Prepared: 6/10/16



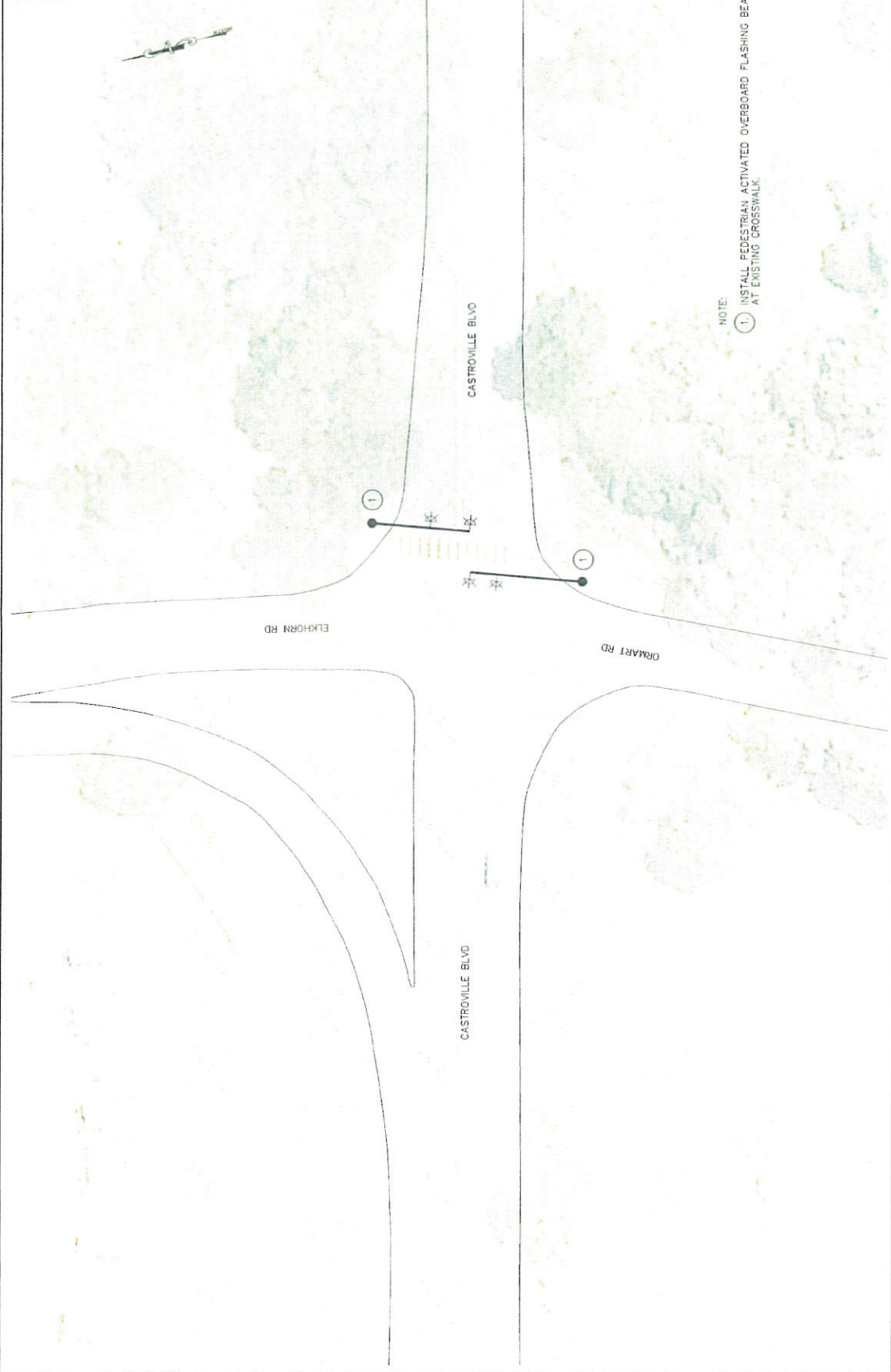
Project Location

Monterey County Boundary

VICINITY MAP

HISP Cycle 8 Monterey County Countermeasure 1

NO.	DATE	DESCRIPTION
1		



NOTE:
 ① INSTALL PEDESTRIAN ACTIVATED OVERBOARD FLASHING BEACON AT EXISTING CROSSWALK.

