AGENDA
TRANSPORTATION AGENCY FOR MONTEREY COUNTY
SERVICE AUTHORITY FOR FREEWAYS EMERGENCIES
AND
MONTEREY COUNTY REGIONAL DEVELOPMENT IMPACT FEE
JOINT POWERS AGENCY

Meeting of April 27, 2016

Agricultural Center Conference Room
1428 Abbott Street
Salinas, California
9:00 AM

WIFI INFO:
Network: ABBOTT CONF-GUEST
Password (all caps): 1428AGGUEST

(Agendas are on display and are posted 72 hours prior to the scheduled meeting at the Transportation Agency office and at these public libraries: Carmel, Monterey, Salinas Steinbeck Branch, Seaside, Prunedale, King City, Hartnell College, Monterey Peninsula College, and Cal State University Monterey Bay. Any person who has a question concerning an item on this agenda may call the Transportation Agency office at 831-775-0903 to make inquiry concerning the nature of the item described on the agenda.) The agenda and all enclosures are available on the Transportation Agency website: www.tamcmonterey.org, by clicking on Transportation Agency Board, meetings & agendas, click on agenda item and open it, click on report attachments listed at end of report.

1. **QUORUM CHECK – CALL TO ORDER.** Transportation Agency by-laws require a quorum of a minimum of 9 voting members, including a minimum of 7 city representatives and 1 county representative.
If you are unable to attend, please contact your alternate. Your courtesy to the other Transportation Agency Board members to assure a quorum is appreciated.

PLEDGE OF ALLEGIANCE

1.1 ADDITIONS or **CORRECTIONS** to the agenda.

1.2 CLOSED SESSION

PUBLIC COMMENT on the Closed Session

CLOSED SESSION:

REAL ESTATE NEGOTIATIONS. Pursuant to Government Code section §54956.8, confer with real property negotiators concerning the acquisition of one property for the Salinas train station.

Property: 16 Station Place, Salinas, CA
Agency negotiators: Mike Zeller, Christina Watson, Todd Muck
Negotiating parties: Favaloro Trust, DBA Frank's Fish Market
Under negotiation: Price and terms of payment

RECONVENE in open session and report any actions taken

2. PUBLIC COMMENTS. Any person may address the Transportation Agency Board at this time. Presentations should not exceed three minutes, should be directed to an item **NOT** on today's agenda, and should be within the jurisdiction of the Transportation Agency Board. *Though it is not required, the Transportation Agency Board appreciates your cooperation in completing a speaker request form available on the table at the entrance to the meeting room. Please give the completed form to the Transportation Agency Administrative Assistant. If you have handouts, please provide 30 copies for the entire Board before the meeting starts or email to Agency Administrative Assistant 24 hours in advance of the meeting.*

3. CONSENT AGENDA

APPROVE the staff recommendations for items 3.1.1 - 3.7.1 by majority vote with one motion. Any member may pull an item off the Consent Agenda to be considered for discussion and action after the Consent Agenda.

4. APPROVE Certificates of Appreciation for outgoing TAMC Board members. - Chair Armenta *No Enclosures*

5. **Salinas Rail Extension Property Acquisition** - Zeller

- **APPROVE** the real estate acquisition agreement with the Frank Favaloro for one parcel for the Rail Extension to Monterey County project for the amount of $460,925;
- **APPROVE** payment of closing costs and other related expenses not to exceed the amount of $12,000;
- **AUTHORIZE** the Executive Director to execute the agreement and changes to the agreement if such changes do not increase the Agency's net costs, subject to approval by Agency Counsel; and
- **AUTHORIZE** the use of no more than $472,925 from Traffic Congestion Relief Program funds for the purchase and escrow, to be reimbursed by Caltrans from state funding budgeted for this project.

The Agency has been planning the Rail Extension to Monterey County project, and is in the design phase. The Agency has negotiated a settlement offer with the property owner to acquire the property.

6. **2014 Regional Transportation Plan Amendment No. 1** - Leonard

1. **HOLD** public hearing on Amendment No. 1 to the 2014 Regional Transportation Plan;
2. **ADOPT** Resolution 2016-07 to adopt CEQA findings;
3. **ADOPT** Resolution 2016-08 to adopt Amendment No. 1 to the 2014 Regional Transportation Plan; and
4. **REQUEST** that the Association of Monterey Bay Area Governments amend the adopted 2035 Metropolitan Transportation Plan/ Sustainable Communities Strategy based on the amended Regional Transportation Plan.

This amendment will modify the 2014 Regional Transportation Plan (RTP) Regionally Significant Projects list.

7. **2016 State Transportation Improvement Program Funding Cuts** - Zeller

1. **RECEIVE** update on the 2016 State Transportation Improvement Program proposed project delays and funding cuts;
2. **APPROVE** advancing Regional Surface Transportation Program Funds to the County of Monterey in an amount not-to-exceed $3.0 million for the Highway 1 Operational Improvements project to allow it to be constructed in FY2016/17, as planned; and
3. **AUTHORIZE** staff to submit a request to the California Transportation Commission to receive reimbursement in the amount of $3.0 million from future State Transportation Improvement Program funds.

In February 2016, The Transportation Agency Board approved $7 million in project cuts as Monterey County's share of the State Transportation Improvement Program funding shortfall. California Transportation Commission staff is preparing to recommend a further $9.1 million cut to Highway 156 and delays to three projects.

8. **APPROVE** the Regional Roundabout Study. - Zeller

The Agency contracted with Kittelson & Associates to conduct the Regional Roundabout Study. The firm used Caltrans' Intersection Control Evaluation guidelines for a holistic approach to compare constructing modern roundabouts vs. stop or signalized intersections at 25 locations around Monterey County.

9. Reports on meetings attended by Board Members at Transportation Agency expense, as required by state law.

10. Reports from transportation providers:

- Caltrans Director's Report – Project Update – Gubbins
- Monterey Peninsula Airport District – Sabo
- Monterey-Salinas Transit – Sedoryk

11. Executive Director's report

12. Announcements and/or comments from Transportation Agency members on matters that they wish to put on future Transportation Agency agendas.

13. ADJOURN

Next Transportation Agency for Monterey County meeting will be on
May 25, 2016
Agricultural Center Conference Room
1428 Abbott Street
Salinas, California
9:00 A.M.

BEGINNING OF CONSENT AGENDA: Approve the staff recommendations for items 3.1.1 - 3.7.1 below by majority vote with one motion. Any member may pull an item off the Consent Agenda to be moved to the end of the **CONSENT AGENDA** for discussion and action.

ADMINISTRATION and BUDGET

3.1.1 **APPROVE** minutes of the Transportation Agency For Monterey County (TAMC) Service Authority for Freeways and Monterey County Regional Devleopment Impact Fee Joint Powers Agency of March 23, 2016. - Rodriguez

3.1.2 **ACCEPT** the list of checks written for the month of March 2016 and credit card statements for the month of February 2016. - Delfino

The list of checks and copies of credit card statements are submitted to the Transportation Agency Board each month in accordance with the recommendation from the Transportation Agency's independent Certified Public Accountant to keep the Board informed about the Transportation Agency's financial transactions.

3.1.3 **RECEIVE** report on conferences or trainings attended by agency staff. – Muck

Agency staff occasionally attends conferences or trainings at Agency expense that are pertinent to their roles in pursuing the Agency's mission. These events allow the staff to stay current and participate in the development of transportation practices and policies related to their roles.

3.1.4 2015-2016 Annual Report - Wright

1. **AUTHORIZE** the Executive Director to execute a contract with Milestone Communications, Inc, (doing business as Monterey County Weekly), in an amount not to exceed $74,000 to produce and distribute the Agency's 2015-2016 Annual Report;
2. **AUTHORIZE** the Agency to use $65,000 in Agency funds budgeted to this project and to increase the budget by $9,000, for a total of $74,000;
3. **AUTHORIZE** the Executive Director to make administrative changes to the contract if such changes do not increase the Agency's net cost, subject to approval by Agency counsel; and,
4. **APPROVE** the sole source funding, attached.

The Annual Report is a public outreach tool that the Agency produces each year to highlight the Agency's accomplishments and its goals for the following year. The report is distributed to Monterey County residents and posted on the Agency's website.

3.1.5 APPROVE the updated *Procurement Policies and Procedures and Contract Management Manual*. - Hale

The Transportation Agency prepared and submitted this manual to Caltrans for review on July 31, 2015. These revisions are proposed pursuant to recommendations by Caltrans in their letter of January 28, 2016.

BICYCLE, PEDESTRIAN, TRANSIT, and SOCIAL SERVICES

3.2.1 Triennial Transit Performance Audits- Murillo

1. **APPROVE** Request for Proposals for consultant assistance, to complete a Triennial Transit Performance Audit for the three-year period ending June 30, 2016; and
2. **DIRECT** staff to release the Request for Proposals to potential consultants.

The Transportation Agency must prepare a Triennial Transit Performance Audit of transit operators receiving Transportation Development Act funds. The audit evaluates the efficiency and effectiveness of the county's transit operators based on Caltrans guidance and determines compliance with Transportation Development Act requirements. The audit also evaluates administrative functions undertaken by the Transportation Agency.

PLANNING

3.3.1 RECEIVE state legislative update and **ADOPT** positions on bills of interest to the Agency. **-** Watson

The state legislature is deliberating on three transportation proposals. All three proposals would raise new funds for transportation at different levels. More than 2,000 bills were introduced in February. The Executive Committee received a report on the updated bill list on April 6 and recommends Board adoption of the positions as indicated in the attached bill list.

3.3.2 **RECEIVE** federal legislative update. - Zeller

On December 4, 2015, the President signed the "Fixing America's Surface Transportation" (FAST) Act. This act includes $4.5 billion over five years in grants for freight projects, as well as a National Environmental Policy Act assignment pilot program. The Consolidated Appropriations Act of 2016 allows States to repurpose unspent earmarks on new projects.

PROJECT DELIVERY and PROGRAMMING

3.4.1 **APPROVE** reassigning $1,329,671 in RSTP competitive grant funds awarded to the County of Monterey for the Holman Highway 68 Roundabout Project to the City of Monterey. - Zeller

The County of Monterey received a Regional Surface Transportation Program grant award for the Holman Highway 68 Roundabout project. Since the City of Monterey is the project sponsor, this action would designate the City of Monterey as the grant recipient to streamline claim reimbursements.

3.4.2 EMC Contract Amendment #1 - Wright

1. **AUTHORIZE** the Executive Director to execute a contract amendment increasing the not to exceed amount by $15,000 for a total of $115,000 with EMC Research to conduct surveys;
2. **AUTHORIZE** the use of Agency undesignated reserve funds for this project; and
3. **AUTHORIZE** the Executive Director to make administrative changes to the contract if such changes do not increase the Agency's net cost, subject to approval by Agency counsel.

EMC Research was awarded a three-year contract with the Agency in 2014 to conducted research on behalf of the Agency to survey the public about priorities and preferences for funding projects supporting the 2018 Regional Transportation Plan. This amendment is to fund an additional survey to focus on a potential transportation sales tax measure.

3.4.3 CliffordMoss Contract Amendment #1/Printing Services – Muck

1. **AUTHORIZE** the Executive Director to execute a contract amendment with CliffordMoss not to exceed $25,000 to develop and design educational material;
2. **AUTHORIZE** the Executive Director to solicit and execute a contract(s) for printing services not to exceed $25,000;
3. **AUTHORIZE** the use of undesignated reserve funds for these contracts; and
4. **AUTHORIZE** the Executive Director to make administrative changes to the agreements if such changes do not increase the Agency's net cost, subject to approval by Agency counsel.

Transportation Safety & Improvement Investment Plan is transitioning from the development phase to public outreach and education. CliffordMoss' contract needs to be amended to incorporate additional work not originally anticipated, including developing educational documents individualized for different parts of the County.

RAIL PROGRAM

3.5.1 HDR Contract Amendment #1 - Watson

1. **AUTHORIZE** the Executive Director to execute a contract amendment not to exceed $320,000 with HDR Engineering, Inc. for an updated Traffic Study, Surveying and a Project Report for improvements to Highway 183 near the Salinas train station;
2. **AUTHORIZE** the use of state funds budgeted to this project;
3. **AUTHORIZE** the Executive Director to make administrative changes to the agreement if such changes do not increase the Agency's net cost, subject to approval by Agency counsel; and
4. **APPROVE** sole source finding.

The Salinas Rail Extension Project is in the final design phase. The contract needs to be amended to incorporate additional required work not anticipated, including an updated traffic study and surveying. A Project Report that Caltrans may require for the improvements to Highway 183 associated with the rail station project is included as an optional task. Staff recommends a sole source finding based on the related nature of the tasks and the efficiencies involved.

3.5.2 Salinas Rail Extension Kick-Start Relocation Benefits - Zeller

1. **APPROVE** the budget for relocation benefits for the acquisition of parcels for the Salinas Rail Extension Kick-Start;
2. **AUTHORIZE** the Executive Director to execute payment claims not to exceed $664,000 with eligible claimants for relocation expenses; and
3. **AUTHORIZE** the use of state funds budgeted to this project.

The Agency is in the process of acquiring parcels for the Salinas Rail Extension Kick-Start project. Federal and state regulations require the agency to compensate property owners and eligible tenants for certain relocation expenses. This action will allow the Agency to pay claims for relocation expeditiously.

REGIONAL DEVELOPMENT IMPACT FEE

No items this month.

COMMITTE MINUTES

3.7.1 **ACCEPT** minutes from Transportation Agency committees

1. Executive Committee – Draft April 6, 2016
2. Bicycle & Pedestrian Facilities Advisory Committee - Draft April 6, 2016 (online at www.tamcmonterey.org)
3. Rail Policy Committee – No meeting this month
4. Technical Advisory Committee – Draft April 7, 2016 (online at www.tamcmonterey.org)

END OF CONSENT AGENDA

CORRESPONDENCE, REPORTS, MEDIA CLIPPINGS

Online at www.tamcmonterey.org

CORRESPONDENCE, REPORTS, MEDIA CLIPPINGS

Online at www.tamcmonterey.org

C1 Letters of Support for AB2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: Disposition of Excess Properties from: Cities of Marina, Pacific Grove and Salinas; Monterey Bay Central Labor Council; County of Monterey; Monterey County Farm Bureau; ~ Monterey County Hospitality Association, and the Salinas Valley Chamber of Commerce.

C2 Letters of Support for SB1197 (Cannella): Intercity Rail Corridors: Extensions from the County of Monterey, Salinas Valley Chamber of Commerce, and the San Luis Obispo Council of Governments.

C3 Letters of Support from Debra L. Hale, Executive Director, for legislation: AB1364 (Linder), AB1591 (Frazier), AB2742 (Nazarian), SB902 (Cannella), SB903 (Nguyen), and SB1320 (Runner).

Please send any items for the May 25, 2016 Transportation Agency agenda to Senior Administrative Assistant Elouise Rodriguez by 12 noon, Thursday, May 12, 2016. The Transportation Agency Agenda will be prepared by Transportation Agency staff and will close at noon Thursday, May 12, 2016 nine (9) working days before the regular meeting. Any member may request in writing an item to appear on the agenda. The request shall be made by the agenda deadline and any supporting papers must be furnished by that time or be readily available.

If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 USC Sec. 12132), and the federal rules and regulations adopted in implementation thereof. Individuals requesting a disability-related modification or accommodation, including auxiliary aids or

services, may contact Transportation Agency at 831-775-0903. Auxiliary aids or services include wheelchair accessible facilities, sign language interpreters, Spanish Language interpreters and printed materials, and printed materials in large print, Braille or on disk. These requests may be made by a person with a disability who requires a modification or accommodation in order to participate in the public meeting, and should be made at least 72 hours before the meeting. All reasonable efforts will be made to accommodate the request.

Documents relating to an item on the open session that are distributed to the Board less than 72 hours prior to the meeting shall be available for public inspection at the Office of the Transportation Agency for Monterey County,

55-B Plaza Circle, Salinas, CA. Documents distributed to the Agency Board at the meeting by staff will be available at the meeting; documents distributed to the Board by members of the public shall be made available after the meeting.

The Transportation Agency web site contains information from the Transportation Agency Resource Guide, including Transportation Agency Board members, Transportation Agency committee members, grant programs, etc. Visit us at: http://www.tamcmonterey.org.

Transportation Agency for Monterey County
55-B PLAZA CIRCLE, SALINAS, CA 93901-2902
Monday thru Friday
8:00 a.m. – 5:00 p.m.
TEL: 831-775-0903
FAX: 831-775-0897

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **Salinas Rail Extension Property Acquisition**

RECOMMENDED ACTION

1. **APPROVE** the real estate acquisition agreement with Frank Favaloro for one parcel for the Rail Extension to Monterey County project for the amount of $460,925;
2. **APPROVE** payment of closing costs and other related expenses not to exceed the amount of $12,000;
3. **AUTHORIZE** the Executive Director to execute the agreement and changes to the agreement if such changes do not increase the Agency's net costs, subject to approval by Agency Counsel; and
4. **AUTHORIZE** the use of no more than $472,925 from Agency reserve funds for the purchase and escrow, to be reimbursed by Caltrans from Traffic Congestion Relief Program funding budgeted for this project.

SUMMARY

The Agency has been developing the Rail Extension to Monterey County project, and is currently in the design phase. The Agency has negotiated a settlement offer with the property owner to acquire the property.

FINANCIAL IMPACT

The Salinas Rail Extension project includes funding for right-of-way acquisition. Staff proposes to use Traffic Congestion Relief Program or Proposition 116 bond funds for the $472,925 in settlement expenses. Agency reserve funds are only to be used for cash flow purposes. The total project budget is estimated at $70 million; the total right-of-way phase is estimated to cost $24.1 million.

DISCUSSION

The Transportation Agency for Monterey County is proposing to extend passenger rail service from Santa Clara County south to Salinas. The service is scheduled to start with two round trips, expanding to up to six round trips as demand warrants.

Transportation Agency for Monterey County
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The property in question is 0.09 acres located at 30 W Market Street in the City of Salinas, California, known as Monterey County Assessor's Parcel No. 002-172-001. The parcel will be needed for the parking lot planned for the area of the Salinas Rail Station. A Phase I environmental review found no contamination on the property. The Purchase and Sale Agreement requires the property owner to receive certification from the Monterey County Environmental Health Department prior to the Agency taking title of the property.

The purchase price of $460,925 is an agreed value that is based in part upon an appraisal performed on the property dated October 7, 2015 prepared by the Appraisal Group of Overland, Pacific & Cutler. The purchase price includes the contributory value of the buildings and site improvements located thereon, and non-moveable items pertaining to the improvements. The agreement stipulates that the Agency will deposit the full purchase price in escrow, and that escrow will close and the funds will be disbursed after the County Health Department has certified the property as clean.

The current property owner has also requested to lease the property back from the Agency once the sale is completed. The lease back would be at a rate of $1 per month for four months or until October 31, 2016, whichever is earlier. The lessee would be responsible for all security and property management at no additional expense to the Agency.

Relocation of the property owner and tenants is governed by state and federal relocation laws and will be negotiated separately from the property acquisition.

Attached online is the negotiated "purchase and sale agreement" and "lease agreement" for one parcel for the Commuter Rail Extension to Monterey County project

Approved by: _____ Date Signed: April 12, 2016
Debra L. Hale, Executive Director

Regular Agenda Counsel Approval: Yes
Finance Approval: Yes

Web Attachment: Purchase and Sale Agreement

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT (this "**Agreement**") is entered into effective as of March 23, 2016 (the "**Effective Date**") by and between the Transportation Agency for Monterey County, a public agency ("**Buyer**") and Frank Favaloro as Trustee of the Frank Favaloro and Lucy Favaloro 2007 Trust and Frank Favaloro dba as Frank's Fish Market (collectively "**Seller**"). Seller and Buyer are hereinafter referred to as the "**Parties**."

WHEREAS, Seller is the owner of that certain real property consisting of approximately 0.09 acres located at 30 W Market Street in the City of Salinas, California, known as Monterey County Assessor's Parcel No. 002-172-001, and more particularly described in Exhibit A attached hereto and incorporated herein by this reference (the **"Land")**;

WHEREAS, in accordance with the terms and conditions contained herein, Buyer desires to purchase, and Seller desires to sell to Buyer all of Seller's right, title and interest in and to: (i) the Land; (ii) all improvements located on the Land (the "**Improvements"**); (iii) all easements, hereditaments, and appurtenances belonging to or inuring to the benefit of Seller and pertaining to the Land; and (iv) all non-moveable equipment and fixtures located on the Land or in the Improvements (all of the foregoing collectively hereinafter, the "**Property**");

WHEREAS, on or about March 22, 2015, Buyer sent to Seller a notice of Buyer's intent to appraise the Property for the purpose of initiating negotiations to acquire fee simple title to the Property for the purpose of constructing a commuter rail extension and related improvements, and pursuant to such notice, Buyer obtained an appraisal of the Property; and

WHEREAS, by letter dated November 4, 2015, Buyer extended an offer to acquire the Property, including any and all improvements located thereon; and

WHEREAS, Seller and Buyer have agreed to execute this Agreement in lieu of condemnation.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows.

1. Agreement to Sell and Purchase. Seller agrees to sell the Property to Buyer, and Buyer agrees to purchase the Property from Seller, subject to the terms and conditions set forth in this Agreement.

2. Purchase Price. The purchase price for the Property shall be Four Hundred Sixty Thousand Nine Hundred Twenty-Five Dollars ($460,925.00) ("**Purchase Price**"). The Purchase Price is an agreed upon value that is based in part upon an appraisal dated October 7, 2015, prepared by the Appraisal Group of Overland, Pacific and Cutler, Inc. The Purchase Price is also sometimes referred to herein as the **"Settlement Value."** The Settlement Value includes the contributory value of the buildings and site improvements located on the Property and non-

moveable items of Improvement Pertaining to the Realty (IPTR). The list of the IPTR is attached hereto as Exhibit C.

3. Conveyance of Title. At the close of escrow for conveyance of the Property to Buyer (**"Close of Escrow")**, Seller shall convey by grant deed to Buyer marketable fee simple title to the Property, free and clear of all recorded and unrecorded liens, encumbrances, assessments, leases and taxes except the following:

(a) Taxes for the fiscal year in which the escrow for this transaction closes, which shall be prorated as of the Close of Escrow and handled in accordance with Section 5086 of the California Revenue and Taxation Code; and

(b) The items described in that certain condition of title (Title No. 0052611580) for the Property dated July 14, 2015 and issued by Chicago Title Company that are approved by Buyer in writing (the "**Permitted Exceptions**").

Without limiting the generality of the foregoing, Seller shall convey the Property to Buyer free and clear of all monetary liens and encumbrances, including without limitation, liens relating to delinquent taxes and assessments, deeds of trust, and other security instruments.

4. Escrow; Escrow Instructions. Within three (3) business days following the Effective Date, the Parties shall open an escrow to consummate the purchase and sale of the Property pursuant to this Agreement at the office of Chicago Title Company located at 50 Winham St., Salinas, CA 93901 ("**Title Company**" or "**Escrow Agent**") or such other title company as may be mutually agreed upon by the Parties. Upon the opening of escrow, the Parties shall deposit with the Escrow Agent an executed copy of this Agreement, which shall serve as the joint escrow instructions of Buyer and Seller for this transaction, together with such additional instructions as may be executed by the Parties and delivered to the Escrow Agent.

Upon the opening of escrow and in no event later than thirty (30) business days after the Effective Date: (i) Buyer shall deposit the Purchase Price into escrow in an interest bearing account for the benefit of Buyer, and (ii) Seller shall deposit an executed Grant Deed for the Property.

5. Title Documents. By not later than seven (7) business days following the Effective Date, Buyer shall obtain an updated title report for the Property **("Title Report").** Buyer shall approve or disapprove each title exception, as set forth in the Title Report within twenty (20) days following the Effective Date. Buyer's failure to approve the Title Report within such time period shall be deemed to be a disapproval of the title exceptions.

If Buyer objects to, or is deemed to have disapproved any title exception, Seller shall use its best efforts at Seller's sole expense to remove from title or otherwise satisfy each such exception no later than fourteen (14) days prior to the Close of Escrow and in a form that is reasonably satisfactory to Buyer. If Seller fails to remove or satisfy any title exception to the satisfaction of Buyer, Buyer shall have the option, in its sole discretion, to terminate this Agreement, or to accept title subject to such exception. If Buyer elects to terminate this Agreement, the Purchase Price, and all other funds and documents deposited into escrow by or

on behalf of Buyer shall be returned to Buyer, and thereafter neither Seller nor Buyer shall have any further obligations hereunder except as expressly set forth herein.

It shall be a condition to the Close of Escrow that Title Company shall deliver to Buyer no later than five (5) business days prior to the Close of Escrow, a title commitment for a CLTA Owner's Title Insurance Policy ("**Title Policy"**) (or at Buyer's election, an ALTA Owner's Title Insurance Policy) to be issued by Title Company in the amount of the Purchase Price for the benefit and protection of Buyer, showing fee simple title to the Property vested in Buyer, subject only to the Permitted Exceptions and the standard preprinted exceptions for the form of policy selected by Buyer, including such endorsements as may reasonably be requested by Buyer, and committing Title Company to issue the Title Policy to Buyer upon the Close of Escrow.

6. Closing Documents and Funds.

(a) **Seller.**

By no later than two (2) business days prior to the Close of Escrow, Seller shall deposit into escrow all of the following:

(i) unless already deposited into escrow pursuant to Section 4, a Grant Deed, substantially in the form attached hereto as Exhibit B ("**Grant Deed**"), duly executed and acknowledged, conveying to Buyer fee simple title to the Property, subject only to Permitted Exceptions;

(ii) Seller's certificate of non-foreign status (FIRPTA) and affidavit that Seller is a California taxpayer, each executed by Seller under penalty of perjury as required by state and federal law;

(iii) Evidence that all utilities payable by Seller with respect to the Property have been paid prorated as of the Close of Escrow; and

(iv) Such additional duly executed instruments and documents as the Escrow Agent may reasonably require consummate the transaction contemplated hereby.

(b) **Buyer.**

(A) By no later than two (2) business days prior to the Close of Escrow, Buyer shall deposit into escrow all of the following:

(i) A duly executed Certificate of Acceptance in the form shown in Exhibit B, as required by California Government Code Section 27281; and

(ii) Such additional duly executed instruments and documents as the Escrow Agent may reasonably require to consummate the transaction contemplated hereby.

(B) No less than one (1) business day prior to the Close of Escrow, Buyer shall deposit into escrow immediately available funds in the amount equal to:

(i) the Purchase Price as adjusted by any prorations between the Parties (unless the Purchase Price has been previously deposited); and

(ii) funds in the amount necessary to pay closing costs as set forth in Section 8 below (unless Buyer and Escrow Agent agree that such costs will be paid outside of escrow).

7. Close of Escrow. The Parties intend to close escrow within five (5) days of Seller receiving approval of a Conditional Use Permit from the City of Salinas and the removal of all contingencies and conditions, but not later than May 30, 2016 provided that all of Buyer's conditions to closing (described in Sections 10 and 12 below) have been satisfied by such date, unless this Agreement is terminated pursuant to the terms hereof or extended by mutual agreement of the Parties. The Escrow Agent shall close escrow by: (i) causing the Grant Deed to be recorded in the official records of Monterey County, California; (ii) issuing the Title Policy and delivering same to Buyer; (iii) delivering to Seller the monies constituting the Purchase Price less prorated amounts and charges to be paid by or on behalf of Seller; and (iv) delivering to Buyer a conformed copy of the Grant Deed indicating recording information thereon. The right of possession of the Property shall be delivered to Buyer at the Close of Escrow.

8. Closing Costs. Buyer shall pay all escrow fees, governmental transfer taxes and conveyance fees, and recording fees. Buyer will pay the cost of the title insurance premium for CLTA coverage, and if Buyer so elects, the additional premium for an ALTA title insurance policy and the cost of any required survey.

9. Prorations. Property taxes shall be prorated as of the Close of Escrow based upon the most recent tax bill available, including any property taxes which may be assessed after the Close of Escrow but which pertain to the period prior to the transfer of title to the Property to Buyer, regardless of when or to whom notice thereof is delivered.

10. Buyer's Conditions to Closing. The Close of Escrow and Buyer's obligation to purchase the Property are conditioned upon satisfaction (or Buyer's waiver, exercisable in Buyer's sole discretion) of each of the following: (i) the performance by Seller of each obligation to be performed by Seller under this Agreement within the applicable time period, or the waiver by Buyer of such obligation; (ii) Seller's representations and warranties contained in this Agreement being true and correct as of the Effective Date and the Close of Escrow; (iii) the commitment by Title Company to issue and deliver the Title Policy in the form reasonably required by Buyer pursuant to Section 5, subject only to the Permitted Exceptions; and (iv) Buyer's approval of the condition of the Property and other matters pursuant to Sections 11 and 12;

Should any condition to closing fail to occur, excepting any such conditions that have been waived by Buyer, Buyer shall have the right, exercisable by giving written notice to Seller, to cancel the escrow, terminate this Agreement, and recover the Deposit together with all interest

earned thereon and any and all other amounts paid by Buyer to Seller or deposited with the Escrow Agent by or on behalf of Buyer. The exercise of this right by Buyer shall not constitute a waiver by Buyer of any other rights Buyer may have at law or in equity.

11. Studies, Reports and Investigations. Seller agrees to make available to Buyer within two (2) business days following the Effective Date, any and all correspondence with governmental agencies, information, studies, reports, investigations, contracts, licenses, leases, rental agreements and other documents concerning or relating to the Property which are in Seller's possession or which are reasonably available to Seller (collectively, **"Property Documents")**, including without limitation analyses, surveys, environmental site assessments, studies, reports and investigations concerning the Property's physical, environmental or geological condition, habitability, or the presence or absence of Hazardous Materials (defined in Section 16.1) in, on or under the Property and the compliance by the Property with Environmental Laws (defined in Section 16.1). Where no studies, reports and investigations are in Seller's possession relating to the Property, Seller shall provide Buyer a statement that Seller is not in possession of any studies, reports and investigations related to the Property and is unaware of the existence of any such documents.

12. Buyer's Additional Conditions to Closing. Buyer's obligation to purchase the Property is conditioned upon Buyer's review and approval of the condition of the Property and the Property Documents pursuant to this Section.

(a) Feasibility Studies. During the period commencing on the Effective Date and ending on the tenth (10^{th}) business day thereafter or such later date as mutually agreed upon by the Parties ("**Due Diligence Period**") Buyer may, at Buyer's expense, undertake an inspection and review of the Property and analysis of the Property Documents, including without limitation any additional reviews and analyses of the physical condition of the Property that Buyer deems necessary. Buyer may consult with or retain civil engineers, contractors, soils and geologic engineers, architects and other specialists in its investigation, and may consult with or retain other consultants to determine if the Property is suitable for Buyer's intended use.

(b) Other matters. During the Due Diligence Period, Buyer may inspect, examine, survey and review any other matters concerning the Property, including without limitation, any and all studies or reports or Property Documents provided by Seller, all contracts, leases, licenses, rental agreements and other obligations relating to the Property, and the Property's conformity with all applicable laws and regulations.

(c) Disapproval of Property Condition. Should Buyer fail to approve the condition of the Property or any matters related to the Property at any time prior to the end of the Due Diligence Period, Buyer shall have the right, exercisable by giving written notice to Seller, to cancel the escrow, terminate this Agreement, and recover the Deposit together with all interest earned thereon and any and all other amounts paid by Buyer to Seller or deposited with the Escrow Agent by or on behalf of Buyer. The exercise of this right by Buyer shall not constitute a waiver by Buyer of any other rights Buyer may have at law or in equity.

13. Right of Entry. Prior to Close of Escrow, Buyer and Buyer's employees, agents, consultants, and contractors shall have the right, upon reasonable notice to Seller, to enter upon the Property for the purpose of conducting such inspections, surveys, testing and examination (including without limitation soils, engineering and groundwater testing) of the Property as required by Buyer in the exercise of Buyer's reasonable judgment. Buyer's inspection, examination, survey and review of the Property shall be at Buyer's expense. Buyer shall obtain Seller's advance consent in writing to any proposed physical testing of the Property, which consent shall not be unreasonably conditioned, withheld or delayed. Buyer shall repair, restore and return the Property to its original condition after such physical testing, at Buyer's expense. Buyer shall schedule any such physical tests during normal business hours unless otherwise approved by Seller.

14. Seller's Conditions to Closing. The Close of Escrow and Seller's obligation to sell the Property pursuant to this Agreement are conditioned upon: (i) the performance by Buyer of each obligation to be performed by Buyer under this Agreement within the applicable time period, or waiver by Seller of such obligation; and (ii) Buyer's representations and warranties contained in this Agreement being true and correct as of the Effective Date and the Close of Escrow.

15. Seller's Representations and Warranties. Seller represents and warrants to Buyer that the statements set forth in this Section 15 are true and correct as of the Effective Date, shall be true and correct as of the Close of Escrow, and shall survive the Close of Escrow. Seller shall notify Buyer of any facts that would cause any of the representations contained in this Agreement to be untrue as of the Close of Escrow. If Buyer reasonably believes that a fact materially and adversely affects the Property, Buyer shall have the option to terminate this Agreement by delivering written notice thereof to Seller. In the event Buyer elects to terminate this Agreement, all funds and documents deposited into escrow by or on behalf of Buyer shall be returned to Buyer, and all rights and obligations hereunder shall terminate. Seller shall indemnify, defend and hold harmless Buyer from all loss, cost, liability, expense, damage or other injury, including without limitation, attorneys' fees and all other costs and expenses incurred by reason of, or in any manner resulting from the breach of any representation or warranty contained in this Section. The indemnity, defense and hold harmless provisions of this Section shall survive the Close of Escrow and the expiration or termination of this Agreement.

(i) **Authority; Due Execution; Enforceability**. Seller has the full right, power and authority to execute, deliver and perform all obligations of Seller under this Agreement and all other instruments delivered or to be delivered by Seller prior to the Close of Escrow (collectively, the "**Documents**"), and the execution, performance and delivery of this Agreement and the Documents by Seller have been duly authorized by all requisite actions. The persons executing this Agreement and the Documents on behalf of Seller have been duly authorized to do so. This Agreement and the Documents constitute valid and binding obligations of Seller, enforceable in accordance with their respective terms.

(ii) **No Conflict**. Seller's execution, delivery and performance of its obligations under this Agreement and the Documents will not constitute a default or a breach under any contract, agreement or order to which Seller is a party, by which Seller is bound, or which affects

the Property or any part thereof. Without limiting the generality of the foregoing, the sale of the Property pursuant to this Agreement does not violate the terms of any partnership, limited liability company agreement, or other agreement to which Seller or any of the individuals comprising Seller is a party, nor is the consent of any third party required for the sale of the Property pursuant to this Agreement.

(iii) **No Litigation or Other Proceeding**. No litigation or other proceeding (whether administrative or otherwise) is outstanding or has been threatened which would prevent, hinder or delay the ability of Seller to perform its obligations under this Agreement or any Documents.

(iv) **No Bankruptcy**. Seller is not the subject of a bankruptcy or insolvency proceeding.

(v) **Title**. This Agreement and the Documents are collectively sufficient to transfer all of Seller's right, title and interest in and to the Property. To the best of Seller's actual knowledge, no person or entity has any right, title or interest in or to the Property or any portion thereof other than as set forth in the Title Report.

(vi) **Governmental Compliance**. To the best of Seller's actual knowledge, except as disclosed in writing to Buyer, Seller and the Property are in compliance with all zoning laws, building codes, environmental laws and all other laws, ordinances, rules, requirements, resolutions, policy statements and regulations of any governmental authority having jurisdiction over the Property. Except as disclosed in writing to Buyer, Seller has not received any notice from any governmental authority of any threatened or pending zoning, building, fire, or health code violation or violation of other governmental regulations concerning the Property that have not previously been corrected, and no condition on the Property violates any health, safety, fire, environmental, sewage, building, or other federal, state or local law, ordinance or regulation.

(vii) **Non-Foreign Certification**. Seller is not a "foreign person" for purposes of Section 1445 of the Internal Revenue Code of 1986, as amended, and any regulation promulgated thereunder, and Seller is a resident taxpayer in the State of California for purposes of Revenue and Taxation Code Section 18662.

(viii) **Agreements Affecting Property**. Except as disclosed in writing to Buyer, no oral or written contracts, licenses, rental agreements, leases or commitments regarding the maintenance or use of the Property or allowing any third party rights to use the Property are in force.

(ix) **Litigation; Condemnation**. There are no pending, or to Seller's best knowledge, threatened, actions suits, or administrative proceedings against or affecting the Property or any portion thereof or the interest of Seller in the Property. With the exception of Buyer's offer to purchase the subject property, which was made under California Government Code Section 7267.2, which infers the possibility of a future condemnation acquisition, there are no pending or to Seller's best knowledge threatened, condemnation, eminent domain, or similar proceedings affecting the Property or any portion thereof.

(x) **Disclosure and Hazardous Materials**. Seller has disclosed all material facts known to

Seller concerning the Property. All information that Seller has delivered to Buyer, either directly or through Seller's agents, is accurate and complete. Moreover, Seller hereby represents and warrants that during the period of Seller's ownership of the Property, Seller has no knowledge of any disposals, releases or threatened releases of Hazardous Materials on, from, or under the Property. The acquisition price of the Property being acquired in this transaction reflects the fair market value of the Property without the presence of contamination. If the Property being acquired is found to be contaminated by the presence of Hazardous Materials which require mitigation under Federal or State law, the cost of that mitigation shall be deducted from the purchase price. If Hazardous Materials are found after the close of escrow and during construction, Buyer reserves any rights it has under applicable law to recover its clean-up costs from those who caused or contributed to the contamination.

16. Hazardous Materials.

16.1 Definitions.

(a) **Hazardous Materials.** As used in this Agreement, "**Hazardous Materials"** means any chemical, compound, material, mixture, or substance that is now or may in the future be defined or listed in, or otherwise classified pursuant to any Environmental Laws (defined below) as a "hazardous substance", "hazardous material", "hazardous waste", "extremely hazardous waste", infectious waste", toxic substance", toxic pollutant", or any other formulation intended to define, list or classify substances by reason of deleterious properties such as ignitability, corrosivity, reactivity, carcinogenicity, or toxicity. The term "Hazardous Materials" shall also include asbestos or asbestos-containing materials, radon, chrome and/or chromium, polychlorinated biphenyls, petroleum, petroleum products or by-products, petroleum components, oil, mineral spirits, natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable as fuel, perchlorate, and methyl tert butyl ether, whether or not defined as a hazardous waste or hazardous substance in the Environmental Laws.

(b) "**Environmental Laws**" means any and all federal, state and local statutes, ordinances, orders, rules, regulations, guidance documents, judgments, governmental authorizations or directives, or any other requirements of governmental authorities, as may presently exist, or as may be amended or supplemented, or hereafter enacted, relating to the presence, release, generation, use, handling, treatment, storage, transportation or disposal of Hazardous Materials, or the protection of the environment or human, plant or animal health, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. § 9601), the Hazardous Materials Transportation Act (49 U.S.C. § 1801 *et seq*.), the Resource Conservation and Recovery Act (42 U.S.C. § 6901 *et seq*.), the Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq*.), the Clean Air Act (42 U.S.C. § 7401 *et seq*.), the Toxic Substances Control Act (15 U.S.C. § 2601 *et seq*.), the Oil Pollution Act (33 U.S.C. § 2701 *et seq*.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 *et seq*.), the Porter-Cologne Water Quality Control Act (Cal. Water Code § 13000 e*t seq*.), the Toxic Mold Protection Act (Cal. Health & Safety Code § 26100, *et seq*.), the Safe Drinking Water and Toxic Enforcement Act of 1986 (Cal. Health & Safety Code § 25249.5 *et seq*.), the Hazardous Waste Control Act (Cal. Health & Safety Code § 25100 *et seq*.), the Hazardous Materials Release Response Plans & Inventory Act (Cal. Health & Safety Code

§ 25500 *et seq*.), and the Carpenter-Presley-Tanner Hazardous Substances Account Act (Cal. Health and Safety Code, Section 25300 *et seq*.).

16.2 Environmental Indemnity. To the fullest extent allowed by law, Seller agrees to unconditionally and fully indemnify, protect, defend (with counsel satisfactory to Buyer), and hold Buyer and its elected and appointed officers, officials, employees, agents, consultants and contractors harmless from and against any and all claims (including without limitation third party claims for personal injury, real or personal property damage, or damages to natural resources), actions, administrative proceedings (including without limitation both formal and informal proceedings), judgments, damages, punitive damages, penalties, fines, costs (including without limitation any and all costs relating to investigation, assessment, analysis or cleanup of the Property), liabilities (including without limitation sums paid in settlements of claims), interest, or losses, including reasonable attorneys' and paralegals' fees and expenses (including without limitation any such fees and expenses incurred in enforcing this Agreement or collecting any sums due hereunder), together with all other costs and expenses of any kind or nature (collectively, the "**Costs**") that arise directly or indirectly from or in connection with the violation of Environmental Laws (as defined in Section 16.1) or the presence, suspected presence, release, or suspected release, of any Hazardous Materials in, on or under the Property or in or into the air, soil, soil gas, groundwater, or surface water at, on, about, around, above, under or within the Property, or any portion thereof, except those Costs that arise solely as a result of actions by Buyer. The indemnification provided in this paragraph shall specifically apply to and include claims or actions brought by or on behalf of employees of Seller or any of its predecessors in interest and Seller hereby expressly waives any immunity to which Seller may otherwise be entitled under any industrial or worker's compensation laws. In the event the Buyer suffers or incurs any Costs, Seller shall pay to Buyer the total of all such Costs suffered or incurred by the Buyer upon demand therefore by Buyer. The indemnification provided by this Section shall include, without limitation, all loss or damage sustained by the Buyer due to any Hazardous Materials: (a) that are present or suspected by a governmental agency having jurisdiction to be present in the Property or in the air, soil, soil gas, groundwater, or surface water at, on, about, above, under, or within the Property (or any portion thereof) or to have emanated from the Property, or (b) that migrate, flow, percolate, diffuse, or in any way move onto, into, or under the air, soil, soil gas, groundwater, or surface water at, on, about, around, above, under, or within the Property (or any portion thereof) after the date of this Agreement as a result of Seller's or its predecessors' activities on the Property. The provisions of this Section shall survive the termination of this Agreement and the Close of Escrow.

16.3 Release by Seller. Seller waives releases, remises, acquits and forever discharges Buyer, its officers, directors, board members, managers, employees and agents, and any other person acting on behalf of Buyer, from any and all claims, actions, causes of action, demands, rights, damages, costs, expenses and compensation whatsoever, direct or indirect, known or unknown, foreseen or unforeseen, that Buyer may suffer arising from or in connection with: (a) the existence of the soil contamination, or (b) the discovery or existence after the Close of Escrow of any other Hazardous Material on, under, or around the Property, whether or not caused by Seller or any predecessor in interest of Seller, and whether or not known to Seller or Buyer at or before the Close of Escrow, or (c) the physical condition of the Property or any law or regulation applicable thereto including, without limiting the generality of the foregoing, any

federal, state or local law, ordinance or regulation pertaining to Hazardous Materials. This Section 16.3 shall survive the Close of Escrow and the termination of this Agreement. The release provided by this Section 16.3 does not apply to any claim for which Buyer is obligated to indemnify Seller pursuant to Section 13.

17. Seller's Covenants. Seller covenants that from the Effective Date and through the Close of Escrow, Seller:

(i) shall not create or permit any liens, encumbrances, or easements to be placed on the Property, other than Permitted Exceptions;

(ii) shall not enter into or renew, replace or modify any agreement regarding the use, sale, rental, management, repair, improvement, or any other matter affecting the Property that would be binding on Buyer or the Property after the Close of Escrow absent the prior written consent of Buyer;

(iii) shall make no material alteration to the Property or the Improvements without Buyer's prior written consent; and

(iv) shall immediately notify Buyer if Seller becomes aware of a factual basis for any condemnation, environmental proceeding, special assessment proceeding, zoning action, land use or other litigation or proceeding against Seller or the Property that could detrimentally affect the Property or the use, ownership, development, sale or value of the Property.

