

Example Application from HSIP-Cycle 5 and HR3-Cycle 3

11-San Diego-1

Countermeasures Used:

R3: Install Median Barrier

R37: Install sidewalk/pathway (to avoid walking along roadway)

Primary reasons this application was selected to show as an Example:

- Simple and clear attachments, including vicinity map, plan view, cross section, collision diagrams and collision summary report
- This application shows how one highly effective countermeasure improvement can support another safety improvement that has little to no past crash history
 - The B/C of countermeasure R3 is 5.40, while the B/C of Countermeasure R37 is 0.0, and the overall B/C is 3.51
 - Applicants must balance this approach with the need to have a B/C ratio higher than the funding cut-off

Changes needed for similar applications in future HSIP calls for projects:

- Application includes extra plan views and collision diagrams that are not needed but are fine to include if they assist the applicant and are well organized
- Starting with the next cycle (Cycle 6), applicants will be required to utilize an Engineer's Cost Estimate similar to the one provided on the HSIP Call-for-Projects website

Highway Safety Improvement Program (HSIP) Project Application



Ulric Street

David Street to Fashion Hills Boulevard



City of San Diego

July 2012

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) PROGRAM CYCLE 5 AND HIGH RISK RURAL ROADS (HR3) PROGRAM CYCLE 3

APPLICATION SUMMARY

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

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

Application ID: 11-San Diego-1

Submitted By (Agency):
San Diego

Caltrans District
11

Application Number
1

Out of
1

Project Location

The project is located within the public right-of-way at Ulric Street between David Street and Fashion Hills Boulevard.

Project Description

This project consists of the installation of a Type 60 concrete barrier in the center of the roadway, the installation of sidewalk on the east side of the roadway and modifying the striping as needed.

Countermeasure 1: R3: Install Median Barrier

Countermeasure 2: R37: Install sidewalk/pathway (to avoid walking along roadway)

Countermeasure 3:

| | | | |
|-------------------------------|----------------|---------------------------|--------------|
| Total Expected Benefit | \$3,135,619.00 | Total Project Cost | \$893,100.00 |
|-------------------------------|----------------|---------------------------|--------------|

B/C Ratio: 3.51

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](#)

The project is located within the public right-of-way at Ulric Street between David Street and Fashion Hills Boulevard.

Project Description
-Be Brief (limited to 250 characters)
-[See Instructions](#)

This project consists of the installation of a Type 60 concrete barrier in the center of the roadway, the installation of sidewalk on the east side of the roadway and modifying the striping as needed.

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/>)

Eligible for HR3 Funding ([See Instructions](#))

Work on the State Highway System ([See Instructions](#))

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 joint-funded project with Caltrans?

- 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

Additional Information

1. Is the project focused primarily on "spot location" 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?

Miles of Roadway

8. Posted Speed Limit (mph)

| 9. Average Daily Traffic | ADT (Major Road) | ADT (Minor Road) | Year Collected |
|------------------------------------|-------------------------------------|----------------------|-----------------------------------|
| (See Instructions) | <input type="text" value="16,000"/> | <input type="text"/> | <input type="text" value="2012"/> |

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

These narrative questions are intended to provide additional project details for the application reviewers and project files. Application reviewers will use the information in their “fatal flaw” assessment of the applications, including:

- 1) The project scope is eligible for HSIP and/or HR3 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 costs included in the application represent the likely total project cost necessary to fully construct the proposed scope. If the proposed project is a piece of a larger construction project, the entire scope of the larger project must be identified.
- 5) 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 Caltrans reviewers may conclude that the application includes one or more “fatal flaws” and the application will be dropped from further funding considerations. The applicant will be notified of Caltrans 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? (limited to 5,000 characters)

This project was first identified in October of 2007. An evaluation of the roadway segment was performed along with an accident analysis. The findings revealed that there have been several accidents where drivers had crossed the center-line into opposing traffic causing head-on-collisions. Our first countermeasure was to reduce the 4 lane roadway to one lane in each direction and create a buffer zone separating the opposing travel lanes by approximately 15 feet. The investigation determined that this segment met the warrants for the installation of Type 60 Barrier.

Since the initial evaluation there have been two head-on accidents and one fatality that could have been prevented. This new data has elevated the priority of this project to high. Additionally the installation of sidewalk on the east side of Ulric Street and updating the pedestrian ramps would enhance safety along this segment.

Several other locations in the City were evaluated for the purpose of competing for HSIP grant funding, However, the subject location correlates the accident pattern with the proposed improvements discussed in the next section for solving the problem.

2. Potential for Proposed Improvements to Correct the Problem

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. (limited to 5,000 characters)

Note: Safety improvements that do not have countermeasures and crash reduction factors identified in the TIMS B/C Calculator can be included in the project scope; they just won't be added to the project's B/C ratio shown in the application.

The road along this segment is .44 miles in length that has a downgrade slope of more than four percent and a horizontal curve. Although the posted speed limit is 40 MPH many drivers due to the steep downgrade drive at higher speeds. Traffic accident data for the past 7.5 years shows nine cross center-line and side swipe accidents including one fatality that occurred during daylight hours.

A significant cause of these collisions are the curvature of the road and the downgrade slope. As shown in the collision diagrams attachment #3 there is a defined pattern in crash type. Most severe and fatal accidents occur when vehicles are driven at high speed and cross the center-line and hit the opposing direction of traffic head-on.

The proposed countermeasures utilized in the Benefit/Cost Ratio calculations (install median barrier and install sidewalk) would eliminate head-on collisions and provide pedestrians a safe place to walk.

3. Crash Data Evaluation

Describe how 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. Explain how the influence areas for each separate countermeasure were established. (limited to 5,000 characters)

In 2007, our office evaluated Ulric Street between Friars Road and Tait Street due to five head-on accidents within a three year period involving vehicles crossing the yellow center-line and colliding with on-coming vehicles. Countermeasures were taken as described in section #4. This location was re-evaluated in 2011. Our data shows that the pattern of head-on, side swipe or hit fixed object accidents continue to occur at this location. These accidents have resulted in one fatality and 14 injuries to motorists and passengers. An accident location map (attachment #7) shows that a majority of accidents occur between Fashion Hills Boulevard and David Street.

Therefore, we recommended countermeasure #1 (install barrier) Caltrans Type 60 Concrete Barrier be installed on the segment of Ulric Street between Fashion Hills Boulevard and David Street. The installation of the barrier will reduce the occurrence and consequences of vehicles crossing the center line and causing accidents that can result in death or life changing injuries. Countermeasure #2 (install sidewalk and upgrade pedestrian ramps) will enhance the safety along this segment.

4. Prior attempts to address the Safety Issue

If appropriate, list all other projects/countermeasures that have been (or are being) deployed at this location. Applicants must identify all prior federal HSIP, HR3 or Safe Routes To School (SRTS) funds approved within or directly adjacent to the propose projects limits within the last 5 years. (limited to 5,000 characters)

May 7, 2008 - A painted double yellow median was installed on Ulric Street between Fashion Hills Boulevard and Tait Street. This change required reducing the number of travel lanes from two lanes in each direction to one lane in each direction. The painted median separates the opposing travel lanes by approximately 15 feet.

5. Total project costs

Describe the process used to establish the total cost for the project. Confirm contingencies for reasonably expected costs, including drainage, environmental, traffic, etc, are included. (limited to 5,000 characters)

Note: For applications with more than one countermeasure used in the B/C calculations, applicants need to describe the logic used to distribute the total project cost to each countermeasure.