CASTROVILLE BLVD @ ELKHORN RD
 PROPOSED IMPROVEMENT

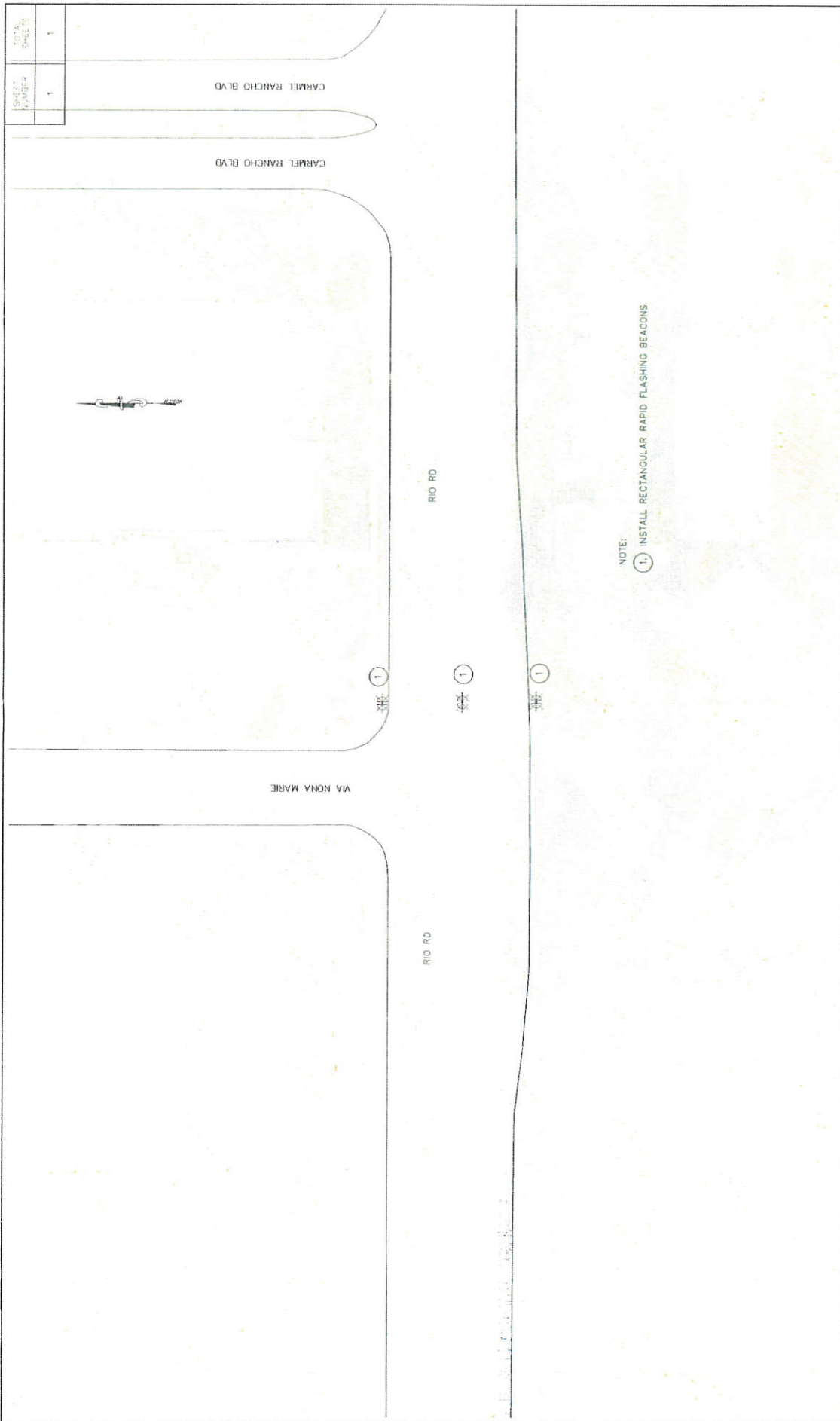
COUNTY OF MONTEREY
 RESOURCE MANAGEMENT AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DESIGN SECTION
 158 WEST CALIFORNIA BLVD, 4TH FLOOR
 SAN JUAN, CALIFORNIA 95001
 (831)755-1800/FAX (831)755-4958