18. Buyer's Representations, Warranties and Covenants. Subject to Section 43, Buyer represents, warrants and covenants that this Agreement and all other documents delivered in connection herewith, prior to or at the Close of Escrow: (i) have been duly authorized, executed, and delivered by Buyer; (ii) are binding obligations of Buyer; and (iii) do not violate the provisions of any agreement to which Buyer is a party. Buyer further represents and warrants that the persons who have executed this Agreement on behalf of Buyer have are duly authorized to do so, that Buyer has the legal right to enter into this Agreement and to perform all of its terms and conditions, and that Agreement is enforceable against Buyer in accordance with its terms.

19. Damage and Destruction. In the event of any damage or other loss to the Property, or any portion thereof, caused by fire or other casualty prior to the Close of Escrow in an amount not exceeding $50,000, Buyer shall not be entitled to terminate this Agreement, but shall be obligated to close the escrow and purchase the Property as provided in this Agreement, without abatement in the Purchase Price, provided that Seller shall: (i) assign and transfer to Buyer all of Seller's rights under any insurance policy covering the damage or loss, and all claims for monies payable from Seller's insurer(s) in connection with the damage or loss to the Property, and (ii) pay to Buyer at the Close of Escrow the amount of Seller's deductible under the insurance policy or policies covering the damage or loss. In the event of damage or destruction of the Property or any portion thereof prior to the Close of Escrow in an amount in excess of $50,000, Buyer may elect either to terminate this Agreement upon written notice to Seller, or to consummate the purchase of the Property, in which case Seller shall (i) assign and transfer to Buyer all of Seller's rights under any insurance policy covering the damage or loss, and all claims for monies payable

from Seller's insurer(s) in connection with the damage or loss, and (ii) pay to Buyer at the Close of Escrow the amount of Seller's deductible under the insurance policy or policies covering the damage or loss. In the event Buyer elects to terminate this Agreement, all funds and documents deposited into escrow by or on behalf of Buyer shall be returned to Buyer, and all rights and obligations hereunder shall terminate.

20. Brokers. Each Party warrants and represents to the other that no person or entity can properly claim a right to a real estate commission, brokerage fee, finder's fee, or other compensation with respect to the transaction contemplated by this Agreement other than as stated in this Section 20. Each Party agrees to defend, indemnify and hold harmless the other Party from any claims, expenses, costs or liabilities arising in connection with a breach of this warranty and representation. The terms of this Section shall survive the expiration or earlier termination of this Agreement.

21. Assignment. Buyer shall have the right to assign all rights and obligations under this Agreement to any party and Seller's approval of any such assignment shall not be necessary.

22. Notices. Except as otherwise specified in this Agreement, all notices to be sent pursuant to this Agreement shall be made in writing, and sent to the Parties at their respective addresses specified below or to such other address as a Party may designate by written notice delivered to the other parties in accordance with this Section. All such notices shall be sent by:

(i) personal delivery, in which case notice is effective upon delivery;

(ii) certified or registered mail, return receipt requested, in which case notice shall be deemed delivered on receipt if delivery is confirmed by a return receipt;

(iii) nationally recognized overnight courier, with charges prepaid or charged to the sender's account, in which case notice is effective on delivery if delivery is confirmed by the delivery service;

(iv) facsimile transmission, in which case notice shall be deemed delivered upon transmittal, provided that (a) a duplicate copy of the notice is promptly delivered by first-class or certified mail or by overnight delivery, or (b) a transmission report is generated reflecting the accurate transmission thereof. Any notice given by facsimile shall be considered to have been received on the next business day if it is received after 5:00 p.m. recipient's time or on a nonbusiness day.

Buyer: Debra L. Hale
Transportation Agency for Monterey County
Executive Director
55-B Plaza Circle
Salinas, CA 93940
Telephone: (831) 775-0903
Fax: (831) 775-0897
Email: debbie@tamcmonterey.org

Seller: Frank Favaloro
800 W Franklin Street
Monterey, CA 93940-2232
Telephone: (831) 277-2291

23. Litigation Costs. If any legal action or any other proceeding, including arbitration or action for declaratory relief, is brought for the enforcement of this Agreement or because of an alleged breach or default in connection with this Agreement, the prevailing Party shall be entitled to recover reasonable attorneys' fees and other costs, in addition to any other relief to which such Party may be entitled.

24. Waivers; Modification. No waiver of any breach of any covenant or provision of this Agreement shall be deemed a waiver of any other covenant or provision hereof, and no waiver shall be valid unless in writing and executed by the waiving party. An extension of time for performance of any obligation or act shall not be deemed an extension of the time for performance of any other obligation or act, and no extension shall be valid unless in writing and executed by the waiving party. This Agreement may be amended or modified only by a written instrument executed by the Parties.

25. Successors. This Agreement shall bind and inure to the benefit of the respective heirs, personal representatives, successors and assignees of the Parties.

26. Provisions Not Merged With Deeds. None of the provisions, terms, representations, warranties and covenants of this Agreement are intended to or shall be merged by the Grant Deed, and neither the Grant Deed nor any other document shall affect or impair the provisions, terms, representations, warranties and covenants contained herein. Without limiting the generality of the foregoing: (i) Seller's representations, warranties and covenants contained herein shall survive the Close of Escrow, (ii) all provisions of this Agreement that expressly state that they shall survive the Close of Escrow and the termination of this Agreement, shall do so, and (iii) Buyer and Seller intend that the disclosures provided in Section 15, the indemnities provided in Sections 13, 15, 16.2, and 20, and the releases provided in Sections 16.3, 40, and 42 and will survive the termination of this Agreement, the Close of Escrow and the transfer of the Property to Buyer.

27. Captions; Construction. The section headings used herein are solely for convenience and shall not be used to interpret this Agreement. The Parties acknowledge that this Agreement is the product of negotiation and compromise on the part of both Parties, and the Parties agree, that since both Parties have participated in the negotiation and drafting of this Agreement, this Agreement shall not be construed as if prepared by one of the Parties, but rather according to its fair meaning as a whole, as if both Parties had prepared it.

28. Action or Approval. Where action and/or approval by Buyer is required under this Agreement, Buyer's Executive Director may act on and/or approve such matter unless the Executive Director determines in his or her discretion that such action or approval requires referral to Buyer's Board for consideration.

29. Entire Agreement. This Agreement, including Exhibits A through E attached hereto and incorporated herein by this reference, contains the entire agreement between the Parties with respect to the subject matter hereof, and supersedes all prior written or oral agreements, understandings, representations or statements between the Parties with respect to the subject matter hereof.

30. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which taken together shall constitute one and the same instrument.

31. Severability. If any term, provision, or condition of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall continue in full force and effect unless the rights and obligations of the Parties have been materially altered or abridged thereby.

32. No Third Party Beneficiaries. Nothing in this Agreement is intended to or shall confer upon any person, other than the Parties and their respective successors and assigns, any rights or remedies hereunder.

33. Parties Not Co-Venturers. Nothing in this Agreement is intended to or shall establish the Parties as partners, co-venturers, or principal and agent with one another.

34. Non-Liability of Officials, Employees and Agents. No member, official, employee or agent of Buyer shall be personally liable to Seller or its successors in interest in the event of any default or breach by Buyer or for any amount which may become due to Seller or its successors in interest pursuant to this Agreement.

35. Time of the Essence. Time is of the essence for each condition, term, obligation and provision of this Agreement.

36. Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California without regard to principles of conflicts of laws. Buyer and Seller agree that any controversy arising under or in relation to this Agreement shall be litigated exclusively in the jurisdiction where the Land is located (the "**Property Jurisdiction**"). The state and federal courts and authorities with jurisdiction in the Property Jurisdiction shall have exclusive jurisdiction over all controversies which shall arise under or in relation to this Agreement. Buyer and Seller each irrevocably consent to service, jurisdiction, and venue of such courts for any such litigation, and waive any other venue to which such party might be entitled by virtue of domicile, habitual residence or otherwise. The provisions of this Section shall survive the Close of Escrow and the termination of this Agreement.

37. Time for Performance. When the time for performance of any obligation under this Agreement is to be measured from another event, such time period shall include the day of the other event. If the day of the time for performance is not a regular business day, then the time for such performance shall be by the regular business day following such day.

38. Escrow Cancellation Charges. If the escrow fails to close by reason of a default

by Buyer or Seller hereunder, such defaulting party shall pay all escrow or other Title Company charges.

39. Further Assurances. Buyer and Seller each agree to undertake such other actions as may reasonably be necessary to carry out the intent of this Agreement, including without limitation, the execution of any additional documents which may be required to effectuate the transactions contemplated hereby.

40. Eminent Domain Dismissal; Full and Complete Settlement. Seller and Buyer acknowledge that this transaction is a negotiated settlement in lieu of condemnation. Seller hereby waives all attorneys' fees, costs, disbursements, and expenses arising out of any potential known or unknown issues relating to condemnation or inverse condemnation of the Property or any part thereof.

Seller hereby acknowledges that the Purchase Price constitutes the full and complete settlement of any and all claims for compensation or damages against Buyer, by reason of Buyer's acquisition of the Property and any dislocation of Seller from same, specifically including, but not limited to, the value of the Property, any and all claims in inverse condemnation and for pre-condemnation damages, any and all loss of business goodwill, and any and all other claims that Seller may have, whether or not specifically mentioned here, relating directly or indirectly to the acquisition by Buyer of the Property; provided however, the Purchase Price does not include relocation benefits to which Seller may be entitled and which will be separately negotiated between the Buyer and the Seller pursuant to state and federal laws.

Seller and all of its agents, representatives, attorneys, principals, predecessors, successors, assigns, administrators, executors, heirs, and beneficiaries, hereby release Buyer from any and all obligations, liabilities, claims, costs, expenses, demands, debts, controversies, damages, causes of action, including without limitation those relating to just compensation, damages, which any of them now have, or might hereafter have by reason of any matter or thing arising out or in any way relating to any condemnation action affecting the Property. The terms and conditions, covenants, and agreements set forth herein shall apply to and bind the heirs, executors, administrators, assigns and successors of the Parties. This Section 40 shall survive the Close of Escrow and the termination of this Agreement.

41. Relocation. Seller pledges to fully cooperate with Buyer in connection with compliance with applicable provisions of California Relocation Assistance Law (Government Code Section 7260 *et seq.*) and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Title 42, U.S. Code Section 4601 *et seq.*), the regulations adopted in connection with the foregoing, and applicable local rules and regulations relating to residential and commercial relocation (all of the foregoing, collectively, "**Relocation Laws**"). Without limiting the generality of the foregoing, Seller agrees to: (i) provide Buyer with an accurate listing providing names and addresses of all occupants of the Property or part thereof, (ii) permit Buyer to provide occupants with notices and information relating to Relocation Laws, (iii) not permit any new persons or businesses to occupy any portion of the Property absent Buyer's prior written consent which consent may be conditioned upon the delivery of notices to such persons and businesses notices consistent with the requirements of Relocation Laws in form

provided by Buyer.

42. Release. Seller acknowledges that it may have sustained damage, loss, costs or expenses which are presently unknown and unsuspected, and such damage, loss, costs or expenses which may have been sustained may give rise to additional damage, loss, costs or expenses in the future. Seller also acknowledges that changes in law may occur in the future which may apply retroactively and may allow Seller to be entitled to further claims for damage, loss, costs or expenses which are presently unknown and unsuspected. Nevertheless, Seller hereby acknowledges that this Agreement has been negotiated and agreed upon in light of that situation, and hereby expressly waives any and all rights which it may have under California Civil Code section 1542, or under any statute or common law or equitable principle of similar effect. This Section 42 shall survive the Close of Escrow and the termination of this Agreement.

SELLER ACKNOWLEDGES THAT SELLER IS FAMILIAR WITH SECTION 1542 OF THE CALIFORNIA CIVIL CODE, WHICH PROVIDES AS FOLLOWS:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR.

SELLER HEREBY WAIVES AND RELINQUISHES ALL RIGHTS AND BENEFITS WHICH IT MAY HAVE UNDER SECTION 1542 OF THE CALIFORNIA CIVIL CODE WITH RESPECT TO THE MATTERS ADDRESSED IN SECTIONS 16.3 AND 40.

FK

Seller's Initials

Seller and Buyer each acknowledge and agree that the release set forth in this Section 42 applies only to the matters set forth in Sections 16.3 and 40, and does not apply to any entitlement to relocation benefits that Seller may have.

43. Governing Board Approval. Notwithstanding any contrary provision herein, this Agreement is subject to the review and approval of Buyer's governing board and the State of California Department of Transportation (Caltrans) and shall not be effective absent the consent of both such entities.

44. Lease Back and Delivery of Possession. Buyer and Seller agree to enter into a month to month lease agreement whereby Buyer would become the Lessor and Seller would become the Lessee. Lessor would agree to lease Property to Lessee for a period of not greater than 4 months from the close of Escrow or October 1, 2016, whichever is earlier. Lessor agrees to lease back property for a rent of One ($1.00) Dollar per month. Seller agrees to deposit into escrow the executed lease agreement that shall become effective upon the close of escrow. At the end of said lease back period, Seller shall deliver physical possession of portion of the Property being occupied by Seller. A copy of the approved lease agreement is attached hereto as Exhibit "E".

45. **Tenant-Claimed Improvements Pertaining to the Realty.** Seller agrees to execute a quitclaim deed, in favor of Buyer, in a form satisfactory to Buyer, quitclaiming all Seller's interest in an to those items of Improvements Pertaining to the Realty, owned or claimed by Seller's tenant, Olivia's Café, as shown on Exhibit "D" attached hereto.

SIGNATURES ON FOLLOWING PAGE(S).

IN WITNESS WHEREOF, the Parties have executed this Purchase and Sale Agreement as of the date first written above.

BUYER:

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

By:_____
Print Name: Debra L. Hale
Title: Executive Director

ATTEST:

By:_____

APPROVED AS TO FORM:

By: _____

SELLER:

Frank Favaloro, Trustee of the Frank Favaloro and Lucy Favaloro 2007 Trust and Frank Favaloro dba Frank's Fish Market

Frank Favaloro

Exhibit A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SALINAS, COUNTY OF MONTEREY, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

Lot 8, and a portion of Lot 7, and a portion of "BREMEN PARK", in the Bremen Park Block (sometimes known as Block 23 1/2), as said Block is shown and designated on that certain map entitled, "MAP OF SALINAS CITY, Monterey County, California", (commonly known as SHERWOOD-HELLMAN MAP), refiled January 14, 1869 in Volume 1, Maps of "Cities and Towns", at Page 36, Records of Monterey County, described as follows:

Beginning at a 1" diameter iron pipe standing at the intersection of the easterly line of Station Place (formerly known as Natividad Street, 100 feet wide) with the northerly line of West Market Street (formerly known as Castroville Street, 100 feet wide); thence running from said point of beginning along the line common to said Block 23 1/2 and Station Place, (1) N. 24° 38 1/2' E., 165.0 feet to a 1" diameter iron pipe standing in the southerly line of a public alley (15 feet wide); thence leave said common line and running along the southerly line of said alley, (2) S. 65° 25 1/2 ' E., 23.28 feet to a 1" diameter iron pipe top 2" underground; thence leave said alley line and running, (3) S. 24° 38 1/2' W., 165.0 feet to a 1 1/2" diameter iron pipe standing in the line common to said Block 23 1/2 and said West Market Street from which a copper plug set in a concrete sidewalk bears S. 24° 38 1/2'., (4) N. 65° 25 1/2' W., 23.28 feet to the point of beginning.

Except therefrom that portion thereof described in the Deed to Salinas, a municipal corporation, recorded December 7, 1994 in Reel 3179, Page 741, Official Records of Monterey County.

APN: 002-172-001

Exhibit B

FORM OF GRANT DEED

Recording Requested by:
Chicago Title
Order No.: 0052611580

When recorded return to:
Transportation Agency for Monterey County
55 Plaza B Circle
Salinas, CA 93901

Record Without Fee

Government Code §6103 & §27383

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

Project: Commuter Rail Extension
APN: 002-172-001

THIS TRANSACTION IS EXEMPT FROM CALIFORNIA DOCUMENTARY TRANSFER TAX PURSUANT TO SECTION 11922 OF THE CALIFORNIA REVENUE AND TAXATION CODE. THIS DOCUMENT IS EXEMPT FROM RECORDING FEES PURSUANT TO SECTIONS 6103 and 27383 OF THE CALIFORNIA GOVERNMENT CODE.

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, **Frank Favaloro, Trustee of the Frank Favaloro and Lucy Favaloro 2007 Trust**, hereinafter referred to as "Grantor," grants to the **Transportation Agency for Monterey County**, its assigns and successors, hereinafter referred to as "Grantee," all right, title and interest in and to the real property and all right, title and interest in and to the improvements pertaining to the realty which are attached or affixed in any manner to the following described real property specifically including, but not limited to the items in Exhibit "C", list of Improvements Pertaining to the Realty,, attached hereto and by this reference made a part hereof, which are either generally or for purpose of this deed a part of that parcel of real property, situated in the unincorporated area, County of Monterey, State of California, and more particularly described in Exhibit "A" attached hereto and made a part hereof.

Grantor for himself, his heirs, representatives and assigns covenants and warrants that:
1) Grantor is the sole owner of the itemized Improvements Pertaining to the Realty conveyed by this Grant Deed free from all liens and encumbrances, and 2) Grantor will defend the title and quiet enjoyment of the real property described above, including all Improvements Pertaining to the Realty, against all demands and claims of all persons.

Dated this _____ day of _____, 2016.

Frank Favaloro, Trustee of the Frank Favaloro and Lucy Favaloro 2007 Trust

_____
Frank Favaloro, Trustee

ALL-PURPOSE ACKNOWLEDGMENT

State of California)
) ss.
County of _____)

On _____ before me, _____
(Date) (Name & Title of Officer)

personally appeared _____
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature

(SEAL)

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the Grant Deed dated _____, 2013, executed by Frank Favaloro, Trustee of the Frank Favaloro and Lucy Favaloro 2007 Trust ("**Grantor**") to the Transportation Agency of Monterey County, a public agency ("**Grantee")**, is hereby accepted on behalf of the Grantee by its Executive Director pursuant to authority conferred by Board Action authorized on June 26, 2013, and that the Grantee consents to recordation of the Grant Deed by its duly authorized officer.

Dated September 25, 2013
By:_____

Print Name: Debbie Hale

Title: Executive Director

ATTEST:

By:_____

Exhibit “C”

FRANK'S FISH MARKET
IMPROVEMENTS PERTAINING TO THE REALTY OWNED BY FEE OWNER
INCLUDED IN REAL ESTATE VALUE

Item No.	Qty.	Description
1	1	Pole sign, 1 circular metal cabinet, 3' diameter, 2-sided, laminate fasciae, vinyl letters, "Franks' Fish Market Seafood Restaurant", with crab graphic, 1 top-mounted weather vane, approximately 6' long, "painted fish", 1 word, "Frank's", 2-sided, 2 flood light fixtures, local electrical, single pole upright, 13.5 high, 4.5" diameter, metal, concrete caisson and footing, 2.5' high
2	1	Bicycle rack, 2.5' x 3.5' x 3', painted tubular metal, 2 positions, bolted to sidewalk
3	1	Sign, hand painted on exterior stucco wall, multi-colored, 3.5'x 5.5' overall, "Frank's Fish Market", with "two men in a row boat" graphic, 3 light fixtures, local electrical
4	3	Light fixtures, for tenant signage, exterior wall-mounted, local electrical
5	2	Awning frames, painted tubular metal, exterior wall-mounted, consisting of: 1 Window, 16' long x 2' deep 1 Entry way, 8' long x 4' deep, half dome
6	1	Exterior equipment enclosure, for walk-in refrigerator and walk-in freezer mechanical packages, 8.5' x 4.25' x 3', painted softwood frame, 2 locking doors, with expanded metal mess wire fasciae, rolled asphaltic composition roof, 2 concrete pedestals, for compressors, 3' x 3', 6" thick
7	1	Group of office shelving, painted softwood, consisting of: 38 Linear feet of plank shelving, 7" to 12" deep 1 Counter top, 43" x 24", stainless steel top and backsplash, 1 undershelf
8	1	Installation only of refrigerated seafood display cases, including, local plumbing and electrical, set-up, installed in 2010

9	390	Square feet (estimate) of rolled vinyl flooring
10	350	Square feet (estimate) of ceramic tile flooring, 1" to 2" pieces
11	1	Walk-in refrigerator, 5.5' x 7.25' x 7.25', insulated stained wood, single coil blower, light fixture, remote mechanical package, wood plank shelving, 48 square feet of stainless steel sheet metal, exterior-mounted
12	1	Walk-in freezer, 6.25' x 7' x 9.25', insulated stained wood, sheet metal flooring, 3 fan coil blower, Russell, Model: A134-80E, light fixture, remote mechanical package, wood plank shelving
13	1	Hot water heater, Bradford White, Defender, Model: M45036FBN, Serial: KD18117505, 50 gallon capacity, gas-fired, DOM: 2013, earthquake straps, venting to roof
14	2	Speakers, 8" diameter, ceiling-recessed, wiring
15	3	Floor sinks, plumbing connections
16	1	Floor drain, plumbing connection
17	2	Food preparation sinks, 8.5' long, 21" deep, stainless steel, with 2 end boards each, 1 with cold water hose bib, 1 with single mixing faucet, local plumbing, including, center wrap station, 2' long, softwood, metal brackets, with roll paper dispenser, 57 square feet of stainless steel sheet metal splashes, wall-mounted
18	1	Customer service counter, 41" long, softwood, laminate top and front fascia, 2 drawers, open shelving
19	1	Lot of minor miscellaneous improvements, including, incidental shelving, hooks and fasteners, and an installation only of ice machine
29	1	Ice machine, Follett, Model: R5A, Serial: OFB1, 700 lbs. per day capacity. stainless-steel bins
30	1	Seafood display case, Hussmann, refrigerated, Model and Serial: Not avail- (2) Able, (2) 8’ sections, 2 curved lift front glass doors, rear slide glass doors

Exhibit “C” Continued

OLIVIA'S CAFÉ
IMPROVEMENTS PERTAINING TO THE REALTY OWNED BY FEE OWNER-
INCLUDED IN REAL ESTATE VALUE

Item No.	Qty.	Description
1	2	Awning frames, painted tubular metal, exterior wall-mounted, consisting of: 1 Window, 14' long x 2' deep 1 Entry way, 8' long x 4' deep, half dome
2	781	Square feet of vinyl tile flooring, 12" x 12"
3	3	Decorative light fixtures, track light channels, 2- 12' long, 1- 4' long, with 8 spot lights, local electrical
4	1	Exhaust hood, 10' x 3.5', stainless steel, filters, 2 incandescent light fixtures, venting, roof-mounted mechanical equipment package, fire suppression system, 4 nozzle, 75 square feet of stainless steel sheet metal, wall-mounted
5	1	Floor drain, plumbing connection
6	1	Scullery sink, 8' x 2', stainless steel, 3 compartment, 2 end boards, single mixing faucet, including, grease interceptor, floor-mounted, local plumbing, 18 square feet of sheet metal, wall-mounted, 1 wall shelf, 9' x 1', stainless steel
7	16	Linear feet of wall shelving, painted softwood, metal brackets
8	90	Square feet of washable wall board
9	1	Lot of natural gas plumbing, for 2 cooking appliances and 1 stub out, including, pipe from hot water heater to point of use, fittings, regulators
10	1	Hand sink, stainless steel, single mixing faucet, local plumbing

Exhibit "D"

OLIVIA'S CAFÉ
IMPROVEMENTS PERTAINING TO THE REALTY CLAIMED BY TENANT

Item No.	Qty.	Description
11	1	Sign, 86" x 48", painted wood, painted letters, "Olivia's Café", with graphic, exterior wall-mounted
12	1	Sign, hand painted, 2 colors, 10" high letters, "Olivia's Café", with graphic, on exterior wall
13	1	Sign, 4' x 8', painted wood, vinyl letters, "Olivia's Café Mexican Food 422-5430", exterior wall-mounted
14	22	Linear feet of customer service counters, 40" high x 26" deep, stained wood, 2 doors, open under-shelving, polished stone tops
15	1	Magnetic door lock, on Entry door, local electrical
16	495	Square feet of decorative ceiling mural, blue sky with clouds
17	1	Alarm system, consisting of: 1 Code pad 1 Door contact sensor 1 Motion sensor
18	1	Janitorial sink, 2' x 2', plastic, single-mixing faucet, finish plumbing
19	3	Advertising posters, in front storefront window, 32" x 55", vinyl, menu items
20	1	Lot of minor miscellaneous improvements, including, 1 plastic soap and towel dispenser set, hooks and fasteners

Exhibit "E"

Transportation Agency for Monterey County Lease Agreement

PREAMBLE

THIS LEASE ("Lease") is made this _____ day of _____, 2016 by and between the FRANK FAVALORO, ("LESSEE"), 30 West Market Street, Salinas, CA, 93901 and the TRANSPORTATION AGENCY FOR MONTEREY COUNTY, ("LESSOR"). LESSOR and LESSEE acknowledge that this Lease is a convenience to the parties upon LESSOR's acquisition of fee title to the Premises from LESSEE pursuant to that Purchase and Sale Agreement, dated as of _____, 2016, and that LESSEE has been in full possession and control of the Premises for at least five years prior to the date of this Lease.

Based upon the above, LESSOR and LESSEE hereby agree as follows:

ARTICLE 1 - PREMISES

1.1 ***Description***: LESSOR hereby leases to LESSEE and LESSEE hereby leases from LESSOR, upon the terms and conditions herein set forth, that certain real property and its appurtenances, situated at 30 West Market Street, Salinas, CA, 93901, APN 002-172-001, (the "Premises"), and specifically including the approximately 948 square foot retail and associated parking existing on the approximate 3,841 square foot parcel of land. A Site Plan of the Premises is shown in Exhibit A-1

1.2 ***Parking Areas***: The Premises includes, for LESSEE's use, the parking lot located behind the retail at 30 W. Market Street, Salinas, along with LESSOR'S other tenant, Olivia's Café.

1.3 ***Compliance with all applicable laws relative to LESSEE's Use:*** LESSOR is leasing back to LESSEE the Premises, which LESSOR acquired from LESSEE as of _____, 2016. LESSEE has represented that the Premises are in sufficient compliance with all laws applicable to property relative to LESSEE's intended use.

ARTICLE 2 - TERM

2.1 ***Lease Term***: The term of this Lease (the "Lease Term") shall be Four (4) months, commencing on the close of escrow for the purchase of the Premises, ("Lease Commencement Date") and ending Four (4) months later, or October 1, 2016, whichever is earlier, with such rights of termination and extension of the Lease Term as are hereinafter set forth.

ARTICLE 3 – RENT

In consideration of the continuing right of use, quiet enjoyment and possession of the Premises, LESSEE shall pay a monthly rent in the amount of One Dollar ($1.00) for the four (4) month Lease Term. In addition, LESSEE shall assume all costs to operate and maintain the entire Premises, including utilities, water, sewer, and normal upkeep according to the Summary of Services and Utilities, attached hereto as **Exhibit B**, and Summary of Repair and Maintenance Responsibilities, attached as **Exhibit C**. LESSEE's responsibilities shall commence on the Lease Commencement

Date and shall continue until the Lease terminates and LESSEE vacates possession of the Premises. In addition, LESSEE shall be responsible for real estate assessments, and insurance (including liability and fire) for the Premises.

ARTICLE 4 – ANNUAL RENT ADJUSTMENT

No rent adjustment is contemplated for the Lease because of the short-term nature of the Lease.

ARTICLE 5 - TERMINATION BY LESSOR AND LESSEE

Notwithstanding any other provisions of this Lease, LESSOR or LESSEE may terminate this Lease upon thirty (30) days' written notice. In addition, LESSEE has retained and taken possession of the Premises under this Lease on the express understanding that LESSOR is in the process of including the Premises as part of a larger project.

ARTICLE 6 - NOTICES

All notices or correspondence provided for herein shall be effective only when made in writing, personally delivered or deposited in the United States mail, certified, postage prepaid, and addressed as follows:

To LESSEE: Frank Favaloro
30 W. Market Street
Salinas, CA 93901
Phone: 831-601-8514

To LESSOR: Transportation Agency for Monterey County
Attn: Debbie Hale, Executive Officer
55-B Plaza Circle
Salinas, CA 93940
Phone: 831-775-0903
Fax: 831-775-0897
Email: Debbie@tamcmonterey.org

Any notice or correspondence shall be deemed delivered upon personal delivery or five (5) days after mailed. Correspondence other than notices may be given by phone, regular mail, email or facsimile. Any correspondence sent by facsimile shall also be sent by United States mail if requested by either party. By written notice to the other, either party may change its own mailing address or correspondence information.

LESSOR shall be available to LESSEE by phone during regular business hours and for emergencies after hours and weekends as further defined in Exhibit I of this Lease.

LESSEE or LESSEE's designated property management shall be available to LESSOR, by phone during regular business hours, and for emergencies after hours and on weekends. LESSEE shall

subscribe to a 24-hour, 7 days a week emergency answering service that maintains contact phone numbers of key personnel or maintenance/service companies in event of an emergency.

If applicable, LESSOR'S designated property management shall be vested with such power and authority as is reasonably necessary or incidental to the performance of this Lease and the accomplishment of its purpose.

ARTICLE 7 - PREMISE IMPROVEMENTS

7.1 ***No Premises Improvements Contemplated:*** LESSOR intends to use the Premises as part of a larger project related to transportation needs in Monterey County. As such, no improvements to the Premises are contemplated by LESSOR and no improvements requested by LESSEE shall be permitted, unless relating to necessary repairs to the Premises and unless written approval is provided by LESSOR.

7.7 ***Ownership of Improvements:*** All existing and future Premises Improvements, exclusive of trade fixtures, constructed or placed within the Premises by LESSEE shall be the property of the LESSOR upon termination of this Lease or earlier termination hereof.

ARTICLE 9 - PUBLIC WORK LAWS

Under Section 1720 of the California Labor Code, any construction done under contract and paid for in whole or in part out of public funds may be considered a 'public work' if certain conditions are met. If applicable, LESSEE shall comply with provisions of law governing public works including, without limitation, Labor Code sections 1773, 1773.2, 1773.3, 1773.8, 1775 (payment of prevailing wages), 1776 (payroll records), and 1777.5 (employment of apprentices), all as periodically amended.

ARTICLE 10 - PRIOR OCCUPANCY

LESSEE acknowledges its prior exclusive occupancy of the Premises, as stated in the Preamble.

ARTICLE 11 - USE

11.1 ***Use:*** LESSEE shall use the Premises primarily for retail fish market purposes. LESSEE may alter said use to any lawful purpose, but only upon the written consent of LESSOR, which consent shall be within LESSOR's sole discretion.

11.2 ***Compliance with Laws:*** LESSEE represents and warrants to LESSOR, that, to the best of LESSEE's knowledge, the construction, the current uses, and the operation of the Premises are in full compliance with applicable building and seismic codes, environmental, zoning and land use laws, and other applicable local, state and federal laws, regulations and ordinances. LESSEE absolves LESSOR of legal or other responsibility for any code violations or other deviations from applicable local, state and federal laws, regulations and ordinances as may be listed above.

11.3 ***Hazardous Substances:*** LESSEE shall have no liability or responsibility for toxic or hazardous materials or substances which result from LESSOR'S acts or omissions or which occur on

any portion of LESSOR'S property not occupied by LESSEE, unless caused by LESSEE, its agents, employees, invitees or guests. LESSEE acknowledges that it had exclusive possession and use of the Premises for at least five years prior to the date of this Lease. LESSEE warrants, to the best of LESSEE's actual knowledge, that at the time of execution of this Lease there are no known areas on the Premises where hazardous or toxic materials or substances (including asbestos, leads, toxic mold spores or PCBs) have been present, used, stored, or deposited. LESSEE will comply with all applicable laws concerning the handling and removal of the above-mentioned hazardous or toxic materials. LESSEE, at its own expense, shall comply with all applicable laws concerning the handling and removal of hazardous material and medical wastes generated as a result of LESSEE'S use of the Premises under this Lease.

11.4 ***Environmental Hazards:*** LESSEE warrants, to the best of LESSEE'S ability, that the Premises will be maintained free of all Environmental Hazards (including asbestos, leads, toxic mold spores or PCBs) and if deemed necessary, agrees to survey, test, and abate as applicable. Any said survey or test performed shall be provided to LESSOR upon completion.

LESSEE shall immediately notify LESSOR of any suspected Environmental Hazards.

11.5 ***Acceptance of Premises:*** By entry hereunder, LESSEE accepts the Premises as being in good and sanitary order, condition and repair.

ARTICLE 12 - SIGNS AND FIXTURES

LESSEE may place such signs and advertisements upon the Premises as LESSEE may desire, subject to approval by the LESSOR which consent shall not be unreasonably withheld provided, however, that at the expiration of the term hereof or any renewal or extension of this Lease, LESSEE will remove said signs and will restore the Premises to their original conditions. Any trade fixtures, equipment, furniture, demountable walls, and other property installed in the Premises by and at the expense of the LESSEE shall remain the property of the LESSEE, and the LESSOR agrees that the LESSEE shall have the right at any time, and from time to time, to remove any and all of its trade fixtures, equipment and other property which it may have stored or installed in the Premises, provided the Premises are restored to acceptable condition. The LESSOR agrees not to mortgage or pledge the LESSEE'S trade fixtures, equipment and other property.

ARTICLE 13 - SERVICES AND UTILITIES

Services and utilities shall be furnished and the cost borne as outlined in **Exhibit B.** In the event of failure by LESSOR to furnish, in a satisfactory manner, any of the services and utilities to the Premises for which LESSOR is responsible, LESSEE may furnish the same if LESSOR has not undertaken to correct such failure within fifteen (15) days after written notice, and, in addition to any other remedy LESSEE may have, may deduct the amount thereof, including LESSEE'S service costs, from rent or other remuneration due LESSOR hereunder. As stated in **Exhibit B** and **Exhibit C**, the term "adequate" shall mean sufficient enough to ensure the health, safety and general wellbeing of the occupants or invitees of the Premises; the term "deemed necessary" shall mean that LESSOR and LESSEE are in agreement that action needs to be taken to ensure the health, safety and general wellbeing of the occupants and or invitees of the Premises.

ARTICLE 14 - REPAIR AND MAINTENANCE

14.1 ***LESSOR and LESSEE Obligations:*** The respective repair and maintenance responsibilities of LESSOR and LESSEE are set forth in **Exhibit C**, Summary of Repair and Maintenance Responsibilities, which by this reference is incorporated herein.

14.2 ***Negligent Acts or Omissions of LESSEE:*** Notwithstanding the foregoing, LESSEE will pay to LESSOR the reasonable cost of any repairs or maintenance required as a direct result of negligent acts or omissions of LESSEE, its agents, employees, or invitees.

14.3 ***Failure of LESSEE to Make Repairs:*** If LESSEE fails to maintain the Premises or to make the repairs required in this article within the time periods as specified herein, LESSOR may perform such maintenance or make such repairs at its expense and add the reasonable cost thereof to the rent due hereunder.

14.4 ***LESSOR and LESSEE Obligations in Applying Noxious Substances:*** LESSEE, its officers, employees, and agents shall not apply any substance as part of any building maintenance or repair which would introduce irritating or noxious odors or any other hazardous condition to occupied spaces without prior coordination and approval of the LESSOR. Prior notification and approval shall be made at least 48 hours prior to the desired application time. Also, a Material Safety Data Sheet shall be furnished by the proposed applicator to the LESSEE'S onsite office manager. Examples of such substances or materials include, but are not limited to, the following:

- Termite Control Materials
- Pesticides
- Paint
- Water Treatment Chemicals
- Any other substance that is or could be construed as hazardous

ARTICLE 16 - ALTERATIONS, MECHANICS' LIENS

16.1 ***Alterations:*** No structural alterations or improvements shall be made to the Premises by LESSEE or at LESSEE's request without the prior written consent of LESSOR, which consent shall not be within LESSOR's sole discretion.

16.2 ***Condition at Termination:*** Upon the termination of this Lease, LESSEE may remove any fixtures, machinery and equipment installed in the Premises by LESSEE after the date of this Lease, if LESSEE is not then in default under this Lease and if LESSEE repairs any damage to the Premises caused by such removal. Upon termination of this Lease, LESSEE shall return the Premises in the same condition as when delivered to LESSEE, reasonable wear and tear, and damage by casualty, and alterations approved by LESSOR excepted.

16.3 ***Mechanic's Liens:*** LESSOR and LESSEE shall keep the Premises free from any liens arising out of any work performed by, materials furnished to, or obligations incurred by the parties.

ARTICLE 17 - ASSIGNMENT AND SUBLETTING

LESSEE shall not assign or sublet all or any portion of the Premises.

ARTICLE 18 - ENTRY BY LESSOR

LESSEE shall permit LESSOR and LESSOR'S agents to enter the Premises, with reasonable advance notice (except in the case of emergency), provided such entry is made in a reasonable manner and does not unreasonably interfere with the conduct of LESSEE'S business.

ARTICLE 19 - INSURANCE AND INDEMNIFICATION

LESSEE shall indemnify, defend, and hold harmless the LESSOR, its officers, agents and employees from any claim, liability, loss, injury or damage arising out of, or in connection with, performance of this Agreement by LESSEE and/or its agents, employees or sub-contractors, excepting only loss, injury or damage caused by the negligence or willful misconduct of LESSOR or personnel employed by the LESSOR. It is the intent of the parties to this Agreement to provide the broadest possible coverage for the LESSOR. The LESSEE shall reimburse the LESSOR for all costs, attorneys' fees, expenses and liabilities incurred with respect to any litigation in which the LESSEE is obligated to indemnify, defend and hold harmless the LESSOR under this Agreement.

LESSEE shall maintain insurance or a program of self-insurance providing comprehensive general liability coverage with liability limits of not less than $1,000,000 for injury or death to one or more persons and property damage limits of not less than $1,000,000 per occurrence insuring against all liability of LESSEE and its authorized representatives arising out of and in connection with LESSEE'S use or occupancy of the Premises.

LESSOR agrees that it will keep the subject property insured against loss or damage by fire, to at least eighty percent (80%) of the full fair insurable value thereof, the building on the demised Premises or of which the demised Premises are a part. **LESSOR'S insurance will not insure LESSEE'S personal property or trade fixture.**

LESSOR shall not be liable to LESSEE, or to anyone whatsoever for any damages caused by plumbing, gas, water, steam, sprinkler or other pipe and sewage system, or by the bursting, running or leaking of any tank, washstand, closet, or waste or other pipe, in and about the Premises of the building of which they are a part, or for any damage caused by water being upon or coming in through the roof, skylight, vent, trap door or otherwise; provided that LESSOR shall not be relieved from any of its obligations for maintenance and repair as otherwise set forth in this Lease.

ARTICLE 20 - WAIVERS OF SUBROGATION

LESSOR and LESSEE each hereby waive any right of recovery against the other due to loss of or damage to the property of either LESSOR or LESSEE when such loss of or damage to property arises out of the acts of God or any of the property perils whether or not such perils have been insured, self-insured or non-insured.

ARTICLE 21 - DESTRUCTION

If the Premises are totally destroyed by fire or other casualty, either party may terminate this Lease immediately by giving notice to the other party.

If such casualty shall render ten percent (10%) or less of the floor space of the Premises unusable for the purpose intended, LESSOR shall effect restoration of the Premises as quickly as is reasonably possible, but in any event restoration shall begin within thirty (30) days after such destruction.

If such casualty shall render more than ten percent (10%) of such floor space unusable but not constitute total destruction, LESSOR shall forthwith give notice to LESSEE of the specific number of days required to repair the same. If LESSOR under such circumstances shall not give such notice within fifteen (15) calendar days after such destruction, or if such notice shall specify that such repairs will require more than ninety (90) days to complete from the date such notice is given, LESSEE, in either such event, at its option, may terminate this Lease.

In the event of any such destruction other than total, where LESSEE has not terminated the Lease as herein provided, LESSOR shall diligently prosecute the repair of the Premises and, in any event, if said repairs are not completed within sixty (60) calendar days from the work commencement date, for destruction aggregating ten percent (10%) or less of the floor space, or within the period specified herein in connection with partial destruction aggregating more than ten percent (10%), LESSEE shall have the option to terminate this Lease.

If LESSEE remains in possession of the Premises though partially destroyed, the rent for said Premises as herein provided, during restoration, shall be reduced by the same ratio as the usable square feet LESSEE is thus precluded from occupying, bears to the total usable square feet in the Premises. "Usable square feet" shall mean actual inside dimensions and shall not include public corridors, stairwells, elevators, and rest rooms.

ARTICLE 22 - DEFAULT BY LESSEE

22.1 ***Default:*** If any of the following events occur, each such event shall constitute a material breach of this Lease, and LESSOR may, at LESSOR'S option, exercise any or all rights available to a LESSOR under the laws of the State of California:

a. A default in the payment of rent when such default continues for a period of thirty (30) days after written notice, or

b. LESSEE fails to faithfully perform or observe any other covenant or undertaking required under this Lease and such failure continues for a period of thirty (30) days after written notice thereof.

22.2 ***Remedies:*** If LESSEE fails to cure a prospective default within the time frames outlined above, LESSOR shall have the option to cure the default or to terminate this Lease, in addition to any other remedies at law not inconsistent herewith. Should LESSOR elect to cure the default itself, all costs associated with such cure shall be reimbursed by LESSEE to LESSOR, as Additional Rent, within thirty (30) days of receipt of LESSOR'S invoice for said costs.

ARTICLE 23 - DEFAULT BY LESSOR

23.1 ***Default:*** LESSOR shall not be in default unless LESSOR fails to perform its obligations under this Lease within a reasonable time, but in no event later than thirty (30) days after written notice by LESSEE to LESSOR specifying wherein LESSOR has failed to perform such obligations. If the nature of LESSOR'S obligation is such that more than thirty (30) days are required for performance, then LESSOR shall not be in default if LESSOR commences performance within such thirty (30) day period and thereafter diligently prosecutes the same to completion. LESSEE'S obligation to provide written notice to LESSOR of a default by LESSOR is limited to those instances where knowledge of LESSOR'S default is within the actual knowledge of LESSEE.

23.2 ***Remedies:*** If LESSOR fails to cure a prospective default within the time periods outlined above, LESSEE shall have the option to cure the default or to terminate this Lease, in addition to any other remedies at law not inconsistent herewith. Should LESSEE elect to cure the default itself, all costs associated with such cure shall be reimbursed by LESSOR to LESSEE within thirty (30) days of receipt of LESSEE'S invoice for said costs. However, upon LESSOR'S failure to so reimburse or, at LESSEE'S option, said costs shall be held from rent due hereunder. If LESSOR'S default hereunder prevents LESSEE'S use of the Premises, there shall be an abatement of rental payments for the period of such non-use.

ARTICLE 24 - This Ariticle intentionally left blank

ARTICLE 25 - HOLDING OVER

If LESSEE, with LESSOR'S consent, remains in possession of the Premises after the Lease Term or any Extended Term, this Lease shall automatically be extended on a month-to- month basis at the monthly rent applicable to the last month of the Lease Term or Extended Term, subject to termination upon thirty (30) days' written notice by either party. All other terms and conditions shall remain in full force and effect, provided that, in the event that LESSEE remains in possession of the Premises after the end of any Extended Term.

ARTICLE 26 - WAIVER

The waiver by LESSOR or LESSEE of any term, covenant or condition herein contained shall not be deemed to be a waiver of any other term, covenant or condition, nor shall either party's consent to any breach of any term, covenant or condition be deemed to constitute or imply its consent to any subsequent breach of the same or other term, covenant or condition herein contained.

ARTICLE 27 - QUIET POSSESSION

As long as LESSEE keeps and performs the covenants in this Lease, LESSEE shall at all times during the term of this Lease peaceably and quietly have, hold and enjoy the Premises, without suit, trouble or hindrance from LESSOR or any person claiming under LESSOR, subject to LESSOR's right to sublease designated areas for purposes that assist LESSOR's primary function of elimination of blight and redevelopment.