The construction of a Type 60 concrete median has been proposed to be installed on Ulric Street from David Street to Fashion Hills Boulevard. Based on the existing site conditions, standard specifications were used to determine the proposed concrete barrier median type and end treatment type along with 11,000 S.F. of missing sidewalk and 2,200 S.F. of retaining wall on the west side of Ulric Street within the project limits. Historic bid item construction contract cost data provided by Caltrans District 11 database for similar projects in size and nature were used to prepare and establish total cost for the project.

The contingencies for expected costs take into account fluctuations in unit pricing costs, any other additional sidewalk replacement costs, and any other additional retaining wall costs. Traffic control, environmental determination exemption, and the associated costs have been included as a separate bid item in the preliminary cost summary.

The total project cost to each countermeasure was based on the construction costs for both the concrete median (65%) and sidewalk (35%).

III. Project Cost Estimate (See Instructions)

All project costs must be accounted for on this form, even if substantial elements of the overall project are to be funded by other sources.

Round all costs up to the nearest hundred dollars. Once all costs 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 | Federal Funds | Local/Other Funds ⁽⁷⁾ | Total Cost | Federal/Total ⁽⁵⁾ | |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------|-----------------|------------------------------|------------|
| Preliminary Engineering | Environmental | \$0 | \$0 | \$0 | |
| | PS&E | \$160,700 | \$17,900 | \$178,600 | |
| | PE Subtotal⁽²⁾ | \$160,700 | \$17,900 | \$178,600 | 90% |
| <input type="checkbox"/> Agency does NOT request federal funds for PE Phase (automatically checked if PE - federal funds is \$0). | | | | | |
| Right of Way | Right of Way Engineering | | | | |
| | Appraisals, Acquisitions & Utilities | | | | |
| | ROW Subtotal⁽³⁾ | | | | 0% |
| Construction Engineering & Construction | Construction Engineering ⁽⁴⁾ | \$0 | \$0 | \$0 | 0% |
| | Construction ⁽¹⁾ | \$643,000 | \$71,500 | \$714,500 | 90% |
| | CON Subtotal | \$643,000 | \$71,500 | \$714,500 | |
| Total Cost⁽⁵⁾⁽⁶⁾⁽⁷⁾ | | \$803,700 | \$89,400 | \$893,100 | |

- (1) The "Total Construction Cost" (including contingencies) must match the detailed Engineer's Estimate (attached to the application).
- (2) "Federal Funds" for Preliminary Engineering may not exceed 25% of the Federal Construction Cost.
- (3) "Federal Funds" for Right of Way may not exceed 25% of the Federal Construction Cost.
- (4) "Federal Funds" for Construction Engineering may not exceed 15% of the Federal Construction Cost.
- (5) "Federal Funds" may not exceed 90% of "Total Cost." This applies to each phase.
- (6) "Federal Funds" may not exceed \$900,000.
- (7) To maintain efficiencies in the overall Program and Project Management, the total "Federal Funds" must be no less than \$100,000 (see Application Form Instructions for exceptions). If needed, agencies should consider extending the project limits and/or adding other safety improvements in order to increase both the Benefits and Costs.

Check Cost Estimate [Per (2) through (7) above]

Congratulations! No errors have been found in the cost estimate.

IV. 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: 01/01/2013

Time for agency to internally staff project and request PE authorization 4 Month(s)

Typical Time for Caltrans and FHWA to process and approve PE authorization 2 Month(s)

Proposed PE Authorization Date: 07/02/2013 **(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 0 Month(s)

Time to complete CEQA/NEPA studies/approvals 0 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 18 Month(s)

Other 0 Month(s)

Expected Completion Date for the PE Phase: 07/02/2015

Time for agency to request CON authorization 2 Month(s)

Typical Time for Caltrans and FHWA to process and approve CON Auth 3 Month(s)

Proposed CON Authorization Date: 12/01/2015 **(CON Authorization Delivery Milestone)**

Time included for the agency's workload-leveling or construction-window needs 3 Month(s)

Time to award contract with CON contractor (following the federal process, including Board/Council approval, advertise, award, execute and mobilize) 6 Month(s)

Time to complete construction 6 Month(s)

Time included for closing the CON contract 3 Month(s)

Other 0 Month(s)

Expected Completion Date for the CON Phase: 05/31/2017

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: 11/29/2017 **(Close-Out Delivery Milestone)**

V. Countermeasures, Crash Data and Benefit/Cost Ratio [\(See Instructions\)](#)

In the process of completing this application, the Local Agency is required to utilize the Benefit/Cost Ratio Calculation Tool that is included in the Safe Transportation research and Education Center (SafeTREC) Transportation Injury Mapping System (TIMS) web site. This **web site** can be assessed at <http://tims.berkeley.edu/>

The final output summary page from TIMS must be included as part of the official application (both electronically and hard copy). The hard copy page must be included in the application following this page.

In order to facilitate the electronic collection and tracking of this data, Caltrans is requiring agencies to manually enter some of the key "input data" and "output data" used in their final TIMS B/C Ratio. *NOTE: If any of the values inputted on this sheet do not match the values from the TIMS B/C Ratio Output Summary sheet, THE APPLICATION WILL BE REJECTED. **Be Careful and confirm the numbers!***

TIMS Application ID: (This ID is generated by this form. TIMS Application ID must match this ID.)

Version (from TIMS) :

Total Project Cost: (This must match the total project cost in Section III.)

Countermeasure Information

Number of countermeasures utilized:

| | Countermeasure | % of Total Project Cost |
|-----|---------------------------------------------------------------------------------------------|-------------------------------------|
| #1: | <input type="text" value="R3: Install Median Barrier"/> | <input type="text" value="65"/> (%) |
| #2: | <input type="text" value="R37: Install sidewalk/pathway (to avoid walking along roadway)"/> | <input type="text" value="35"/> (%) |
| #3: | <input type="text"/> | <input type="text" value="0"/> (%) |

B/C Ratio Calculation

| | Expected Benefit (Life) | Expected Cost | Resulting B/C |
|----------------------------------|------------------------------------------|----------------------------------------|-----------------------------------|
| Countermeasure #1 | <input type="text" value="\$3,135,619"/> | <input type="text" value="\$580,515"/> | <input type="text" value="5.40"/> |
| Countermeasure #2 | <input type="text"/> | <input type="text" value="\$312,585"/> | <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" value="\$3,135,619"/> | <input type="text" value="\$893,100"/> | <input type="text" value="3.51"/> |

VI. Application Data Verification and Signature [\(See Instructions\)](#)

All HSIP/HR3 applications (hard-copies only) must be signed by a registered engineer or the Agency's Transportation Manager in responsible charge of their Traffic Engineering section. By signing and submitting this application, the engineer/manager is attesting to:

1. All data in the application is accurate and represents the total scope of the planned project.
2. All likely project costs are included in the Total Project Cost (additional federal funds for cost increases will not be approved.)
3. Each countermeasure included represents a minimum of 20% of the Total Project Cost.
4. All crash data is: 1) accurately shown in collision diagram(s) attached to this application; and 2) applied to countermeasures using generally accepted traffic engineering principles.
5. The agency understands the Project Delivery Requirements for the HSIP and HR3 programs and is prepared to deliver the project with these requirements;
6. The agency understands if Caltrans staff determine that any of the above requirements are not met, inaccurate, or fail 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 on "fatal flaws."

Name (Last, First): Title: Engineer License Number

Signature*:

Date:

* Note: This signature is only expected on the two hard copies of the application. The electronic copy of this PDF form must be saved in the original format (NOT a scanned copy) so the application data can be extracted.

Application Attachments [\(See Instructions\)](#)

Check all attachments included in this application.

- Vicinity map /Location map (Required)
- Project map showing existing and proposed conditions (Required)
- Collision diagram(s) (Required)
- Collision summary report / list (Required)
- TIMS output summary sheet (Required)
- Detailed Engineer's Estimate (Required)
- Warrant studies (Required when applicable to proposed improvements)
- Letter of Support from Caltrans (Required when applicable)
- Additional narration, documentation, photographs, letters of support, etc.