NO.	DATE	REVISION	APPROVED

DESIGNED BY IRVIN CHAPMAN, P.E., T.E.
 CHECKED BY RYAN CHAPMAN, P.E., T.E.
 DRAWN BY J. GILCO
 REVISION BY RYAN CHAPMAN, P.E.
 APPROVAL
 AUTHORIZED BY ENRIQUE M. SAARDEJA, P.E.
 REGISTERED PROFESSIONAL ENGINEER & PUBLIC WORKS

DATE: 6/13/2019
 SCALE: AS SHOWN
 SHEET: P-1



NOTE:
 ① INSTALL RECTANGULAR RAPID FLASHING BEACONS

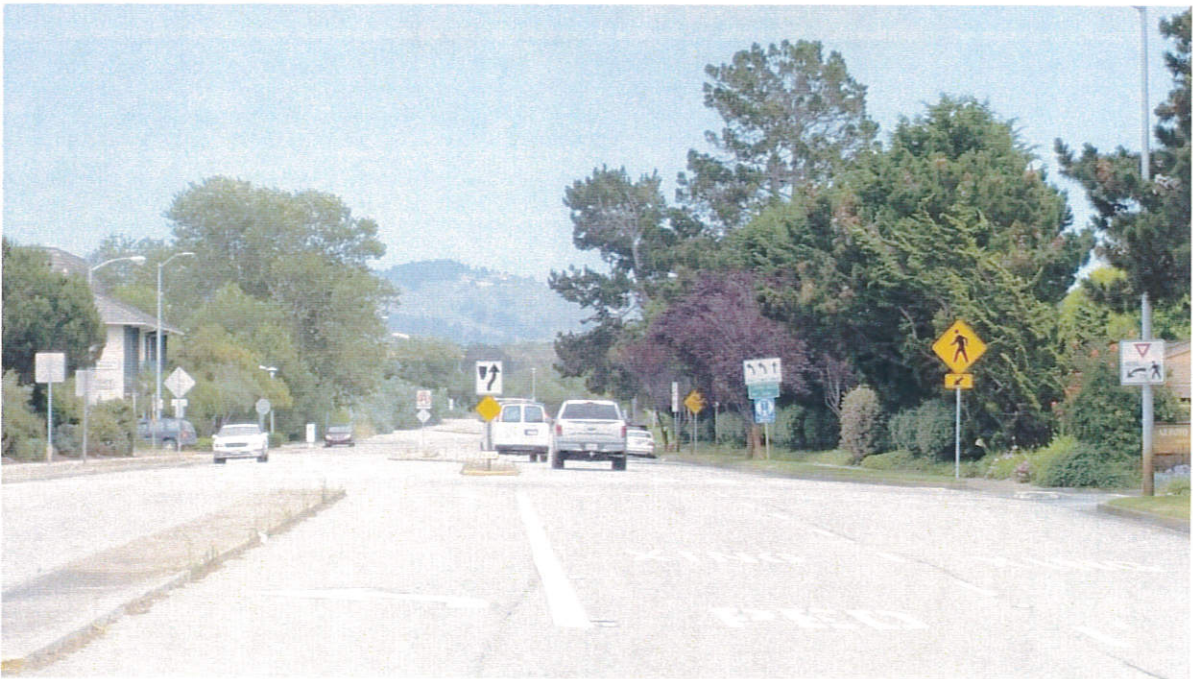
SHEET NUMBER	1
TOTAL SHEETS	1

SUBMITTED BY: RYAN CHAPMAN, P.E., T.E. DESIGNED BY: RYAN CHAPMAN, P.E., T.E. DRAWN BY: J. GUICO WRITTEN BY: RYAN CHAPMAN, P.E. APPROVAL: ENRIQUE M. SAAVEDRA, P.E. <small>REGISTERED PROFESSIONAL ENGINEER - CIVIL</small>		COUNTY OF MONTEREY RESOURCE MANAGEMENT AGENCY DEPARTMENT OF PUBLIC WORKS DESIGN SECTION 188 WEST ALBANY STREET, 2ND FLOOR (831) 755-4800 FAX (831) 755-4858		RIO RD @ VIA NONA MARIE PROPOSED IMPROVEMENT DATE: 6/13/2016 SCALE: NTS SHEET: P-1	
NO.	DATE	REVISION	APPROVED		

Intersection of Castroville Boulevard and Elkhorn Road (Existing Crosswalk)



Intersection of Rio Road and Via Nona Marie (Existing Crosswalk)



Detailed Engineer's Estimate and Cost Breakdown by Countermeasure

For Construction Items Only

Important: before entering any data, read instructions in "Instructions" Tab and Appendix A of the Application Form Instructions.
 Shaded fields (with formulas) are locked (read-only). Only enter data in fields with white background.