ARTICLE 28 – SUBORDINATION AND NON-DISTURBANCE

This Lease shall be subject and subordinated to the lien of any mortgages and deeds of trust which are hereafter placed against the LESSOR'S interest or estate in the property provided that the mortgage or beneficiary under such mortgage or deed of trust shall agree in writing that, in the event of a foreclosure of same or of any other such action or proceeding for the enforcement thereof, or of any sale there under, this Lease shall not be barred, terminated, cut off, or foreclosed, nor will the rights and possession of LESSEE hereunder be disturbed if LESSEE shall not then be in default under the terms of this Lease, and LESSEE shall attorn to the purchaser at such foreclosure, sale or other action or proceeding. The foregoing subordination shall be effective without the necessity of having any further instruments executed by LESSEE, but LESSEE shall nonetheless execute, upon demand, such further instruments evidencing such subordination as may be reasonably requested by LESSOR or any mortgagee or beneficiary.

ARTICLE 29 - ESTOPPEL CERTIFICATE

Within thirty (30) days of written notice by one party to the other, each will execute, acknowledge and deliver to the other an estoppel certificate in writing declaring any modifications, defaults or advance payments and whether the lease, as may be modified, is in full force and effect. Any such certificate may be conclusively relied upon for the intended transaction for which the statement was requested.

ARTICLE 30 - MISCELLANEOUS PROVISIONS

30.1 ***No Amendments:*** No oral amendment of this Lease shall be valid unless made in writing and signed by the parties hereto, and no prior oral understanding or agreement not incorporated herein shall be binding on either party hereto.

30.2 ***Time is of the Essence:*** Time is of the essence of each term and provision of this Lease.

30.3 ***Binding Effect:*** Subject to any provision hereof restricting assignment or subletting by LESSEE, this Lease shall bind the parties, their personal representatives, successors, and assigns.

30.4 ***Invalidity:*** The invalidity of any provision of this Lease as determined by a court of competent jurisdiction shall in no way affect the validity of any other provision hereof.

30.5 ***Warranty of Authority:*** If LESSEE is a corporation; the person executing this lease on behalf of LESSEE hereby covenants and warrants that LESSEE is a duly authorized and existing corporation and that he/she is duly authorized to execute this Lease.

30.6 ***Addendum:*** In the event of conflict between this Lease and any Addendum or Exhibit attached hereto, the provisions of such Addendum or Exhibit shall control.

ARTICLE 31 - MAJOR APPLIANCES

Installation of major appliances such as vending machines, refrigerators, stoves, etc., must be approved by LESSOR prior to installation. The LESSOR will grant installation approval for new appliances only. Such approval shall not be unreasonably withheld.

LESSEE: Frank Favaloro

_____ Date: _____

LESSOR: Transportation Agency for Monterey County

By: _____ Date: _____
Debra L. Hale
Title: Executive Director

APPROVED AS TO FORM:

_____
Title: TAMC Counsel

Date:_____

Exhibit “A” to Exhibit “E”

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF SALINAS, COUNTY OF MONTEREY, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

Lot 8, and a portion of Lot 7, and a portion of "BREMEN PARK", in the Bremen Park Block (sometimes known as Block 23 1/2), as said Block is shown and designated on that certain map entitled, "MAP OF SALINAS CITY, Monterey County, California", (commonly known as SHERWOOD-HELLMAN MAP), refiled January 14, 1869 in Volume 1, Maps of "Cities and Towns", at Page 36, Records of Monterey County, described as follows:

Beginning at a 1" diameter iron pipe standing at the intersection of the easterly line of Station Place (formerly known as Natividad Street, 100 feet wide) with the northerly line of West Market Street (formerly known as Castroville Street, 100 feet wide); thence running from said point of beginning along the line common to said Block 23 1/2 and Station Place, (1) N. 24° 38 1/2' E., 165.0 feet to a 1" diameter iron pipe standing in the southerly line of a public alley (15 feet wide); thence leave said common line and running along the southerly line of said alley, (2) S. 65° 25 1/2 ' E., 23.28 feet to a 1" diameter iron pipe top 2" underground; thence leave said alley line and running, (3) S. 24° 38 1/2' W., 165.0 feet to a 1 1/2" diameter iron pipe standing in the line common to said Block 23 1/2 and said West Market Street from which a copper plug set in a concrete sidewalk bears S. 24° 38 1/2'., (4) N. 65° 25 1/2' W., 23.28 feet to the point of beginning.

Except therefrom that portion thereof described in the Deed to Salinas, a municipal corporation, recorded December 7, 1994 in Reel 3179, Page 741, Official Records of Monterey County.

APN: 002-172-001

Exhibit "B" to Exhibit "E"

SUMMARY OF SERVICES AND UTILITIES

The following is a summary of services and utilities responsibilities of LESSOR and LESSEE for the proposed use of the Premises:

Provide adequate paper supplies, dispensers, and waste and recycling containers for the Premises and rest rooms			x
Provide adequate custodial service for interior of the Premises (dust, waste removal, recycling removal, vacuum, mop and general cleaning)			x
Provide adequate custodial service for exterior of the Premises and common areas			x
Professionally clean carpets, rugs, tile and linoleum flooring as deemed necessary			x
Professionally clean existing drapes, blinds, and window shades as deemed necessary			x
Professionally clean interior windows as deemed necessary			x
Professionally clean exterior windows as deemed necessary			x
Provide adequate pest control for the interior of the Premises			x
Provide adequate pest control for exterior of Premises			x
Provide adequate landscape maintenance and gardening (including landscape irrigation system and associated water supply and service)			x
Provide adequate parking lot area sweeping			x
Provide adequate refuse, rubbish, garbage, and recyclable (paper, plastic, and aluminum) disposal and pick up service			x
Provide adequate fire sprinkler systems testing			x
Provide adequate fire alarm systems monitoring			x
Provide adequate intrusion/security alarm systems monitoring			x
Provide adequate patrolled security guard service			x
Provide adequate heating, ventilation & air conditioning (HVAC) systems filter replacements, unit inspections and unit lubrications			x
Provide adequate servicing of uninterrupted power source (UPS)	x		
Provide adequate servicing of power back-up generator (excludes any power back-up generator provided by LESSEE)			x
Provide adequate electric utility service			x
Provide adequate water utility service			x
Provide adequate telephone and data service (including connection charges)			x
Provide adequate sewage services (including MRWPCA fee, if applicable)			x
OTHER:			

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Grant Leonard, Transportation Planner

Meeting Date: April 27, 2016

Subject: **2014 Regional Transportation Plan Amendment No. 1**

RECOMMENDED ACTIONS

1. **HOLD** public hearing on Amendment No. 1 to the 2014 Regional Transportation Plan;
2. **ADOPT** Resolution 2016-07 to adopt CEQA findings;
3. **ADOPT** Resolution 2016-08 to adopt Amendment No. 1 to the 2014 Regional Transportation Plan; and
4. **REQUEST** that the Association of Monterey Bay Area Governments amend the adopted 2035 Metropolitan Transportation Plan /Sustainable Communities Strategy based on the amended Regional Transportation Plan.

SUMMARY

This amendment will modify the 2014 Regional Transportation Plan (RTP) Regionally Significant Projects list.

FINANCIAL IMPACT

There is no impact to the Agency budget associated with this action. Tasks to prepare the plan are included in the adopted Agency budget. All projects that seek state or federal funds must be included in the Regional Transportation Plan.

DISCUSSION

In June of 2014, the Agency adopted the 2014 Monterey County Regional Transportation Plan, which had been prepared in coordination with the Association of Monterey Bay Area Governments to be consistent with a Sustainable Communities Strategy adopted by AMBAG for the Monterey Bay Area. The regional plan is a long-range planning document with a 20 year horizon that serves as a general plan for transportation in Monterey County.

As part of approval of the 2014 RTP, the Agency adopted Resolution 2014-10 to adopt CEQA findings, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program related to the Environmental Impact Report certified by AMBAG for the 2014 RTP. The adopted CEQA findings reflect the programmatic nature of the EIR for the 2014 RTP, with the understanding that as individual projects move forward in development, they will be subject to project specific environmental review.

Since approval of the 2014 RTP, three projects previously included as part of the non-regional transportation investments, and therefore included in the programmatic environmental review, have progressed in development, and the local project sponsors requested they be amended into the project list to assist with securing additional funding sources. On March 23, 2016, the Agency released the Draft Amendment to the 2014 (RTP) projects list for a 30 day public review period.

The draft Amendment No. 1 included three additional projects:

- Gonzales Fifth Street Roundabouts,
- Fort Ord Recreation Trail and Greenway (FORTAG), and
- Carmel Floodplain Restoration and Environmental Enhancement (Carmel FREE).

During the public comment period, the Agency received a request from Monterey-Salinas Transit (MST) to make minor modifications to the project description for two MST projects already listed in the project list. Staff has included the requested MST modifications in Attachment 1.

In addition to gathering public comment, Agency staff reviewed the prior environmental analysis and has prepared Resolution 2016-07, which makes a finding that no new environmental documentation is required for adoption of Amendment No. 1 to the Regional Transportation Plan. Staff is recommending this finding because of the programmatic nature of the original 2014 RTP EIR, that the projects listed in Amendment 1 to the 2014 RTP were previously accessed as part of the non-regional grouped projects, and that further environmental review will be needed by the appropriate jurisdictions at the project-level to develop appropriate mitigation for individual projects.

Approved by: _____ Date signed: April 12, 2016
Debra L. Hale, Executive Director

Regular Agenda Counsel Review: Yes
Admin/Finance Approval: N/A

Attachments: 1. Amendment to the 2014 Regional Transportation Plan - projects list
2. Resolution 2016-07 (CEQA)
3. Resolution 2016-08

Monterey County Regional Transportation Plan Project List - Amended 2016

Regionally Significant Projects (Current Year; $1,000's)

ID No.	Sponsor	Project Title	Project Description	Total Cost	2020	2035
MON-CT045-MA	Caltrans	**SR 1 - Monterey Rd Interchange**	Construct new interchange. (PM EB R80.75/R83.27)	$25,935		$25,935
MON-CT015-CT	Caltrans	**SR 1 - Widening Seaside to Sand City**	Construct interchange and related local road improvements in the vicinity Fremont Boulevard.	$9,000		$9,000
MON-CT008-UM	County	**SR1 Operational Improvements**	Constructs one new northbound climbing lane between Rio Road and Carmel Valley Road, modifies intersections and enhances turn movements.	$3,600	$3,600	
MON-MYC288-UM	County	**SR 1 - Carmel River FREE**	Replace a portion of the elevated SR 1 roadway embankment with a 360-foot long causeway. Realignment and re-profiling of the existing highway between the southern end of the existing Carmel River bridge to approximately 740 feet south of the proposed overflow bridge. Construct new southbound left turn lane to serve the Palo Corona regional Park entrance.	$9,900	$9,900	
MON-MYC153-UM	County	**SR 68 - Corral de Tierra**	Install dual left turn lanes on westbound Hwy 68, add a merge lane on southbound Corral de Tierra, add right-turn lane on northbound Corral de Tierra.(EA 05-OH823) (PM 12.8/13.2)	$2,860	$2,860	
MON-CT011-CT	Caltrans	**SR 68 - Commuter Improvements**	Widen existing roadway to 4-lanes between existing 4 lane segment at Toro Park and Corral de Tierra Road (MON-68-4.0/15.0).	$25,555		$25,555
MON-MRY027-MY	Monterey	**SR 68/SR 1 Interchange Improvements**	Construct new roundabout at the interchange of SR 68 and SR 1.	$6,850	$6,850	
MON-CT017-CT	Caltrans	**SR 68 - (Holman Hwy - access to Community Hospital)**	Widen Holman State Route 68 Holman Highway to 4 lanes from Community Hospital of the Monterey Peninsula to State Route 1, make operational improvements at the SR 68 – SR 1 interchange and construct roundabout at hospital entrance. (EA 05-44800) PM 3.8/L4.3	$26,620		$26,620
MON-SNS006-SL	Salinas	**US 101 - Alvin Drive**	Construct overpass/underpass and 4 lane street structure.	$13,325		$13,325
MON-CT030-SL	Salinas	**US 101 - Salinas Corridor**	Widen US 101 to 6 lanes within the existing right of way at locations where feasible.	$52,000		$52,000
MON-SNS122-SL	Salinas	**US 101 - Sanborn Road/Elvee**	Construct offramp and intersection improvements.	$3,100	$3,100	
MON-CT044-SL	Salinas	**US 101 - Harris Road Interchange**	Construct new Interchange on US 101 at Harris Road . PM 83.71	$57,662		$57,662
MON-CT031-CT	Caltrans	**US 101 - South County Frontage Roads**	Construct Frontage Roads from Harris Road to Chualar, then to Soledad. (EA 05-OH330)	$112,000		$112,000
MON-GON016-GO	Gonzales	**US 101 - Fifth Street Interchange Roundabouts**	Construct roundabouts on both sides of the US101/Fifth Street Interchange to improve vehicular flow.	$7,500		$7,500
MON-GON015-CT	Caltrans	**US 101 - Gloria Road Interchange**	Construct interchange improvements at US 101 at Gloria Road	$39,505		$39,505
MON-SOL002-SO	Soledad	**US 101 - North Interchange**	Install new interchange north of US 101 and Front Street.	$17,490		$17,490
MON-SOL003-SO	Soledad	**US 101 - South Interchange**	Install new interchange south of US 101 and Front Street.	$18,810		$1

ID No.	Sponsor	Project Title	Project Description	Total Cost	2020	2035
MON-GRN008-GR	Greenfield	**US 101 - Walnut Avenue Interchange**	Relocate and replace existing US 101/Walnut Avenue Interchange and widen to six lanes. (EA 05-OP160) PM 53.4/54.3	$28,784		$28,784
MON-KCY006-CK	King City	**US 101 - 1st Street Interchange (Lonoak Street I/C)**	Extend San Antonio over railroad tracks from Lonoak to US 101/First Street Interchange. (PM R39.77)	$42,592		$42,592
MON-CT036-CT	Caltrans	**SR 156 - West Corridor (Phase I)**	Widen existing highway to 4 lanes and upgrade highway to Freeway status with appropriate interchanges. Interchange modification at US 156 and 101. (EA 05-31600) PM R1.8/T4.8	$109,000	$109,000	
MON-CT022-CT	Caltrans	**SR156 - West Corridor (Phase II)**	Construct interchange modifications at US 101 at State Route 156	$133,130		$133,130
MON-MYC147-UM	County	**SR 156 - Blackie Road**	Construct new road from Castroville Boulevard/SR 156 to Blackie Road	$18,000		$18,000
MON-SOL014-SO	Soledad	**SR 146 Bypass**	Construct to 4 lanes from SR 146 (Metz Road) to Nestles Road. Install Class II bike facility.	$21,000		$21,000
MON-SNS050-SL	Salinas	**Russell Road Widening**	Widen Street from US 101 to San Juan Grade Road.	$3,078		$3,078

ID No.	Sponsor	Project Title	Project Description	Total Cost	2020	2035
MON-MAR001-MA	County, Marina, Caltrans	**Marina-Salinas Corridor**	Widen Davis Rd to 4 lanes from Blanco Rd to Reservation Rd, Construct new 4 lane bridge over the Salinas River, Widen Reservation Rd to 4 lanes from Davis Rd to existing 4 lane section adjacent to East Garrison at Intergarrison Road, Widen Imjin Pkwy to 4 lanes from Reservation Rd to Imjin Rd, construct new Imjin Parkway interchange at SR 1. Include accomodations for bicyclists, pedestrians and transit; consider highquality transit service along corridor.	$90,508		$90,508
MON-MRY005-MY	Monterey	**Del Monte Corridor**	Add eastbound lane from El Estero to Sloat Ave. Intersection improvements to Sloat Ave and Aguajito Ave including addition of left turn lanes and signal operations improvements.	$30,000		$30,000
MON-TAMC006-TAMC	TAMC	**Fort Ord Regional Trail and Greenway (FORTAG)**	The Fort Ord Regional Trail and Greenway Project is a proposed 30-mile regional network of paved recreational trails and greenways connecting communities to open space throughout parts of Marina, California State University Monterey Bay (CSUMB), and Seaside.	$33,557		$33,557
MON-MYC181-UM	County	**G12 Operational and Capacity Improvements**	Operational and capacity improvements, including road widening, turning lanes, signalization and intersection improvements, and bicycle and pedestrian facilities.	$55,000		$55,000
MON-MST008-MST	MST	**Salinas-Marina Multimodal Corridor**	Construct multimodal Bus Rapid Transit Improvements between Salinas and Marina, including a multimodal transit corridor through the former Fort Ord in Marina.	$60,000		$60,000
MON-MST011-MST	MST	**Salinas Bus Rapid Transit**	Construct Bus Rapid Transit improvements along Alisal Street and North Main Street.	$20,000	$20,000	
MON-MST015-MST	MST	**Transit Capacity for SR 1**	Construct improvements to accommodate regional MST bus service on the SR 1 shoulders **and/or along the SR 1 corridor for a rapid bus corridor** during peak travel periods.	$16,000		$16,000
MON-MST016-MST	MST	**South Monterey County Regional Transit Improvements**	Increases the frequency of MST service between King City and Salinas, **constructs a Salinas Valley transit center(s)**, and constructs improvements along Abbott Street between US 101 and Romie Way in Salinas. Stops in King City, Greenfield, Soledad, Gonzales, Chualar and Salinas.	$27,500	$27,500	
MON-TAMC001-TAMC	TAMC	**Monterey Branch Line Light Rail**	Construct light rail transit service using the existing 16 mile Monterey Branch Line between Monterey and Castroville adjacent to Highway 1. Phase 1 includes reconstruction of tracks, construction of stations, purchase of vehicles and operating costs for service between Monterey and Marina. Phase 2 includes reconstruction of tracks to connect to the planned commuter rail station in Castroville and include operating costs to Castroville and increased frequencies.	$255,000	$25,000	$230,000
MON-TAMC002-TAMC	TAMC	**Monterey Branch Line Light Rail - Salinas River Bridge Replacement**	Construct new rail bridge on the Monterey Branch Line over the Salinas River.	$15,000		$1

ID No.	Sponsor	Project Title	Project Description	Total Cost	2020	2035
MON-TAMC003-TAMC	TAMC	**Rail Extension to Monterey County**	Extends existing rail service from San Jose to Salinas and constructs station improvements in Gilroy, Pajaro, Castroville and Salinas. Kickstart phase to be completed by 2020 will establish stops in Gilroy and Salinas with limited Salinas station improvements.	$135,710	$68,025	$67,685
MON-TAMC004-TAMC	TAMC	**Amtrak Coast Daylight Rail Service**	Establishes once daily Amtrak intercity rail service between downtown San Francisco and downtown Los Angeles	$500	$500	
Subtotal				**$1,526,071**	**$276,335**	**$1,249,736**

ID No.	Sponsor	Project Title	Project Description	Total Cost	2020	2035
Non-Regional Grouped Project Costs (Current Year; $1,000's)						
Transit						
		Rail and Bus Rapid Transit New Facilities		$6,086	$6,086	
		Capital, Rehab & New Facilities		$164,281	$48,375	$115,906
		Operations		$501,592	$149,992	$351,600
		ADA & Mobility Management		$87,500	$24,500	$63,000
Subtotal				$759,459	$228,953	$530,506
Highways						
		Highway Projects		$28,674		$28,674
		Highway Operations, Maintenance and Rehab		$741,440	$200,977	$540,463
Subtotal				$770,114	$200,977	$569,137
Local Streets & Roads						
		Capital Expansion		$294,805	$135,208	$159,597
		Operations, Maintenance & Rehab		$270,860	$96,485	$174,375
Subtotal				$565,665	$231,693	$333,972
Active Transportation, Transportation Demand & System Management						
		Active Transportation		$703,803	$147,742	$556,061
		Transportation Demand Management		$5,250	$1,500	$3,750
		Transportation Systems Management		$1,670	$435	$1,235
Subtotal				$710,723	$149,677	$561,046
Other						
		Airports		$87,875	$44,056	$43,819
Subtotal				$87,875	$44,056	$43,819
Total				$2,893,836	$855,356	$2,038,480

RESOLUTION NO. 2016-07
OF THE
TRANSPORTATION AGENCY FOR MONTEREY COUNTY (TAMC)

DETERMINING THAT THE PROJECTS IDENTIFIED IN AMENDMENT NO. 1 TO THE REGIONAL TRANSPORTATION PLAN IS WITHIN THE SCOPE OF THE 2014 MONTEREY COUNTY REGIONAL TRANSPORTATION PLAN WHICH WAS ANALYZED BY THE ENVIRONMENTAL IMPACT REPORT CERTIFIED BY THE ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS AND CONSIDERED BY TAMC IN ADOPTING RESOLUTION NO. 2014-10, AND ADOPTING AMENDMENT NO. 1 TO THE REGIONAL TRANSPORTATION PLAN

WHEREAS, the Transportation Agency for Monterey County is the state-designated Regional Transportation Planning Agency ("RTPA") for Monterey County; and

WHEREAS, on June 25, 2014, the Monterey County Regional Transportation Plan was approved by TAMC after review, consideration of, and adoption of findings for the program Environmental Impact Report ("EIR") (SCH# 2013061052) for the 2035 MTP/SCS, certified by the Association of Monterey Bay Area Governments ("AMBAG"), which EIR incorporates the Monterey County RTP, in compliance with CEQA; and

WHEREAS, TAMC acknowledged in Resolution No. 2014-10 that implementation of the RTP would result in significant environmental impacts, as identified in the Final EIR; and

WHEREAS, CEQA Findings were prepared in compliance with Public Resources Code §§21081 and CEQA Guidelines Section §15091 for every significant impact of the 2014 Monterey County RTP identified in the EIR and for each alternative evaluated in the EIR, including an explanation of the rationale for each finding; and

WHEREAS, a Mitigation Monitoring and Reporting Program was prepared in compliance with Public Resources Code §21081.6 and CEQA Guidelines §15097 to ensure implementation of the mitigation measures identified in the Final EIR; and

WHEREAS, the Regional Transportation Plan specifically acknowledged that certain non-regional projects and analyzed in the EIR which was the subject of TAMC Resolution 2014-10, including the Plan's associated roadway widening projects; and

WHEREAS, Amendment No. 1 to the Regional Transportation Plan acknowledges that further environmental review will be needed by the appropriate jurisdictions at the project-level to develop appropriate mitigation for individual projects.

NOW, THEREFORE, BE IT RESOLVED THAT: the Transportation Agency for Monterey County finds that the foregoing recitals are true and correct and incorporated by this reference; and

BE IT FURTHER RESOLVED THAT the Transportation Agency for Monterey County Board of Directors finds that the matters contained in Amendment No. 1 to the Regional Transportation Plan are within the scope of, and have already been analyzed in, the Final EIR for the 2035 MTP/SCS, certified by AMBAG and approved by TAMC on June 25, 2014; and

BE IT FURTHER RESOLVED THAT the Transportation Agency for Monterey County Board of Directors finds that, pursuant to CEQA Guidelines § 15162, no new effects could occur and no new mitigation measures would be required by reason of the adoption of Amendment No. 1 to the Regional Transportation Plan; and

BE IT FURTHER RESOLVED THAT no new environmental documentation is required for adoption of Amendment No. 1 to the Regional Transportation Plan.

ACCORDINGLY, Amendment No. 1 to the Regional Transportation Plan is hereby adopted.

PASSED AND ADOPTED by the Transportation Agency for Monterey County, State of California this ___ day of April 2016, by the following vote:

AYES:

NOES:

ABSENT:

_____
FERNANDO ARMENTA, CHAIR
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

ATTEST:

_____
DEBRA L. HALE, EXECUTIVE DIRECTOR
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

RESOLUTION NO. 2016-08 OF THE
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

APPROVING AMENDMENT NO. 1 TO THE 2014 MONTEREY COUNTY REGIONAL TRANSPORTATION PLAN

WHEREAS, the Transportation Agency for Monterey County ("TAMC") is the state-designated Regional Transportation Planning Agency ("RTPA") for Monterey County;

WHEREAS, California Government Code Section 65080 (c) requires that each RTPA adopt and submit an updated Regional Transportation Plan (RTP) to the California Transportation Commission and the Department of Transportation, which the Transportation Agency prepares every four years; and

WHEREAS, the Regional Transportation Plan has been prepared in accordance with California Transportation Commission (CTC) Regional Transportation Plan Guidelines, pursuant to Government Code, Section 14522;

WHEREAS, TAMC prepared the 2014 Regional Transportation Plan in coordination with the Association of Monterey Bay Area Governments (AMBAG), the Santa Cruz County Regional Transportation Commission, and the San Benito County Council of Governments; and

WHEREAS, the 2014 Monterey County Regional Transportation Plan contains an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system in Monterey County through the year 2035 and calls for development of an integrated intermodal transportation system that facilitates the efficient, economic movement of people and goods; and

WHEREAS, TAMC adopted the 2014 Monterey County Regional Transportation Plan by Resolution 2014-11 on June 25, 2014;

WHEREAS, the environmental impacts of the 2014 Monterey County Regional Transportation Plan was analyzed as part of the 2035 MTP/SCS and RTPs for Monterey, San Benito and Santa Cruz County EIR, prepared by AMBAG as Lead Agency, and reviewed by TAMC as a responsible agency, with TAMC making appropriate findings thereon in Resolution 2014-10; and

WHEREAS, Amendment No. 1 to 2014 Monterey County Regional Transportation Plan makes minimal changes in the identification of projects to be considered in the future; and

WHEREAS, WHEREAS, the Regional Transportation Plan specifically acknowledged that certain non-regional projects and analyzed in the EIR which was the subject of TAMC Resolution 2014-10, including the Plan's associated roadway widening projects; and

WHEREAS, Amendment No. 1 to the Regional Transportation Plan acknowledges that further environmental review will be needed by the appropriate jurisdictions at the project-level to develop appropriate mitigation for individual projects.

NOW, THEREFORE, BE IT RESOLVED THAT: the Board of Directors of the Transportation Agency for Monterey County hereby adopts, authorizes and approves Amendment No. 1 to the 2014 Monterey County Regional Transportation Plan in accordance with this Resolution.

PASSED AND ADOPTED by the Transportation Agency for Monterey County, State of California this 27th day of April 2016 by the following vote:

AYES:

NOES:

ABSENT:

_____

FERNANDO ARMENTA, CHAIR
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

ATTEST:

_____

DEBRA L. HALE, EXECUTIVE DIRECTOR
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **State Transportation Improvement Program Funding Cuts**

RECOMMENDED ACTION

1. **RECEIVE** update on the 2016 State Transportation Improvement Program proposed project delays and funding cuts;
2. **APPROVE** advancing Regional Surface Transportation Program Funds to the County of Monterey in an amount not-to-exceed $3.0 million for the Highway 1 Operational Improvements project to allow it to be constructed in FY2016/17, as planned; and
3. **AUTHORIZE** staff to submit a request to the California Transportation Commission to receive reimbursement in the amount of $3.0 million from future State Transportation Improvement Program funds.

SUMMARY

In February 2016, The Transportation Agency Board approved $7 million in project cuts as Monterey County's share of the State Transportation Improvement Program funding shortfall. California Transportation Commission staff is preparing to recommend a further $9.1 million cut to Highway 156 and delays to three projects.

FINANCIAL IMPACT

The California Transportation Commission staff is proposing to cut the Agency's 2016 Regional Transportation Improvement Program share by $16.1 million, from $72.8 million to $56.7 million over the next five-year cycle. Separately, the Agency averages $4.4 million annually in Regional Surface Transportation Program funds.

DISCUSSION

The State Transportation Improvement Program (STIP) is a five-year program of state highway, rail and local transportation projects funded with revenues from state and federal fuel taxes. The 2016 State Transportation Improvement Program covers fiscal years 2016/17 through 2020/21. As gas tax revenues continued to fall below forecast amounts, the Commission adopted a revised fund estimate at its January 2016 meeting that reduced the statewide program by over $750 million. Monterey County's share of this reduction was set at $7 million. At its February 2016 meeting, the Transportation Agency Board approved deleting the US-101 South County Frontage Roads project at

Transportation Agency for Monterey County
• 55-B Plaza Circle • Salinas, California 93901-2902
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www.tamcmonterey.org

$5 million, and reducing the Highway 156 Improvement Project by $2 million to address the funding shortfall.

However, after all the regional agencies submitted their revised funding proposals, the State was still left with a $250 million shortfall. In April, Transportation Agency staff was contacted by California Transportation Commission staff as they are preparing to recommend further cuts and delays to Monterey County's program. This includes:

- Delaying the construction funding for the Highway 1 Operational Improvements and Highway 68 / Corral de Tierra Intersection projects by one year, to 2017/18;
- Delaying the design funding for the Imjin Road project by two years to 2018/19;
- Cutting the $9.1 million right-of-way phase for the Highway 156 Improvement project and delaying the design phase by two years to 2019/20.

At $3.0 million, the Highway 1 Operational Improvements project is the largest project nearing construction, and is critical to keep on schedule to avoid cost increases. Transportation Agency staff has met with Caltrans, California Transportation Commission, and County of Monterey staff to explore options for maintaining construction funding for this project in 2016/17. The team proposes these three strategies be pursued concurrently:

1. STIP Advancement: The State Legislature is considering three potential transportation funding proposals, each of which would restore funding to the State Transportation Improvement Program. If one of those proposals is enacted, the County may request an advancement of STIP funds to stay on schedule for a FY2016/17 construction date.
2. RSTP Loan: If the State Legislature does not approve new transportation funding, staff proposes that the Transportation Agency advance $3.0 million in Regional Surface Transportation Program funds to the Highway 1 project, and request that the State reimburse TAMC with $3.0 million in future STIP funds, or a new STIP project in the same amount—via a so-called AB 3090 "loan". If approved, staff will seek to notice the AB 3090 request at the June 2016 CTC meeting to begin the process.
3. Secure Equity in Cuts: The Transportation Agency should continue to strongly object to our projects shouldering more than their fair share of funding cuts. While restoring funding to Highway 156 would mean that another county (or counties) would lose an equal amount, our Agency has already cut the requested $7 million while others made no cuts. Agency staff will provide testimony at the May CTC meeting in support of our projects and the restoration of funding.

Unfortunately, the Agency only has sufficient RSTP funding to advance for the Highway 1 project, leaving the Highway 68 and Imjin Road projects with delays. In addition, the Agency does not have capacity to address the cuts to Highway 156 and will need to request that this funding be restored in the 2018 STIP cycle, if not sooner.

Approved by: _____ Date Signed: April 14, 2016
Debra L. Hale, Executive Director

Regular Agenda Counsel Approval: N/A
Finance Approval: N/A

Attachment: 2016 Regional Transportation Improvement Program Summary- REVISED

Transportation Agency for Monterey County

2016 Regional Transportation Improvement Program - REVISED

Funding Strategies for Current and Proposed Project Programming

Regional Improvement Program

Lead Agency	Project	Total RIP Funds	Prior	15/16	16/17	17/18	18/19	19/20	20/21	State Only?
Highway and Road Projects										
Caltrans	US-101 South County Freeway Conversion				PA&ED					
	2016 RTIP Revised Proposal	$0			$0					
	CTC Staff Recommendation	*$0*			*$0*					
Caltrans	SR 156 Improvement Project				PA&ED	PS&E	ROW			
	2016 RTIP Revised Proposal	$30,500			$1,600	$19,800	$9,100			
	CTC Staff Recommendation	*$21,400*			*$1,600*			*$19,800*		
City of Marina	Imjin Road Widening		$1,650			PS&E				
	2016 RTIP Revised Proposal	$1,650				$1,650				
	CTC Staff Recommendation	*$1,650*					*$1,650*			
Monterey Co.	SR1 Operational Improvements				CON					
	2016 RTIP Revised Proposal	$3,000			$3,000					
	CTC Staff Recommendation	*$3,000*				*$3,000*				
Monterey Co.	SR 68 - Corral de Tierra				CON					X
	2016 RTIP Revised Proposal	$1,700			$1,700					x
	CTC Staff Recommendation	*$1,700*				*$1,700*				x
Rail, Transit, and Bike Projects										
TAMC	Coast Daylight Track Improvements		$200			CON				
	2016 RTIP Revised Proposal	$300				$300				
	CTC Staff Recommendation	*$300*				*$300*				
TAMC	Capitol Corridor Extension to Monterey County					CON				X
	2016 RTIP Revised Proposal	$18,856				$18,856				x
	CTC Staff Recommendation	*$18,856*				*$18,856*				x
Monterey Co.	Castroville Bike / Ped Overcrossing			CON						
	2016 RTIP Revised Proposal	$6,637		$6,637						
	CTC Staff Recommendation	*$6,637*		*$6,637*						
MST	Monterey-Salinas Transit Buses				CON					
	2016 RTIP Revised Proposal	$2,000			$2,000					
	CTC Staff Recommendation	*$2,000*			*$2,000*					
Administrative										
TAMC	Planning, Programming, and Monitoring		$518							
	2016 RTIP Revised Proposal	$1,140		$213	$185	$185	$185	$185	$185	
	CTC Staff Recommendation	*$1,140*		*$213*	*$231*	*$231*	*$231*	*$234*		
	Totals, Proposed 2016 RTIP Revised Projects	***$65,783***		***$6,850***	***$8,485***	***$40,791***	***$9,285***	***$185***	***$185***	
	Totals, Proposed CTC Staff Recommendation	***$56,683***								
	Change from 2016 RTIP to CTC Staff Recommendation:	***-$9,100***								

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **Regional Roundabout Study**

RECOMMENDED ACTION

APPROVE the Regional Roundabout Study.

SUMMARY

The Agency contracted with Kittelson & Associates to conduct the Regional Roundabout Study. The firm used Caltrans' Intersection Control Evaluation guidelines for a holistic approach to compare the costs and benefits of constructing modern roundabouts vs. stop or signalized intersections at 25 locations around Monterey County.

FINANCIAL IMPACT

The Transportation Agency Board approved a contract for total of $369,938 for the Regional Roundabout Study project.

DISCUSSION

Modern roundabouts are proving to have significant safety and operational benefits compared to traditional signalized intersections. A well-documented study found that converting 23 test intersections throughout the U.S. from traffic signals to roundabouts reduced fatal crashes by 90 percent, injury collisions by 75% and reduced the number of collisions overall by 37%. While initial construction costs tend to be higher for roundabouts, long-term life cycle costs (for ongoing maintenance and operations) tend to be lower than for signalized intersections.

For this project, Kittelson coordinated with TAMC and local agency staff to verify which intersection forms would be evaluated at each intersection. A roundabout and a traffic signal alternative were evaluated at most intersections; however, an improved stop sign alternative was also evaluated at some locations. The consultant used procedures outlined in the Highway Capacity Manual to perform a peak hour operations analysis of each intersection control option. The analysis dictated lane configurations, which were used to develop an intersection footprint. Using these lane configurations, the consultant prepared concept drawings on an aerial base indicating the approximate footprint of the

intersection to gauge potential impacts to private property and environmental features. With this information, the consultant prepared cost estimates for each alternative. The analysis then evaluated the benefits of each project based on safety, delay, and emissions; calculated a monetary value for those benefits; and then developed a ratio comparing the project benefits to the life cycle cost. A ratio of above 1 indicates that the benefits of the roundabout, signal or enhanced stop sign are greater than the cost; the design with the highest number represents the recommended design.

The consultant reviewed the results of the analysis with each participating jurisdiction, as well as Monterey-Salinas Transit, and has incorporated the feedback received from those meetings in the draft report. The draft report was then circulated to all agencies for review, comment and final revisions. The report is designed as information to the cities and county, but they are free to choose whichever intersection control design they deem appropriate, as there may be other mitigating factors. The table below summarizes the recommendations of the Regional Roundabout Study for each intersection studied:

Jurisdiction	Location	Recommendation
County	Laureles Grade at Carmel Valley Road	Roundabout
County	Highway 68 at Corral de Tierra	Roundabout
County	San Miguel Canyon Road at Castroville Boulevard	Roundabout
Gonzales	Fifth Street at US 101 Ramps	Roundabout
Greenfield	Walnut Avenue at El Camino Real	Roundabout
King City	Broadway Street at San Antonio / US 101 Ramps	Roundabout
Marina	Reservation Road at Deforest Road	Roundabout
Marina	Cardoza Avenue at Abdy Way	Roundabout
Marina	8th Street at Inter-Garrison	Roundabout
Monterey	Munras Avenue/Abrego Street at El Dorado Street	Roundabout
Monterey	Pearl Street at Camino El Estero	Roundabout
Monterey	East Franklin Street at Camino El Estero	Roundabout
Monterey	Del Monte Boulevard at English Avenue	Roundabout
Salinas	East Laurel Drive at St Edwards Street	Roundabout
Salinas	West Alisal Street at Capitol Street	Roundabout
Sand City	Tioga Avenue at California Avenue	Roundabout
Seaside	Broadway Avenue at Alhambra Street	Roundabout
Soledad	Metz Road at Pinnacles Parkway	Roundabout
Soledad	Front Street at East Street	Roundabout
Marina	Reservation Road at Beach Road	Signal
Pacific Grove	First Street at Central Avenue	Signal
Salinas	Sherwood Drive at Sherwood Place	Signal
Sand City	Tioga at Del Monte Boulevard	Signal
Seaside	Broadway Avenue/Contra Costa at Del Monte Blvd	Signal

Approved by: _____ Date Signed: April 12, 2016
Debra L. Hale, Executive Director

Regular Agenda

Counsel Approval: N/A
Finance Approval: N/A

Web Attachment: Regional Roundabout Study

Transportation Agency for Monterey County

REGIONAL ROUNDABOUT STUDY

Utilizing Caltrans' Intersection Control Evaluation

FINAL – March 2016

Prepared for:

Transportation Agency for Monterey County
55 B Plaza Circle
Salinas, CA 93901-2901
(831) 775-0903

Prepared by:

Kittelson & Associates, Inc.
428 J Street, Suite 500
Sacramento, CA 95814
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KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MOVING**FORWARD**THINKING™

Regional Roundabout Study

Utilizing Caltrans' Intersection Control Evaluation

Transportation Agency for Monterey County
Monterey County, California

March 2016

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation

Monterey County, California

Prepared For:
Transportation Agency for Monterey County
55 B Plaza Circle
Salinas, CA 93901

Partner Agencies:
City of Greenfield
City of Gonzalez
City of King City
City of Marina
Monterey County
City of Monterey
City of Pacific Grove
City of Salinas
Sand City
City of Seaside
City of Soledad
California Department of Transportation
Monterey Bay Unified Air Pollution Control District

Prepared By:
Kittelson & Associates, Inc.
428 J Street, Suite 500
Sacramento, California 95814
(916) 226-2190

Project Manager: Sean Houck, P.E
Project Principal: Jim Damkowitch
Project Engineer: Neelam Dorman
Project Analyst: Sara Muse

Project No. 17974

March 2016

EXECUTIVE SUMMARY

The purpose of conducting an Intersection Control Evaluation (ICE) is to provide a holistic approach to the consideration and evaluation of intersection control alternatives. ICE is a decision-making process and framework to evaluate the control of intersections using a performance-based approach to engineering and investment decisions.

Effective August 30, 2013, Caltrans released Traffic Operations Policy Directive 13-02 (TOPD 13-02) describing guidance for completing an ICE on State highway facilities. TOPD 13-02 establishes procedures to evaluate impacts to all intersection users (e.g., pedestrian, bicycle, auto, transit) in order to identify the most effective and comprehensive access alternatives. Specifically, the evaluation is used to:

- Justify the installation of traffic signal systems, yield-control (roundabouts), and multi-way stop control at state highway intersections and interchanges.
- Identify effective intersection control strategies and alternative treatments, strategies and configurations for particular conditions.
- Estimate the relative effectiveness, impacts and utility of specific control strategies.

In addition to Caltrans, other State Departments of Transportation and local agencies have adopted similar policies in order to:

- Emphasize context, key performance outcomes, cost-effectiveness and sustainability instead of the historical reliance on intersection control warrants.
- Effect a cultural change and departure from the pre-selection or reliance on traffic signals and the widening they require along approach roadways.
- Promote and mainstream the consideration of innovative access strategies that are proven but under-utilized, such as a roundabout.

GOALS AND OBJECTIVES

The Transportation Agency for Monterey County (TAMC), through this study, is seeking to develop a Regional Intersection Control Evaluation of high priority intersections throughout Monterey County to evaluate the benefit of roundabouts or other alternative control devices to traditional signalized intersections. Overall, the purpose of the Regional Intersection Control Evaluation is to:

- Assess the benefit / cost of conceptual roundabouts and other intersection control measures to traditional signalized intersections at high priority intersections.
- Provide concept level intersection operations, intersection layouts, and initial capital costs.
- Identify cost effective improvements that may be eligible for grant funding.
- Provide useful tools for jurisdictions to make investment decisions at the study intersections.
- Prompt the ICE decision making process and framework to evaluate intersection control alternatives using a performance-based approach to engineering and investment decisions.

STUDY OVERVIEW

Within the TAMC region, 26 study area intersections were prioritized by various jurisdictions to conduct an ICE. The study locations selected for evaluation are located in the following jurisdictions:

- City of Greenfield.
- City of Gonzalez.
- King City.
- City of Marina.
- Monterey County.
- City of Monterey.
- City of Pacific Grove.
- City of Salinas.
- Sand City.
- City of Seaside.
- City of Soledad.

KEY PERFORMANCE MEASURES

Five performance metrics were evaluated for proposed conceptual control types at each study location. The metrics include:

- Safety – measuring the societal cost associated with the predicted number and severity of collisions.
- Delay – measuring the societal cost associated with the number of person-hours of delay.
- Emissions – measuring the societal cost associated with the exposure to health based pollutants emitted by motor vehicles.
- Operations and Maintenance – measuring common annualized costs associated with operating and maintaining the intersection control.
- Initial Capital Costs – measuring the capital costs needed to plan, design, and construct the intersection improvement. The capital costs include construction, capital support, and right of way.