Application Submittal Process

For applications to be included in the final Caltrans review, ranking and selection process, they must follow the exact submittal process identified in the application instructions. Some of the key requirements are as follows:

- 1). Submit two (2) original copies of the SIGNED application form and attachments;
- 2). On a CD or flash drive, submit electronic copies of
 - The original PDF form with application data. The file name must match the "Application ID" shown on the cover page. This file will be used to extract the application data. It can not be a scanned or printed copy.
 - Separate electronic PDF files for a scanned copy of signed application form and application attachments.
- 3) The above must be submitted to Caltrans Local Assistance [District Local Assistance Engineer \(DLAE\)](#), by Friday, July 20, 2012.

Attachment 1 Vicinity Map



Ulric Drive David Street to Fashion Hills Boulevard



THIS MAP/DATA IS PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Note: This product may contain information reproduced with permission granted by RAND McNALLY & COMPANY to SanGIS. This map is copyrighted by RAND McNALLY & COMPANY. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without the prior, written permission of RAND McNALLY & COMPANY.

Legend

- MAJOR ROAD
- COLLECTOR ROAD
- SITE LOCATION





***Ulric Street
David Street to Fashion Hills Boulevard***

| | | | | |
|-------|--------|-------|---------------|-------------|
| PLANS | COUNTY | ROUTE | POST MILES | SHEET TOTAL |
| | | | TOTAL PROJECT | SHEETS |

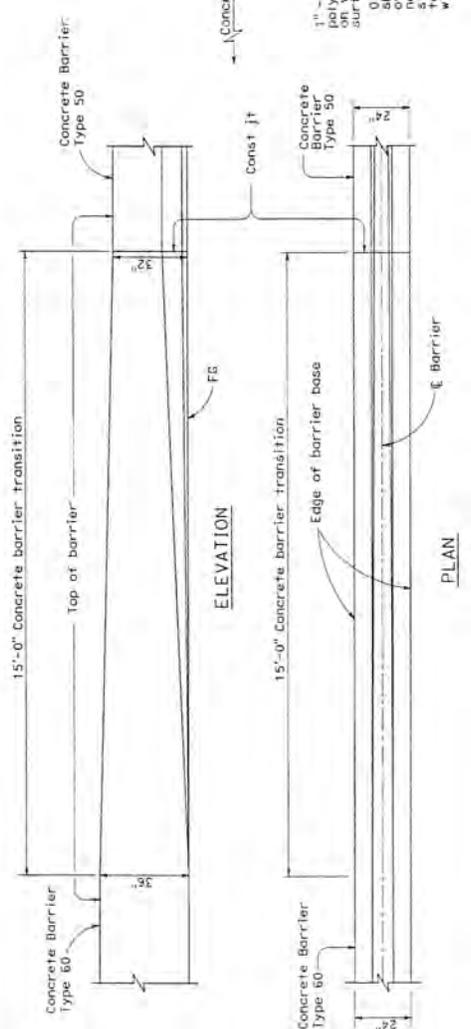
Randall D. Hiett
REGISTERED CIVIL ENGINEER
No. 60030
Exp. 12-31-07

PROFESSIONAL ENGINEER
No. 60030
Exp. 12-31-07

PLANS APPROVAL DATE
MAY 1, 2006

The State of California and its officers do not assume any liability for the accuracy or completeness of these plans and their implementation or execution under any law.

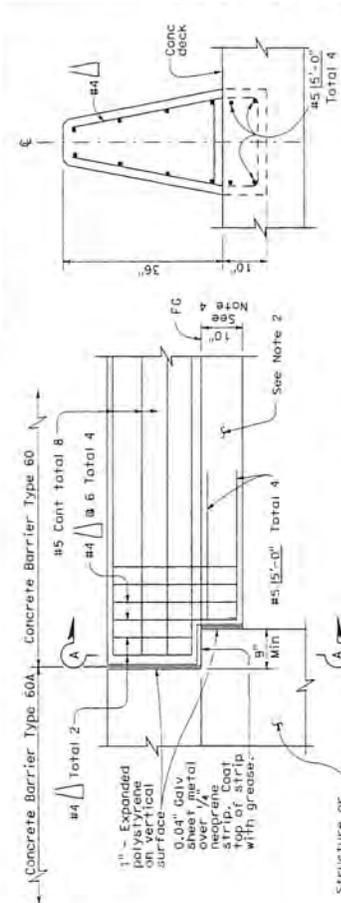
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



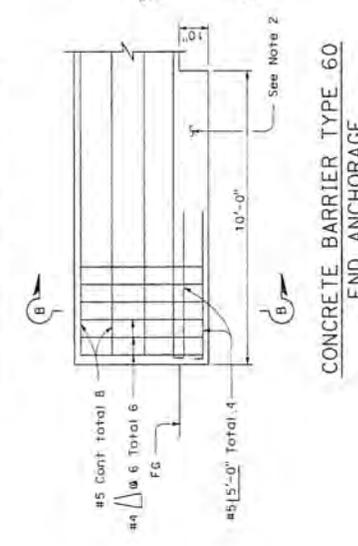
TRANSITION CONCRETE BARRIER TYPE 60 TO CONCRETE BARRIER TYPE 50



TRANSITION CONCRETE BARRIER TYPE 60 TO CONCRETE BARRIER TYPE 60S



CONCRETE BARRIER TYPE 60 CONNECTION TO STRUCTURE



CONCRETE BARRIER TYPE 60 END ANCHORAGE

NOTES:

1. See Standard Plan A76A for Concrete Barrier Type 60 and Type 60A.
2. Footing monolithic or doweled with 2-#8 x 8" @ 2'-0". The footing is required at concrete barrier ends and at interruptions in concrete barrier.
3. Expansion joints in concrete barrier shall be located at all deck, pavement and principal wall joints. Expansion joint filler material shall be the same size as joint or 1/2" minimum.
4. 10" Concrete barrier footing extends 10" back from structure.
5. See Standard Plan A78B for transition to Thrie Beam Barrier.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CONCRETE BARRIER TYPE 60
NO SCALE