Agency:	Monterey County	Application ID:	05-Monterey County-2	Prepared by:	R. Chapman	Date:	6/13/2016
Project Description:	Using a set-aside for crosswalk enhancements including: - Castroville Boulevard and Elkhorn Road, install pedestrian activated overhead beacon a streetlights. - Rio Road and Via Nona Marie, install rectangular rapid flashing beacons.						
Project Location:	Intersection of Castroville Boulevard and Elkhorn Road in the community of Castroville. Intersection of Rio Road and Via Nona Marie in the community of Carmel Valley.						

Item No.	Item Description	Quantity	Unit	Unit Cost	Total	Cost Breakdown														
						Safety-Related Costs						Non Safety-Related Costs								
						Countermeasure #1		Countermeasure #2		Countermeasure #3		Other Safety-Related		Non Safety-Related						
						%	\$	%	\$	%	\$	%	\$	%	\$					
1	Install pedestrian activated overhead beacon a streetlights	1	LS	\$124,050.00	\$124,050	100	\$124,050													
2	Install rectangular rapid flashing beacons.	1	LS	\$35,000.00	\$35,000	100	\$35,000													
3																				
4																				
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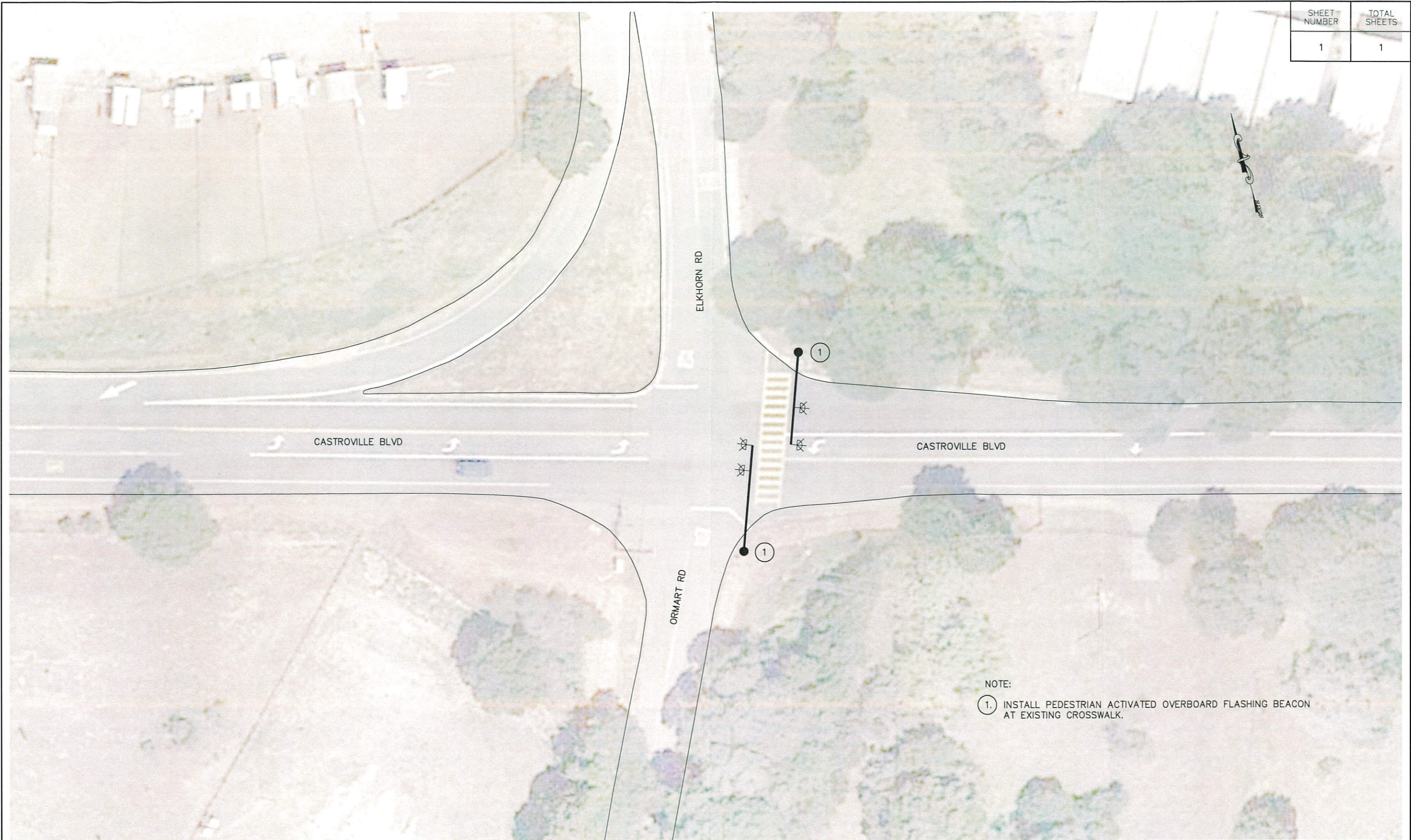
Engineer's Estimate (for Construction Items Only)										Cost Breakdown					
Item No.	Item Description	Quantity	Unit	Unit Cost	Total	Safety-Related Costs			Non Safety-Related Costs						
						Countermeasure #1	Countermeasure #2	Countermeasure #3	Other Safety-Related	Non Safety-Related Costs					
						%	\$	%	\$	%	\$	%	\$		
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
Sub Total of Construction Items:							\$159,050								
% of "Construction Items only" Cost per Countermeasure (Yellow fields - To be entered in Application Form - Section III)							100%								
Construction Item Contingencies (% of Con Items i.e. enter 10 for 10%):															
Enter in the cell to the right															
							10%								
Total Construction Cost (Construction Items & Contingencies):							\$ 175,000								