In addition to the key performance measures mentioned above, consideration is also given to pedestrian, bike, and transit facilities. The conceptual design accounts for pedestrian, bike, and transit access to ensure their sensible accommodation in the conceptual layout. As the project moves forward, a detailed design will need to be prepared accounting for each jurisdictions design standards as well as the best access and circulation for each transportation mode. Summary of Findings

Benefit cost (B/C) ratios were calculated for each study intersection to evaluate the return on investment of the existing control, proposed traditional signal control, or proposed roundabout control. Based on the initial layout and initial cost estimates, the conceptual roundabout control was identified as the highest scoring at the study locations shown in the table below:

B/C Rankings: Roundabout Control	
Jurisdiction	**Study Intersection**
City of Greenfield	Walnut Avenue at El Camino Real
City of Gonzalez	Fifth Street at US 101 Northbound and Southbound Ramp Terminals (2 intersections)
King City	Broadway Street at San Antonio Drive /US 101 Northbound Ramps
City of Marina	Reservation Road at Deforest Road
	Cardoza Avenue at Abdy Way
	8th Street at Inter-Garrison
Monterey County	San Miguel Canyon Road at Castroville Boulevard
	Laurles Grade at Carmel Valley Road
	Highway 68 at Corral de Tierra
City of Monterey	Pearl Street at Camino El Estero
	Del Monte Boulevard at English Avenue
	Munras Avenue / Abrego Street at El Dorado Street
	East Franklin Street at Camino El Estero
City of Salinas	West Alisal Street at Capitol Street
	East Laurel Drive at St Edwards Street
Sand City	Tioga Avenue at California Avenue
City of Seaside	Broadway Avenue at Alhambra Street
City of Soledad	Metz Road at Pinnacles Parkway
	Front Street at East Street

The conceptual signal control produced the best results at the following locations:

B/C Rankings: Signal Control	
Jurisdiction	**Study Intersection**
City of Marina	Reservation Road at Beach Road
City of Salinas	Sherwood Drive at Sherwood Place
Sand City	Tioga Avenue at Del Monte Boulevard
City of Seaside	Broadway Avenue & Contra Costa Street at Del Monte Boulevard (2 intersections)

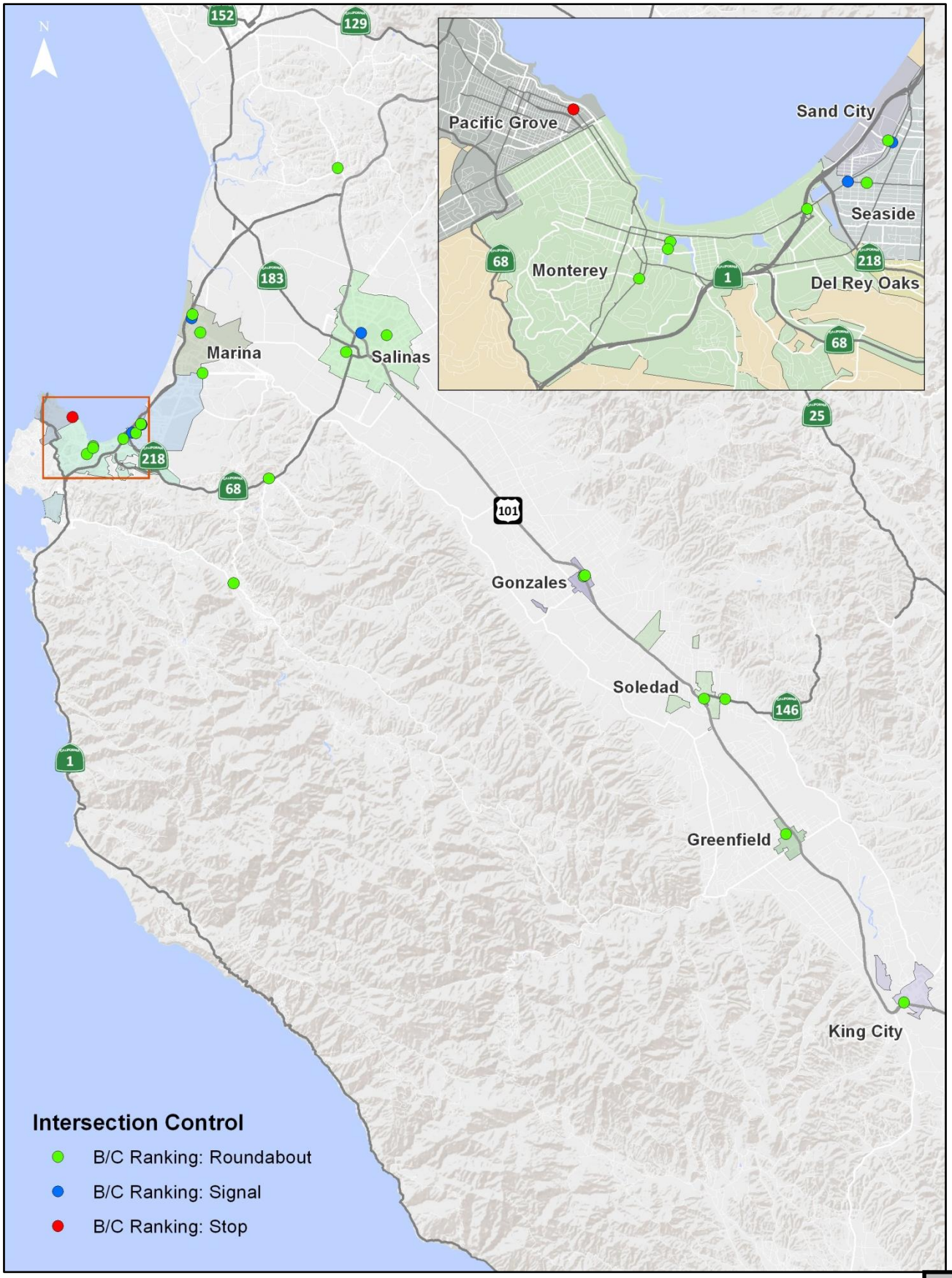
The conceptual stop control produced the best results at the following locations:

B/C Rankings: Stop Control	
Jurisdiction	**Study Intersection**
City of Pacific Grove	First Street at Central Avenue

RECOMMENDATIONS FOR FURTHER STUDY

The study provides benefit cost (B/C) ratios for intersection control types at study location throughout the TAMC region. This analysis was prepared using conceptual intersection control layouts and cost estimates as well as available data to provide a comprehensive check on the feasibility of various intersection control types. Further study is recommended at the study locations with additional site investigations, vehicle and collision data, as well as preliminary engineering of evaluated intersection controls.

B/C Rankings Figure for all Study Locations



OVERVIEW OF STUDY AND FINDINGS

STUDY OVERVIEW

TAMC requested that interested jurisdictions submit a prioritized list of locations for which they would like to conduct an ICE. The following list of 26 study intersections was compiled by TAMC based on jurisdiction responses:

Jurisdiction	Study Intersection
City of Greenfield	Walnut Avenue at El Camino Real
City of Gonzalez	Fifth Street at US 101 Northbound and Southbound Ramp Terminals (2 intersections)
King City	Broadway Street at San Antonio Drive /US 101 Northbound Ramps
City of Marina	Reservation Road at Beach Road
	Reservation Road at Deforest Road
	Cardoza Avenue at Abdy Way
	8th Street at Inter-Garrison
Monterey County	San Miguel Canyon Road at Castroville Boulevard
	Laurles Grade at Carmel Valley Road
	Highway 68 at Corral de Tierra
City of Monterey	Pearl Street at Camino El Estero
	Del Monte Boulevard at English Avenue
	Munras Avenue / Abrego Street at El Dorado Street
	East Franklin Street at Camino El Estero
City of Pacific Grove	First Street at Central Avenue
City of Salinas	West Alisal Street at Capitol Street
	East Laurel Drive at St Edwards Street
	Sherwood Drive at Sherwood Place
Sand City	Tioga Avenue at California Avenue
	Tioga Avenue at Del Monte Boulevard
City of Seaside	Broadway Avenue & Contra Costa Street at Del Monte Boulevard (2 intersections)
	Broadway Avenue at Alhambra Street
City of Soledad	Metz Road at Pinnacles Parkway
	Front Street at East Street

Report Structure

The Regional ICE study is primarily intended to be used as a tool for each jurisdiction to make investment decisions for improvements at high priority intersections they submitted to TAMC. With this as the foundation of the study, the Regional ICE study is comprised of 11 standalone sections, one section for each jurisdiction. For each section, a screening summary is provided as an overview of the performance measures used to calculate the return on investment for the study intersections in the jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the types of intersection control evaluated in the study. For each type of control, whether existing or proposed, a corresponding icon is assigned and used throughout the report.

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

SUMMARY OF KEY PERFORMANCE MEASURES

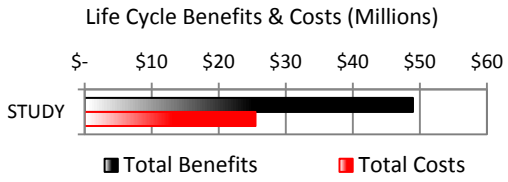
Five performance metrics were evaluated at each study intersection to calculate the B/C ratio which measures the expected return on investment for the various intersection controls. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the conceptual level ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The benefit cost ratios were calculated at each study location and an overall ratio is presented below for the TAMC region. The summation of the performance measure benefits and performance measure costs for all study intersections are illustrated below:



Life Cycle Benefit Cost Regional ICE Study	Discounted Life Cycle Safety Costs
Total Benefits of a roundabout compared to a traditional intersection	$48,962,291
Total Costs of a roundabout compared to a traditional intersection	$25,484,189
B/C ratio based on study wide Benefits and Costs	**1.92**
Intersection control based on study wide B/C ratio	

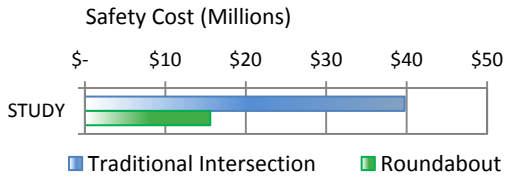
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Performance measure costs are a summation of the individual performance measures at each study location. Following the performance measure overview is a table summarizing the discounted life cycle costs for traditional and roundabout intersection control types. Traditional intersection control includes both stop and traffic signal control types.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout. The performance measures were calculated at each study location and overall summation data is presented below for the TAMC region.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

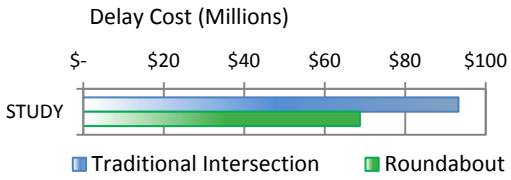


Based solely on the summation of the predicted discounted life-cycle cost for safety at all project study intersections, the intersection control type with the lowest predicted study wide safety costs is a ***roundabout***. The following table summarizes study wide safety costs:

Safety Regional ICE Study	**Discounted Life Cycle Safety Costs**
Traditional Intersection	$39,735,189
Roundabout Intersection	$15,591,519
Intersection control type with the lowest safety cost	
Percent ***reduction*** in ***Safety Costs*** with **Roundabout Control**	**61%**
Estimated study wide savings with roundabout control	$24,143,670
Average savings per intersection	$928,603

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

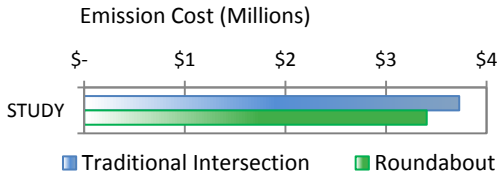


Based solely on the summation of the predicted discounted life-cycle cost for person hours of delay at all study intersections, the intersection control type with the lowest predicted study wide delay costs is a ***roundabout***. The following table summarizes study wide delay costs:

Delay Regional ICE Study	**Discounted Life Cycle Safety Costs**
Traditional Intersection	$93,253,069
Roundabout Intersection	$68,757,635
Intersection control type with the lowest delay cost	
Percent ***reduction*** in ***Delay Costs*** with **Roundabout Control**	**26%**
Estimated study wide savings with roundabout control	$24,495,434
Average savings per intersection	$942,132

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on the summation of the predicted discounted life-cycle cost for tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the intersection control type with the lowest predicted study wide emission costs is a ***roundabout***. The following table summarizes study wide emission costs:

Emission Regional ICE Study	**Discounted Life Cycle Safety Costs**
Traditional Intersection	$3,727,987
Roundabout Intersection	$3,404,800
Intersection control type with the lowest emission cost	
Percent ***reduction*** in ***Emission Costs*** with **Roundabout Control**	**9%**
Estimated study wide savings with roundabout control	$323,187
Average savings per intersection	$12,430

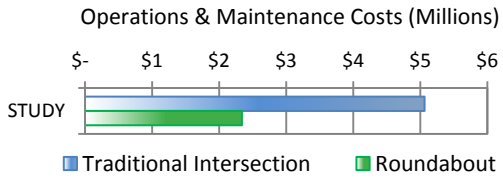
Operations and Maintenance Regional ICE Study	**Discounted Life Cycle Safety Costs**
Traditional Intersection	$5,063,009
Roundabout Intersection	$2,339,743
Intersection control type with the lowest O&M cost	
Percent ***reduction*** in ***O&M Costs*** with **Roundabout Control**	**54%**
Estimated study wide savings with roundabout control	$2,723,266
Average savings per intersection	$104,741

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal. The performance measures were calculated at each study location and overall summation costs are presented below for the TAMC region.

Operations and Maintenance (O&M)

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

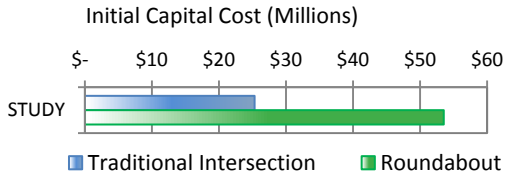


Based solely on the summation of the predicted discounted life-cycle cost for lowest expected annual operations and maintenance costs, the intersection control type with the lowest predicted study wide operations and maintenance costs is a ***roundabout***. The following table summarizes study wide operations and maintenance costs:

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.

Specific design requirements for each jurisdiction were not evaluated and any specific design standards or features required by a jurisdiction will be evaluated in future phases of the project. If the specific design standard or feature would impact the cost of the overall intersection, the guiding principle of this study is that design exemptions can be implemented.



Based solely on the summation of the predicted discounted life-cycle cost for the lowest estimated initial capital cost, the intersection control type with the lowest predicted study wide initial capital costs is a ***traditional intersection***. The following table summarizes study wide initial capital costs:

Initial Capital Cost Regional ICE Study	Discounted Life Cycle Safety Costs
Traditional Intersection	$25,318,550
Roundabout Intersection	$53,526,005
Intersection control type with the lowest O&M cost	
Percent ***Increase*** in ***Initial Capital Costs*** with **Roundabout Control**	**111%**
Estimated study wide **added costs** with roundabout control	$28,207,455
Average **added cost** per intersection	$1,084,902

NOTE: The Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals study intersection does not include an initial capital cost for the traditional intersection. Refer to Section 3: King City for additional information.

OTHER PERFORMANCE MEASURES

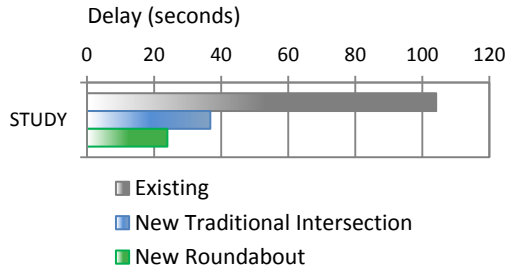
The following performance measures were evaluated at each study intersection:

- Intersection Delay
- Cost Effectiveness to Reduce Pollutant Emissions

The performance measures were calculated at each study location and overall summation data is presented below for the TAMC region.

Intersection Delay

Intersection delay was calculated using existing and design year peak hour traffic data provided by the jurisdictions. The following bar chart illustrates the average peak hour delay for design year traffic operations by intersection control form.



Significant reduction in delay can be made by improving the existing intersection with either traditional or roundabout control options. The following table summarizes the average peak hour delay:

Average Peak Hour Delay Regional ICE Study		% Reduction Compared to	
Control Type	Delay (s)	Existing	Traditional
Existing	104		
Traditional	37	65%	
Roundabout	24	77%	35%

Cost Effectiveness to Reduce Pollutant Emissions (AB 2766 Grant)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). The following table summarizes the number of intersections, by control type, that may be good candidates for AB 2766 grant funding:

AB 2766 Cost Effectiveness Regional ICE Study	No. of Locations
New Traditional Control	8
New Roundabout Control	15

Note: Study locations may include multiple intersections.

SUMMARY OF FINDINGS

The following section provides the project wide results of the Regional ICE as well as a brief overview of the benefit / cost methodologies used to determine the return on investment for improvements at the study intersections.

Benefit Cost Ratio Scoring

The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

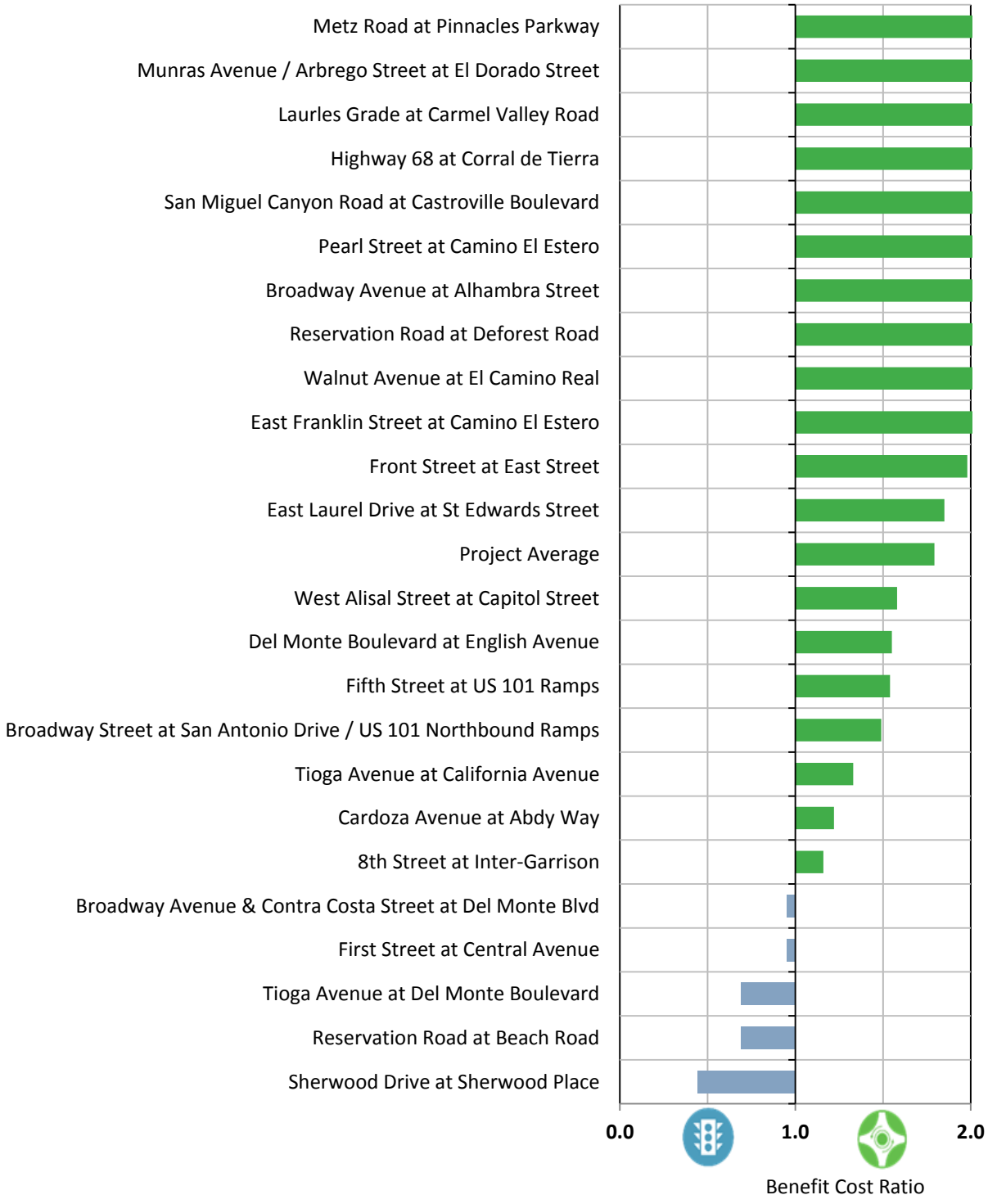
Benefit Cost Ratio Results

Based on data provided by each jurisdiction, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the associated intersection control type based on return on investment for each study intersection(s) is as follows:

Benefit Cost Ratio Results



Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 1:

City of Greenfield

Study Intersections:

- WALNUT AVENUE AT EL CAMINO REAL

CITY OF GREENFIELD SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Walnut Avenue at El Camino Real	GRF-01

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Greenfield jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Greenfield, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Walnut Avenue at El Camino Real	**2.95**	

SUMMARY OF KEY PERFORMANCE MEASURES

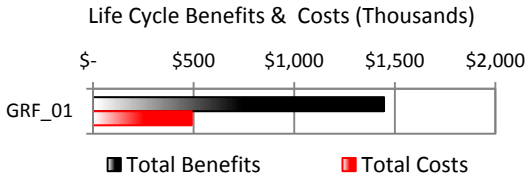
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



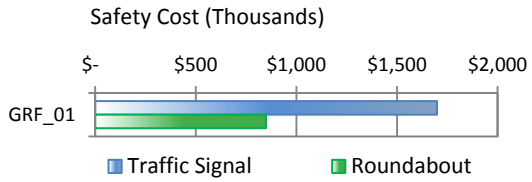
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

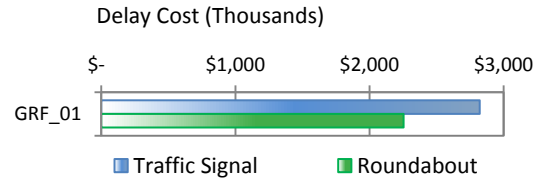


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety Study Intersection	**Preferred Control**
Walnut Avenue at El Camino Real	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.



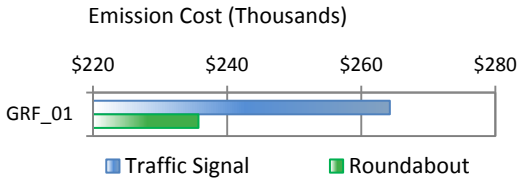
Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay Study Intersection	**Preferred Control**
Walnut Avenue at El Camino Real	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data fr

Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012 for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

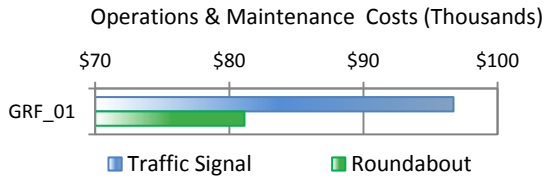
Emissions Study Intersection	Preferred Control
Walnut Avenue at El Camino Real	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

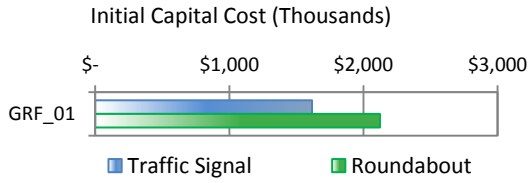


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Walnut Avenue at El Camino Real	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Walnut Avenue at El Camino Real	

Summary of B/C Performance Measures

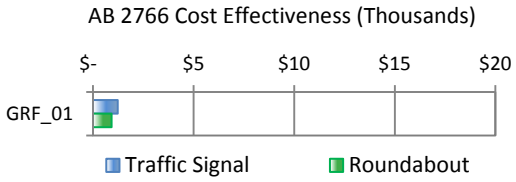
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Walnut Avenue at El Camino Real						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Greenfield.

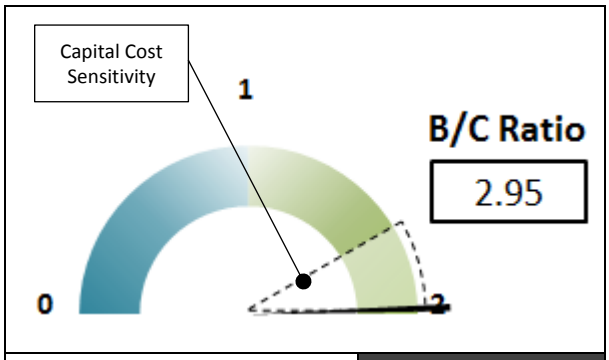


Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
Walnut Avenue at El Camino Real	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

WALNUT AVENUE AT EL CAMINO REAL



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for the intersection of Walnut Avenue at El Camino Real is 2.95. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control may change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $3.0M and all other performance measures remained unchanged.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 2 times higher than that of the roundabout. The costs to modify the retention pond and right of way acquisition are primary factors driving the cost sensitivity. The total life cycle benefits of the roundabout are estimated at $1,450,000 when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing signal control or, no project alternative, is at capacity and will continue to degrade over time with queues exceeding available storage capacity. Modifying the existing signal control may be a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number GRF-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
El Camino Real at Walnut Avenue	**El Camino Real**	2-lane Raised median north leg Two-Way-Left-Turn-Lane south leg	Local	25	Central Business District Serves residential, commercial/ retail, and institutional uses	Service provided by Monterey-Salinas Transit	Sidewalks Heavy east – west pedestrian volumes accessing Greenfield Elementary School	Class II bike lanes
	Walnut Avenue	2-lane Two-Way-Left-Turn-Lane east leg Undivided west leg	Local	25	Access to US 101 Serves residential, commercial/ retail, and institutional uses	Service provided by Monterey-Salinas Transit	Sidewalks Greenfield Elementary School	No bike lanes provided

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Walnut Avenue at El Camino Real is controlled by stop signs on the minor approach.

Parcels in the immediate vicinity of the project are developed. The existing intersection is within City of Greenfield right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Greenfield Elementary School
2. Retention Basin
3. McDonalds
4. Chase Bank
5. Garage / Auto Repair

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

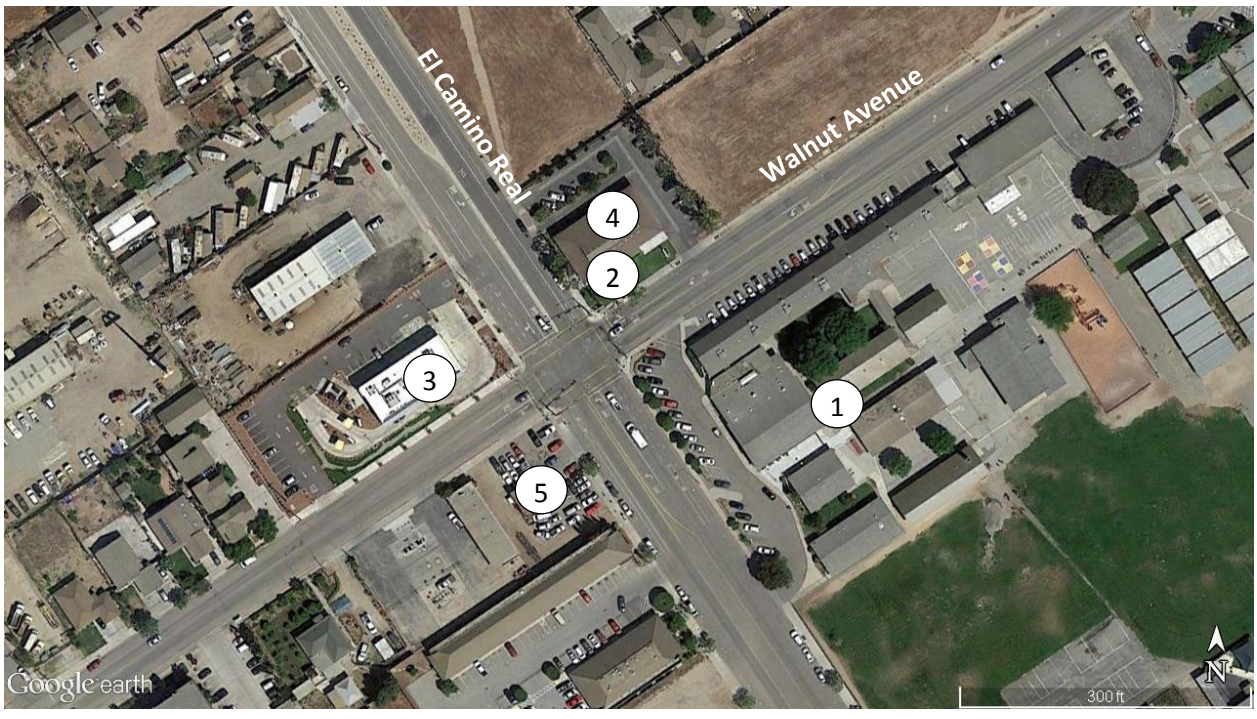
PLANNED IMPROVEMENTS

The study intersection is part of the Walnut Avenue Specific Plan. The Walnut Avenue Specific Plan identifies 335,000 square feet of commercial retail development and 220 high-density residential housing units. Full build-out of the Walnut Avenue Specific Plan is contingent on a number of significant infrastructure improvements being constructed before the final increment of approximately 250,000 square feet of commercial retail space can be developed. At this time it is anticipated that neither those infrastructure improvements nor development of the final increment of commercial retail space will occur by 2035. It is more likely that those improvements will not occur until the post-2040 timeframe.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Signal improvements	
Proposed Roundabout	



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Design Year Traffic

Base year and design year traffic data was provided by the City in the *"Walnut Avenue Specific Plan,"* dated 2012. Due to changes in the regional growth forecast for Greenfield and development contingencies, the City has requested the design year traffic data be shifted, at minimum, 5-years out.

Signal Control (Existing)

With signal control, demand exceeds capacity for both peak hours under existing conditions. Westbound Walnut Avenue left turning vehicles exceed available storage capacity. Heavy pedestrian movements further degrade vehicle operations. With buildout of the Walnut Avenue Specific Plan, operations are expected to degrade with demand exceeding available capacity.

Signal Control - Modification

With signal control modifications, additional westbound and southbound left turn lanes are required. Additional southbound and westbound lanes are needed to receive the dual left turns. The additional lanes needed for the signal modification will require right of way acquisition and modification to the retention pond. The proposed lane additions are expected to improve intersection performance to acceptable levels. However, vehicle queueing is expected to impact local access during the PM peak periods for all design years.

The additional lanes will also increase crossing distance as well as overall cycle length for protected phasing. Bike lanes along El Camino Real can be maintained with the necessary lane additions. Transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access.

Roundabout Control

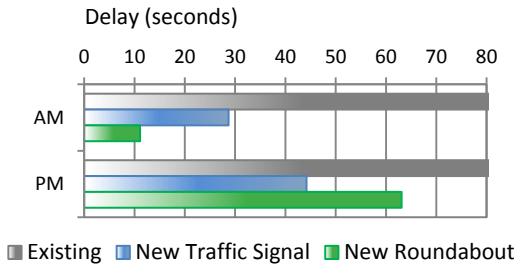
With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. A single right turn lane is needed for the westbound approach. The proposed roundabout is not expected to impact the retention basin and will likely require less right of way than the signal alternative. Intersection performance is expected to be well below capacity for the 2014 design year operations. The service life of the single lane roundabout is expected to be approximately 25 years based.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes along El Camino Real can be maintained with a one lane roundabout. Transit stops are not provided at the intersection therefore the roundabout alternative will not impact transit access.

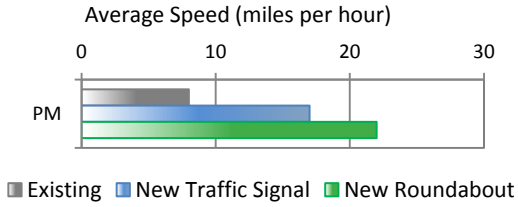
As full build out of the Walnut Avenue Specific Plan is achieved, additional approach and departure lanes will be required for the northbound, southbound, and eastbound directions. An additional westbound departure lane and conversion of the westbound right turn lane to a through-right lane will be required. The conversion of the roundabout to a dual lane roundabout will extend the design life of the intersection beyond forecast demand identified in the Walnut Avenue Specific Plan.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Meas

Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Cost to modify and/or relocate retention basin for Walnut Avenue widening.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **GRF-01**
01/16

Intersection Cost Comparison

Walnut Avenue at El Camino Real
Greenfield, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.30	$ 43,599	$ 681,107	0.66	$ 96,887	$ 1,513,571
Predicted PDO Crashes	1.05	$ 10,727	$ 167,583	1.16	$ 11,875	$ 185,513
Subtotal - Safety Costs	**-**	**$ 54,326**	**$ 848,690**	**-**	**$ 108,762**	**$ 1,699,084**
DELAY						
Delay to Persons in Vehicles (hours)	8926	$ 86,698	$ 2,254,150	10357	$ 108,528	$ 2,821,733
Subtotal - Delay Costs	-	**$ 86,698**	**$ 2,254,150**	-	**$ 108,528**	**$ 2,821,733**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 400	6,249
Cost of Illumination		$ 200	$ 3,124		$ 200	3,124
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 1,080	16,872
Cost of Pavement Rehabilitation			$ 46,758			$ 61,613
Subtotal - Operations and Maintenance Costs	-	**$ 2,200**	**$ 81,127**	-	**$ 2,247**	**$ 96,711**
EMISSIONS						
Tons of ROG	0.35	$ 331	$ 5,166	0.49	$ 463	$7,233
Tons of NOX	1.01	$ 13,023	$ 203,448	1.11	$ 14,370	$224,495
Tons of PM10	0.0174	$ 1,735	$ 27,110	0.0209	$ 2,082	$32,532
Subtotal - Emissions Costs		**$ 15,089**	**$ 235,725**		**$ 16,916**	**$ 264,260**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,522,025			$ 1,058,000
Construction Cost - Structures			$ -			$ 20,580
Capital Support			$ 518,000			$ 367,000
Right-of-Way			$ 83,000			$ 171,000
Subtotal - Initial Capital Costs			**$ 2,123,025**			**$ 1,616,580**
NET PRESENT VALUE			**$ 5,306,991**			**$ 6,234,108**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$850,394
Delay Reduction Benefit of Roundabout	$567,583
Emission Reduction Benefit of Roundabout	$28,535
Total Benefits	**$1,446,513**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$15,584
Added Capital Costs of a Roundabout	$506,445
Total Costs	**$490,861**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

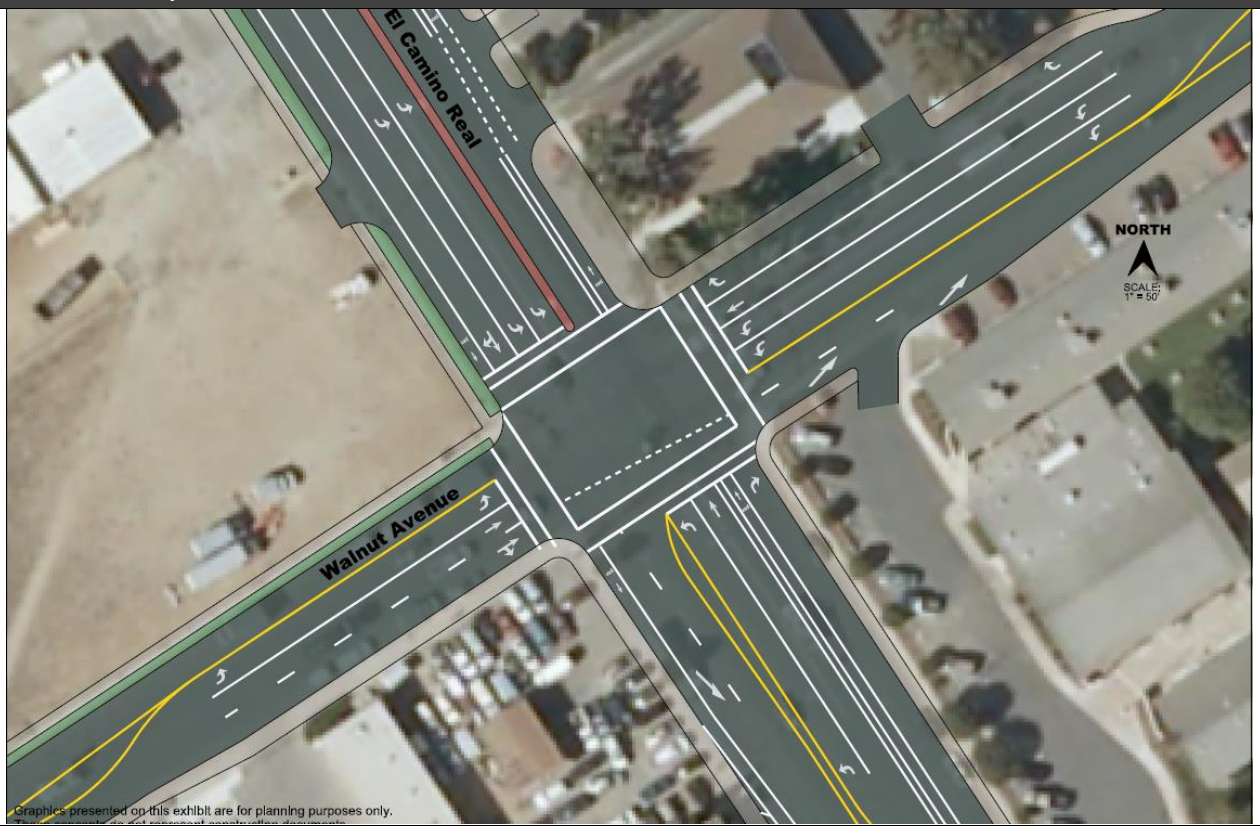
2.95

B/C Preferred: Roundabout Alternative

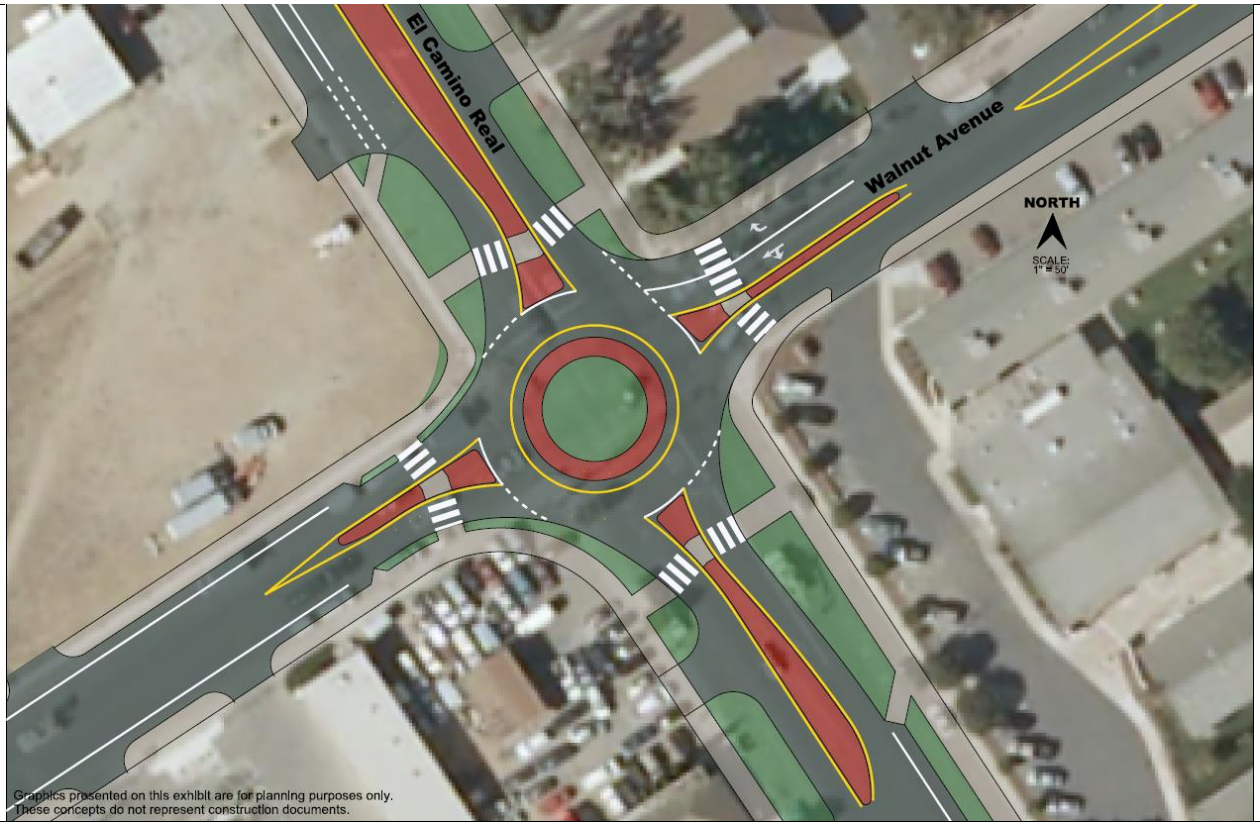
AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	1991	1497
Cost Per Pound Per Life	$11.54	$15.35
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$923**	**$1,228**

Intersection Improvement Alternatives



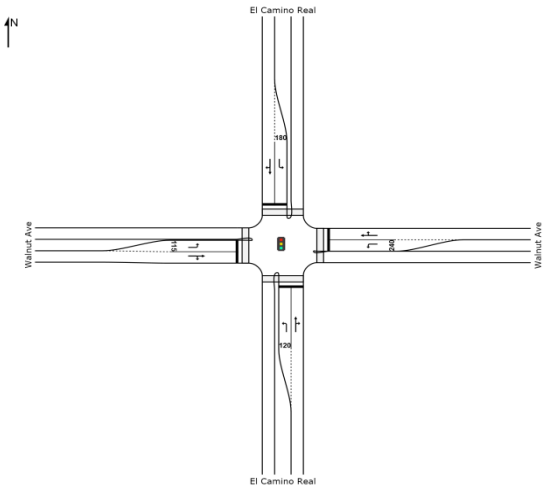
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

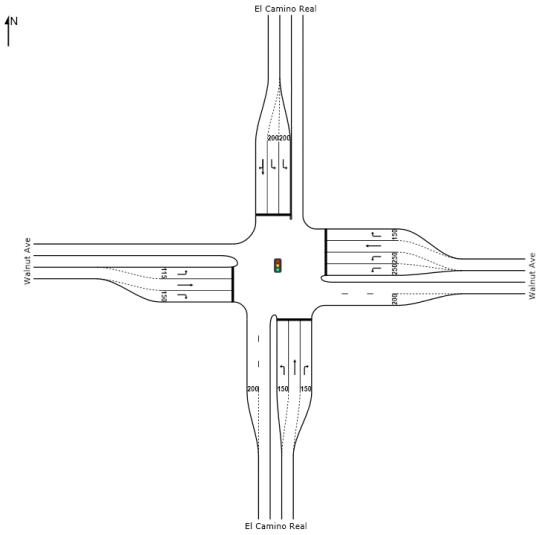


EXISTING INTERSECTION SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	E	60.3	#238 (WBL)	F	190.5	#434 (WBL)
2045	F	161.1	#375 (SBL)	F	372.6	#709 (WBT)

NOTES:

1. WBL and SBL queues exceed capacity during the 2014 p.m. peak hour
2. NBL, SBL, and WBL queues will exceed capacity during both 2045 peak hours.
3. EBL queues will exceed capacity during the 2045 p.m. peak hour

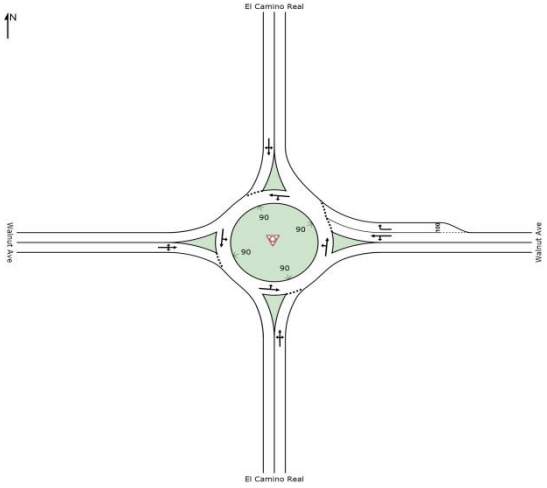


ALTERNATIVE 1 SIGNAL MODIFICATIONS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	C	23.9	85 (WBT)	C	32.3	235 (EBT)
2040	C	28.7	197 (EBT)	D	38.4	#335 (SBT)
2045	C	31.4	219 (EBT)	D	45.1	438 (WBT)

NOTES:

1. NBL queues exceed capacity during 2040 p.m. peak hour.
2. NBL and EBL queues exceed capacity during 2045 p.m. peak hour.



ALTERNATIVE 2 ROUNDABOUT

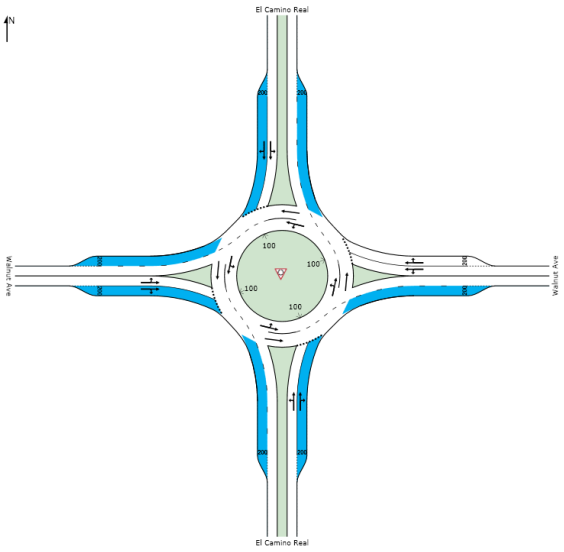
Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	6.0	37 (EB)	B	13.0	126 (WB)
2040	B	11.1	95 (SB)	F	63.1	867 (WB)

Improvements: Single lane roundabout with WB right turn lane

NOTES:

Roundabout has a service life of 2041 in the p.m. peak hour.

Intersection Control Alternative Summary



ALTERNATIVE 3

ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2040	A	6.0	42 (WB)	B	12.7	196 (WB)
2045	A	7.4	58 (SB)	C	18.1	319 (WB)

Improvements: Add approach and departure lanes to north, west, and south legs. Add departure lane on east leg. Add additional circulatory lane.