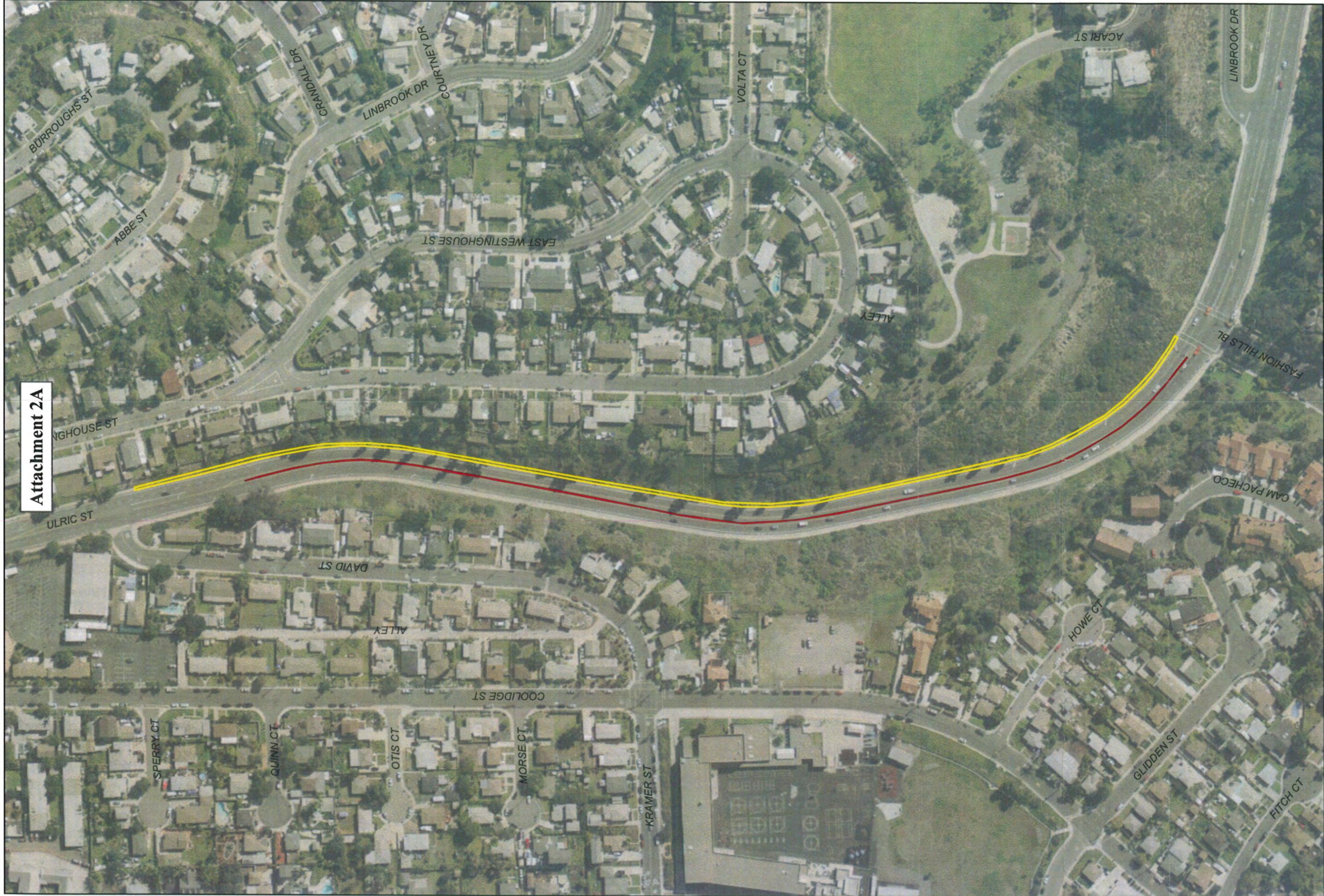
A76B

Attachment 2



**Existing Conditions:
Ulric Street from David Street to Fashion Hills Boulevard**

Attachment 2A



**Proposed Project:
Ulric Street from David Street to Fashion Hills Boulevard**

Legend

-  TYPE 60 CONCRETE BARRIER
-  SIDEWALK

COLLISION DIAGRAM DETAILS

T.C.R.S.
 DATA BASE
 TRAFFIC ENGINEERING
 DIVISION
 March 16, 1999

**SAMPLE
 DIAGRAM**

BUS 12-31 1030 D (H009999)
 <-----O<-----
 WEI SPD-CON, D.U.I. H&R/RE <--- Accident
 Road Primary Third Cause or Hit & Run
 Conditions Cause P1 Body Type

TYPE OF ACCIDENTS

RE=REAR END TYPE
 RA=RIGHT ANGLE
 HO=HEAD-ON
 SS=SIDE-SWIPE SAME
 SO=SIDE-SWIPE OPPOSITE

| PRIMARY CAUSE LEGEND | | | PRIMARY CAUSE LEGEND | | | PRIMARY CAUSE LEGEND | | |
|----------------------|-------------------------------|----------|----------------------------|---------|------------------------------|----------------------|--------------------------|------|
| CODE | DESCRIPTION | CODE | DESCRIPTION | CODE | DESCRIPTION | CODE | DESCRIPTION | CODE |
| AGE | PERSONS AGE WAS A FACTOR | IP-LC-L | IMPROPER LANE CHANGE 2 LT | OFF-RD | RUN**OFF**ROAD | SPD-MIS | SPEEDING UNSPECIFIED | |
| ANIMAL | AVOIDING AN ANIMAL | IP-LC-R | IMPROPER LANE CHANGE 2 RT | OFF-R@C | RUN OFF ROAD @ CORNER | SPD-EXC | SPEED WAS OVER LIMIT | |
| ASLEEP | FELL ASLEEP WHILE DRIVING | IP-MERGE | IMPROP MERGE @ LANE DROP | ONTOP-V | PED RIDING ON TOP VEH | SPD-SLW | DRIVING TOO SLOW | |
| AVD-OBJ | AVOIDING OBJECT IN ROAD | IP-MLT | IMPROPER -MULTI LANE TURN | ON-SDWK | ON - SIDEWALK | SPEED-C | CORNERING TOO FAST | |
| AVD-PED | AVOID HITTING PEDS | IP-P-PV | IMPROP PASS OF PARKED VEH | OPEN-D | OPEN VEHICLE DOOR | STALLED | STALLED VEHICLE | |
| AVOID-V | AVOIDING ANOTHER VEHICLE | IP-PS-L | IMPROPER PASS ON THE LEFT | OTHER | OTHER CAUSES | T-R1@SG | TRAFF STOPPED 4 SIGNAL | |
| CONST | CONSTRUCTION IN THE RW | IP-PS-R | IMPROPER PASS ON THE RIGHT | P-BRAKE | PARKING BRAKE OFF | T-R1-4L | TRAF STOPPED 4 LT-TURN | |
| CROS-CL | CROSSED OVER CENTERLINE | IP-START | IMPROPER START | P-RAN-S | PED RAN THE SIGNAL | T-R1-4P | TRAFFIC STOPPED 4 PED | |
| CR-P-IS | CROSSED PAINTED ISLAND | IP-TSIG | IMPROPER TURN SIGNAL | P-VR1-P | PASSING VEH STOP 4 PED | T-R1-EV | TRAFFIC STOP 4 EMG VEH | |
| DS-FLAG | DISREGARDED THE FLAGGER | IP-TURN | IMPROPER TURN | PED-VIO | PED IN VIOLATION | T-R1-MS | TRAFFIC STOPPED 4 MISC | |
| D.U.I. | UNDER THE INFLUENCE | J WALK | PED CROSSING ILLEGALLY | PREV-AC | PREVIOUS ACCIDENT | T-R1-R1 | TRAF STOP 4 STOP SIGN | |
| EVAD-PD | TRYING TO EVADE THE POLICE | L-C@CV | LOST CONTROL-VEH @ CURVE | PS-RI-V | PASS VEH STOPPED 4 V1 | T-R1-SB | TRAF STOP 4 SCHOOL BUS | |
| FELL | FELL OR TRIPPED | L-C-VEH | LOST CONTROL OF VEHICLE | PURSUIT | IN HOT PURSUIT | US-MV-L | UNSAFE MOVE TO THE LT | |
| FELL-VH | FELL OFF THE VEHICLE | LC-4-LT | CHANGE LANES 4 LT TURN | RAN-R1 | RAN THE STOP SIGN | US-MV-R | UNSAFE MOVE TO THE RT | |
| FLEE-VH | JUMPS OUT OF VEH - EVADING PD | LC-4-RT | CHANGE LANES 4 RT TURN | RAN-R/R | RAN R/R SIGNAL | US-BACK | IMPROPER BACKING | |
| FOOT-SL | FOOT SLIPPED OFF BRAKE | LOAD-SZ | VEH OVERSIZE LOAD OR SIZE | RAN-SIG | RAN TRAFFIC SIGNAL | VIO-SGN | VIOLATED TRAFFIC SIGN | |
| F-OUT-C | FORCED OUT OF CONTROL | M-CONTL | MISSING CONTROLS | RD-ENDS | RUN OFF ROAD @ ROAD END | VPED-RW | VIOLATED PEDS RW | |
| F-T-C | FOLLOWING TOO CLOSE | N-FAULT | NO FAULT IMPLIED | RECKLES | RECKLESS OPERATION | V-VH-RW | VIOLATED VEHS RW | |
| GO-R11 | GOING THE WRONG WAY | N-LITES | LIGHTS OFF OR OUT | RIDE-XG | RIDING IN CROSSWALK | WEATHER | WEATHER | |
| HIT-OBJ | HIT BY OBJECT | N-R1-EV | FAILED 2 STOP 4 EMERG VEH | RUN-RW | PLAY / RUNNING IN ROAD | WET | WET-HYDRO PLAINING | |
| HIT-GAS | HIT GAS BY MISTAKE | N-T-SIG | NO OR IMPROPER TURN SIGNAL | RUN4BUS | HURRY 2 CATCH A BUS | WILLFUL | WILLFUL UNSAFE MOVE | |
| HIT-RUN | INVOLVED HIT & RUN VEH | NO-LICS | UNLICENCED DRIVER | S8-T-LN | IN TURN LN & GO STRAIGHT | WL-L-TN | WRONG LANE LEFT TURN | |
| INATT | INATTENTION | NOVICE | INEXPERIENCED DRIVER | S-FUNCT | SIGNAL NOT-FUNCTIONING | WL-R-TN | WRONG LANE RIGHT TURN | |
| INATT-O | DISTRACTION IN VEHICLE | OBJ-FEL | OBJECT FELL OFF VEHICLE | SLOW-LT | SLOWED 4 LEFT TURN | WR-S-RD | ON WRONG SIDE OF ROAD | |
| I-NC-VH | INVOLVED NON-CONTACT VEH | OBJ-PED | OBJECT FELL-S. & HIT PED | SLOW-RT | SLOWED 4 RIGHT TURN | WR-WAY | WRONG WAY | |
| I-PK-RW | ILLEGALLY PARKED IN RW | OBJ-RD | OBJECT IN ROAD | SPD-CON | SPEEDING 2 FAST 4 CONDITIONS | YIELD@I | YIELD 2 VEH IN INTERSECT | |