**Select up to 3 CMs from the dropdown lists below. Use "Delete" key to delete.
Note: the CMs selected below must account for at least 15% of the construction cost per the above estimate.**

CM#1: (No selection)	(Select from Dropdown List)	CM Federal Funding Eligibility (No selection)
CM#2: (No selection)	(Select from Dropdown List)	(No selection)
CM#3: (No selection)	(Select from Dropdown List)	(No selection)

Maximum "HSIP/Total" percentage allowed for this project:

SHEET NUMBER	TOTAL SHEETS
1	1



NOTE:
 ①. INSTALL PEDESTRIAN ACTIVATED OVERBOARD FLASHING BEACON AT EXISTING CROSSWALK.

SUBMITTED BY RYAN CHAPMAN, P.E., T.E.	
DESIGN BY RYAN CHAPMAN, P.E., T.E.	CHKD BY J.P.
DRAWN BY J. GUIÇO	CHKD BY R.C.
SPECIFICATIONS WRITTEN BY RYAN CHAPMAN, P.E.	CHKD BY R.C.
APPROVAL RECOMMENDED BY ENRIQUE M. SAAVEDRA, P.E. <small>ACTING ASSISTANT DIRECTOR OF PUBLIC WORKS</small>	

NO.	DATE	REVISION	APPROVED
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COUNTY OF MONTEREY
 RESOURCE MANAGEMENT AGENCY
 DEPARTMENT OF PUBLIC WORKS
 DESIGN SECTION
 168 WEST ALISAL STREET, 2nd FLOOR
 SALINAS, CALIFORNIA 93901
 (831)755-4800/FAX (831)755-4958

CASTROVILLE BLVD @ ELKHORN RD		
PROPOSED IMPROVEMENT		
DATE 6/13/2016	RELATIVE BORDER SCALE: IN INCHES 0 1 2 3	SHEET P-1
SCALE NTS	VIEW P-1	

SHEET NUMBER	TOTAL SHEETS
1	1



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RIO RD @ VIA NONA MARIE		
PROPOSED IMPROVEMENT		
DATE 6/13/2016	RELATIVE BORDER SCALE: IN INCHES 0 1 2 3	SHEET P-1
SCALE NTS	VIEW P-1	