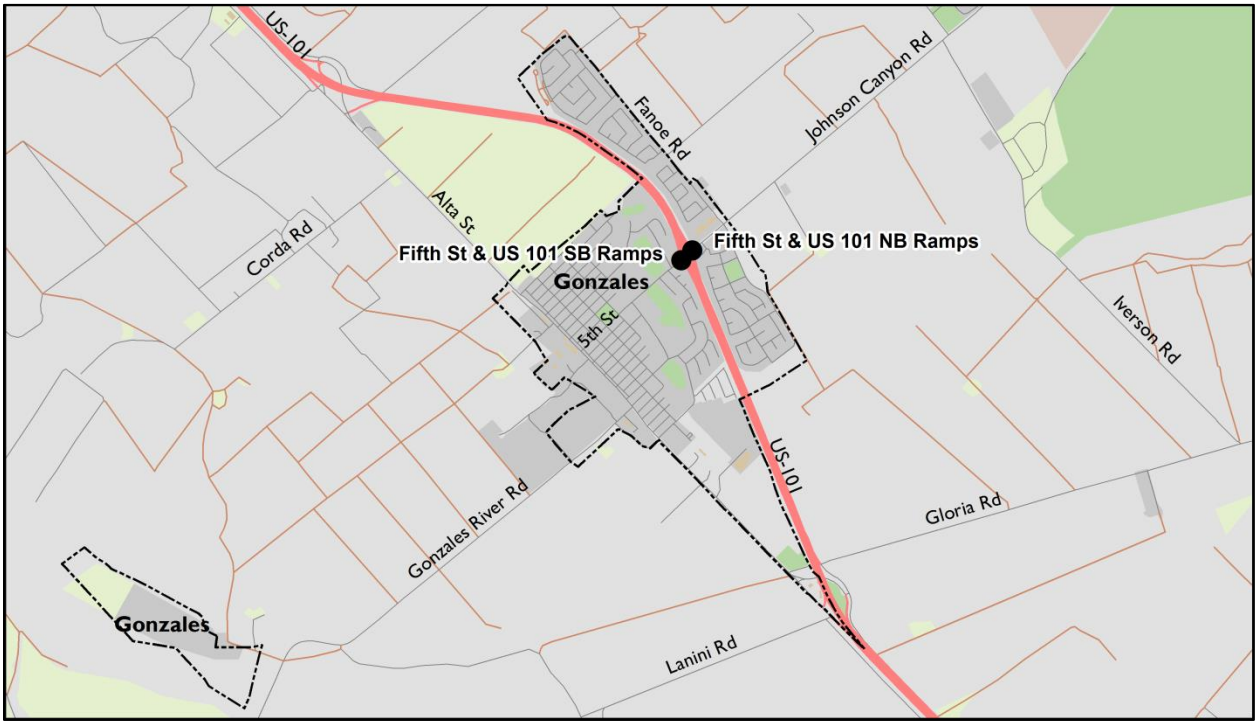
NOTES:

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 2:

City of Gonzales

Study Intersections:

- FIFTH STREET AT US 101 NORTHBOUND AND SOUTHBOUND RAMP TERMINALS



CITY OF GONZALES SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Fifth Street at US 101 Ramp Terminals	GZL-01

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Gonzales jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Gonzales, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Fifth Street at US 101 Ramp Terminals	**1.54**	

SUMMARY OF KEY PERFORMANCE MEASURES

As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

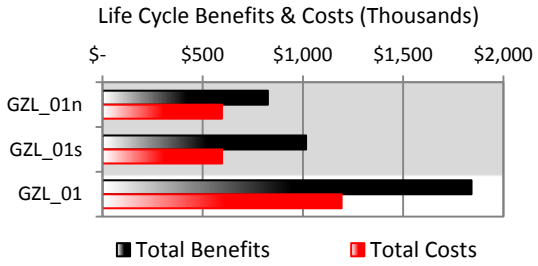
- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:

NOTE: Due to the close proximity of the US 101 northbound and southbound ramp terminal intersections with Fifth Street, the performance measures for the Fifth Street at US 101 ramp terminals study intersection, GZL-01, are a summation of performance measures at each of the intersections. As a reference, the performance measures for each intersection are reported in the following bar charts to illustrate the performance measure benefits and the performance measure costs that were used to calculate the "study intersection" performance measures. Fifth Street at US 101 northbound ramp terminal is assigned intersection number GZL-01n. Fifth Street at US 101 southbound ramp terminal is assigned intersection number GZL-01s. GZL-01n and GZL-01s are illustrated with a grey background in the following bar charts. Only the preferred control for the study intersection, GZL-01, is reported in the summary tables for each performance measure.



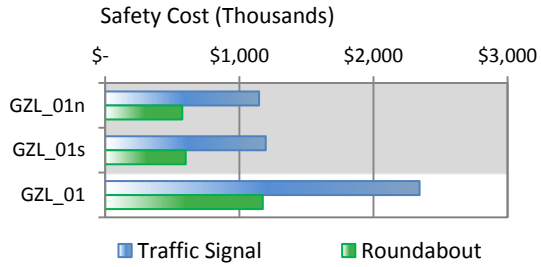
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

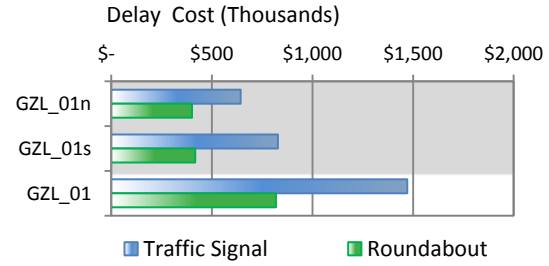


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Fifth Street at US 101 Ramp Terminals	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

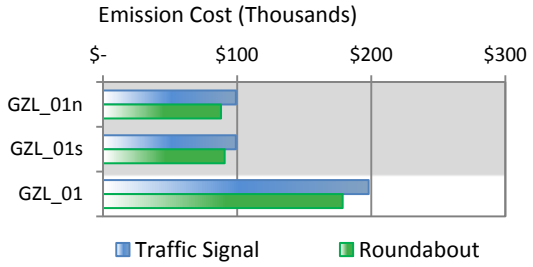


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay Study Intersection	Preferred Control
Fifth Street at US 101 Ramp Terminals	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

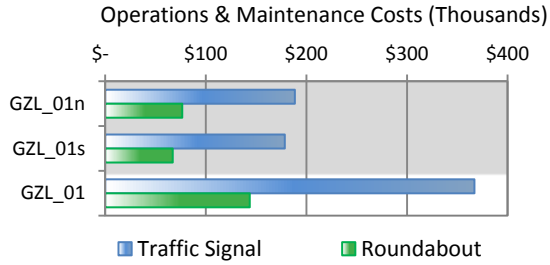
Emissions Study Intersection	Preferred Control
Fifth Street at US 101 Ramp Terminals	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

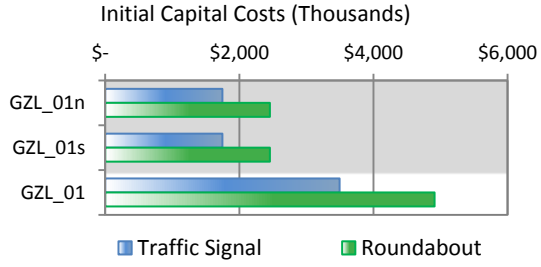


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Fifth Street at US 101 Ramp Terminals	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Fifth Street at US 101 Ramp Terminals	

Summary of B/C Performance Measures

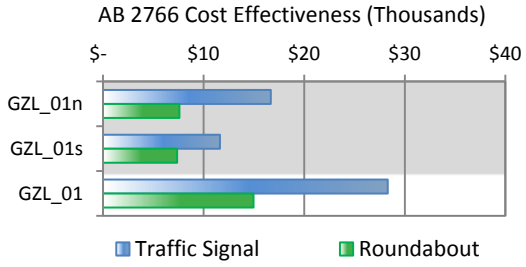
The following table summarizes the five performance measures evaluated at each project location.

Study Intersection	Preferred Intersection Control by Performance Measure					
	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Fifth Street at US 101 Ramp Terminals						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Gonzales.

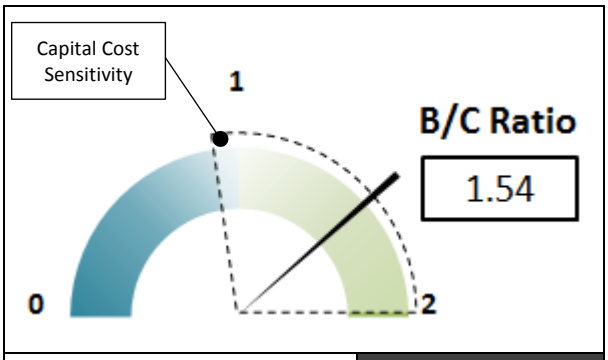


Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
Fifth Street at US 101 Ramp Terminals	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

FIFTH STREET AT US 101 RAMP TERMINALS



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for Fifth Street at US 101 ramp terminals is 1.54. The B/C ratio of 1.54 represents the combination of performance measures for the Fifth Street at US 101 Northbound (NB) Ramp terminal and the Fifth Street at US 101 Southbound (SB) Ramp terminal intersection. The intersections were combined into a single project due to the short distance between intersections and the need to widen the existing bridge on Fifth Street for the signal alternative. The individual B/C scores for each intersection are as follows:

Study Intersection	Intersection Number	B/C Ratio
Fifth Street at US 101 Northbound (NB) Ramp Terminals	GZL-01n	1.38
Fifth Street at US 101 Southbound (SB) Ramp Terminals	GZL-01s	1.70

Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety, *delay*, *structure costs*, and *right of way* are notable performance metrics driving the B/C ratio. The total life cycle benefits of the roundabout are estimated at $1,840,000 when compared to the traffic signal alternative. The total life cycle benefit includes an estimated $7,8-- reduction in annual operations and maintenance costs when compared to the traffic signal alternative.

Initial capital costs for the intersection were estimated as one project and evenly split for each intersection.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Fifth Street at US 101 Ramp Terminals	**Fifth Street (City of Gonzales)**	East: 4-lane divided West: 2-lane undivided	Local	25	Serves residential, commercial, institutional, recreational, and agricultural land uses	Service provided by Monterey Salinas Transit for Line 23 and 86	Sidewalks provided. East: X-walk on East leg West: X-walk on west leg Primary pedestrian route for schools with significant pedestrian volumes	Class II bike lanes
	US-101 (Caltrans)	4-lane Ramps: 1-lane + turn lanes	Highway	65	Regional highway Goods movement corridor	Service provided by Monterey Salinas Transit for Line 23 and 86	Restricted pedestrian access on ramps Crosswalks at all ramps	No bike lanes provided

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic while providing improved pedestrian and bicycle facilities. The existing all way stop control, or no project alternative, should provide adequate vehicle capacity to serve existing traffic. However, vehicle queues are expected to exceed available storage, impacting nearby intersection and driveway operations. The proposed signal alternative will provide pedestrian and bicycle improvements while adequately serving forecast traffic demand. The project assumes improvements are made at both US 101 NB and SB ramp terminal intersections with Fifth Street. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2035 design year. The year 2015 was assumed for the baseline "build" condition for a total 20 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Numbers GZL-01n and GZL-01s on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

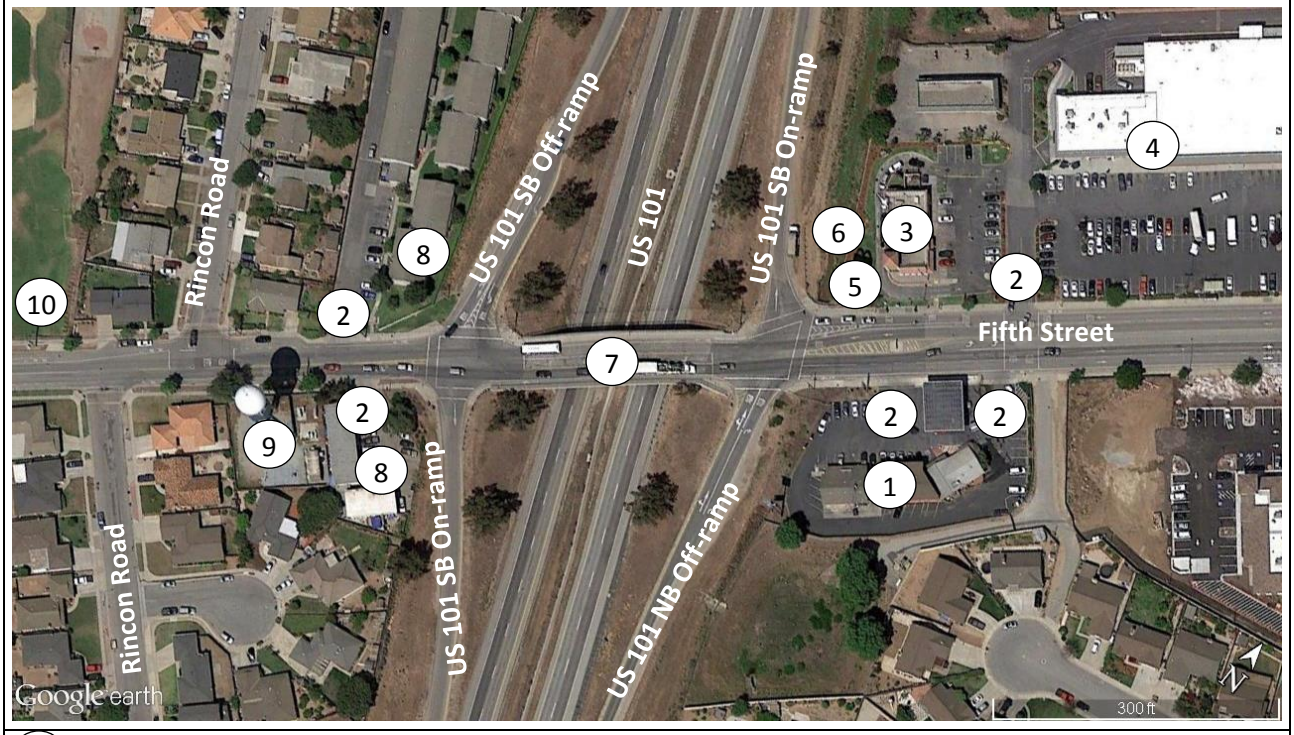
The existing Fifth Street at the US 101 NB and SB ramp terminals are controlled by all way stop signs.

Parcels adjacent to the intersections are developed. Parcels east of the interchange are commercial properties. Parcels west of the interchange are multi-family residences. Fifth Street is within the City of Gonzales right of way. US 101 ramps are within Caltrans right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Service station/commercial/food service
2. Driveway
3. McDonalds
4. Shopping center
5. Sign for shopping center
6. Ditch
7. Fifth Street Bridge
8. Multi-family residence
9. Water tower
10. Gonzales High School

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided on the previous page.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

PLANNED IMPROVEMENTS

No planned improvements have been identified.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for the 2013 AM /PM peak hour and the 2035 AM / PM peak hour traffic and pedestrian volumes were taken from the 2014 technical memorandum prepared by Fehr & Peers and provided by the City. At City direction, the 1.5% per year growth scenario was used. 2015 volumes were assumed to be equal to 2013 volumes.

Stop Control (Existing)

The existing stop control, or no project alternative, operates with all-way stop control at both ramp intersections. The critical queue under existing conditions is during the PM peak hour in the eastbound on the 5th Street Bridge. The is caused by operations at the northbound and impacts operations at the southbound ramps.

Signal Control

The US 101 Ramps at Fifth Street are proposed with protected left turns along Fifth Street with coordinated phasing on Fifth Street. The critical movement at both study locations is the left turn to the on-ramp as there is limited capacity on the bridge and any queue spillback will affect the other intersection operations. Coordination with emphasis on one left turn movement would increase queues for the other, therefore an east/west coordinated phasing is proposed to provide the best progression over the bridge.

With the signal control alternative, roadway improvements include the addition of one lane over the bridge. The additional lane will require the bridge to be widened and Fifth Street approaches adjusted.

The signal control alternative would provide pedestrian push button signal control for safer crossing as well as an additional crosswalk leg to either sides of the bridge. The lane addition on the 5th Street Bridge would not affect pedestrian access as sidewalks will be provided. Bike lanes along 5th Street can be maintained and also now provided over the bridge. Transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access.

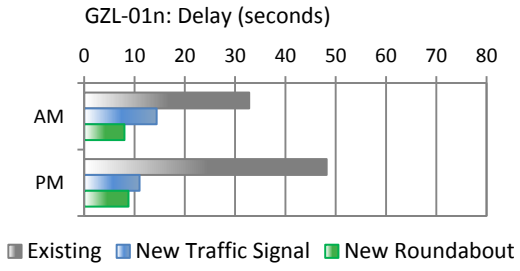
Roundabout Control

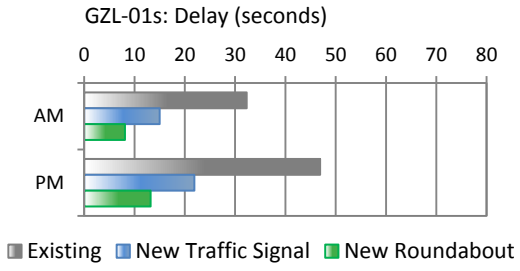
With roundabout control, two single lane roundabouts with single lane approaches and departures are proposed. A westbound Fifth Street right turn lane to the US 101 northbound on-ramp is provided. The westbound through traffic and right turn traffic are separated with a raised median and pedestrian refuge. The proposed roundabouts will improve performance at the study intersections for AM and PM peak hours under both existing and future design year conditions.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes along 5th Street can be maintained however are not considered over the bridge as they are not currently provided. Transit stops are not provided at the intersection therefore the roundabout alternative will not impact transit access.

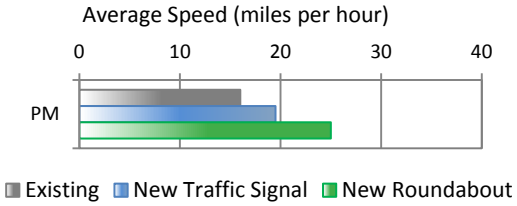
TRAFFIC OPERATIONS SUMMARY

The following bar charts illustrate the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.





The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



NOTE: The average speed identified in the bar chart above is the average of GZL-01n and GZL-01s.

PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table above. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- Preliminary engineering and additional site investigations.
- Topographic survey to better identify need for retaining structures.
- Refinement of right of way costs.
- Evaluation of Fifth Street Bridge, including existing and construction vertical clearances.
- Access for fuel tankers at service station facility.
- Access to multi-family units west of Fifth Street bridge.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **GZL-01n**
01/16

Intersection Cost Comparison

Fifth Street at US-101 Interchange (Northbound Ramp)
Gonzales, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.23	$ 33,623	$ 456,941	0.51	$ 74,717	$ 1,015,425
Predicted PDO Crashes	0.85	$ 8,662	$ 117,718	0.95	$ 9,684	$ 131,606
Subtotal - Safety Costs	**-**	**$ 42,284**	**$ 574,659**	**-**	**$ 84,401**	**$ 1,147,031**
DELAY						
Delay to Persons in Vehicles (hours)	1662	$ 19,113	$ 401,372	2637	$ 30,626	$ 643,154
Subtotal - Delay Costs	-	**$ 19,113**	**$ 401,372**	-	**$ 30,626**	**$ 643,154**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	7,701
Cost of Power for Signal				-	$ 4,255	57,827
Cost of Illumination	6	$ 873	$ 11,859	4	$ 582	7,906
Cost of Landscaping Maintenance	-	$ 2,000	$ 27,181			
Cost of Signal Maintenance				-	$ 4,660	63,331
Cost of Pavement Rehabilitation			$ 37,538			$ 51,754
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 76,578**	-	**$ 10,063**	**$ 188,520**
EMISSIONS						
Tons of ROG	0.14	$ 135	$ 1,836	0.19	$ 180	$2,448
Tons of NOX	0.44	$ 5,708	$ 77,577	0.49	$ 6,320	$85,889
Tons of PM10	0.0063	$ 630	$ 8,565	0.0079	$ 788	$10,707
Subtotal - Emissions Costs		**$ 6,474**	**$ 87,979**		**$ 7,288**	**$ 99,044**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,272,588			$ 614,400
Construction Cost - Structures			$ 250,460			$ 525,560
Capital Support			$ 762,000			$ 570,000
Right-of-Way			$ 170,500			$ 37,500
Subtotal - Initial Capital Costs			**$ 2,455,548**			**$ 1,747,460**
NET PRESENT VALUE			**$ 3,508,158**			**$ 3,726,164**

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$572,372	**LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$241,781	
Emission Reduction Benefit of Roundabout	$11,065	
Total Benefits	**$825,218**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$111,942	**1.38**
Added Capital Costs of a Roundabout	$708,088	
Total Costs	**$596,146**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	354	161
Cost Per Pound Per Life	$75.95	$166.79
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$7,595**	**$16,679**

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **GZL-01s**
01/16

Intersection Cost Comparison

Fifth Street at US-101 Interchange (Southbound Ramp)
Gonzales, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.24	$ 34,992	$ 475,554	0.53	$ 77,760	$ 1,056,787
Predicted PDO Crashes	0.90	$ 9,175	$ 124,698	1.01	$ 10,295	$ 139,919
Subtotal - Safety Costs	**-**	**$ 44,168**	**$ 600,252**	**-**	**$ 88,056**	**$ 1,196,706**
DELAY						
Delay to Persons in Vehicles (hours)	1743	$ 19,874	$ 417,347	3382	$ 39,440	$ 828,240
Subtotal - Delay Costs	-	**$ 19,874**	**$ 417,347**	-	**$ 39,440**	**$ 828,240**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	7,701
Cost of Power for Signal				-	$ 4,255	57,827
Cost of Illumination	6	$ 873	$ 11,859	4	$ 582	7,906
Cost of Landscaping Maintenance	-	$ 2,000	$ 27,181			
Cost of Signal Maintenance				-	$ 4,660	63,331
Cost of Pavement Rehabilitation			$ 28,068			$ 41,748
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 67,108**	-	**$ 10,063**	**$ 178,513**
EMISSIONS						
Tons of ROG	0.15	$ 139	$ 1,893	0.18	$ 170	$2,313
Tons of NOX	0.46	$ 5,884	$ 79,965	0.49	$ 6,304	$85,676
Tons of PM10	0.0065	$ 650	$ 8,829	0.0081	$ 812	$11,036
Subtotal - Emissions Costs		**$ 6,673**	**$ 90,686**		**$ 7,287**	**$ 99,026**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,272,588			$ 614,400
Construction Cost - Structures			$ 250,460			$ 525,560
Capital Support			$ 762,000			$ 570,000
Right-of-Way			$ 170,500			$ 37,500
Subtotal - Initial Capital Costs			**$ 2,455,548**			**$ 1,747,460**
NET PRESENT VALUE			**$ 3,540,255**			**$ 3,950,919**

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$596,454	**LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$410,893	
Emission Reduction Benefit of Roundabout	$8,340	
Total Benefits	**$1,015,686**	
COSTS - Roundabout compared to Traffic Signal		**1.70**
Added O&M Costs of a Roundabout	-$111,405	
Added Capital Costs of a Roundabout	$708,088	
Total Costs	**$596,683**	

Roundabout Preferred

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	365	231
Cost Per Pound Per Life	$73.68	$116.23
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$7,368**	**$11,623**

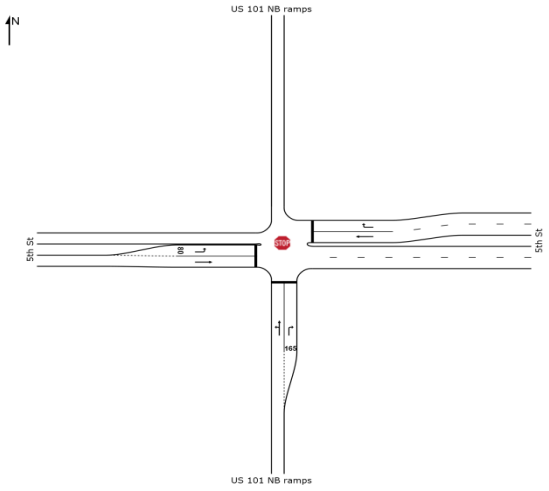
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

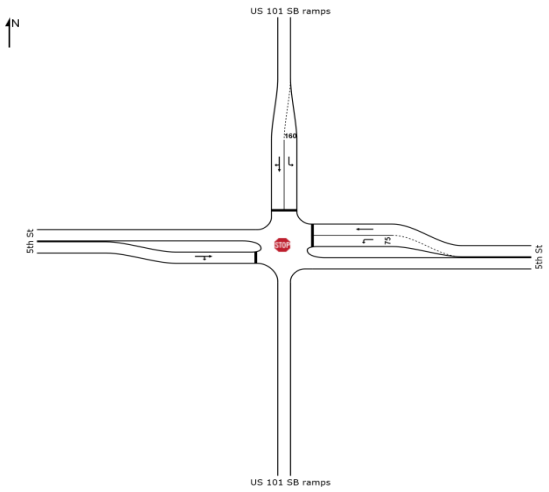


EXISTING INTERSECTION – NORTHBOUND RAMP STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	B	14.1	375 (WBT)	D	25.1	268 (EBT)
2035	D	32.8	375 (WBT)	E	48.2	358 (WBT)

NOTES:

1. EBT queues will exceed available storage during 2035 p.m. peak affecting operations at the SB Ramps.

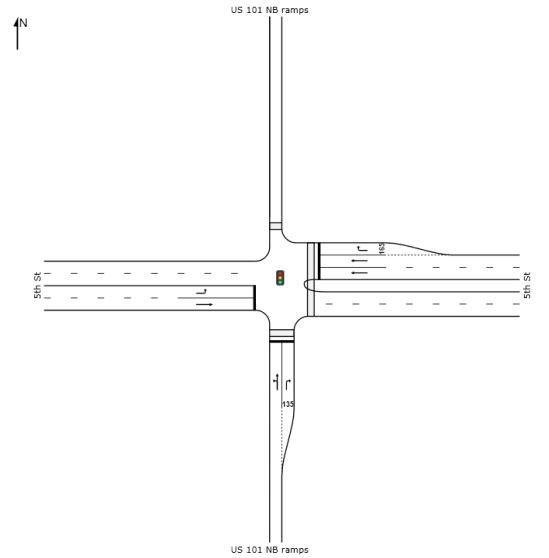


EXISTING INTERSECTION – SOUTHBOUND RAMP STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	B	14.2	83 (EBT)	C	18.1	128 (EBT)
2035	D	32.3	295 (EBT)	E	46.9	338(EBT)

NOTES:

1. EBT queues will affect operations at the adjacent intersection of Rincon Road during both 2035 peak hours.
2. WBT queues will exceed available storage during both 2035 peak hours affecting operations at the NB Ramps.



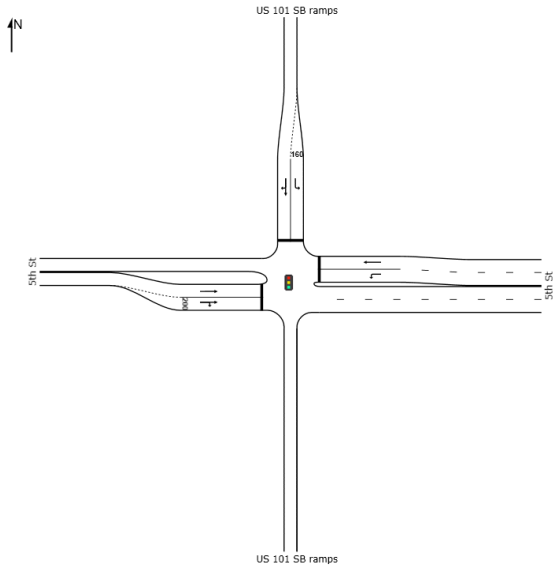
ALTERNATIVE 1– NORTHBOUND RAMP SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	B	11.2	106 (EBL)	A	9.7	66 (WBT)
2035	B	14.4	138 (EBL)	B	11.0	138 (WBT)

NOTES:

1. EBL queues will exceed available storage during weekday a.m. peak and cumulative a.m. peak.

Intersection Control Alternative Summary

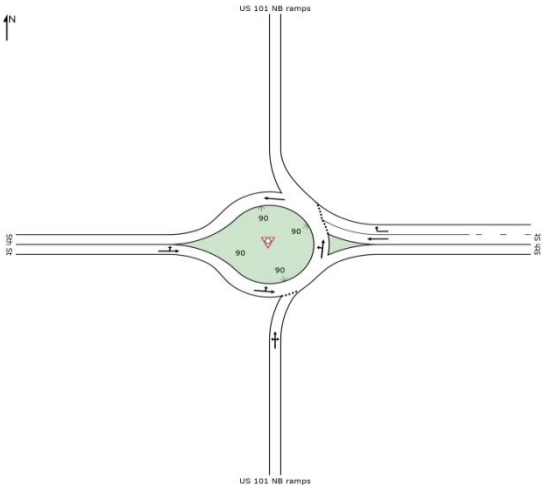


ALTERNATIVE 1 - SOUTHBOUND RAMP SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	B	13.4	96 (WBL)	B	18.9	163 (SBL)
2035	B	15.0	124 (WBL)	C	21.9	#292 (EBT)

NOTES:

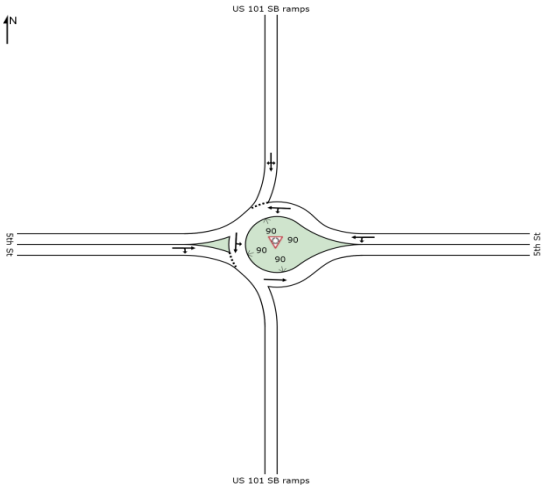
1. EBT queues will affect operations at the adjacent intersection of Rincon Road during both 2035 peak hours.
2. WBT queues will exceed available storage during both 2035 peak hours affecting operations at the NB Ramps.



ALTERNATIVE 2 – NORTHBOUND RAMP ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	A	5.8	60 (WB)	A	6.2	47 (WB)
2035	A	8.0	108 (WB)	A	8.8	80 (WB)

NOTES:



ALTERNATIVE 2 - SOUTHBOUND RAMP ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	A	5.9	51 (EB)	A	7.5	56 (WB)
2035	A	8.1	89 (EB)	B	13.2	140 (EB)

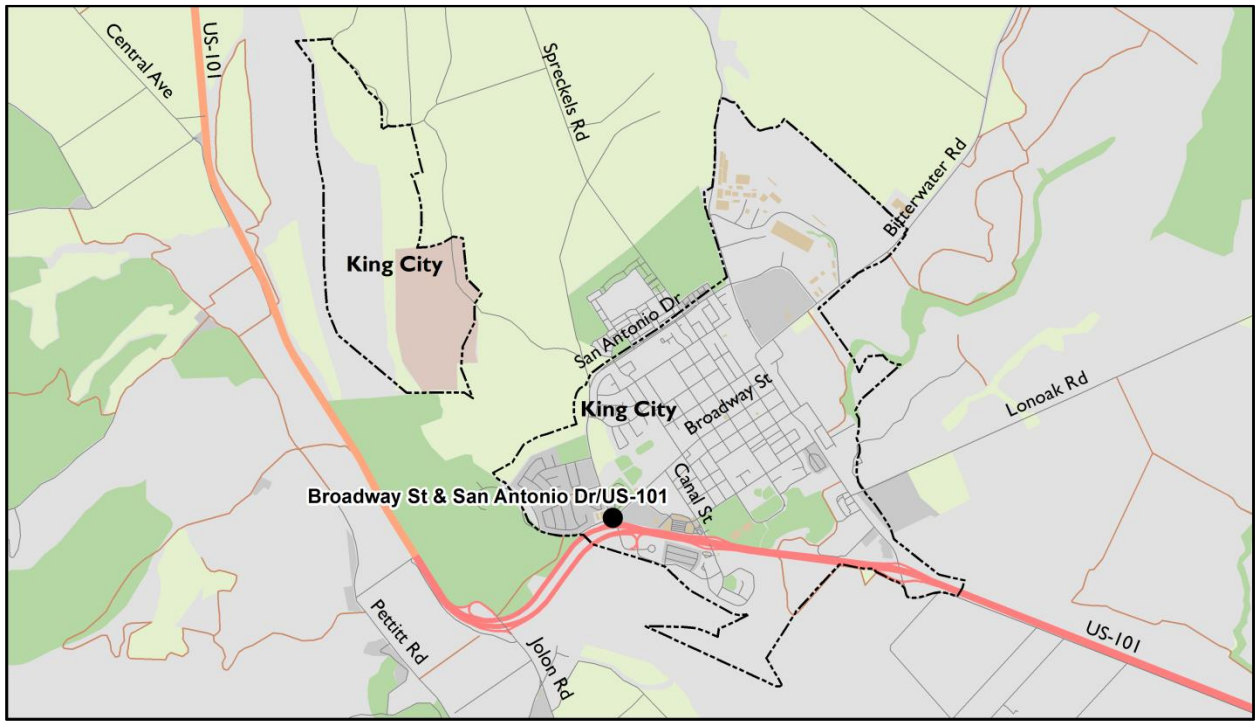
NOTES:

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 3:

King City

Study Intersections:

- BROADWAY STREET AT SAN ANTONIO DRIVE / US 101 NORTHBOUND RAMP TERMINALS



KING CITY SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	KGC-01

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under King City jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by King City, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	**1.49**	

SUMMARY OF KEY PERFORMANCE MEASURES

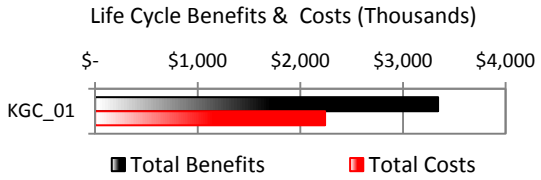
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



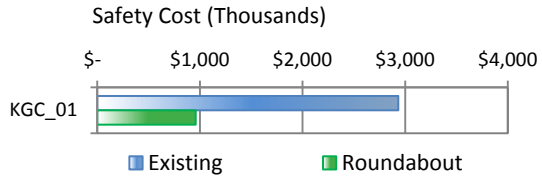
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

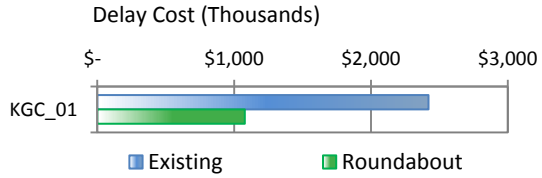


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.



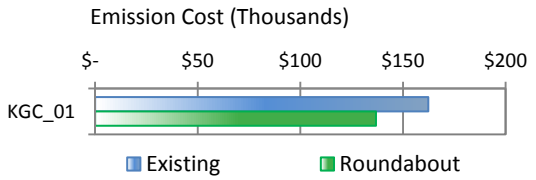
Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Econo*

Parameters 2012 for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

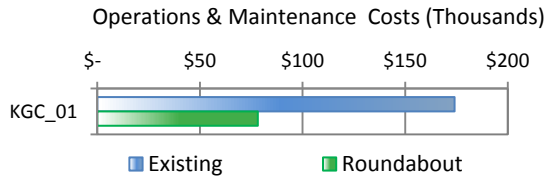
Emissions Study Intersection	Preferred Control
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

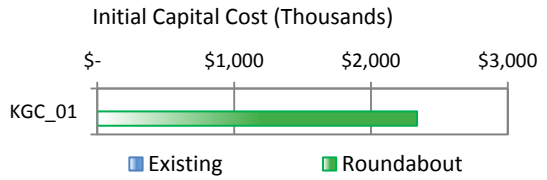


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	NO PROJECT

NOTE: The existing alternative has the lowest cost.

Summary of B/C Performance Measures

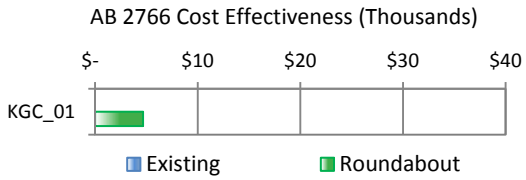
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals					NO PROJECT	

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and King City.

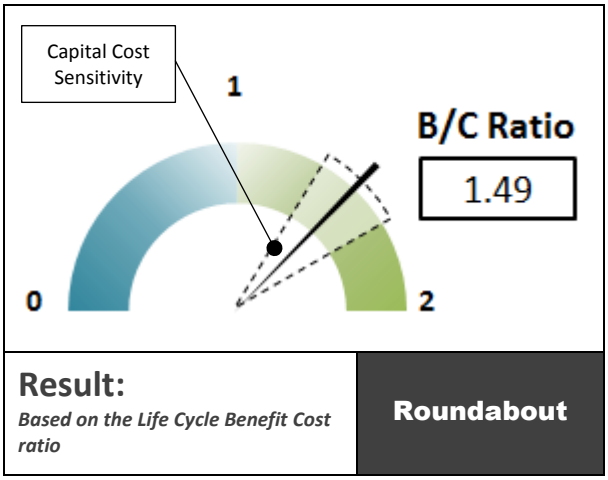


Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

BROADWAY STREET AT SAN ANTONIO DRIVE / US 101 NORTHBOUND RAMP TERMINALS



The Benefit Cost (B/C) ratio for the Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals intersection is 1.49. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $3.4M and all other performance measures remained unchanged.

Noteworthy performance measures driving the B/C ratio are *safety and delay*. The total life cycle benefits of the roundabout are estimated at $3,340,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $1,600 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a superior alternative to serve existing and forecast traffic. The existing signal control on Broadway Street at San Antonio Drive and the existing stop control on the US 101 northbound ramp terminal, or no project alternative, operates with acceptable delay for the existing traffic demand condition. Operations are expected to degrade to unacceptable levels as demand reaches forecast design year levels. In terms of vehicle queuing, vehicles queues are expected to exceed available storage for all movements on northbound Broadway Street and left turn movements on westbound Broadway Street. The proposed signal control alternative is not expected to improve overall operations at the intersection, but signal improvements are expected to improve ramp operations. There may be other considerations,

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals	**San Antonio Drive (north) / Broadway Street (south) (King City)**	North: 4-lane divided. South: 2-lane undivided south.	Local	35 north, 25 south	Serves residential, commercial business, and institutional uses. Provides circulation throughout King City.	Service provided by Monterey-Salinas Transit Line 23. (No service provided on San Lorenzo Park Road)	Sidewalks provided. Crosswalks are provided at signalized intersection.	No bike lanes provided.
	Broadway Street (east) / San Lorenzo Park Road (west) (King City)	East: 2-lane divided. West: 2-lane undivided. On-street parking.	Local	25	Serves residential, commercial business, and institutional uses. Provides circulation throughout King City.		Sidewalks provided. Crosswalks are provided at signalized intersection.	No bike lanes provided.
	US 101 Northbound Ramp Terminals (Caltrans)	1-lane.	Highway	60	Provides on/off access to/from northbound US 101.		No sidewalks. Crosswalks provided.	No bike lanes provided.

constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

For the purpose of this study, the B/C ratio was calculated for the roundabout vs. no project condition. The calculated B/C ratio assumes $0 in initial capital costs for improvements to the existing intersection. Operations for the proposed signal are expected to have greater delay than the no project alternative. Therefore, proposed signal improvements will likely increase the *delay reduction benefit* and decrease the *added capital cost of a roundabout*. The result would generate a B/C ratio greater than the no project alternative.

Refer to the Intersection Cost Comparison for intersection Number KGC-01E on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

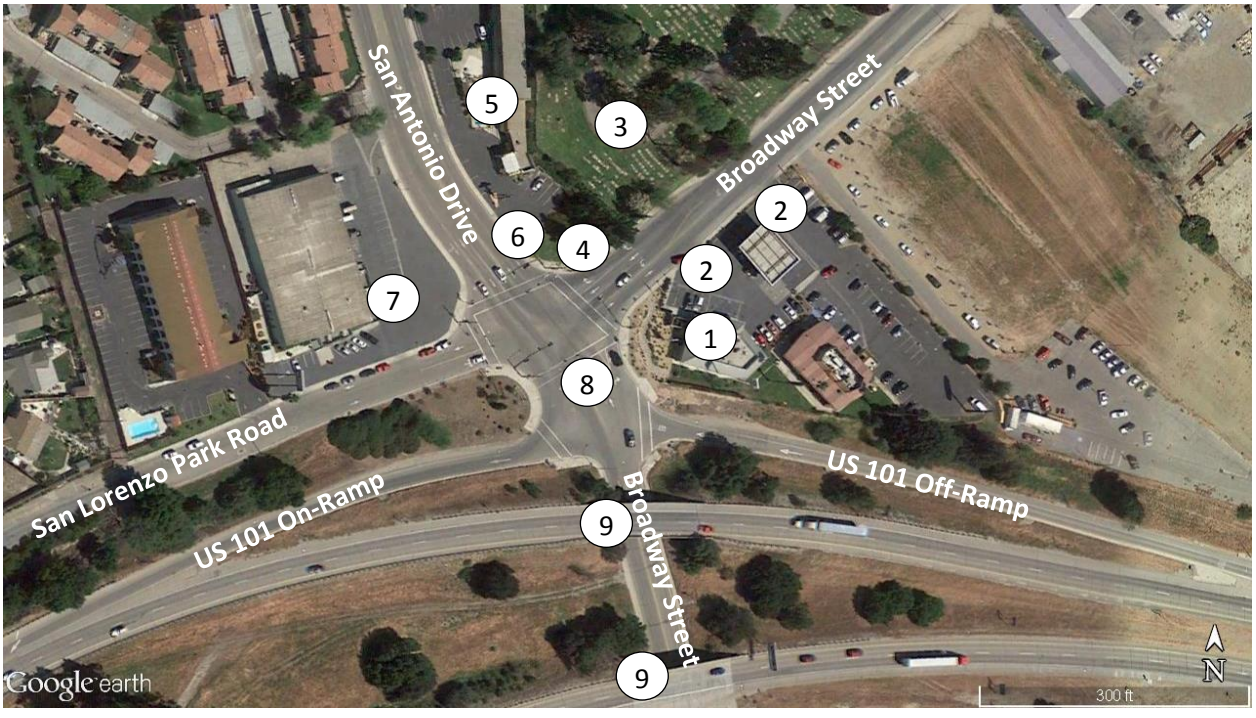
This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

The Broadway Street at San Antonio Drive / US 101 Northbound Ramp Terminals intersection is two closely spaced intersections with two types of traffic control. The Broadway Street at San Antonio Drive intersection is controlled by a traffic signal. The Broadway Street at US 101 Northbound Ramp Terminal intersection is controlled by a two-way stop on the minor approach, or off-ramp.

Parcels in the east, northeast, and northwest quadrants are developed. The easterly parcel is a service station with a structure close to the intersection and is considered a fatal flaw if disturbed. The existing signalized intersection is within City of Greenfield right of way and the existing stop control intersection is within Caltrans right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Service station (fatal flaw if disturbed)
2. Service station driveway
3. King City Cemetery
4. King City welcome sign / gateway feature
5. Days Inn King City
6. Days Inn driveway
7. Urgent care
8. Intersection spacing
9. US 101 overcrossing



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided on the previous page.

PLANNED IMPROVEMENTS

No planned improvements were identified.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal and Stop	
Proposed Signal improvements	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM and PM peak hour volumes was provided by the City. 2040 peak hour volumes were calculated using a 2.4% annual compound growth rate for all movements.

Signal Control (Existing)

With signal control, demand is adequately served for both peak hours under existing and design year conditions. Vehicle queuing for northbound Broadway Street extends beyond the existing two-way stop controlled intersection at the US 101 northbound ramp terminals. Queuing for the westbound Broadway Street left turn lane exceeds available storage under the existing condition. Vehicle queuing is expected to increase with travel demand, impacting ramp operations and driveway access on the easterly leg of Broadway Street.