Ulric Street (Fashion Hills Boulevard to David Street) Collision Diagram

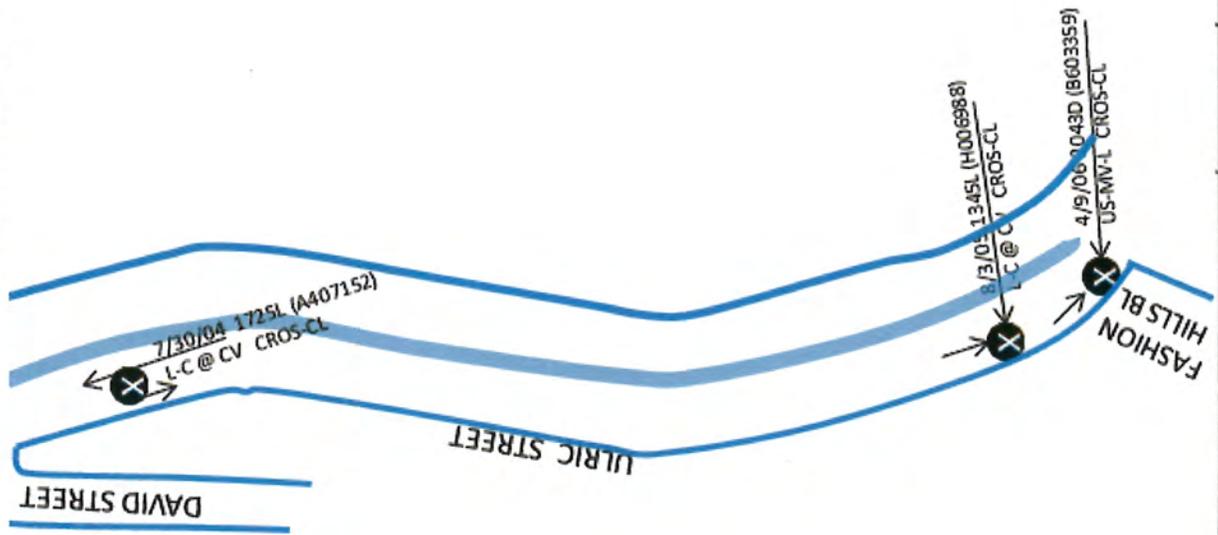
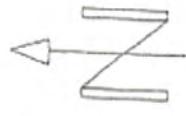
COLLISION DIAGRAM

City of San Diego
Traffic Engineering Division

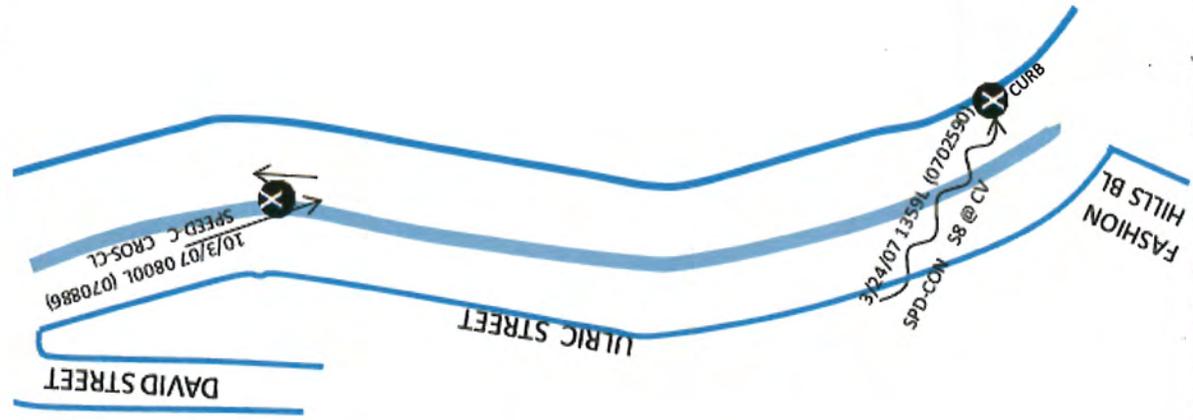
Location:
ULRIC STREET
Signal Y N TwoWay N S E W
Allway Y N OneWay N S E W
Period: 7/30/04 - 12/31/06

| ACCIDENT COUNTS | | | | | |
|-----------------|-----|-----|-------|------|-----|
| Total | PDO | Inj | Fatal | Dark | Wet |
| 3 | 0 | 3 | 0 | 1 | 0 |

| LEGEND | |
|--------|------------------------|
| → | Vehicle Going Straight |
| ↪ | Vehicle Turning Left |
| ↻ | Vehicle Turning Right |
| ↔ | Vehicle Backing |
| ⊥ | Vehicle Stopped |
| ↯ | Vehicle Ran Off Road |
| ↶ | Vehicle Overturned |
| ⊙ | Pedestrian |
| ⊗ | Property Damage |
| ⊛ | Injury |
| ⊚ | Fatal |
| ⊠ | Parked Vehicle |
| ⊡ | Fixed Object |
| △ | Animal |
| ⊙ | Head-on |
| ↯ | Rear-end |
| ↔ | Slipswipe Opposing |
| ↔ | Slipswipe Same |
| ⊙ | Right Angle |
| ↻ | Approach Turn |
| ↻ | Overtaking Turn |



Ulric Street (Fashion Hills Boulevard to David Street) Collision Diagram

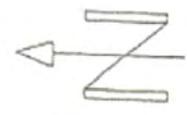


COLLISION DIAGRAM City of San Diego Traffic Engineering Division

Location:
ULRIC STREET
 Signal Y N TwoWay N S E W
 Allway Y N OneWay N S E W
 Period: 1/1/07 - 12/31/09

| ACCIDENT COUNTS | | | | |
|-----------------|-----|-----|-------|----------|
| Total | PDO | Inj | Fatal | Dark Wet |
| 2 | 0 | 3 | 0 | 0 0 |

| LEGEND | |
|--------|------------------------|
| → | Vehicle Going Straight |
| ↶ | Vehicle Turning Left |
| ↷ | Vehicle Turning Right |
| ↵ | Vehicle Backing |
| ⊥ | Vehicle Stopped |
| ↱ | Vehicle Ran Off Road |
| ↻ | Vehicle Overturned |
| → | Pedestrian |
| ⊗ | Property Damage |
| ⊙ | Injury |
| ● | Fatal |
| ◻ | Parked Vehicle |
| ◻ | Fixed Object |
| △ | Animal |
| ⊗ | Head-on |
| ⊙ | Rear-end |
| ↶↷ | Sideswipe Opposing |
| ↵↵ | Sideswipe Same |
| ↱↲ | Right Angle |
| ↶↷ | Approach Turn |
| ↶↷ | Overtaking Turn |



Ulric Street (Fashion Hills Boulevard to David Street) Collision Diagram

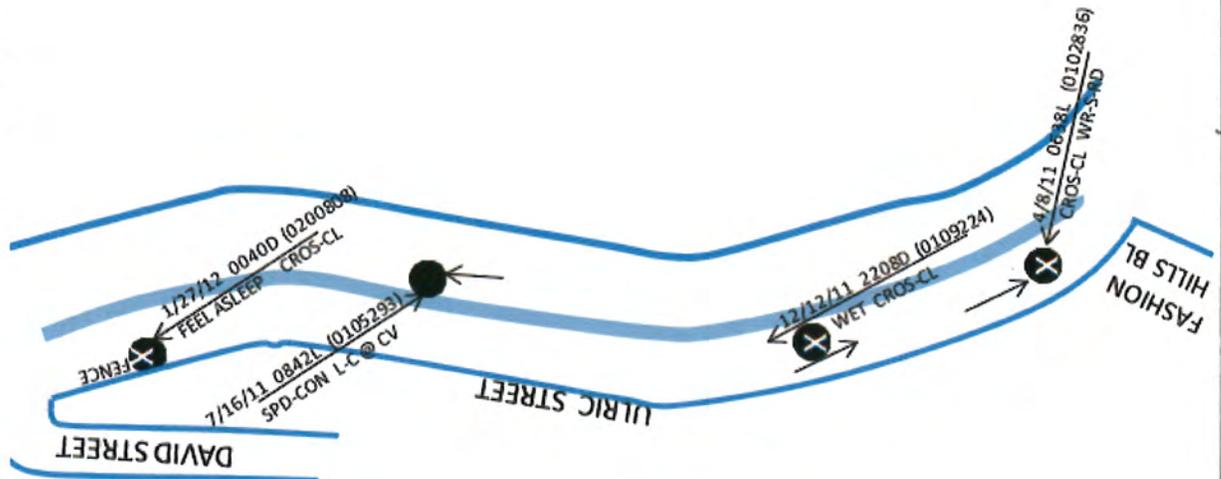
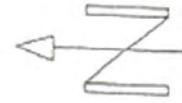
COLLISION DIAGRAM City of San Diego Traffic Engineering Division

Location:
ULRIC STREET
Signal Y N TwoWay N S E W
Allway Y N OneWay N S E W
Period: 1/1/10 - 1/30/12

| ACCIDENT COUNTS | | | | |
|-----------------|-----|-----|-------|----------|
| Total | PDO | Ini | Fatal | Dark Wet |
| 4 | 0 | 8 | 1 | 2 1 |

LEGEND

- Vehicle Going Straight
- ↪ Vehicle Turning Left
- ↩ Vehicle Turning Right
- ↶ Vehicle Backing
- ⊥ Vehicle Stopped
- ↘ Vehicle Ran Off Road
- ↻ Vehicle Overturned
- Pedestrian
- Property Damage
- ⊗ Injury
- Fatal
- ▭ Parked Vehicle
- ▭ Fixed Object
- △ Animal
- Head-on
- ↪ Rear-end
- ↪↪ Sideswipe Opposing
- ↪↪ Sideswipe Same
- ↪↪ Right Angle
- ↪↪ Approach Turn
- ↪↪ Overtaking Turn



Location: ULRIC ST at FASHION HILLS BL to DAVID ST Direction: N S E W Location: I M A D F L R Date Range: 7/30/2004-1/30/2012

| | | | | | |
|--------------------------|---------------------|---------------------|---------------------|--------------------|----------------------|
| Accident Pattern Tally | 1 | 2 | 3 | 4 | 5 |
| Occurred On (Iden) | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST |
| Impact Pt - Dist Dir | 300' N/O (MIDBLOCK) | 268' N/O (MIDBLOCK) | 470' N/O (MIDBLOCK) | 36' S/O (MIDBLOCK) | 955' S/O (MIDBLOCK) |
| Cross Street (Iden) | FASHION HILLS BL | FASHION HILLS BL | FASHION HILLS BL | FASHION HILLS BL | DAVID ST |
| Accident Pattern | HEAD-ON ACCIDENT | HEAD-ON ACCIDENT | HEAD-ON ACCIDENT | HEAD-ON ACCIDENT | HEAD-ON ACCIDENT |
| Party-1: Dir (Make Body) | N (HIT & RUN VEH) | N (PASS-VEH) | N (PASS-VEH) | N (PASS-VEH) | S (PASS-VEH) |
| On | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST |
| Action | MOVE LEFT | DRIFT 2 THE LEFT | SPEEDING | DRIFT 2 THE LEFT | PASSING ON THE RIGHT |
| Party-2: Dir (Make Body) | S (MINI VAN) | S (PASS-VEH) | S (HIT & RUN VEH) | S (PASS-VEH) | N (PICKUP TRUCK) |
| On | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST | ULRIC ST |
| Action | GOING STRAIGHT | GOING STRAIGHT | IN LEFT-HAND CURVE | GOING STRAIGHT | GOING STRAIGHT |
| Sobriety: Party-1 | *UNK | *NOT DRINKING | *NOT DRINKING | *NOT DRINKING | ***** D-U-I ***** |
| Party-2 | *NOT DRINKING | *NOT DRINKING | *UNK | *NOT DRINKING | *NOT DRINKING |
| Injured (Killed) | 1 (0) | 2 (0) | 1 (0) | 1 (0) | 3 (1) |

| | | | | | |
|------------------------|-----|-----|-----|-----|-----|
| No. Vehicles Involved | 2 | 2 | 3 | 2 | 2 |
| Object | N/A | N/A | N/A | N/A | N/A |
| Hit and Run | YES | NO | YES | NO | NO |
| No. of Pedestrians Hit | 0 | 0 | 0 | 0 | 0 |
| Party | -- | -- | -- | -- | -- |
| Ped-1: Age | -- | -- | -- | -- | -- |
| Action | -- | -- | -- | -- | -- |
| Direction | -- | -- | -- | -- | -- |
| Crosswalk | -- | -- | -- | -- | -- |