Two-Way Stop Control (Existing)

Note: The two-way stop control intersection was evaluated using static, isolated intersection analysis. Microsimulation of the combined stop control and signal controlled intersections is recommended for further study.

Demand is adequately served for both peak hours under existing conditions. Beginning in design year 2030, off-ramp operations are expected to perform at unacceptable levels of delay. Under existing conditions, westbound vehicle movements are not coordinated with the signal at Broadway Street and San Antonio Drive. As a result, westbound vehicles turning left, or continuing through, are unable to distinguish southbound vehicles turning right on to the on-ramp, or continuing south. It is also difficult for stopped westbound vehicles to determine when westbound left turning Broadway Street vehicles are given a green arrow.

Signal Control - Modification

With signal control modifications, the existing two-way stop control intersection will be signalized and coordinated with the signal at Broadway Street and San Antonio Drive. The US 101 northbound off-ramp would operate with a dedicated phase creating 5-leg intersection operations. The signal would continue to operate with split phasing on all approaches.

For the signal control modification, additional lanes are required on the following approaches:

- US 101 Off-ramp: Add one lane
- Broadway Street (east leg): Add one left turn lane
- Broadway Street (south leg): Add one approach lane and one departure lane.

The signal modifications would require reconstruction of the US 101 overcrossing.

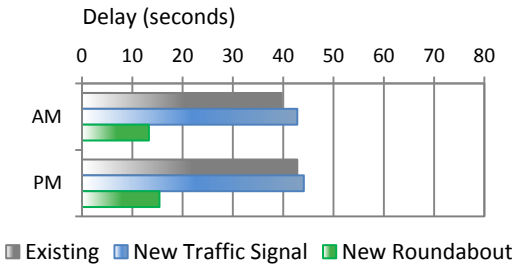
The additional lanes and reconfiguration of signal will also impact crossing distance as well as overall cycle length for protected phasing. Bike lanes and transit stops are not provided at the intersection therefore the reconfiguration of the intersection will not create an impact to these facilities.

Roundabout Control

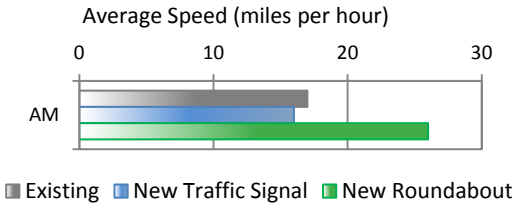
With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak hours through design year 2025 conditions. It is expected that between 2030 and 2040, a single westbound Broadway Street right turn lane will be needed. The roundabout is expected to provide superior operations compared to the existing conditions and proposed signal modification alternative.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	NO PROJECT
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Traffic microsimulation, such as VISSIM, of project area.
- Evaluation roundabout design checks, especially evaluation of roundabout intersection sight distances for vehicles on US 101 northbound off-ramp and entry speed of northbound Broadway Street vehicles.
- Project approval and coordination with Caltrans.
- Preliminary engineering, topographic survey of US 101 overcrossing and service station.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **KGC-01E**
01/16

Intersection Cost Comparison

Broadway Street/San Antonio Drive/US-101 Ramps (Existing Signal + Stop Condition)
King City, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal + Two-Way Stop		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.35	$ 51,880	$ 810,470	1.14	$ 168,878	$ 2,638,228
Predicted PDO Crashes	0.93	$ 9,488	$ 148,225	1.85	$ 18,850	$ 294,480
Subtotal - Safety Costs	**-**	**$ 61,368**	**$ 958,695**	**-**	**$ 187,728**	**$ 2,932,708**
DELAY						
Delay to Persons in Vehicles (hours)	3932	$ 41,456	$ 1,077,859	9295	$ 93,093	$ 2,420,430
Subtotal - Delay Costs	-	**$ 41,456**	**$ 1,077,859**	-	**$ 93,093**	**$ 2,420,430**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 333	5,207
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 1,200	18,746
Cost of Pavement Rehabilitation			$ 33,320			$ 74,554
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 78,196**	-	**$ 6,370**	**$ 174,069**
EMISSIONS						
Tons of ROG	0.19	$ 183	$ 2,856	0.30	$ 284	$4,443
Tons of NOX	0.60	$ 7,724	$ 120,664	0.68	$ 8,827	$137,901
Tons of PM10	0.0086	$ 853	$ 13,322	0.0128	$ 1,279	$19,984
Subtotal - Emissions Costs		**$ 8,760**	**$ 136,842**		**$ 10,391**	**$ 162,328**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,384,735			$ -
Construction Cost - Structures			$ -			$ -
Capital Support			$ 693,000			$ -
Right-of-Way			$ 259,000			$ -
Subtotal - Initial Capital Costs			**$ 2,336,735**			**$ -**
NET PRESENT VALUE			**$ 4,451,486**			**$ 5,527,207**

NOTE: Safety and Delay performance measures are the summation of the exsitng signal and stop controlled intersections.

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,974,013
Delay Reduction Benefit of Roundabout	$1,342,571
Emission Reduction Benefit of Roundabout	$25,486
Total Benefits	**$3,342,070**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$95,872
Added Capital Costs of a Roundabout	$2,336,735
Total Costs	**$2,240,863**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

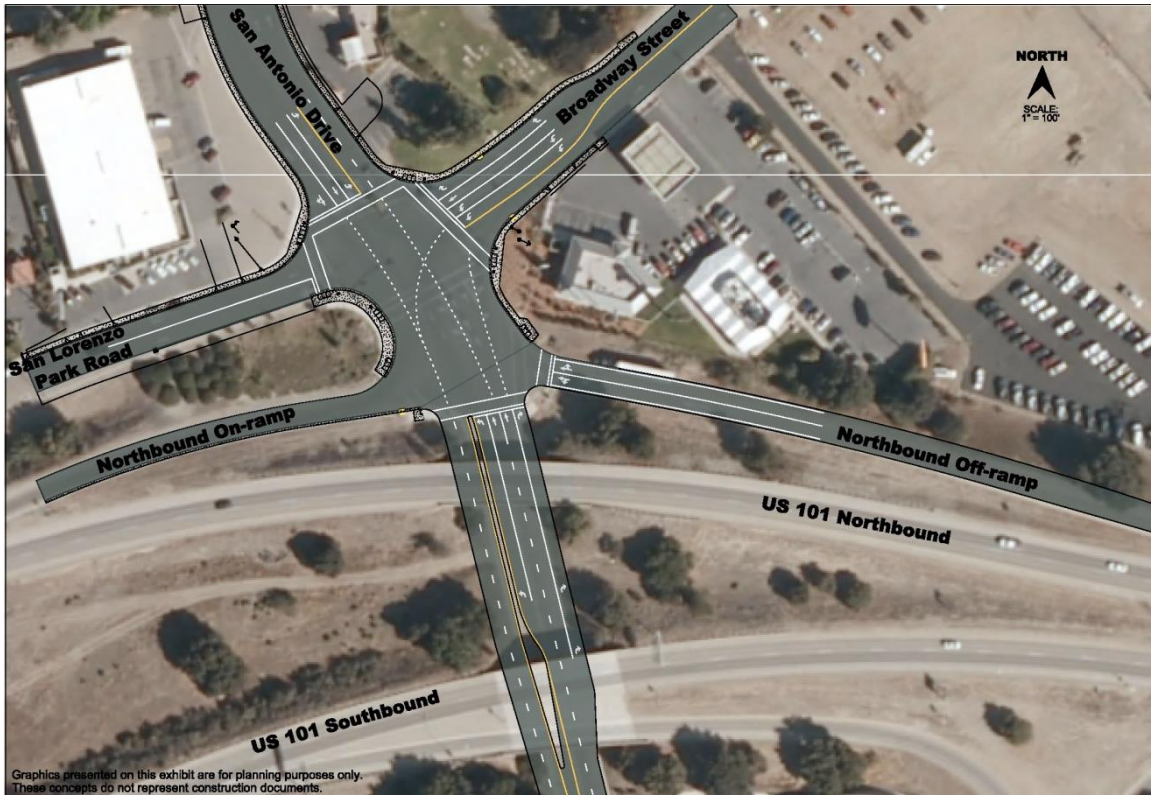
1.49

B/C Preferred: Roundabout Alternative

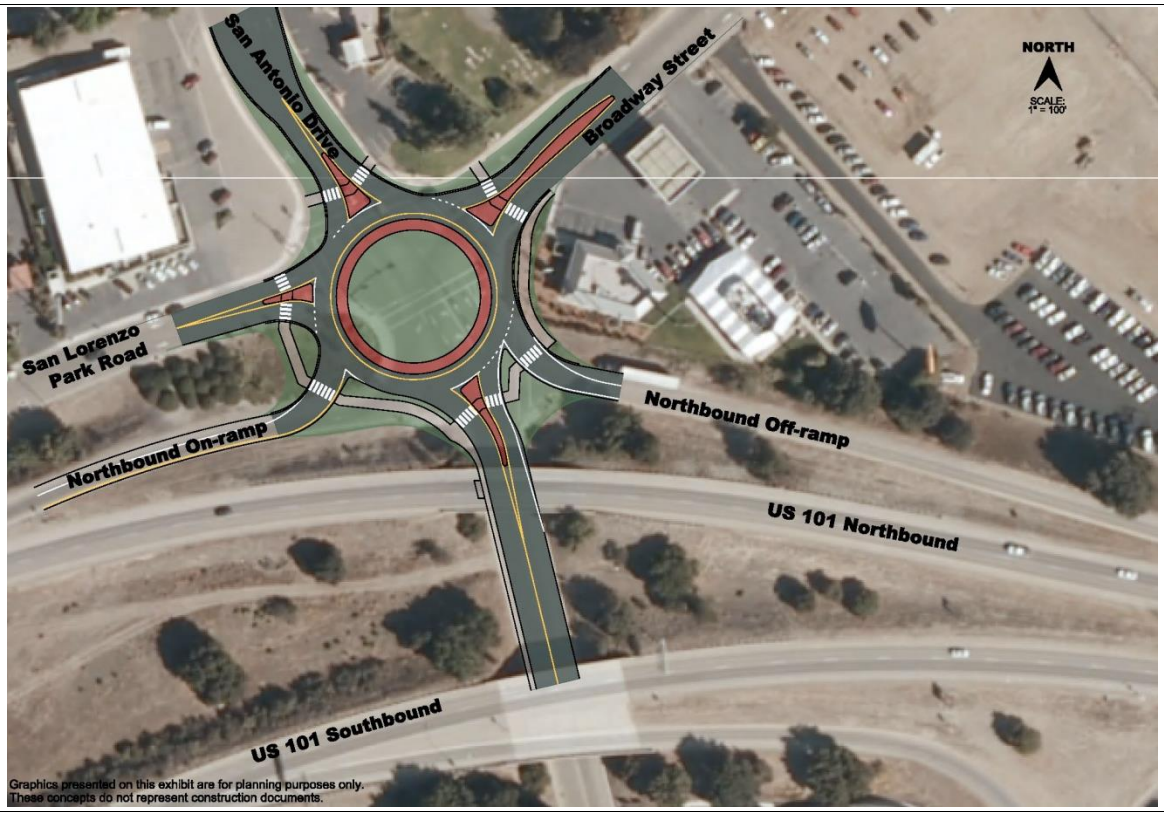
AIR QUALITY ANALYSIS

AIR QUALITY	Roundabout (vs. existing)	ffic Signal + Two-Way Stop (vs. existi
Annual Emission Reduction (lb/year)	393	N/A No Emission Change
Cost Per Pound Per Life	$58.38	N/A No Emission Change
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$4,671**	**N/A No Emission Change**

Intersection Improvement Alternatives



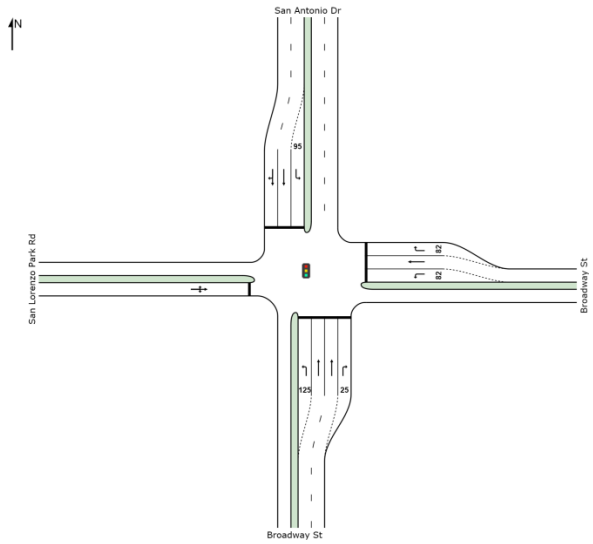
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

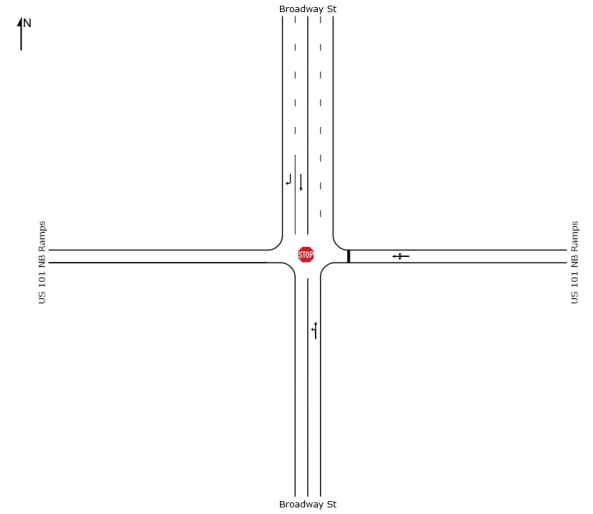


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	B	18.6	107 (SBT)	B	19.0	160 (WBL)
2030	C	23.1	192 (SBT)	C	24.4	248 (WBL)
2040	D	36.2	334 (NBR)	C	31.0	367 (WBL)

NOTES:

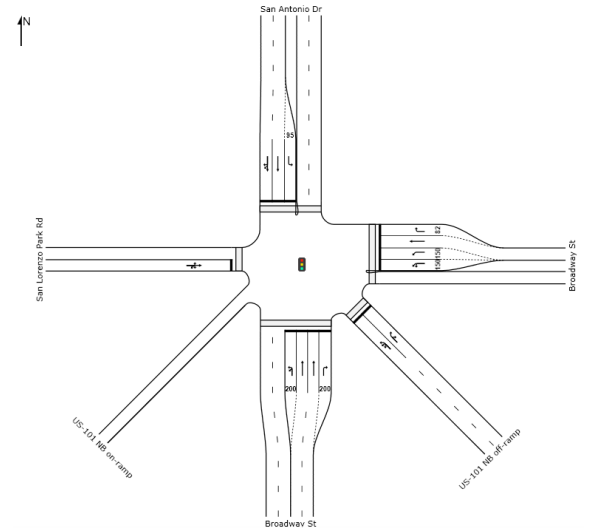
1. NB Broadway Street queues will exceed available storage affecting NB US-101 Ramps for all scenarios.
2. WBL Broadway Street will also exceed available storage for all scenarios.



EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	C	15.1	13 (WB)	C	16.5	25 (WB)
2030	C	23.6	30 (WB)	D	26.2	63 (WB)
2040	F	51.5	78 (WB)	F	106.7	210 (WB)

NOTES:



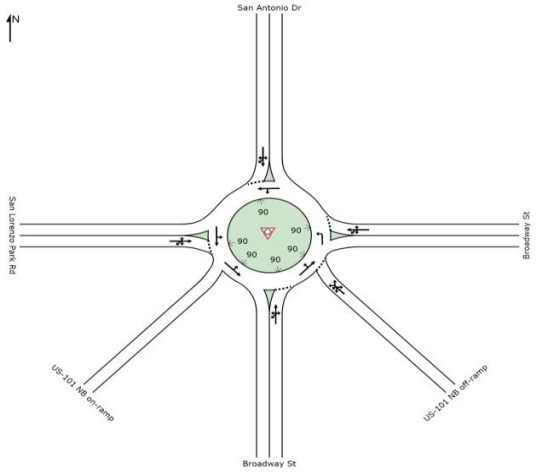
ALTERNATIVE 1
SIGNAL MODIFICATIONS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	C	25.5	222 (NBR)	C	26.5	194 (NBR)
2030	C	32.4	347 (NBR)	C	35.4	330 (NBR)
2040	D	42.8	550 (NBR)	D	44.1	515 (NBR)

NOTES:

1. WBL Broadway Street will exceed available storage for the 2030 p.m. peak hour

Intersection Control Alternative Summary

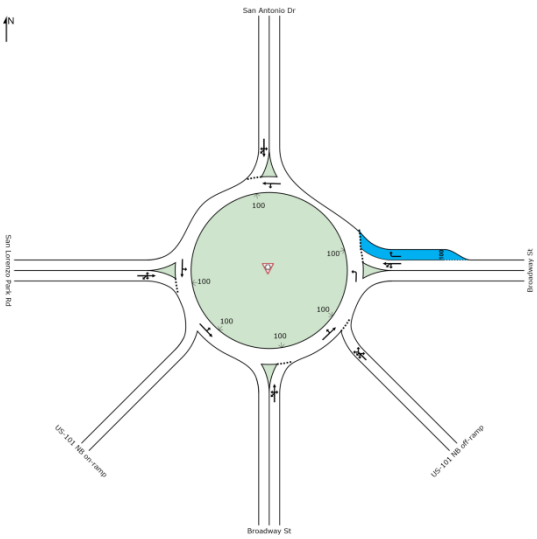


ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	6.2	66 (NB)	A	7.5	74 (NB)
2030	A	9.1	127 (NB)	B	15.0	235 (WB)

NOTES:

1. Significant queues are noted for WB Broadway Street during the 2015 and 2030 p.m. peak hour.



ALTERNATIVE 2a
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2040	B	13.3	235 (NB)	C	15.4	296 (NB)

NOTES:

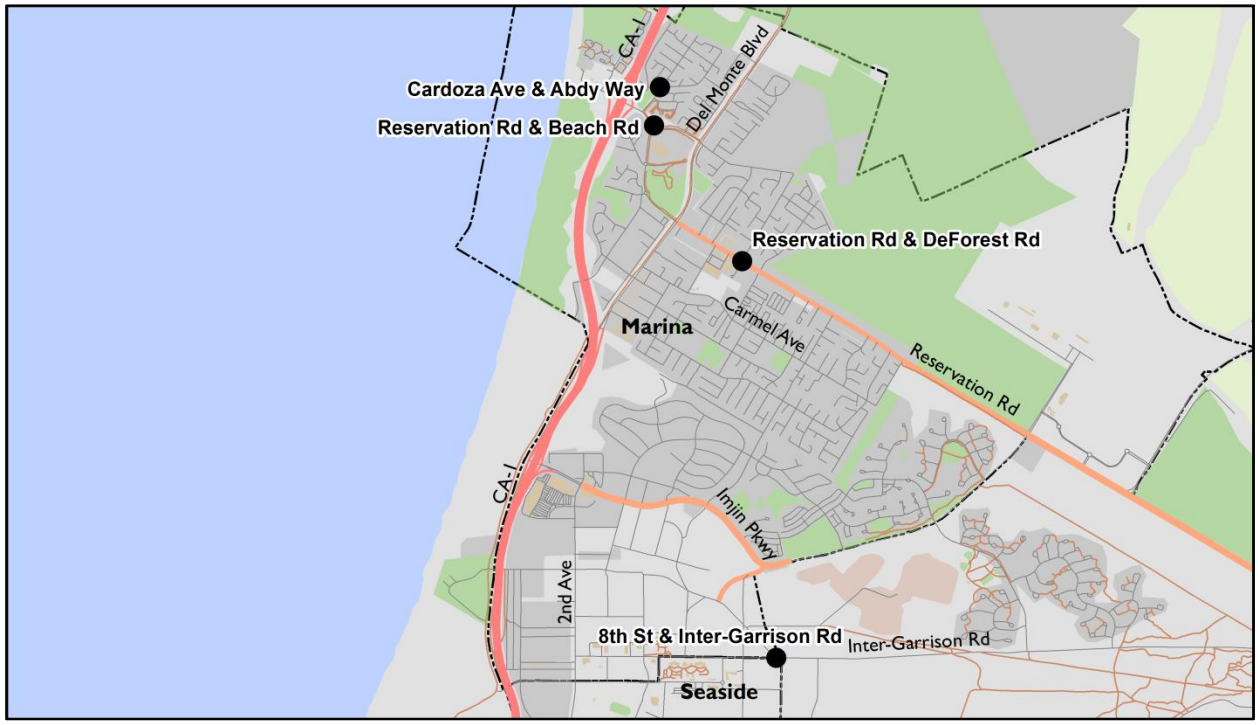
1. A 100 foot westbound right turn lane is added.

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 4:

City of Marina

Study Intersections:

- RESERVATION ROAD AT BEACH ROAD
- RESERVATION ROAD AT DEFOREST ROAD
- CARDOZA AVENUE AT ABDY WAY
- 8TH STREET AT INTER-GARRISON



CITY OF MARINA SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Reservation Road at Beach Road	MAR-01
Reservation Road at DeForest Road	MAR-02
Cardoza Avenue at Abdy Way	MAR-03
8th Street at Inter-Garrison Road	MAR-04

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Marina jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Marina, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Reservation Road at Beach Road	**0.69**	
Reservation Road at DeForest Road	**3.92**	
Cardoza Avenue at Abdy Way	**1.22**	
8th Street at Inter-Garrison Road	**1.16**	

SUMMARY OF KEY PERFORMANCE MEASURES

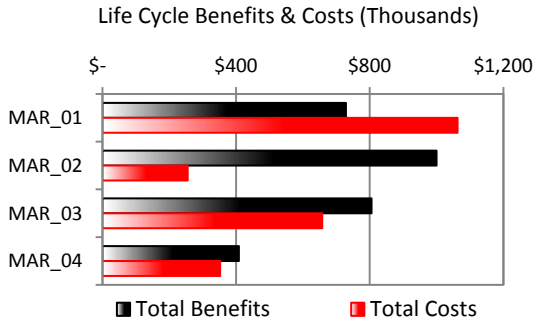
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



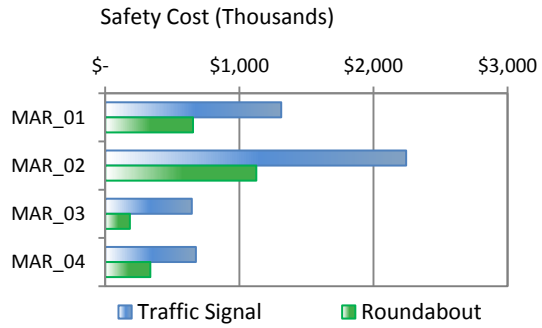
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

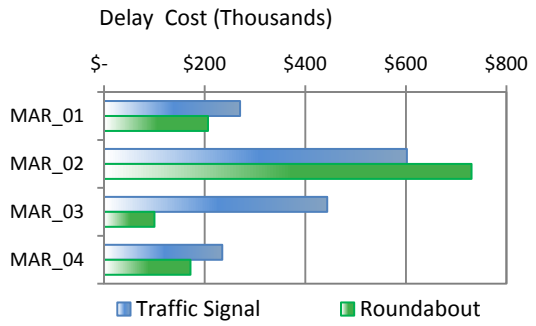


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	
8th Street at Inter-Garrison Road	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

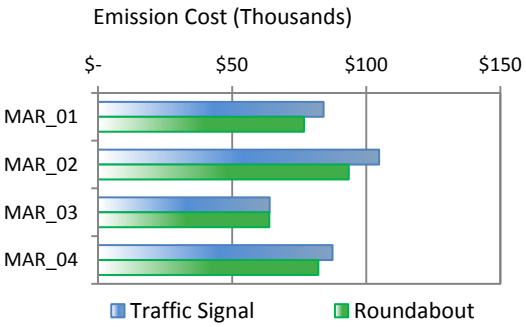


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay Study Intersection	Preferred Control
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	
8th Street at Inter-Garrison Road	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

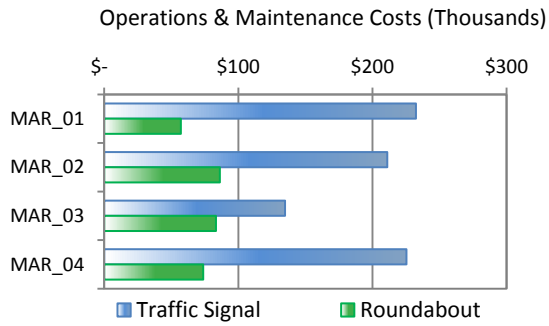
Emissions Study Intersection	Preferred Control
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	
8th Street at Inter-Garrison Road	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

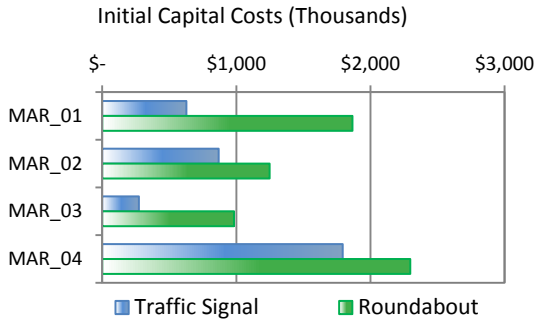


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	
8th Street at Inter-Garrison Road	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	
8th Street at Inter-Garrison Road	

Summary of B/C Performance Measures

The following table summarizes the five performance measures evaluated at each project location.

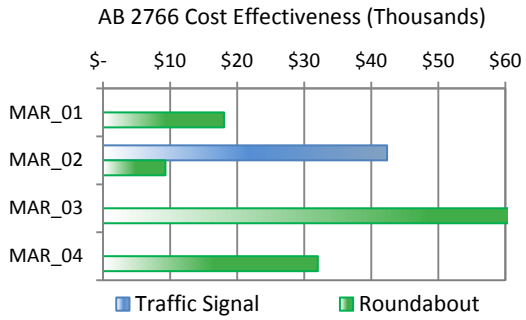
	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Reservation Road at Beach Road						
Reservation Road at DeForest Road						
Cardoza Avenue at Abdy Way						
8th Street at Inter-Garrison Road						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less sh

be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Marina.



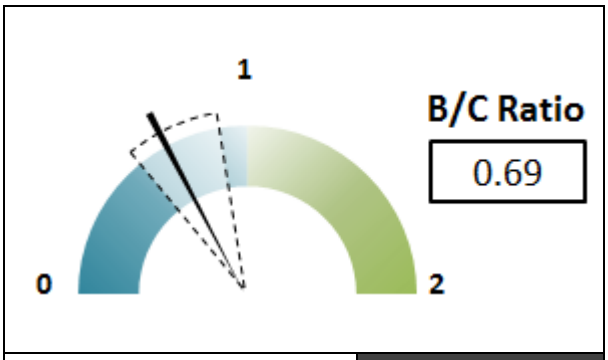
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness **Study Intersection**	**Preferred Control**
Reservation Road at Beach Road	
Reservation Road at DeForest Road	
Cardoza Avenue at Abdy Way	NONE
8th Street at Inter-Garrison Road	NONE

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

RESERVATION ROAD AT BEACH BOULEVARD



Result:
Based on the Life Cycle Benefit Cost ratio

Signal

The Benefit Cost (B/C) ratio for this intersection is 0.69. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a signal.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design. An initial capital cost budget of approximately $1.5 M would yeild a B/C ratio equal to 1.05 if all other performance measures remained equal.

Noteworthy performance measures driving the B/C ratio are *safety, operations and maintenance*, and *initial capital costs*. The estimated safety costs of the signal are 2 times higher than that of the roundabout. The estimated operations and maintenance costs of the signal are 3.5 times higher than that of the roundabout. The estimated initial capital costs are 2.5 higher for the roundabout than that of the signal. The total life cycle benefits of the roundabout are estimated at $730,000 when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing traffic signal control or, no project alternative, will continue to provide adequate capacity in terms of delay. However, queuing may exceed available storage capacity between Cardoza Avenue and Reservation Drive for westbound vehicles. Though not quantified in this evaluation, the roundabout will likely improve overall operations between the SR 1 northbound ramp terminals and Reservation Road by removing the dual northbound left turn lanes on Reservation Road and eliminating the westbound "weave" between Cardoza Avenue and Reservation Road. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Beach Boulevard at Reservation Road	**Beach Boulevard**	2-lane undivided	Urban	35	Serves residential and commercial land uses. Provides access to SR 1.	No transit services provided.	Some sidewalks provided	Partial Class II bike Lanes
	Reservation Road	2-lane undivided	Urban	35	Serves residential, commercial land uses, access to central Marina.	Service provided by Monterey-Salinas Transit. Stop located at intersection to remain.	Some sidewalks provided	Partial Class II bike Lanes

Refer to the Intersection Cost Comparison for intersection Number MAR-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Beach Boulevard at Reservation Road is controlled by a traffic signal.

Parcels in the immediate vicinity of the project are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement. The existing intersection is within Monterey County right of way.

Existing design constraints at the study intersection include (see map for locations):

1. Environmentally sensitive area
2. Right of way constraint – Gas Station
3. Transit access
4. Planned development

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

A hotel is planned for the vacant parcel in the southwest quadrant of the intersection. Future forecast assumes annual compound growth and does not account for specific projects.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Signal Modifications	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM peak hour volumes was provided by the City. 2040 AM peak hour volumes were calculated using a 2% annual compound growth rate for all movements. PM peak hour volumes were not provided.

Signal Control (Existing)

With signal control, demand is adequately served for the AM peak hour under existing conditions.

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Northbound left turning vehicles on Reservation Road are segregated between two left turn lanes to mitigate downstream weaving between Cardoza Avenue and Reservation Road. A bicycle lane is not provided at the eastbound approach between the through lane and the right turn lane.

Signal Control (Proposed)

With proposed signal control, the number of approach and departure lanes will remain the same as existing. Proposed improvements are limited to striping and pavement markings to improve safety and operations for cyclists and sidewalk improvements for pedestrians. Transit access will also not be affected by proposed improvements.

Roundabout Control

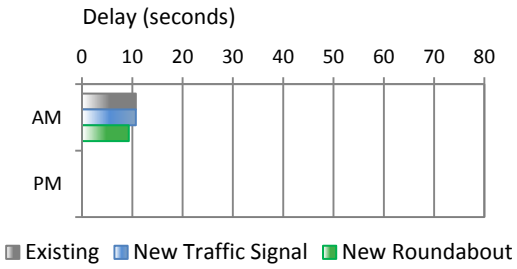
With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak hours under future design year conditions.

The single lane roundabout will eliminate the separation of left turning traffic and weave that currently exists for the signal alternative.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes can be maintained with a one lane roundabout. The nearest transit stop is over 100 feet south of the intersection and can be accommodated in the design of the roundabout.

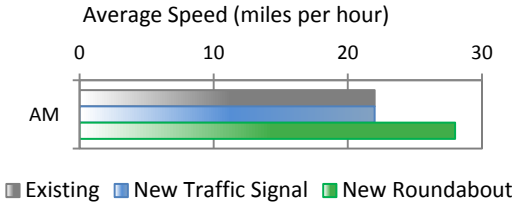
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: PM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- PM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MAR-01**
01/16

Intersection Cost Comparison

Beach Road at Reservation Road
Marina, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.23	$ 33,764	$ 527,459	0.51	$ 75,030	$ 1,172,131
Predicted PDO Crashes	0.80	$ 8,137	$ 127,115	0.88	$ 8,966	$ 140,065
Subtotal - Safety Costs	**-**	**$ 41,901**	**$ 654,574**	**-**	**$ 83,996**	**$ 1,312,197**
DELAY						
Delay to Persons in Vehicles (hours)	782	$ 7,949	$ 206,667	997	$ 10,403	$ 270,467
Subtotal - Delay Costs	-	**$ 7,949**	**$ 206,667**	-	**$ 10,403**	**$ 270,467**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 12,266			$ 75,211
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 57,143**	-	**$ 10,063**	**$ 232,423**
EMISSIONS						
Tons of ROG	0.10	$ 94	$ 1,474	0.12	$ 118	$1,843
Tons of NOX	0.34	$ 4,325	$ 67,567	0.36	$ 4,645	$72,572
Tons of PM10	0.0050	$ 495	$ 7,736	0.0062	$ 619	$9,670
Subtotal - Emissions Costs		**$ 4,915**	**$ 76,778**		**$ 5,382**	**$ 84,086**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,525,680			$ 526,600
Construction Cost - Structures			$ -			$ -
Capital Support			$ 290,000			$ 101,000
Right-of-Way			$ 50,000			$ -
Subtotal - Initial Capital Costs			**$ 1,865,680**			**$ 627,600**
NET PRESENT VALUE			**$ 2,784,065**			**$ 2,442,686**

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$657,622	**LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$63,800	
Emission Reduction Benefit of Roundabout	$7,308	
Total Benefits	**$728,730**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$175,280	**0.69**
Added Capital Costs of a Roundabout	$1,238,080	
Total Costs	**$1,062,800**	

B/C Preferred: Signal Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	102	N/A - same as existing
Cost Per Pound Per Life	$225.59	N/A - same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$18,047**	**N/A - same as existing**

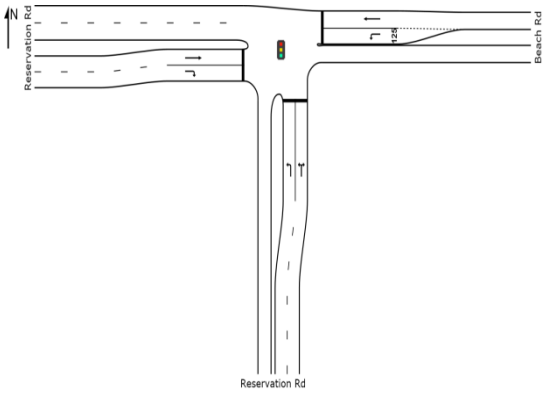
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

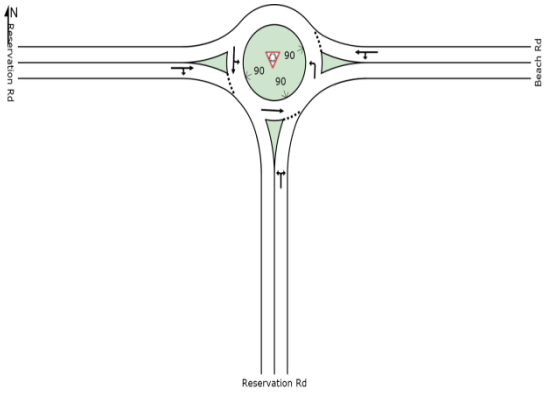


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	8.8	75 (WBT)			
2040	B	10.7	175 (WBT)			

NOTES:

1. WBT queues will exceed available storage in 2040 a.m. peak.
2. PM data was not provided.



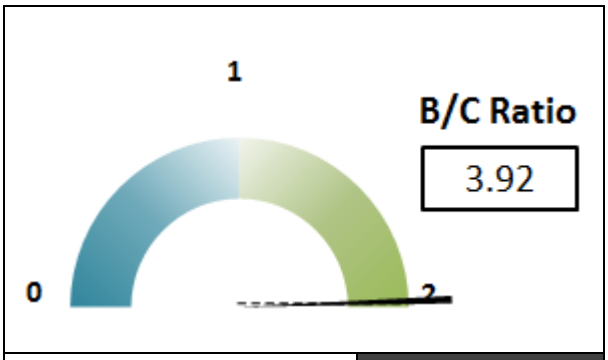
ALTERNATIVE 1
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	5.4	50 (EB)			
2040	A	9.3	125 (WB)			

NOTES:

1. PM data was not provided.

DEFOREST ROAD AT RESERVATION ROAD



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for this intersection is 3.92. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. However, an initial capital cost budget of approximately $2 M for the roudnabout alternative would yeild a B/C ratio equal to 1.0 if all other performance measures remained equal.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 2 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $1,000,000 when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing signal control or, no project alternative, is operating at an acceptable level under existing AM peak hour conditions but is expected to degrade over time to an LOS E. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2035 design year. The year 2015 was assumed for the baseline "build" condition for a total 20 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MAR-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

DeForest Road at Reservation Road is controlled by a traffic signal.

Parcels in the immediate vicinity of the project are developed. The existing intersection is within City of Marina right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
DeForest Road at Reservation Road	**DeForest Road**	2-lane undivided	Urban	25	Serves residential/ commercial land uses Regional transit center	Regional transit center on south leg, service provided by Monterey-Salinas Transit	Sidewalks with Crosswalks	No bike lanes provided
	Reservation Road	4-lane divided	Urban	35	Central business district	Primary access to transit center	Sidewalks with Crosswalks	Class II

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Marina Transit Exchange
3. Bus access
4. Closely spaced intersection
5. Shopping center access

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The DeForest Road intersection with Reservation Road is located within the City of Marina Downtown Specific Plan and may be impacted by planned improvements for the area as well as regulations for improvements.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Signal improvements	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM peak hour volumes was provided by the City. 2035 AM peak hour volumes were calculated using a 2% annual compound growth rate for all movements. PM peak hour volumes were not provided.

Signal Control (Existing)

With signal control, demand is adequately served for the AM peak hour under existing conditions. Eastbound left turn storage is forecast to be insufficient during peak periods.

Signal Control (Proposed)

With signal control, an additional eastbound left turn lane is proposed. The additional left turn lane will require an additional northbound lane on DeForest

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Road to receive left turning vehicles. Additional study is needed at the signalized intersection west of the study intersection. Study is needed to determine the full scope of improvements that may be needed to balance operation improvements with full access to the shopping center.

The proposed traffic signal is expected to improve intersection performance and provide sufficient capacity for the AM peak hour.

The PM peak hour was not evaluated at this intersection.

The additional lanes will increase crossing distance as well as overall cycle length for protected phasing. Bike lanes along Reservation Road can be maintained with the necessary lane additions. Transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access. Circulation to the transit center south of the intersection will be maintained.

Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform at capacity for the AM peak hour under future design year conditions. The need for additional lanes and improved vehicle operations should be balanced with road diet objectives and pedestrian safety.

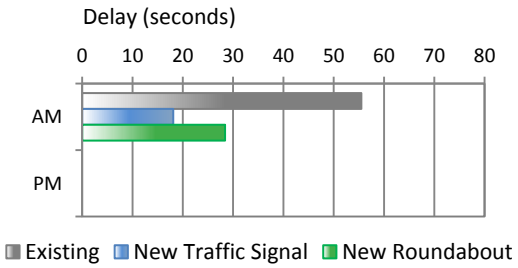
Future studies should consider the PM peak hour for design year conditions. Future PM peak hour demand may identify the need for additional through lanes in the roundabout.

Similar to the proposed traffic signal alternative, study is needed to determine the full scope of improvements that may be needed to balance operation improvements with full access to the shopping center.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes along Reservation Road can be maintained with a one lane roundabout. Transit stops are not provided at the intersection therefore the roundabout alternative will not impact transit access. Circulation to the transit center south of the intersection will be maintained.