| | | | | | |
|------------------------|----------------------|----------------------|----------------------|--------------------|----------------------|
| Primary Cause | UNSAFE MOVEMENT-LT | CROSSED CENTERLINE | LOST CONTROL @ CURVE | UNSAFE MOVEMENT-LT | SPEED 2 FAST 4 COND |
| Second Cause | CROSSED CENTERLINE | WRONG SIDE OF ROAD | CROSSED CENTERLINE | CROSSED CENTERLINE | LOST CONTROL @ CURVE |
| Third Cause | UNK -** HIT & RUN ** | RIDING AGAINST TRAFG | SPEED 2 FAST 4 COND | WRONG SIDE OF ROAD | VEH SPUN OUT IN RD |
| Defects: Party-1/DR | UNK / UNK | NO-DEF / NO-DEF | NO-DEF / NO-DEF | NO-DEF / NO-DEF | NO-DEF / D.U.I. |
| Defects: Party-2/DR | NO-DEF / NO-DEF | NO-DEF / NO-DEF | NO-DEF / UNK | NO-DEF / NO-DEF | NO-DEF / NO-DEF |
| Speed (Veh-1, Veh-2) | 55, 35 | UNKNOWN, UNKNOWN | UNKNOWN, UNKNOWN | UNKNOWN, UNKNOWN | 65, UNKNOWN |
| Road Surface | DRY | DRY | DRY | DRY | DRY |
| Weather | FAIR (INC CLOUDY) | FAIR (INC CLOUDY) | FAIR (INC CLOUDY) | FAIR (INC CLOUDY) | FAIR (INC CLOUDY) |
| Light | DARK (INC DUSK/DAWN) | DAYLIGHT | DAYLIGHT | DAYLIGHT | DAYLIGHT |
| Road Condition 1 | CURVE IN ROAD | CENTER MEDIAN- PAINT | N/A | N/A | CENTER MEDIAN- PAINT |
| Road Condition 2 | N/A | CURVE IN ROAD | CURVE IN ROAD | N/A | LANE ENDS-MERGE REQ |
| Visibility Obstruction | N/A | N/A | N/A | N/A | HILL OR CREST |
| Traffic Control | NONE OR N/A | NONE OR N/A | NONE OR N/A | DOUBLE YELLOW C/L | REGULATORY SIGNS |
| Day of Week | SUNDAY | FRIDAY | WEDNESDAY | SUNDAY | SATURDAY |
| Date | 4/9/2006 | 04/08/2011 | 08/03/2005 | 01/16/2005 | 07/16/2011 |
| File Number | B603359 | 0102836 | H006988 | H000519 | 0105292 |
| | 20:43 | 06:38 | 13:45 | 08:45 | 08:42 |

Benefit / Cost Calculation Result

1. Project Information

| | | | |
|----------------|----------------|---------|---|
| Application ID | 11-San Diego-1 | Version | 1 |
|----------------|----------------|---------|---|

2. Countermeasures and Crash Data

• Install median barrier

| CM Number | Project Type | Crash Type | CRF | Life |
|-----------|---------------------------|------------|-----|------|
| R3 | Remove / Shield Obstacles | All | 25 | 20 |

| Crash Type | Fatality (Death) | Severe Injury | Injury - Other Visible | Injury - Complaint of Pain | Property Damage Only | Total |
|------------|------------------|---------------|------------------------|----------------------------|----------------------|-------|
| All | 1 | 1 | 5 | 2 | 0 | 9 |

| | |
|----------------|-------------|
| Annual Benefit | \$156,781 |
| Life Benefit | \$3,135,619 |
| Cost | \$ 580,515 |
| B/C Ratio | 5.40 |

• Install sidewalk / pathway (to avoid walking along roadway)

| CM Number | Project Type | Crash Type | CRF | Life |
|-----------|--------------|------------|-----|------|
| R37 | Ped and Bike | Ped & Bike | 80 | 20 |

| Crash Type | Fatality (Death) | Severe Injury | Injury - Other Visible | Injury - Complaint of Pain | Property Damage Only | Total |
|------------|------------------|---------------|------------------------|----------------------------|----------------------|-------|
| | | | | | | |

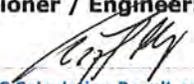
| | |
|----------------|------------|
| Annual Benefit | \$0 |
| Life Benefit | \$0 |
| Cost | \$ 312,585 |
| B/C Ratio | 0.00 |

3. Benefit Cost Result

| | |
|---------------|-------------|
| Total Benefit | \$3,135,619 |
| Total Cost | \$893,100 |
| B/C Ratio | 3.51 |

Safety Practitioner / Engineer: Ty Palusky

Signature:



By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, **DO NOT SIGN** if any of this is not the case.

Hours Worked: _____

**CITY OF SAN DIEGO
PRELIMINARY OPINION OF PROBABLE COST
SUMMARY SHEET**

DATE : 6/26/2012 * PROJ SIZE (Small, Medium, Large, Very Large) : L
 T.R. # 301559 ** COMPLEXITY (Simple, Average, Complex) : S

PROJECT NAME : Ulric St Concrete Barrier Median Alternative 2, 3, & 4

PROJECT LIMITS : Ulric St from David St to Fashion Hills Blvd

COMMUNITY NAME: Linda Vista COUNCIL DISTRICT: 6

PROJECT DESCRIP. : This project will provide concrete barrier median and new sidewalk on
Ulric St for David St to Fashion Hill Blvd

ASSUMPTIONS: This estimate is only good for 3 months.
Environmental exemption.
SWPPP measures.
No property acquisition required.
All private utilities to be relocated by others.

CONSTRUCTION SUB-TOTAL COSTS (from page 4) **\$569,500**

| | | | |
|---------------------------------------------|-----|-----------------------|----------|
| *** CONTINGENCY | 10% | (Computer Calculated) | \$56,900 |
| BOND COSTS @ 2.5% OF CONST | | (Computer Calculated) | \$14,200 |
| **** TRAFFIC CONTROL | 10% | (Computer Calculated) | \$56,900 |
| MOBILIZATION (if const.> \$1,000,000), @ 3% | | (Computer Calculated) | \$17,000 |

CONSTRUCTION TOTAL **\$714,500**

ADMIN. & ENG. DESIGN TOTAL ** @ 25% **\$178,600**

PROPERTY ACQUISITION TOTAL (from page 4) **\$0** Minimum = \$50,000 for small projects

ENVIRONMENTAL DETERMINATION (NON CONSTR) (from page 4) **\$0**

INFLATION LINE ITEM (10% / YEAR) Number of years : 0 **\$0**

TOTAL PROJECT COST **\$893,100**

ROUNDED PROJECT COST **\$893,100**

PREPARED BY : Donald Pornan FIELD CHECKED
X

REVIEWED BY : Brian Genovese

Engineering Administration Costs (based on construction subtotal):
 * S (0-\$100,000) M (\$100,001- \$500,000) L (\$500,001- \$2M) VL (>\$2M- and up)
 ** 35 - 70% 25 - 55% 19 - 51% 17 - 47%
 *** 40% 35% 30% 25%
 **** 10% 7.5% 5% 2.5%

PROJECT: Ulric St Concrete Barrier Median Alternative 2, 3, & 4

| | QUANTITY | UNIT | UNIT PRICE | ITEM COST |
|-----------------------------|----------|-------|------------|-------------|
| SECTION 1: EARTHWORK | | | | |
| EXCAVATION (UNCLASS.) | 222 | C. Y. | \$75.00 | \$16,650.00 |
| UNCLASSIFIED FILL | 0 | C. Y. | \$40.00 | \$0.00 |
| IMPORT (OFF-SITE BORROW) | 0 | C. Y. | \$25.00 | \$0.00 |
| CLEARING & GRUBBING (5%) | 1 | L. S. | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |

TOTAL EARTHWORK **\$16,650.00**

SECTION 2: SURFACE IMPROVEMENTS (ASSUME 'R' VALUE = 10-19)

| | | | | |
|----------------------------|-------|-------|------------|-------------|
| SAWCUT | 80 | L. F. | \$10.00 | \$800.00 |
| REMOVE CURB & GUTTER | 80 | L. F. | \$10.00 | \$800.00 |
| REMOVE SIDEWALK | 520 | S. F. | \$3.00 | \$1,560.00 |
| REMOVE PAVEMENT | 0 | S. F. | \$3.00 | \$0.00 |
| 4" AC ON 13.5" CTB | 0 | S. F. | \$10.00 | \$0.00 |
| A.C. (6") | 0 | S. F. | \$3.25 | \$0.00 |
| C.T.B. (18") | 0 | S. F. | \$1.85 | \$0.00 |
| TYPE G CURB & GUTTER | 0 | L. F. | \$30.00 | \$0.00 |
| SIDEWALK | 11000 | S. F. | \$6.00 | \$66,000.00 |
| CURB RAMPS | 4 | EA. | \$2,500.00 | \$10,000.00 |
| DRIVEWAYS | 0 | S. F. | \$10.00 | \$0.00 |
| STAMPED CONCRETE | 0 | S. F. | \$12.00 | \$0.00 |
| REMOVE MEDIAN | 0 | S. F. | \$5.00 | \$0.00 |
| TYPE B-2 MEDIAN CURB | 0 | L. F. | \$20.00 | \$0.00 |
| REMOVE CROSS GUTTER | 0 | S. F. | \$4.50 | \$0.00 |
| CROSS GUTTER | 0 | S. F. | \$12.00 | \$0.00 |
| POPOUT (incl. sawcut, PCC) | 0 | S. F. | \$12.00 | \$0.00 |

TOTAL SURFACE IMPROVEMENTS **\$79,160.00**

SECTION 3: DRAINAGE

| | | | | |
|------------------------------|---|-------|------------|--------|
| TOT. DRAINAGE (Opt. Lmp Sum) | 0 | L. S. | \$0.00 | \$0.00 |
| STORM PIPE (18") | 0 | L. F. | \$125.00 | \$0.00 |
| STORM PIPE (") | 0 | L. F. | \$0.00 | \$0.00 |
| TYPE "B" INLET | 0 | EA. | \$7,000.00 | \$0.00 |
| INLET REMOVAL | 0 | EA. | \$750.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |

TOTAL DRAINAGE **\$0.00**

PROJECT: Ulric St Concrete Barrier Median Alternative 2, 3, & 4

| | QUANTITY | UNIT | UNIT PRICE | ITEM COST |
|---------------------------|----------|-------|--------------|-------------|
| SECTION 4: TRAFFIC | | | | |
| TRAFFIC SIGNAL MOD | 0 | L. S. | \$0.00 | \$0.00 |
| NEW TRAFFIC SIGNAL | 0 | L. S. | \$160,000.00 | \$0.00 |
| OVERHEAD SIGN | 0 | L. S. | \$0.00 | \$0.00 |
| RELOCATE SIGN | 0 | EA. | \$250.00 | \$0.00 |
| ST. LIGHT (NEW) | 0 | EA. | \$8,000.00 | \$0.00 |
| RELOCATE ST. LIGHT | 0 | EA. | \$2,000.00 | \$0.00 |
| REMOVE STRIPING | 16000 | L. F. | \$3.00 | \$48,000.00 |
| TRAFFIC STRIPING (NEW) | 8000 | L. F. | \$2.00 | \$16,000.00 |
| PAVEMENT MARKER | 0 | EA. | \$500.00 | \$0.00 |
| LIGHTED CROSSWALK | 0 | L. S. | \$40,000.00 | \$0.00 |
| | 1 | L. S. | \$0.00 | \$0.00 |
| TRAFFIC CONTROL | 0 | L. S. | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |

TOTAL TRAFFIC

\$64,000.00

SECTION 5: LANDSCAPING

| | | | | |
|--------------------------|---|-------|----------|--------|
| REMOVE TREES | 0 | EA. | \$500.00 | \$0.00 |
| PLANT TREES | 0 | EA. | \$650.00 | \$0.00 |
| REMOVE IRRIGATION | 0 | L. F. | \$5.00 | \$0.00 |
| SLOPE PROTECTION | 0 | L. S. | \$0.48 | \$0.00 |
| MEDIAN LANDSCAPE | 0 | S. F. | \$22.00 | \$0.00 |
| LANDSCAPING | 0 | S. F. | \$12.00 | \$0.00 |
| LANDSCAPING & IRRIGATION | 0 | S. F. | \$20.00 | \$0.00 |

TOTAL LANDSCAPING

\$0.00

SECTION 6: MISCELLANEOUS ITEMS

| | | | | |
|---------------------------------|------|-------|-------------|--------------|
| SPLIT BLOCK RETAINING WALL | 2200 | S. F. | \$50.00 | \$110,000.00 |
| FREE STANDING WALL | 0 | S. F. | \$0.00 | \$0.00 |
| NEW FENCE | 0 | L. F. | \$25.00 | \$0.00 |
| REMOVE ENTRY MEDIAN | 0 | S. F. | \$0.00 | \$0.00 |
| RELOCATE FENCE | 0 | L. F. | \$20.00 | \$0.00 |
| CONCRETE BARRIER (TYPE 60S) | 2000 | L. F. | \$100.00 | \$200,000.00 |
| CRASH CUSHION (QUADGUARD ELITE) | 2 | EA. | \$50,000.00 | \$100,000.00 |
| | 0 | L. S. | \$0.00 | \$0.00 |
| STORM WTR PREVENTION MEAS | 1 | L. S. | \$0.00 | \$0.00 |
| TEMP (5%) PERM (10%) | | | | |

TOTAL MISCELLANEOUS

\$410,000.00

PROJECT: Ulric St Concrete Barrier Median Alternative 2, 3, & 4

QUANTITY UNIT UNIT PRICE ITEM COST

SECTION 7: UTILITY RELOCATION & ADJUSTMENT

| | | | | |
|---------------------------------|---|-----|------------|--------|
| ADJUST MANHOLES, VALVES, METERS | 0 | EA. | \$500.00 | \$0.00 |
| RELOCATE FIRE HYDRANT | 0 | EA. | \$5,000.00 | \$0.00 |
| ADJUST MANHOLE | 0 | EA. | \$0.00 | \$0.00 |
| INSTALL METER BOX | 0 | EA. | \$4,000.00 | \$0.00 |

TOTAL UTILITY RELOCATIONS \$0.00

SECTION 8: STRUCTURES

| | | | | |
|---------------|---|-------|----------|--------|
| BRIDGE - AREA | 0 | S. F. | \$250.00 | \$0.00 |
| | 0 | | \$0.00 | \$0.00 |

TOTAL STRUCTURES COST \$0.00

CONSTRUCTION COSTS SUB-TOTAL \$569,810

ENVIRONMENTAL COSTS

| | | | | |
|---------------------------------|---|-------|------------|--------|
| ENVIRON MITIGATION (NON CONSTR) | 0 | L. S. | \$0.00 | \$0.00 |
| ENVIRONMENTAL DETERMINATION | 0 | L. S. | \$5,000.00 | \$0.00 |
| | | | | |

TOTAL ENVIRONMENTAL COSTS \$0.00

PROPERTY ACQUISITION COSTS

By Prelim. Eng.:

| | | | | |
|----------------|---|-------|--------|--------|
| RIGHT-OF-WAY | 0 | S. F. | \$0.00 | \$0.00 |
| SLOPE EASEMENT | 0 | S. F. | \$0.00 | \$0.00 |
| STRUCTURES | 0 | EA. | \$0.00 | \$0.00 |

-- OR --

By Property Dept.:

| | | | | |
|----------|---|-------|--------|--------|
| COMBINED | 0 | L. S. | \$0.00 | \$0.00 |
|----------|---|-------|--------|--------|

TOTAL PROPERTY ACQUISITION COSTS \$0

Attachment 8
ULRIC STREET



ULRIC STREET @ FASHION HILLS BL.

LOOKING NORTH



ULRIC STREET NORTH OF FASHION HILLS BL.

LOOKING NORTH