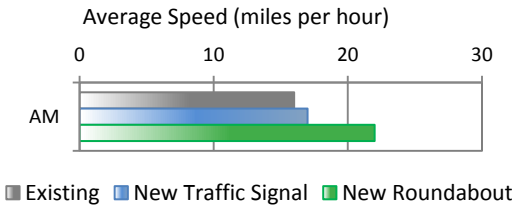
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: PM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- PM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Operations and access at intersection west of study intersection.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MAR-02**
01/2016

Intersection Cost Comparison

Deforest Road at Reservation Road
Marina, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.44	$ 65,462	$ 889,652	0.98	$ 145,471	$ 1,977,005
Predicted PDO Crashes	1.71	$ 17,431	$ 236,893	1.92	$ 19,620	$ 266,637
Subtotal - Safety Costs	**-**	**$ 82,893**	**$ 1,126,545**	**-**	**$ 165,091**	**$ 2,243,642**
DELAY						
Delay to Persons in Vehicles (hours)	3198	$ 34,793	$ 730,647	2510	$ 28,671	$ 602,094
Subtotal - Delay Costs	-	**$ 34,793**	**$ 730,647**	-	**$ 28,671**	**$ 602,094**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	7,701
Cost of Power for Signal				-	$ 4,255	57,827
Cost of Illumination	6	$ 873	$ 11,859	4	$ 582	7,906
Cost of Landscaping Maintenance	-	$ 2,000	$ 27,181			
Cost of Signal Maintenance				-	$ 4,660	63,331
Cost of Pavement Rehabilitation			$ 47,179			$ 74,277
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 86,219**	-	**$ 10,063**	**$ 211,042**
EMISSIONS						
Tons of ROG	0.16	$ 151	$ 2,049	0.22	$ 211	$2,868
Tons of NOX	0.46	$ 5,936	$ 80,675	0.51	$ 6,550	$89,021
Tons of PM10	0.0079	$ 791	$ 10,750	0.0095	$ 949	$12,900
Subtotal - Emissions Costs		**$ 6,878**	**$ 93,474**		**$ 7,711**	**$ 104,790**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,048,150			$ 729,200
Construction Cost - Structures			$ -			$ -
Capital Support			$ 200,000			$ 139,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,248,150**			**$ 868,200**
NET PRESENT VALUE			**$ 3,191,561**			**$ 3,924,979**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,117,097
Delay Reduction Benefit of Roundabout	-$128,553
Emission Reduction Benefit of Roundabout	$11,315
Total Benefits	**$999,860**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$124,823
Added Capital Costs of a Roundabout	$379,950
Total Costs	**$255,127**

LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO

3.92

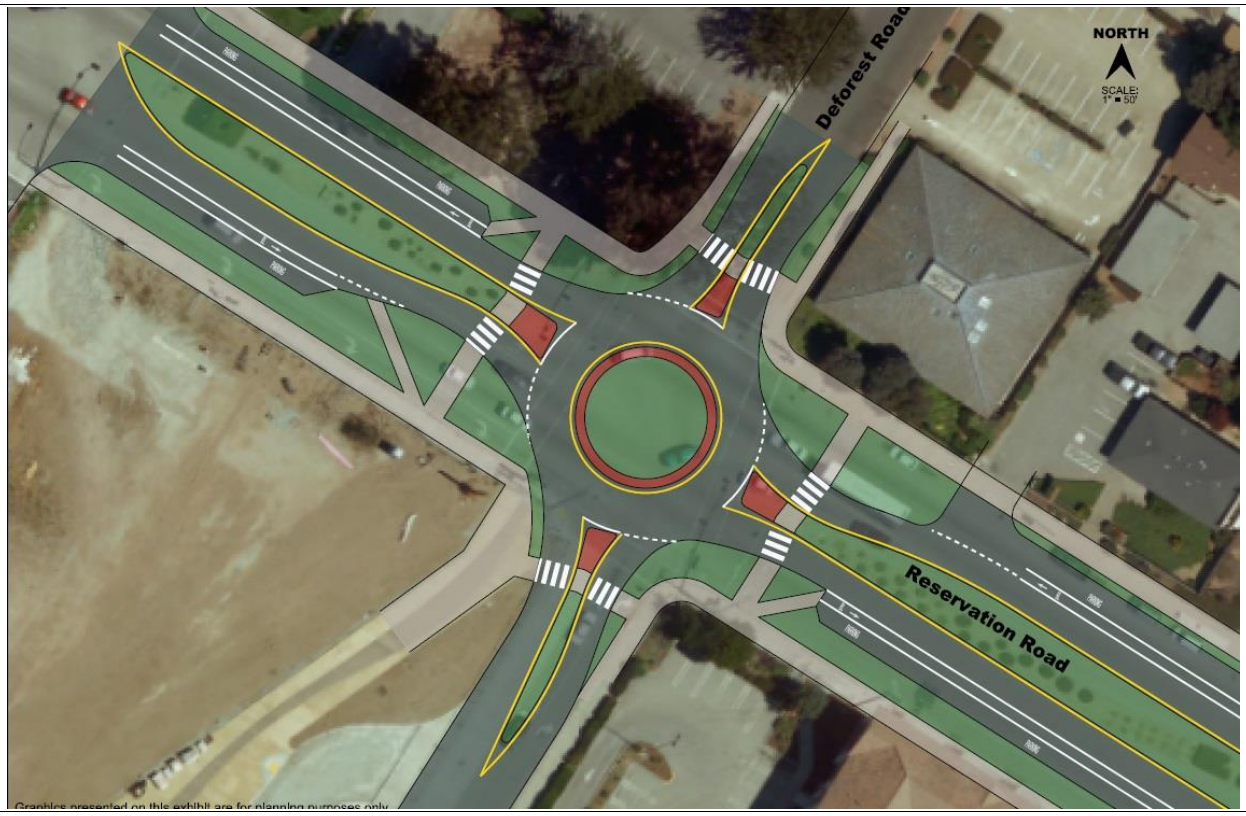
B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	289	63
Cost Per Pound Per Life	$93.10	$423.59
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$9,310**	**$42,359**

Intersection Improvement Alternatives

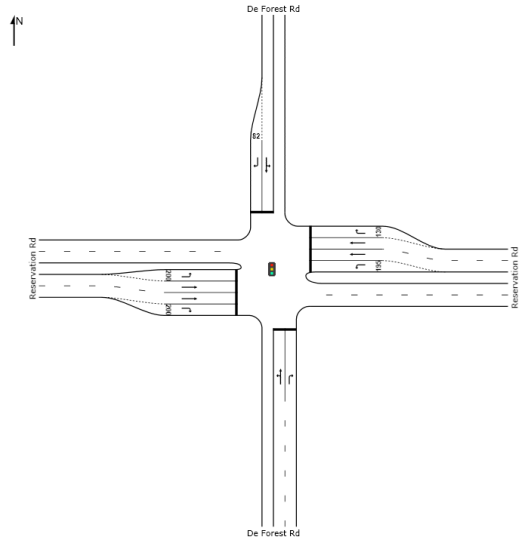
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

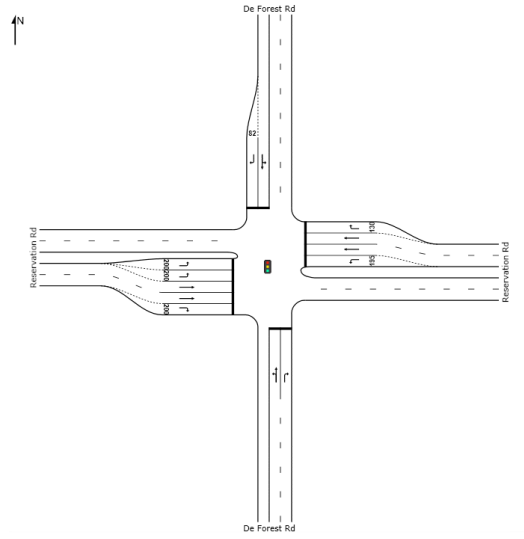


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	C	30.6	#102 (EBL)			
2035	E	55.5	#170 (EBL)			

NOTES:

1. EBL queues will exceed available storage in 2040 a.m. peak.
2. PM data was not provided.

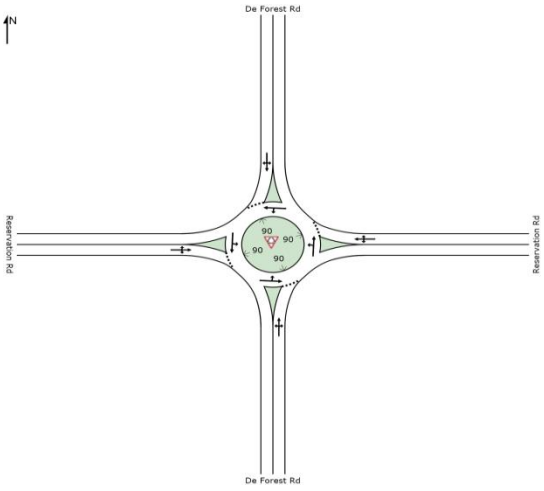


ALTERNATIVE 1
SIGNAL MODIFICATIONS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	B	14.0	137 (WBT)			
2035	B	18.1	#254 (WBT)			

NOTES:

1. Added additional eastbound left turn lane
2. PM data was not provided.



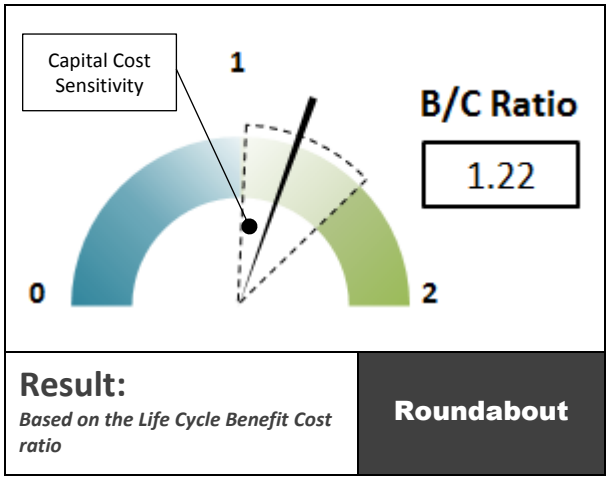
ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	8.9	100 (EB)			
2035	D	28.4	563 (WB)			

NOTES:

1. PM data was not provided.

CARDOZA AVENUE AT ABDY WAY



The Benefit Cost (B/C) ratio for Cardoza Avenue at Abdy Way is 1.22. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may to change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Noteworthy performance measures driving the B/C ratio are *safety* and *delay*. The estimated safety costs of the signal are 3 times higher than that of the roundabout. The estimated delay costs of the signal are 4 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $800,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $2,300 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic and is expected to have a traffic calming effect on Cardoza Avenue vehicles. The existing stop control will degrade over time with demand exceeding capacity on the westbound approach. Proposed stop control improvements are targeted to reduce vehicle speeds and reduce pedestrian crossing distances on Cardoza Avenue.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number MAR-03 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Cardoza Avenue at Abdy Way is controlled by a two-way stop sign. Vehicles are required to stop on Abdy Way.

All parcels are developed at the study intersection. The existing intersection is within City of Marina right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Cardoza Avenue at Abdy Way	**Cardoza Avenue**	2-lane undivided	Urban Residential	25	Serves residential land uses	No transit services provided	Sidewalks on south leg and northwest side Crosswalk on south leg	No bike lanes provided
	Abdy Way	2-lane undivided	Urban Residential	25	Serves residential land uses	No transit services provided	Sidewalks on west leg and southeast side	No bike lanes provid

Existing design constraints and considerations identified by the County at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Glorya Jean Tate Park (right of way constraint)
3. Vehicle Speeds
4. Residential driveways

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

No planned improvements were identified.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Traffic Signal	
Proposed Signal Modification	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM peak hour volumes was provided by the City. 2040 AM peak hour volumes were calculated using a 2% annual compound growth rate for all movements. PM peak hour volumes were not provided.

Two-Way Stop Control (Existing)

Demand is adequately served for the AM peak hour under existing conditions. Westbound vehicles on Abdy Way may experience significant delay based on 2040 AM design year conditions

Two-Way Stop Control with Traffic Calming

The proposed two-way stop control with traffic calming will provide the same capacity as the existing condition. Proposed improvements are targeted to reduce vehicle speeds on Cardoza Avenue and reduce pedestrian crossing lengths at the intersection.

Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak hours under future design year conditions.

The proposed single lane roundabout is expected to calm traffic and reduce pedestrian crossing lengths at the intersection.

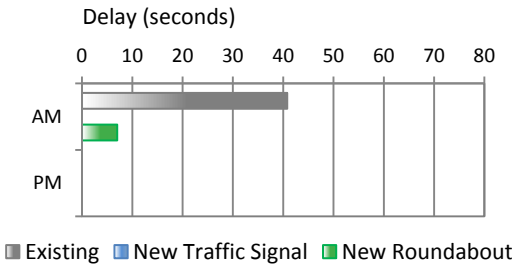
(1) Refer to the Existing Conditions section on the previous page for description of the design constraint.

The roundabout alternative provides access to the residential driveways in the northwest quadrant without direct access to the roundabout.

Crosswalks will be improved and provide midway refuge areas. Bike and transit stops are not provided at the intersection therefore the roundabout alternative will not impact bike or transit access.

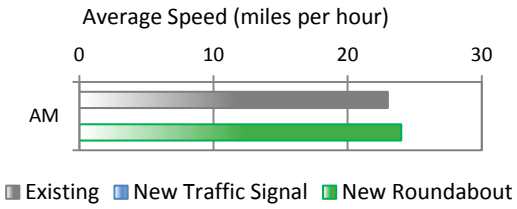
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is reported. The Intersection Control Alternative Summary reports maximum control delay for the worst approach of the two-way stop control intersection. PM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	NONE

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- PM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MAR-03**
01/16

Intersection Cost Comparison

Cardoza Avenue at Abdy Way
Marina, California

Cost Performance Measure	Intersection Type					
	Roundabout			Two-Way Stop Control		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.06	$ 8,143	$ 127,210	0.25	$ 37,013	$ 578,226
Predicted PDO Crashes	0.36	$ 3,629	$ 56,686	0.42	$ 4,315	$ 67,406
Subtotal - Safety Costs	**-**	**$ 11,772**	**$ 183,896**	**-**	**$ 41,328**	**$ 645,632**
DELAY						
Delay to Persons in Vehicles (hours)	376	$ 3,855	$ 100,227	1777	$ 17,067	$ 443,736
Subtotal - Delay Costs	-	**$ 3,855**	**$ 100,227**	-	**$ 17,067**	**$ 443,736**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ -	0
Cost of Power for Signal				-	$ -	0
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 38,440			$ 52,929
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 83,317**	-	**$ 5,242**	**$ 134,816**
EMISSIONS						
Tons of ROG	0.09	$ 83	$ 1,292	0.10	$ 92	$1,436
Tons of NOX	0.28	$ 3,619	$ 56,531	0.28	$ 3,619	$56,531
Tons of PM10	0.0039	$ 386	$ 6,026	0.0039	$ 386	$6,026
Subtotal - Emissions Costs		**$ 4,087**	**$ 63,850**		**$ 4,096**	**$ 63,993**
INITIAL CAPITAL COSTS						
Construction Cost			$ 825,675			$ 229,400
Construction Cost - Structures			$ -			$ -
Capital Support			$ 157,000			$ 44,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 982,675**			**$ 273,400**
NET PRESENT VALUE			**$ 1,350,114**			**$ 1,497,584**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Two-Way Stop Control	
Safety Benefit of Roundabout	$461,736
Delay Reduction Benefit of Roundabout	$343,509
Emission Reduction Benefit of Roundabout	$144
Total Benefits	**$805,389**
COSTS - Roundabout compared to Two-Way Stop Control	
Added O&M Costs of a Roundabout	-$51,499
Added Capital Costs of a Roundabout	$709,275
Total Costs	**$657,776**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

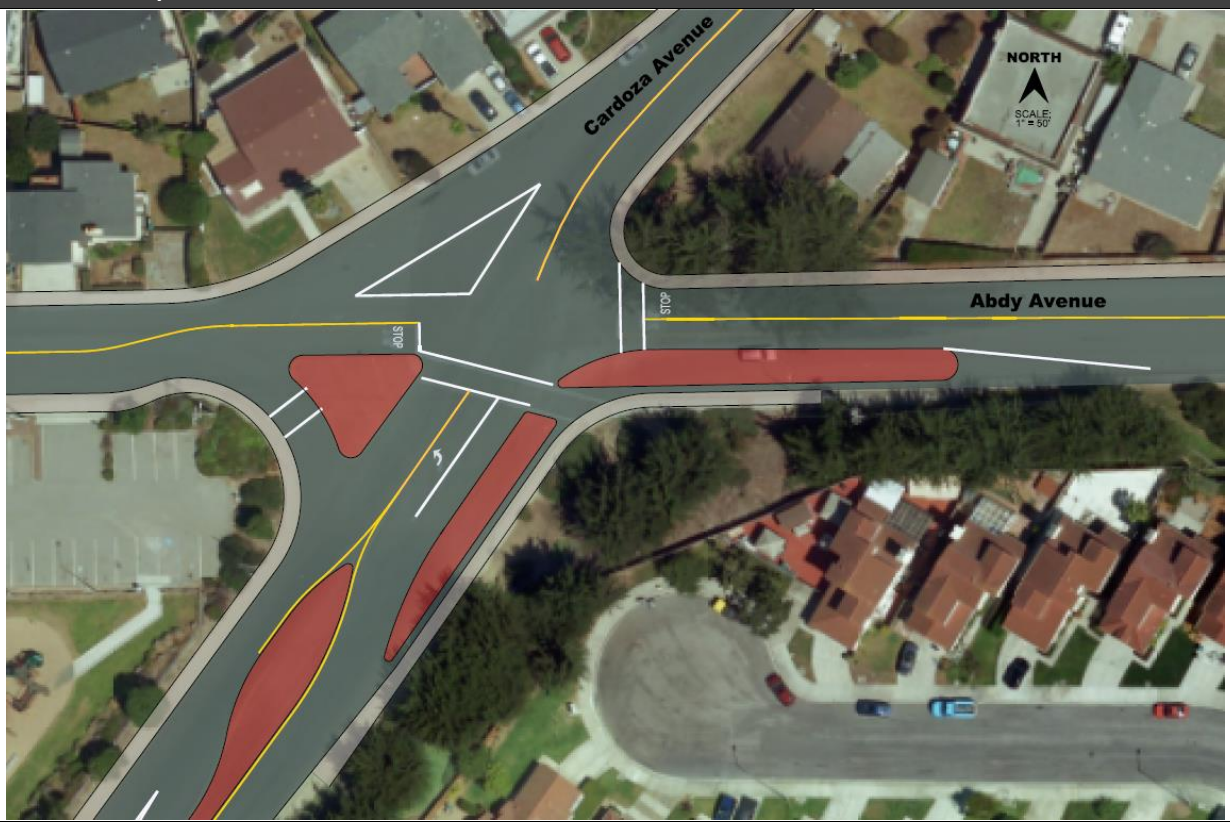
1.22

B/C Preferred: Roundabout Alternative

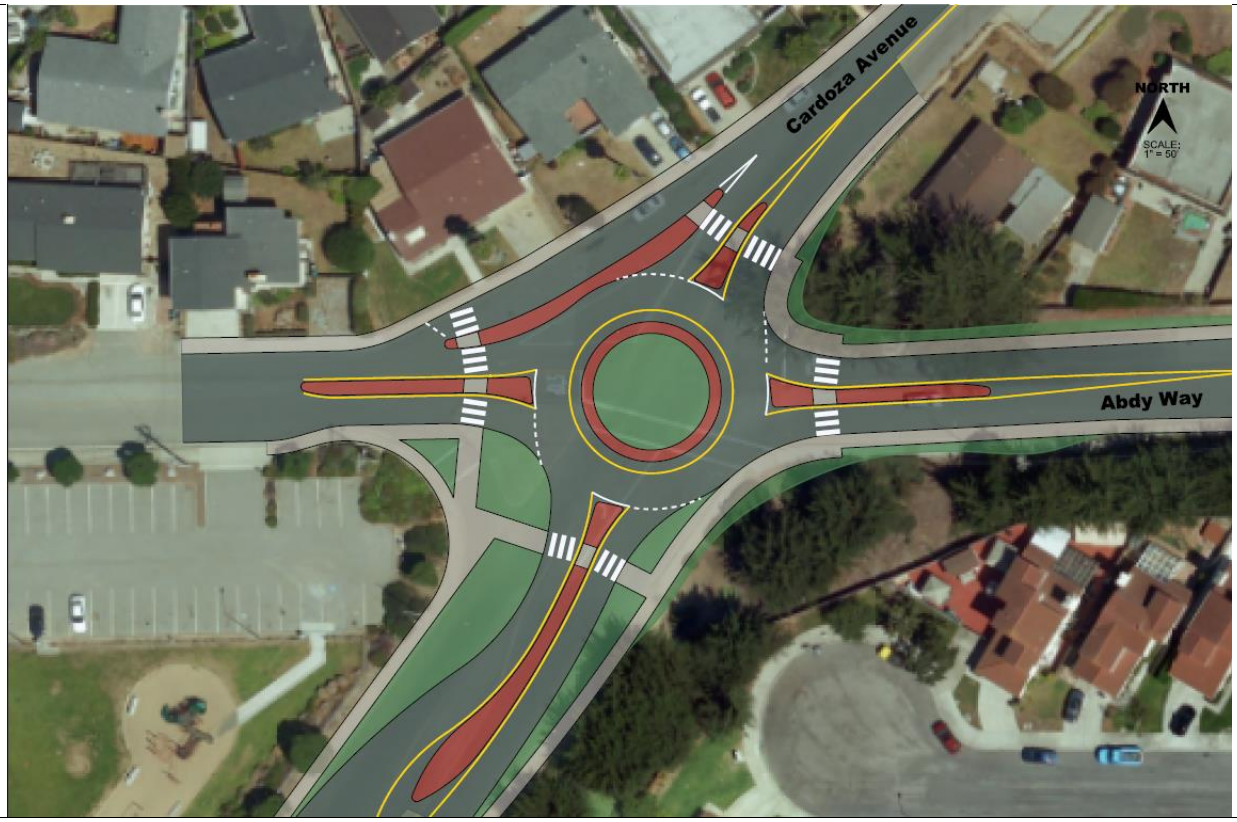
AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Two-Way Stop Control (vs. existing)**
Annual Emission Reduction (lb/year)	19	N/A - same as existing
Cost Per Pound Per Life	$1,187.38	N/A - same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$94,991**	**N/A - same as existing**

Intersection Improvement Alternatives



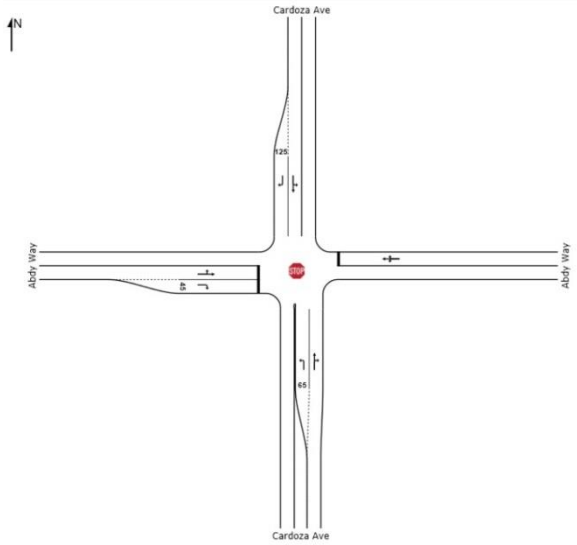
Signal Alternative *(Source: Monterey County)*



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

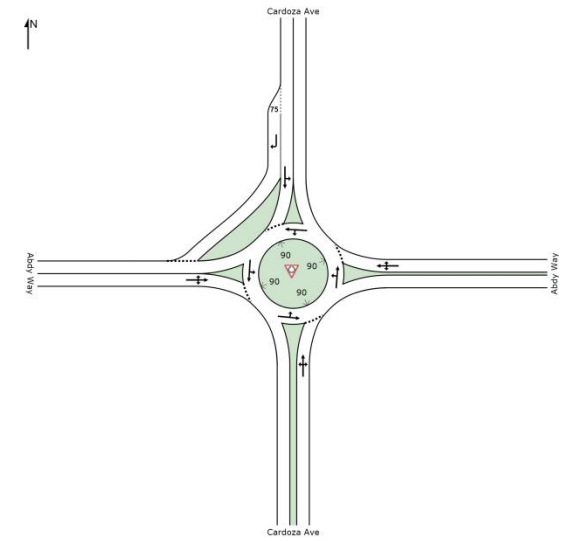


EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	C	17.2	43 (WB)			
2040	F	123.9	300 (WB)			

NOTES:

1. PM data was not provided.



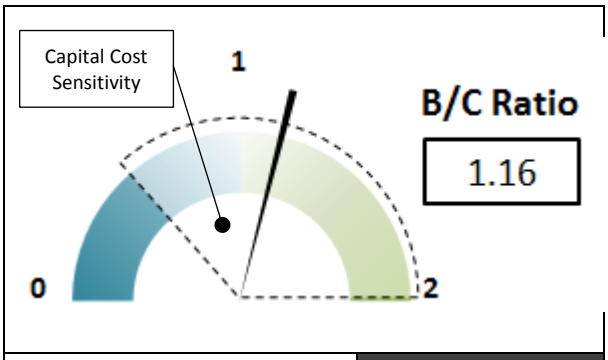
ALTERNATIVE 1
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	4.6	27 (SB)			
2040	A	7.0	59 (EB)			

NOTES:

1. PM data was not provided.
2. Southbound right turn lane is for illustrative purposes only.

8TH STREET AT INTER-GARRISON ROAD



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for this intersection is 1.16. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Noteworthy performance measures driving the B/C ratio are *safety, delay,* and *operations & maintenance.* However, initial capital cost is the primary performance measure effecting the B/C ratio. The estimated initial capital cost of both alternatives are high with the roundabout costing approximately 25 percent more than the signal. The total life cycle benefits of the roundabout are estimated at $410,000 when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, operates at acceptable levels during the AM peak hour but is forecast to degrade over time to unacceptable levels. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MAR-04 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

8th Street at Inter-Garrison Road is controlled by stop signs on all approaches.

Parcels in the immediate vicinity of the project are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement in the northeast and southerly quadrants. A structure is located within 100 feet of the intersection in the northwest quadrant.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
8th Street at Inter-Garrison Road	**8th Street**	2-lane undivided	Urban	35	Serves local, institutional access	No transit services provided	Sidewalk on west side. No crosswalk	No bike lanes provided
	Inter-Garrison Road	2-lane undivided	Urban	35	Serves residential, open space, & institutional land uses	Routes 16, 19, 25, 26, and 74 with service by Monterey-Salinas Transit	Sidewalks on west leg and south side of east leg No crosswalks	Sharrow pavement markings

The existing approach alignment for 8th Street is at a 42 degree skew relative to Inter-Garrison Road. The skew angle at the intersection longer crossing distances for pedestrian and bicycles, may encourage high speed turns and/or restrict certain turning movements.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Potential right of way constraint (structure)
2. Closely spaced intersection (100 feet center to center)
3. Skew angle at intersection

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The project location is within the California State University, Monterey Bay Master Plan. 8th Street is part of the planned 8th Street Reconstruction Project for the City of Marina.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

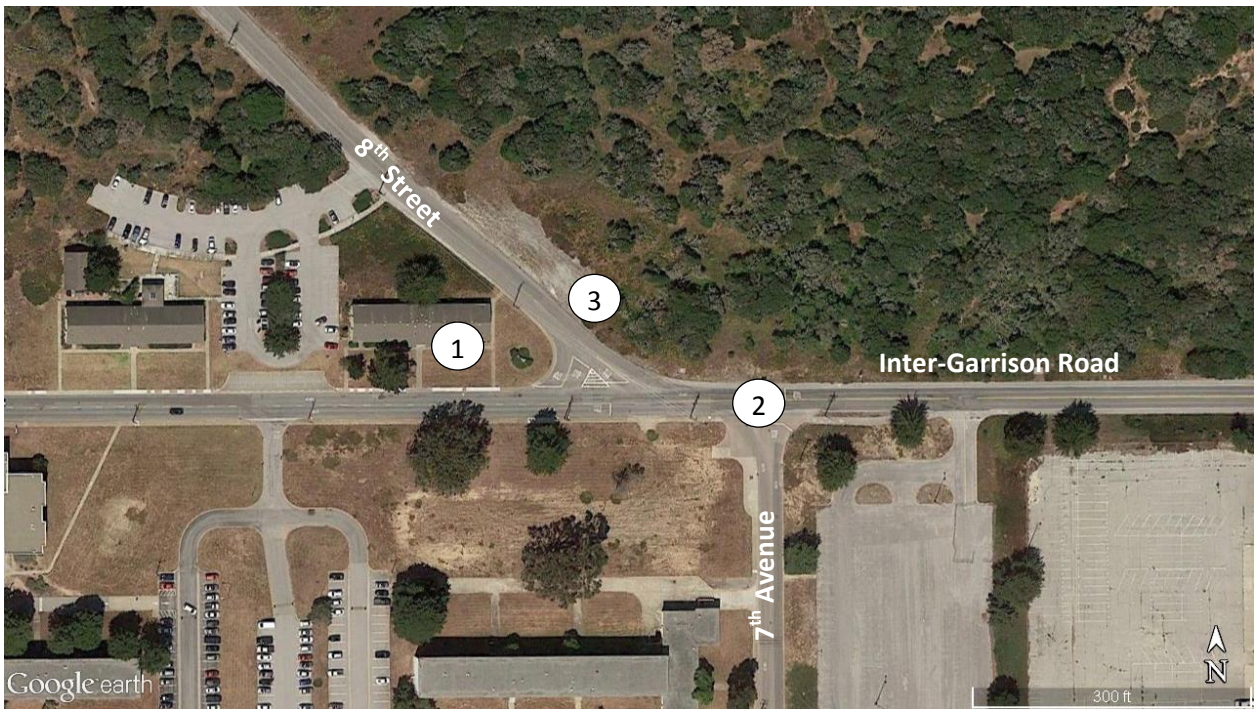
Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM peak hour volumes was provided by the City. 2040 AM peak hour volumes were calculated using a 2% annual compound growth rate for all movements. PM peak hour volumes were not provided.

Stop Control (Existing)

Demand is adequately served for the AM peak hour under existing conditions. Eastbound vehicles on Inter-Garrison Road may experience significant delay based on 2040 AM design year conditions.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With signal control, the intersection skew angle should be corrected to measure not less than 75 degrees. An additional eastbound left turn lane is needed to accommodate future demand.

The proposed traffic signal is expected to improve intersection performance and provide sufficient capacity for the AM peak hour under future design year conditions.

The reduced skew of the intersection will provide better visibility of crosswalks for drivers and on-coming traffic for pedestrians. Crosswalks are currently not stripped at the intersection. The additional lanes will increase crossing distance as well as overall cycle length for protected phasing. Currently sharrows are provided along Inter-Garison Road and be maintained with the necessary lane additions. Transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access.

Roundabout Control

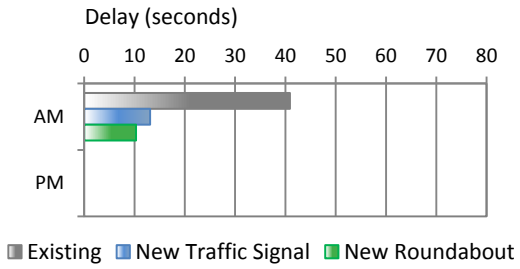
With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for the AM peak hour under future design year conditions.

Future studies will need to carefully consider the alignment of 8th Street. The right turn speeds from westbound Inter-Garrison Road will need to balance with other project constraints, right of way, and construction costs.

The reduced skew of the intersection will provide better visibility of crosswalks for drivers and on-coming traffic for pedestrians. Crosswalks are currently not stripped at the intersection. Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Currently sharrows are provided along Inter-Garison Road and be maintained with a one lane roundabout. Transit stops are not provided at the intersection therefore the roundabout alternative will not impact transit access.

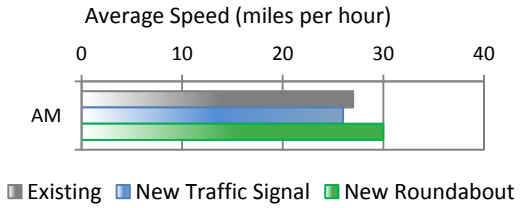
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: PM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	None

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- PM peak hour traffic data.
- Further evaluation of the 8th Street approach to mitigate the skew angle for all project alternatives.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MAR-04**
01/16

Intersection Cost Comparison

8th Street at Inter-Garrison
Marina, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.12	$ 17,504	$ 273,451	0.26	$ 38,898	$ 607,670
Predicted PDO Crashes	0.39	$ 4,021	$ 62,816	0.43	$ 4,381	$ 68,446
Subtotal - Safety Costs	**-**	**$ 21,525**	**$ 336,267**	**-**	**$ 43,279**	**$ 676,115**
DELAY						
Delay to Persons in Vehicles (hours)	652	$ 6,609	$ 171,837	878	$ 9,041	$ 235,062
Subtotal - Delay Costs	-	**$ 6,609**	**$ 171,837**	-	**$ 9,041**	**$ 235,062**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 28,931			$ 68,121
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 73,807**	-	**$ 10,063**	**$ 225,333**
EMISSIONS						
Tons of ROG	0.10	$ 91	$ 1,419	0.12	$ 117	$1,825
Tons of NOX	0.37	$ 4,758	$ 74,328	0.38	$ 4,934	$77,081
Tons of PM10	0.0041	$ 409	$ 6,383	0.0055	$ 545	$8,510
Subtotal - Emissions Costs		**$ 5,257**	**$ 82,130**		**$ 5,596**	**$ 87,416**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,555,715			$ 1,208,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 296,000			$ 230,000
Right-of-Way			$ 445,000			$ 355,000
Subtotal - Initial Capital Costs			**$ 2,296,715**			**$ 1,793,000**
NET PRESENT VALUE			**$ 2,878,627**			**$ 2,929,510**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$339,848
Delay Reduction Benefit of Roundabout	$63,224
Emission Reduction Benefit of Roundabout	$5,286
Total Benefits	**$408,358**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$151,525
Added Capital Costs of a Roundabout	$503,715
Total Costs	**$352,190**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

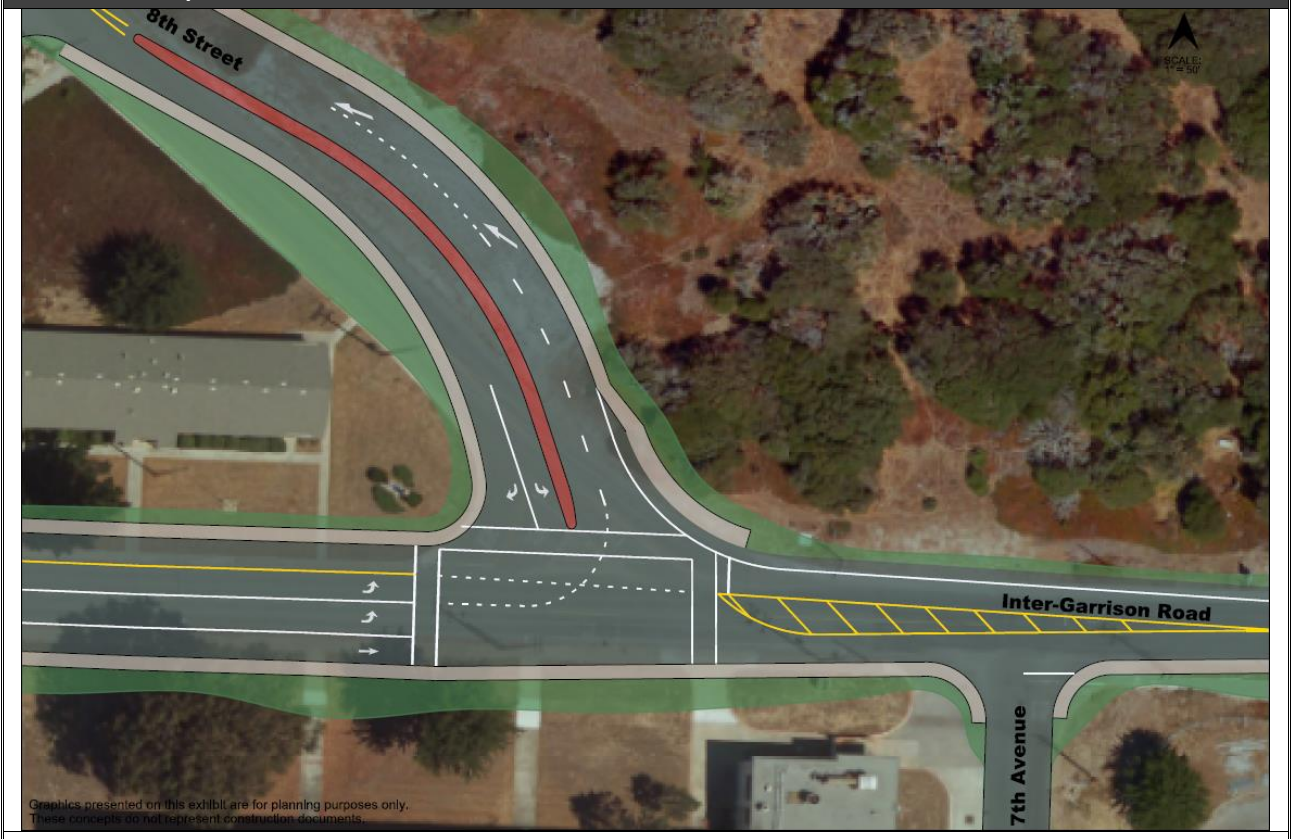
1.16

B/C Preferred: Roundabout Alternative

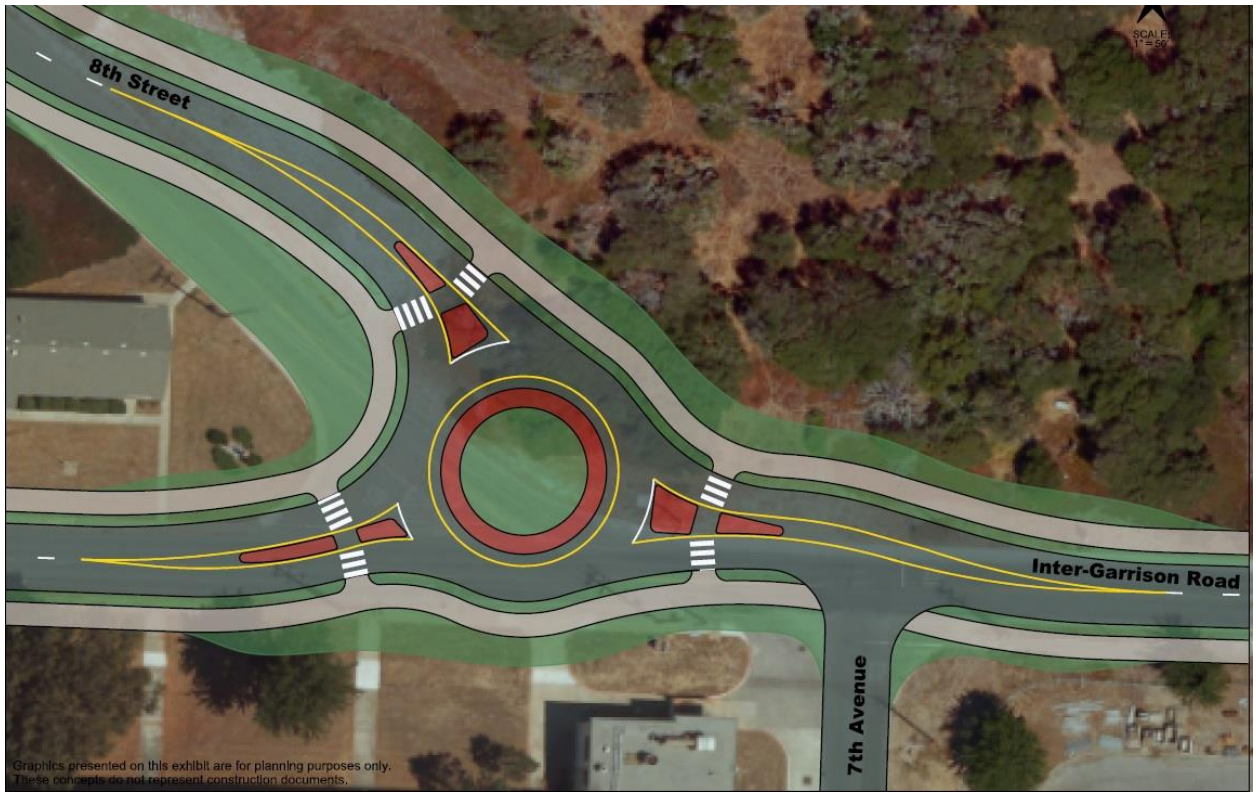
AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	57	emissions increase
Cost Per Pound Per Life	$400.38	emissions increase
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$32,031**	**emissions increase**

Intersection Improvement Alternatives



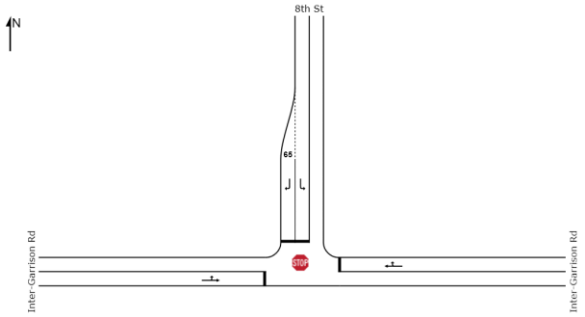
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

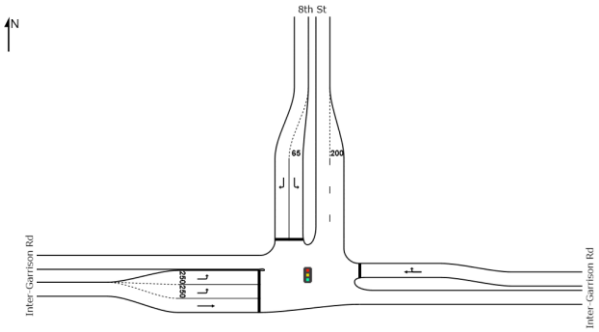


EXISTING INTERSECTION
ALL WAY STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	B	13.6	125 (EB)			
2040	E	40.9	415 (EB)			

NOTES:

1. PM data was not provided.

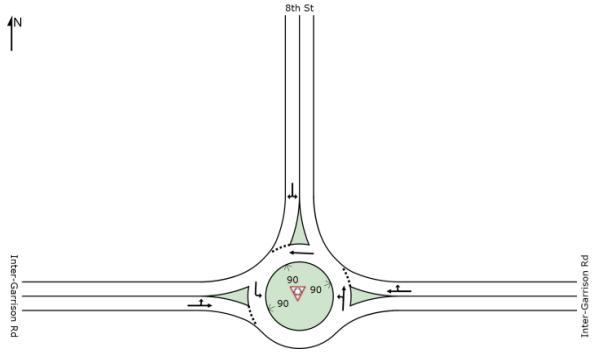


ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	9.1	86 (EBL)			
2040	B	13.1	#221 (EBL)			

NOTES:

1. PM data was not provided.



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	5.8	63 (EB)			
2040	B	10.3	171 (EB)			

NOTES:

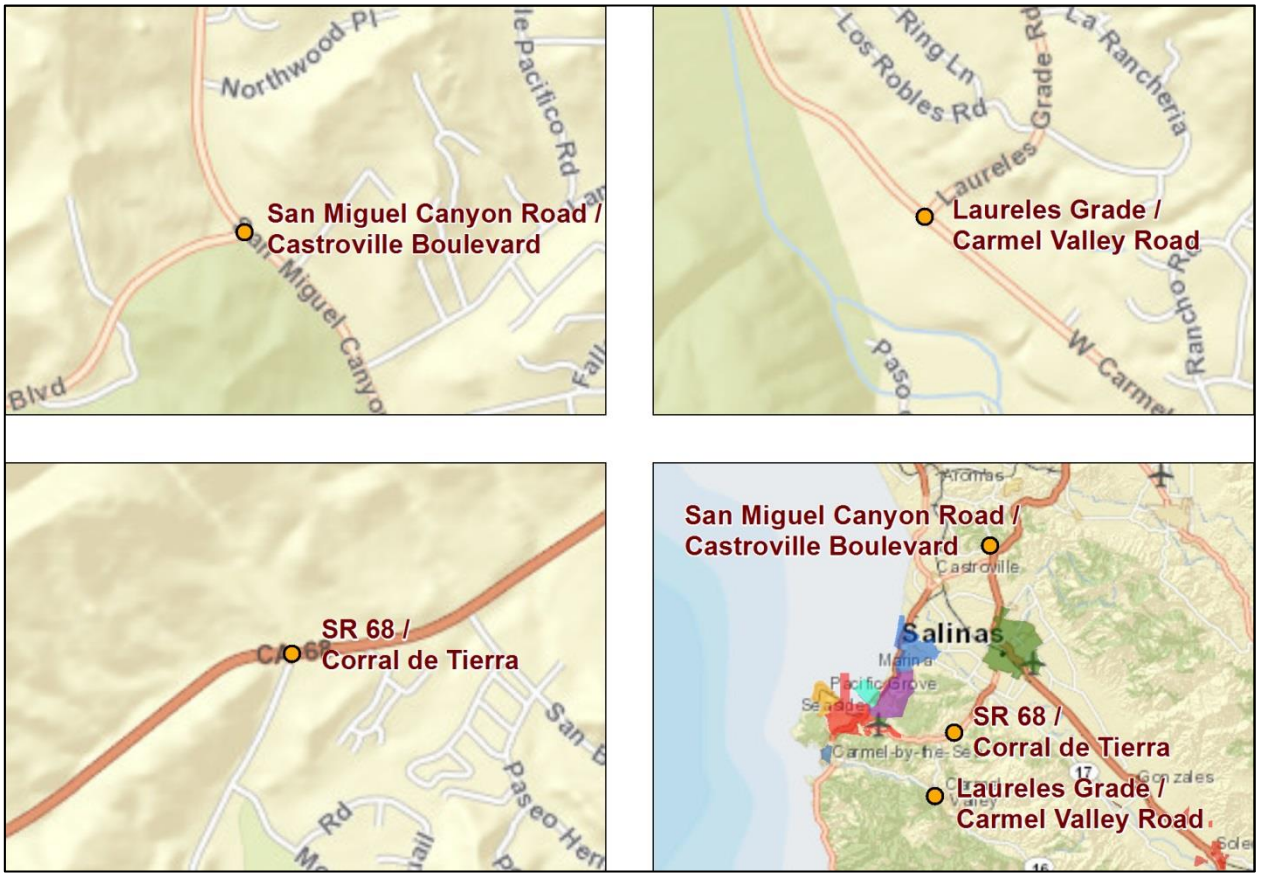
1. PM data was not provided.

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 5:

Monterey County

Study Intersections:

- SAN MIGUEL CANYON ROAD AT CASTROVILLE BOULEVARD
- LAURELES GRADE AT CARMEL VALLEY ROAD
- HIGHWAY 68 AT CORRAL DE TIERRA



MONTEREY COUNTY SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
San Miguel Canyon Road at Castroville Boulevard	MCO-01
Laureles Grade at Carmel Valley Road	MCO-02
Highway 68 at Corral de Tierra	MCO-03

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under Monterey County jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the County of Monterey, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
San Miguel Canyon Road at Castroville Boulevard	**7.74**	
Laureles Grade at Carmel Valley Road	**NA-R**	
Highway 68 at Corral de Tierra	**8.08**	

SUMMARY OF KEY PERFORMANCE MEASURES

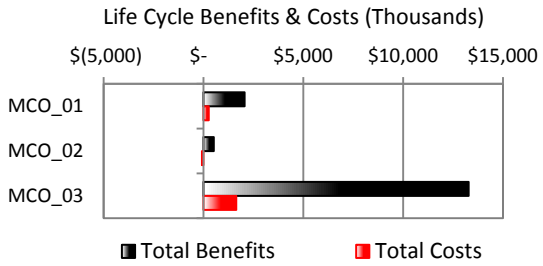
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



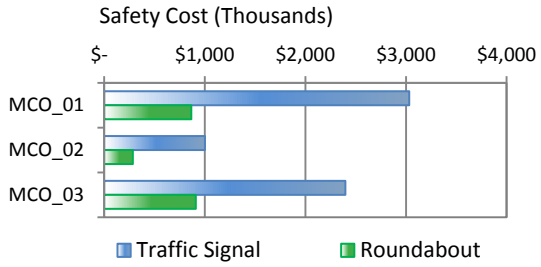
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

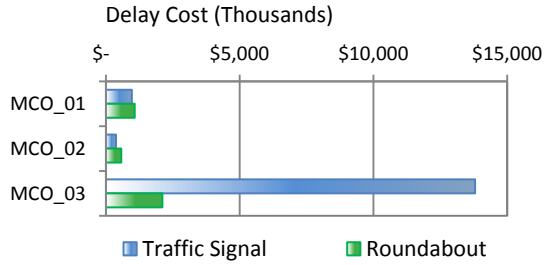


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	
Highway 68 at Corral de Tierra	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

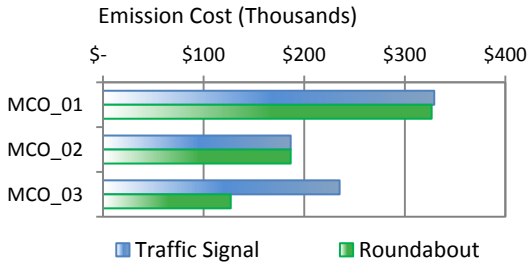


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	
Highway 68 at Corral de Tierra	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

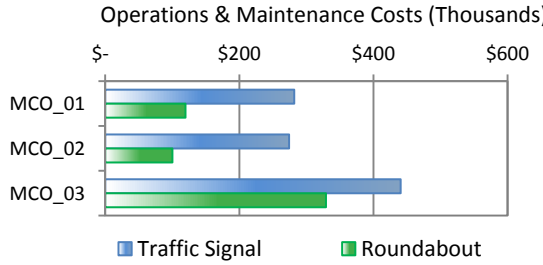
Emissions **Study Intersection**	**Preferred Control**
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	EQUAL
Highway 68 at Corral de Tierra	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

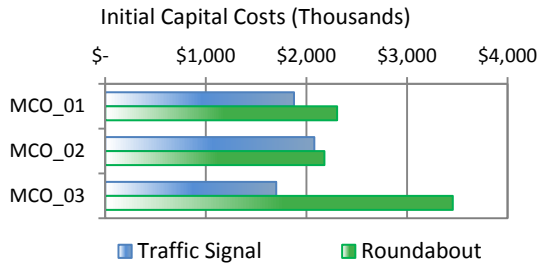


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	
Highway 68 at Corral de Tierra	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	
Highway 68 at Corral de Tierra	

Summary of B/C Performance Measures

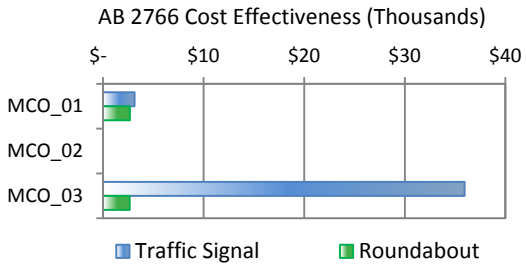
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
San Miguel Canyon Road at Castroville Boulevard						
Laureles Grade at Carmel Valley Road				EQUAL		
Highway 68 at Corral de Tierra						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and Monterey County.



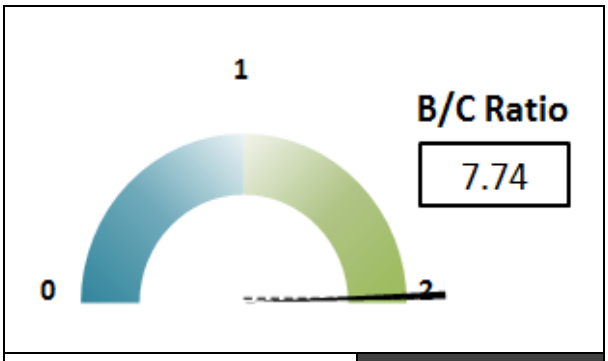
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness **Study Intersection**	**Preferred Control**
San Miguel Canyon Road at Castroville Boulevard	
Laureles Grade at Carmel Valley Road	NONE
Highway 68 at Corral de Tierra	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

SAN MIGUEL CANYON AT CASTROVILLE BOULEVARD



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) Ratio for this intersection is 7.74. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C Ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C Ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 3 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $2,060,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,200 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, is at capacity and will continue to degrade over time with queues exceeding available storage capacity. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MCO-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

San Miguel Canyon Road at Castroville Boulevard is controlled by stop signs on the minor approach.

Parcels in the immediate vicinity of the project are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement. The existing intersection is within Monterey County right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
San Miguel Canyon Road at Castroville Boulevard	**San Miguel Canyon Road**	2-lane undivided	Rural	55	Serves residential & agricultural land uses Provides regional access via US-101	Service provided by Monterey-Salinas Transit Stop located at intersection	No sidewalks provided	Class II bike Lanes
	Castroville Boulevard	2-lane undivided	Rural	55	Serves residential, recreational, & agricultural land uses.	No transit services provided.	No sidewalks provided	No bike lanes provided

Existing design constraints at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Roadside grade differentiation on all legs
3. Approach grade on Castroville Boulevard
4. Transit access
5. Manzanita County Park

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Draft 2014 Monterey County Regional Transportation Plan prepared by TAMC identifies the widening of San Miguel Canyon Road to four lanes, including Class II bike lanes, through the project area.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop (Castroville Boulevard)	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2014 AM and PM peak hour volumes was provided by the County. Design year 2040 peak hour volumes were calculated with an assumed annual growth rate of 1%.

Stop Control (Existing)

With stop control, demand exceeds capacity for both peak hours under existing conditions. Eastbound Castroville Boulevard vehicles experience significant delay while trying to enter San Miguel Canyon Road. Additional capacity required to improve stop control operations is not feasible based on forecast demand.

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With signal control, an additional northbound through lane, northbound left turn lane, southbound through lane, and a westbound lane would be needed to achieve a level of service D or better. The westbound lane on Castroville Boulevard can be dropped after safe merge and taper lengths are achieved. The proposed lane additions are consistent with the improvement plans for San Miguel Canyon Road and would improve intersection performance to well below capacity for both peak hours under future design year conditions.

The PM peak hour at this intersection meets peak hour signal warrants under existing conditions.

The additional lanes will increase crossing distance as well as overall cycle length. Crosswalks are currently not stripped at the intersection. Bike lanes along San Miguel Canyon Road can be maintained with the necessary lane additions. Access to transit stops can be maintained with the necessary lane additions.

Roundabout Control

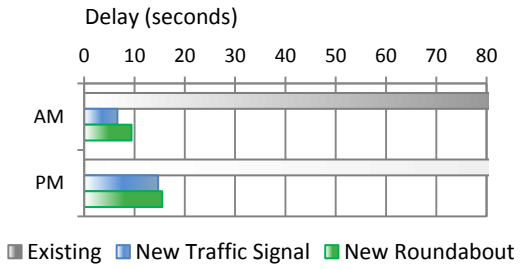
With roundabout control, two approach and departure lanes are required for the northbound and southbound directions. The proposed lane additions are consistent with the improvement plans for San Miguel Canyon Road and would improve intersection performance to well below capacity for both peak hours under future design year conditions.

Planned construction of additional lanes on San Miguel Canyon Road will increase intersection capacity based on the roundabout operations capacity model. The capacity model used in the ICE assigns 50% lane underutilization for the downstream, outside lane-drop. Extending the lane-drop beyond 650 feet or widening San Miguel Canyon Road to 4 lanes will provide full lane utilization and increase overall intersection capacity.

Crosswalks will be stripped as none are currently provided and provide midway refuge areas. Bike lanes along San Miguel Canyon Road can be maintained with the proposed roundabout. Access to transit stops can be maintained with the proposed roundabout.

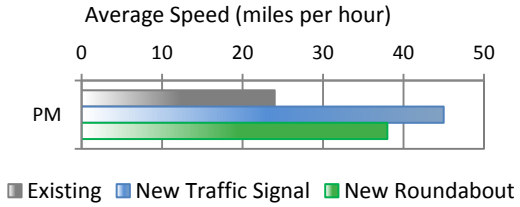
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Castroville Boulevard approach vertical/profile design through roundabout based on topographic data.
- Approach geometry of roundabout on San Miguel Canyon Road to reinforce reduced vehicle speeds at entry.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCO-01**

Intersection Cost Comparison

San Miguel Canyon Road at Castroville Boulevard
Monterey County, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.27	$ 39,356	$ 614,824	1.15	$ 169,534	$ 2,648,471
Predicted PDO Crashes	1.57	$ 16,062	$ 250,928	2.41	$ 24,560	$ 383,672
Subtotal - Safety Costs	**-**	**$ 55,418**	**$ 865,752**	**-**	**$ 194,093**	**$ 3,032,143**
DELAY						
Delay to Persons in Vehicles (hours)	3981	$ 41,529	$ 1,079,751	3558	$ 37,413	$ 972,735
Subtotal - Delay Costs	-	**$ 41,529**	**$ 1,079,751**	-	**$ 37,413**	**$ 972,735**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 74,826			$ 124,651
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 119,703**	-	**$ 10,063**	**$ 281,863**
EMISSIONS						
Tons of ROG	0.34	$ 321	$ 5,019	0.34	$ 321	$5,019
Tons of NOX	1.47	$ 18,905	$ 295,341	1.52	$ 19,632	$306,700
Tons of PM10	0.0169	$ 1,686	$ 26,338	0.0113	$ 1,124	$17,558
Subtotal - Emissions Costs		**$ 20,913**	**$ 326,697**		**$ 21,078**	**$ 329,277**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,918,250			$ 1,569,600
Construction Cost - Structures			$ -			$ -
Capital Support			$ 365,000			$ 299,000
Right-of-Way			$ 22,000			$ 8,000
Subtotal - Initial Capital Costs			**$ 2,305,250**			**$ 1,876,600**
NET PRESENT VALUE			**$ 4,370,456**			**$ 6,163,341**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$2,166,391
Delay Reduction Benefit of Roundabout	-$107,016
Emission Reduction Benefit of Roundabout	$2,580
Total Benefits	**$2,061,955**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$162,160
Added Capital Costs of a Roundabout	$428,650
Total Costs	**$266,490**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

7.74

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	688	586
Cost Per Pound Per Life	$33.40	$39.19
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$2,672**	**$3,135**

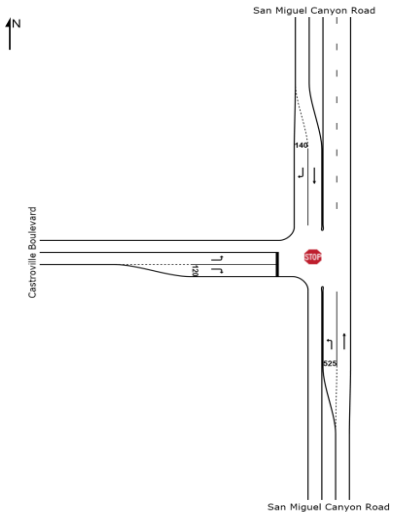
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

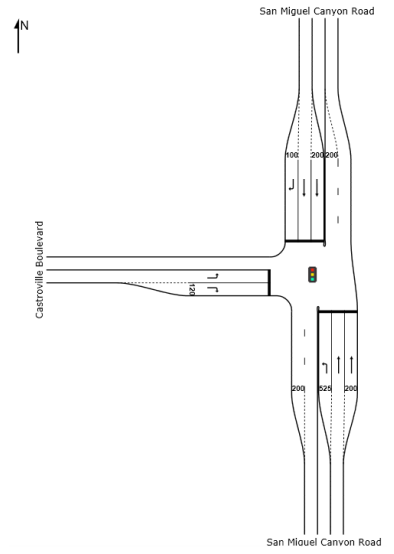


EXISTING INTERSECTION
ALL WAY STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	E	42.1	68 (EBL)	F	187.8	243 (EBL)
2040	F	194.0	160 (EBL)	F	1116.0	305 (EBL)

NOTES:

1. EBR queues on Castroville Boulevard will exceed available storage during the 2015 PM peak hour and both peak hours for 2040.

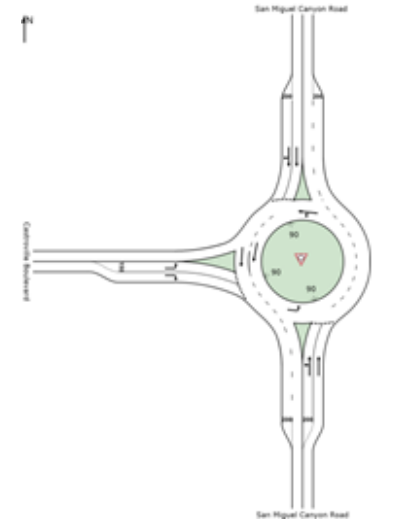


ALTERNATIVE 1
SIGNAL WITH IMPROVEMENTS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	5.7	132 (SBT)	A	9.2	133 (SBT)
2040	A	6.6	163 (SBT)	B	14.7	224 (SBT)

NOTES:

1. EBR queues on Castroville Boulevard will exceed available storage during the 2040 PM peak hour.



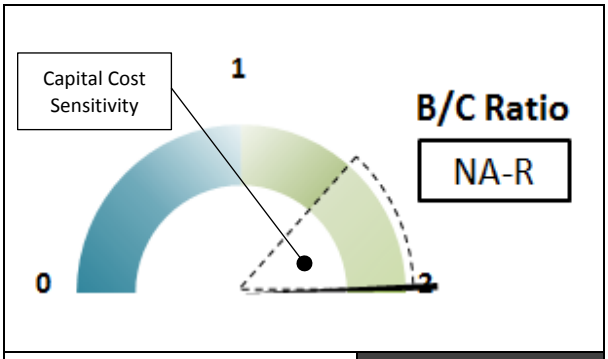
ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	6.9	92 (NB)	A	8.9	128 (NB)
2040	A	9.4	164 (SB)	C	15.5	293 (SB)

NOTES:

1. Results reflect NB and SB through lane underutilization due to the short merging distance of the outside receiving lanes.

LAURELES GRADE AT CARMEL VALLEY ROAD



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for this intersection is NA-R. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 3 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $520,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,200 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, is at capacity in the PM peak hour and will continue to degrade over time. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MCO-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Laureles Grade at Carmel Valley Road is controlled by stop signs on the minor approach, Laureles Grade.

Parcels in the immediate vicinity of the project are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement. The existing intersection is within Monterey County right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Laureles Grade at Carmel Valley Road	**Laureles Road (County of Monterey)**	2-lane undivided	Rural	45	Serves residential, recreational, & agricultural land uses	No transit services provided	No sidewalks provided	No bike lanes provided
	Carmel Valley Road (County of Monterey)	2-lane undivided	Rural	50	Serves residential, recreational, & agricultural land uses	Service provided by Monterey-Salinas Transit Stop located at intersection	No sidewalks provided	No bike lanes provided

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Roadside grade differentiation on all legs
3. Approach grade on Laureles Grade
4. Transit stop
5. Crest vertical curve

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Laureles Grade intersection with Carmel Valley Road is located within the Carmel Valley Master Plan – Traffic Improvement Plan and may be impacted by planned improvements for the area as well as regulations for improvements. Additionally, a roundabout was identified as the preferred improvement in the *Carmel Valley Road Corridor Study, Draft report, January 2014.*

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop (Laureles Grade)	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2014 AM and PM peak hour volumes was provided by the County. Design year 2040 peak hour volumes were calculated with an assumed annual growth rate of 1%.

Stop Control (Existing)

With stop control, demand exceeds capacity for the PM peak hour under existing conditions. Southbound Laureles Grade vehicles experience significant delay while trying to turn left onto Carmel Valley Road. Additional capacity required to improve and maintain stop control operations is not feasible based on forecast demand.

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With signal control, additional lanes are not required to achieve design year operations. However, roadway widening is needed for turn-lane channelization improvements. The widening for turn-lane channelization is required to achieve an acceptable approach taper, storage length, and deceleration length on all approaches. Additionally, the County has identified the need to lower the profile of Carmel Valley Road, west of Laureles Grade, to achieve acceptable sight lines for eastbound vehicles approaching the signal.

The proposed traffic signal is expected to improve intersection performance and provide sufficient capacity for both peak hours under future design year conditions.

The PM peak hour at this intersection meets peak hour signal warrants under existing conditions.

The reconfiguration of the intersection will provide shorter crossing distance and better visibility for pedestrians. Crosswalks are currently not stripped at the intersection. Bike lanes are currently not provided along either roadway and therefore will not be impacted by the intersection reconfiguration. Access to transit stops can be maintained with the intersection reconfiguration.

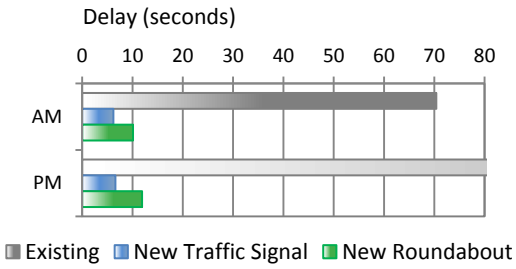
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak hours under future design year conditions.

Crosswalks will be stripped as none are currently provided and provide midway refuge areas. Bike lanes are currently not provided along either roadway and therefore will not be impacted by a one lane roundabout. Access to transit stops can be maintained with a one roundabout.

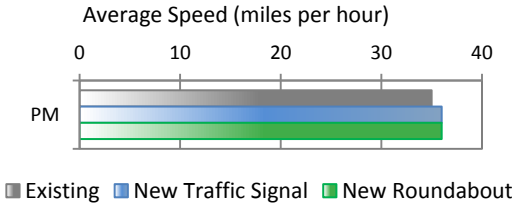
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	None

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Vertical/profile design on Laureles Grade approach to the roundabout based on topographic data.
- Evaluation of sight lines on eastbound Carmel Valley Road with traffic signal improvements.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCO-02**

Intersection Cost Comparison

Laureles Grade at Carmel Valley Road
Monterey County, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.09	$ 13,068	$ 204,142	0.38	$ 56,291	$ 879,380
Predicted PDO Crashes	0.50	$ 5,148	$ 80,429	0.76	$ 7,798	$ 121,816
Subtotal - Safety Costs	**-**	**$ 18,216**	**$ 284,571**	**-**	**$ 64,088**	**$ 1,001,195**
DELAY						
Delay to Persons in Vehicles (hours)	2118	$ 22,209	$ 577,429	1361	$ 14,607	$ 379,794
Subtotal - Delay Costs	-	**$ 22,209**	**$ 577,429**	-	**$ 14,607**	**$ 379,794**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 55,330			$ 116,961
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 100,206**	-	**$ 10,063**	**$ 274,173**
EMISSIONS						
Tons of ROG	0.19	$ 183	$ 2,866	0.19	$ 183	$2,866
Tons of NOX	0.84	$ 10,796	$ 168,651	0.84	$ 10,796	$168,651
Tons of PM10	0.0097	$ 963	$ 15,040	0.0097	$ 963	$15,040
Subtotal - Emissions Costs		**$ 11,942**	**$ 186,557**		**$ 11,942**	**$ 186,557**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,453,995			$ 1,644,700
Construction Cost - Structures			$ -			$ -
Capital Support			$ 277,000			$ 313,000
Right-of-Way			$ 448,000			$ 121,000
Subtotal - Initial Capital Costs			**$ 2,178,995**			**$ 2,078,700**
NET PRESENT VALUE			**$ 3,141,201**			**$ 3,733,862**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$716,625
Delay Reduction Benefit of Roundabout	-$197,635
Emission Reduction Benefit of Roundabout	$0
Total Benefits	**$518,989**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$173,967
Added Capital Costs of a Roundabout	$100,295
Total Costs	**-$73,672**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

N/A

B/C Preferred: Roundabout Alternative

Roundabout Preferred
Cost of Roundabout is less than cost of Traffic Signal, and Roundabout offers benefits compared to Traffic Signal.

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	0	0
Cost Per Pound Per Life	N/A - No emissions change	N/A - No emissions change
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**N/A - No emissions change**	**N/A - No emissions change**

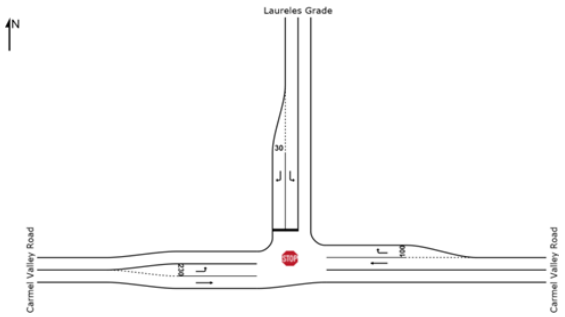
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

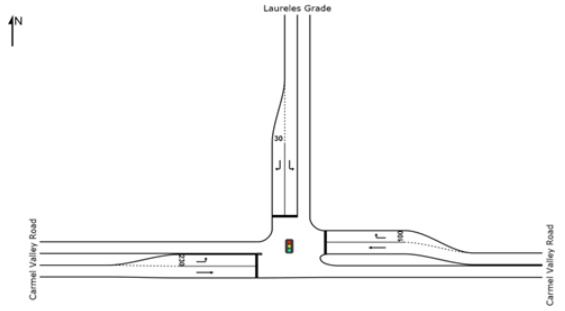
Intersection Control Alternative Summary



EXISTING INTERSECTION
ALL WAY STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	D	34.2	132.5 (SBL)	F	70.5	195 (SBL)
2040	F	70.4	225 (SBL)	F	379.6	495 (SBL)

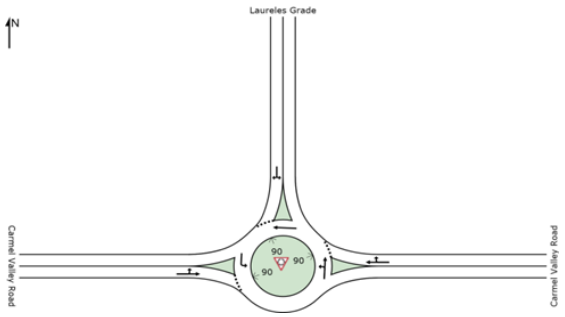
NOTES: N/A



ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	A	5.9	114 (WBT)	A	5.5	130 (EBT)
2040	A	6.2	170 (WBT)	A	6.6	211 (EBT)

NOTES: N/A

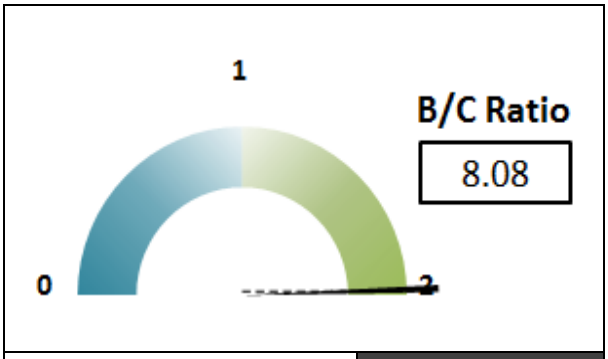


ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	A	7.1	96 (WB)	A	7.8	108 (EB)
2040	B	10.1	167 (WB)	B	11.9	250 (EB)

NOTES: N/A

HIGHWAY 68 AT CORRAL DE TIERRA



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for Highway 68 at Corral de Tierra is 8.08. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $15,000,000.

Noteworthy performance measures driving the B/C ratio are *safety* and *delay*. The estimated safety costs of the signal are 2.5 times higher than that of the roundabout. The estimated delay costs of the signal are 6times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $13,280,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,200 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing signal-control or, no project alternative, is at capacity during the AM and PM peak hour and will continue to degrade over time. Signal control improvements are currently under design and are summarized in this study. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2025 design year. The year 2015 was assumed for the baseline "build" condition for a total 10 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number MCO-03 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Highway 68 at Corral de Tierra is controlled by a traffic signal.

Parcels north of Highway 68 are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement. Developed parcels in the southwest quadrant are a constraint. Right of way in the southeast quadrant is reserved for potential development and is a constraint. The existing intersection is within Caltrans right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Highway 68 at Corral de Tierra	**Coral de Tierra (County of Monterey)**	2-lane undivided	Rural	35	Serves residential & recreational agricultural land uses	No transit services provided	No sidewalks provided	No bike lanes provided
	Highway 68 (Caltrans)	2-lane undivided	Conventional highway	55	Regional facility serving residential, recreational, & commercial land uses	Service provided by Monterey-Salinas Transit Stop located at intersection	No sidewalks provided	No bike lanes provided

Existing design constraints and considerations identified by the County at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Property acquisition considered a fatal Flaw
3. Environmentally sensitive area
4. Transit stop

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

Consistent with the Draft *2014 Monterey County Regional Transportation Plan* prepared by TAMC, Monterey County is leading the design of traffic signal and intersection improvements at this location.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

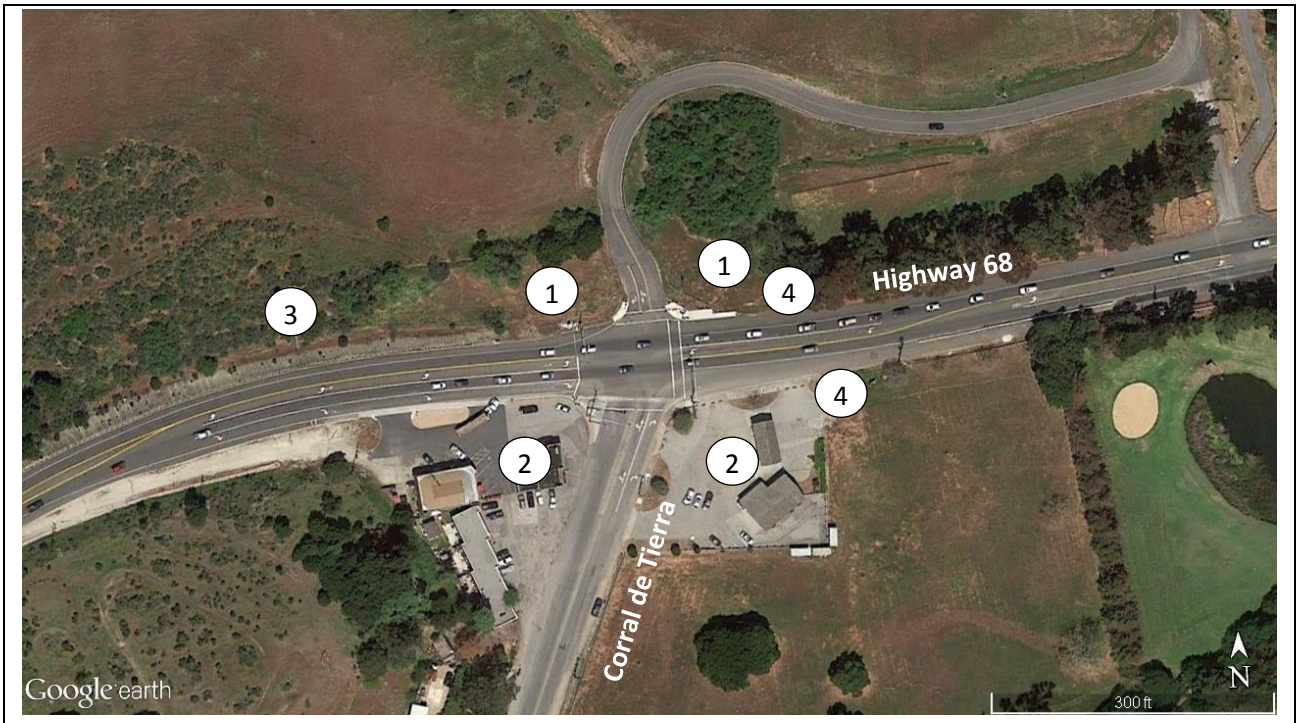
Control Type	Legend
Existing Traffic Signal	
Proposed Signal Modification	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 and 2025 AM and PM peak hour volumes was provided by the County in the *Traffic Operations Analysis Addendum for the SR 68/ Corral de Tierra Intersection Operational Improvements*, dated August 20, 2012.

Signal Control (Existing)

Demand exceeds capacity for the AM and PM peak hour under existing conditions. Eastbound and westbound Highway 68 traffic experience significant delay and extensive vehicle queueing.



(1) Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

The proposed signal control project is sponsored by the County and will construct an additional westbound left turn lane; a southbound receiving lane merging into Corral de Tierra; a northbound right turn lane. Intersection operations and improvements for the proposed signal control alternative have been provided by the County.

The proposed traffic signal is expected to improve intersection performance compared to the existing condition.

The additional lanes will also increase crossing distance as well as overall cycle length for protected phasing. . Bike lanes are currently not provided along either roadway and therefore will not be impacted by the necessary lane additions. Access to transit stops can be maintained with the necessary lane additions.

Roundabout Control

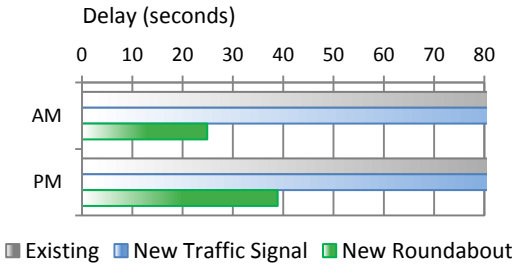
With roundabout control, two approach and departure lanes are required for the westbound and eastbound directions. The proposed lane additions are consistent with the improvement plans for the traffic signal alternative.

Compared to the proposed signal alternative, the roundabout improvements will require less roadway widening and reduce the overall project footprint. However, there will be greater impact to parcels in the northeast and northwest quadrants, at the intersection. It is not anticipated that right of way will be required at the southeast or southwest quadrant.

Crosswalks will be improved and provide midway refuge areas. Bike lanes are not provided at the intersection therefore the roundabout alternative will not impact bike access. Access to transit stops can be maintained with the proposed roundabout.

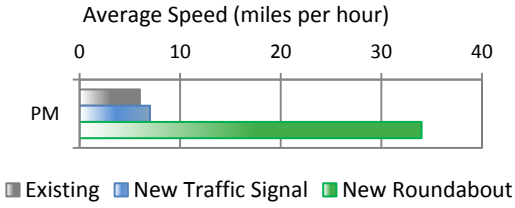
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCO-03**

Intersection Cost Comparison

Highway 68 at Corral De Tierra
Monterey County, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.52	$ 76,176	$ 617,855	1.78	$ 262,676	$ 2,130,535
Predicted PDO Crashes	3.54	$ 36,079	$ 292,632	3.23	$ 32,900	$ 266,848
Subtotal - Safety Costs	**-**	**$ 112,255**	**$ 910,487**	**-**	**$ 295,576**	**$ 2,397,384**
DELAY						
Delay to Persons in Vehicles (hours)	13904	$ 192,154	$ 2,113,693	91675	$1,254,447	$13,798,913
Subtotal - Delay Costs	-	**$ 192,154**	**$ 2,113,693**	-	**$1,254,447**	**$13,798,913**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	4,596
Cost of Power for Signal				-	$ 4,255	34,512
Cost of Illumination	6	$ 873	$ 7,078	4	$ 582	4,719
Cost of Landscaping Maintenance	-	$ 2,000	$ 16,222			
Cost of Signal Maintenance				-	$ 4,660	37,797
Cost of Pavement Rehabilitation			$ 305,862			$ 358,893
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 329,161**	-	**$ 10,063**	**$ 440,517**
EMISSIONS						
Tons of ROG	0.29	$ 280	$ 2,270	1.22	$ 1,159	$9,404
Tons of NOX	1.09	$ 14,116	$ 114,491	1.77	$ 22,802	$184,946
Tons of PM10	0.0126	$ 1,259	$ 10,210	0.0505	$ 5,035	$40,840
Subtotal - Emissions Costs		**$ 15,654**	**$ 126,971**		**$ 28,997**	**$ 235,191**
INITIAL CAPITAL COSTS						
Construction Cost			$ 2,319,240			$ 1,700,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 812,000			$ -
Right-of-Way			$ 324,000			$ -
Subtotal - Initial Capital Costs			**$ 3,455,240**			**$ 1,700,000**
NET PRESENT VALUE			**$ 6,808,582**			**$18,336,814**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,486,896
Delay Reduction Benefit of Roundabout	$11,685,221
Emission Reduction Benefit of Roundabout	$108,220
Total Benefits	**$13,280,337**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$111,356
Added Capital Costs of a Roundabout	$1,755,240
Total Costs	**$1,643,884**

LIFE CYCLE (10 YEAR) BENEFIT/COST RATIO

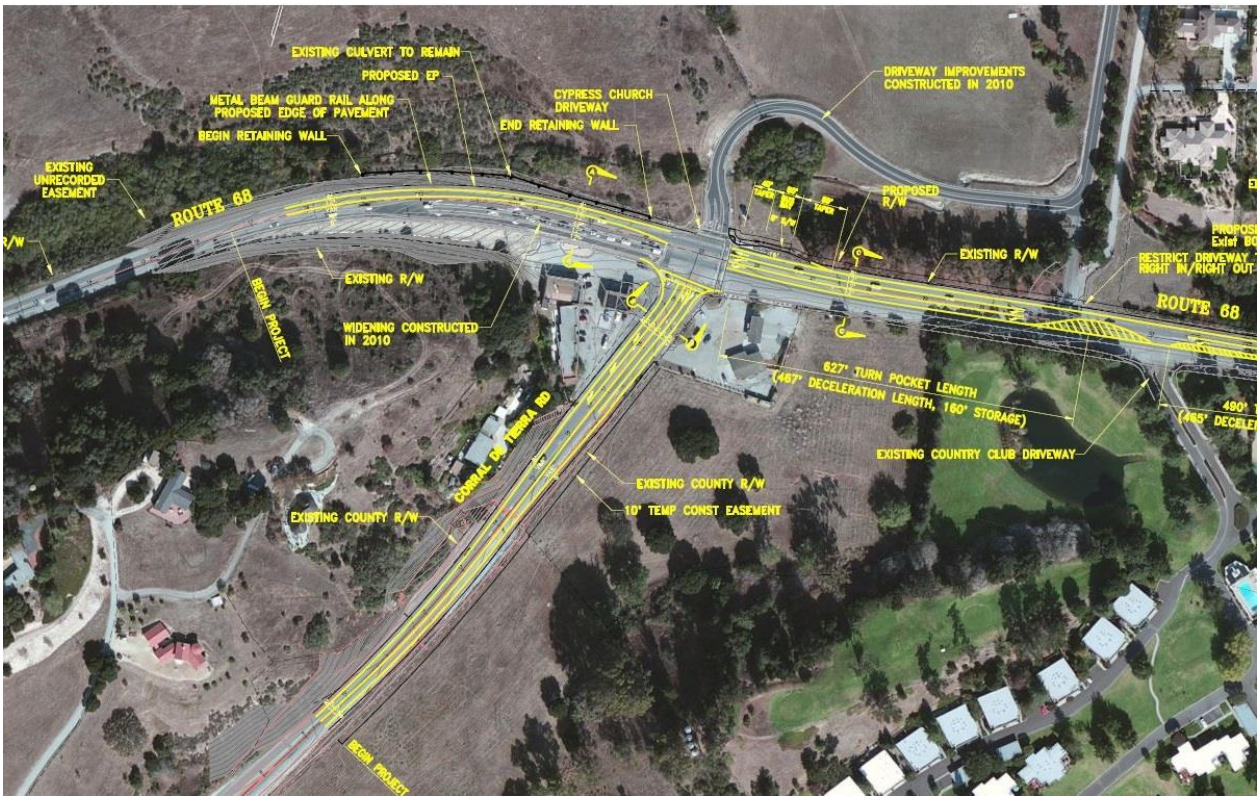
8.08

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	3535	261
Cost Per Pound Per Life	$13.26	$179.71
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$2,653**	**$35,942**

Intersection Improvement Alternatives

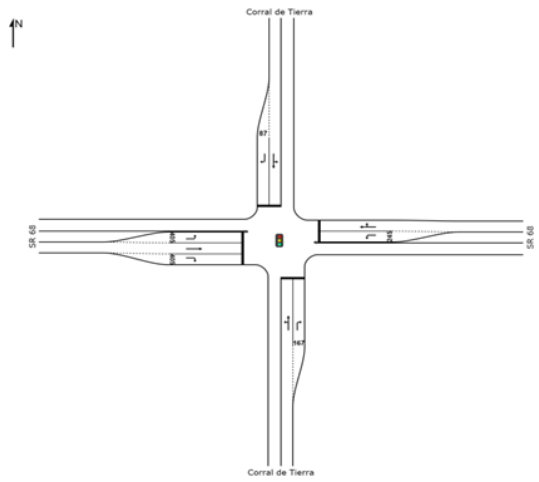


Signal Alternative *(Source: Monterey County)*

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary



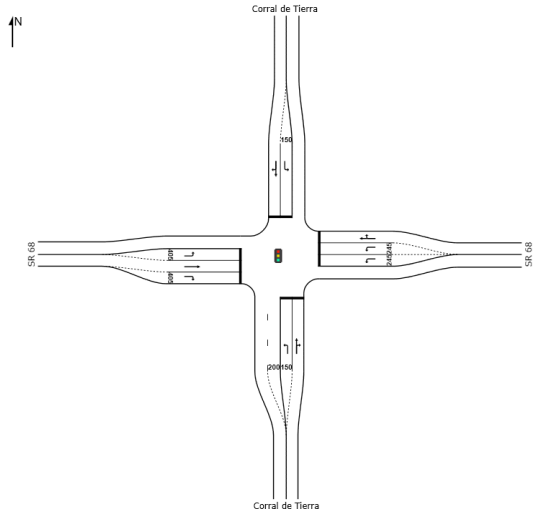
EXISTING INTERSECTION SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	E	75.3	#1266 (EBT)	F	90.4	#1545 (EBT)
2025	F	258.1	#2499 (WBT)	F	240.7	#2705 (EBT)

2015 LOS and Delay results sourced from Wood Rodger's technical memorandum.

NOTES:

WBL and NBL queues exceed available storage for both 2025 peak hours.



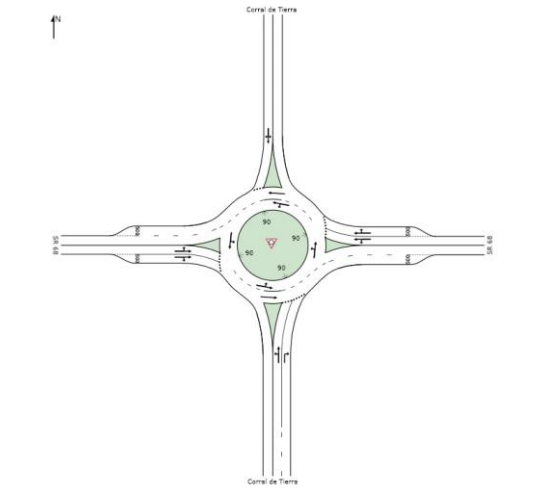
ALTERNATIVE 1 SIGNAL MODIFICATION PER COUNTY PLAN

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	E	68.6	#1267 (EBT)	E	70.1	#1508 (EBT)
2025	F	242.4	#2499 (WBT)	F	217.3	#2667 (EBT)

2015 LOS and Delay results sourced from Wood Rodger's technical memorandum.

NOTES:

NBL queues exceed available storage for both 2025 peak hours.



ALTERNATIVE 2 ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	B	13.6	230 (WB)	B	14.0	265 (EB)
2025	C	24.9	656 (WB)	E	38.9	1249 (EB)

NOTES:

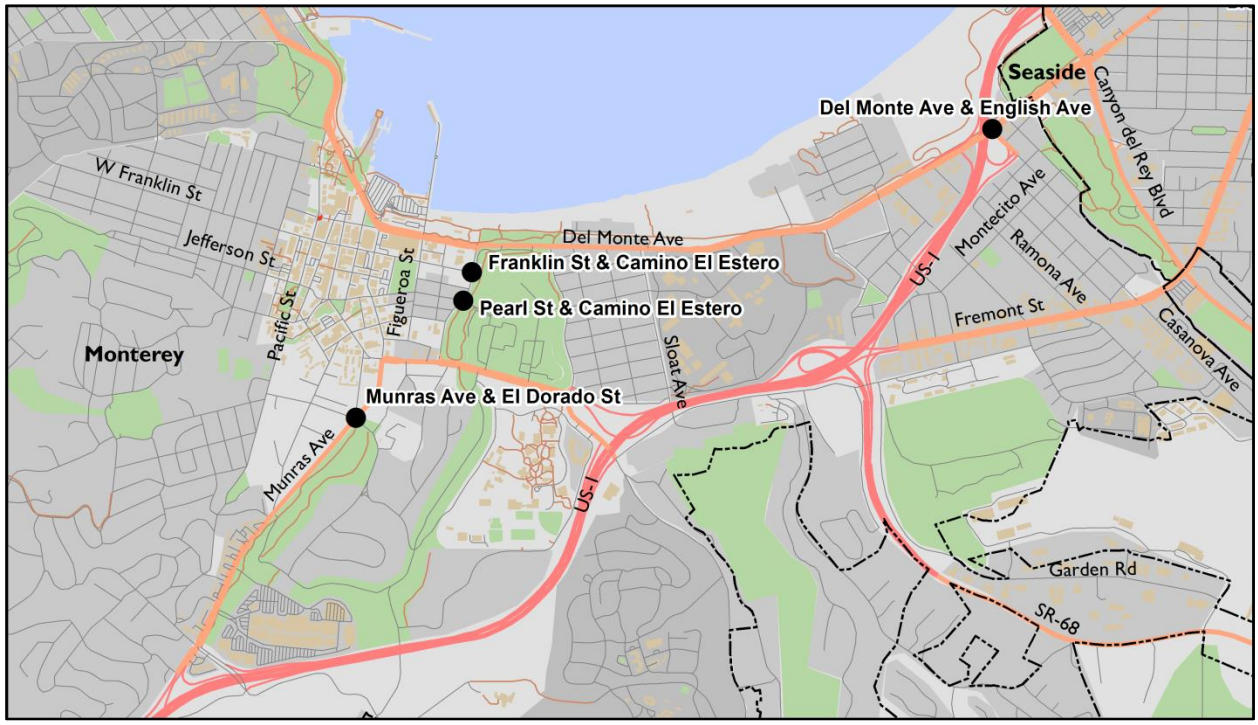
Significant queuing is noted eastbound along SR-68.

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 6:

City of Monterey

Study Intersections:

- PEARL STREET AT CAMINO EL ESTERO
- DEL MONTE BOULEVARD AT ENGLISH AVENUE
- MUNRAS AVENUE / ARBREGO STREET AT EL DORADO STREET
- EAST FRANKLIN STREET AT CAMINO EL ESTERO



CITY OF MONTEREY SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Pearl Street at Camino El Estero	MCY-01
Del Monte Boulevard at English Avenue	MCY-02
Munras Avenue / Abrego Street at El Dorado Street	MCY-03
East Franklin Street at Camino El Estero	MCY-04

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Monterey jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Monterey, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Pearl Street at Camino El Estero	**5.78**	
Del Monte Boulevard at English Avenue	**1.55**	
Munras Ave./Abrego St. at El Dorado Street	**NA-R**	
East Franklin Street at Camino El Estero	**2.19**	

SUMMARY OF KEY PERFORMANCE MEASURES

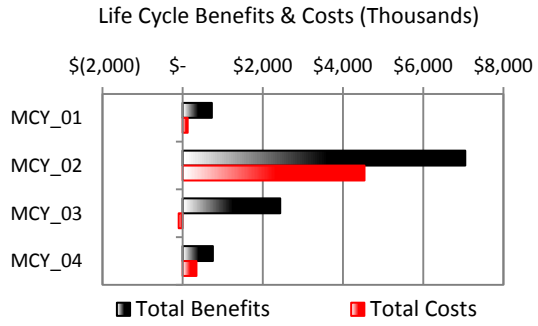
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

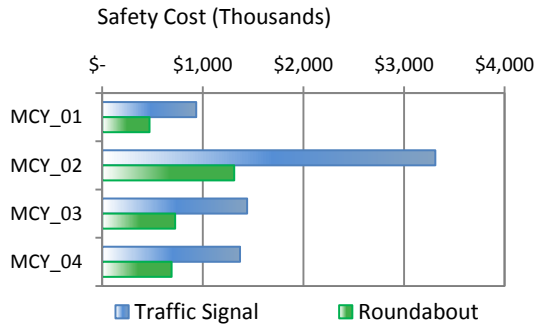
NOTE: Traffic demand for the Del Monte Boulevard at English Avenue intersection significantly exceeds capacity for both signal and roundabout alternatives during the existing and future PM peak design year periods. The operational effects of such over-saturated traffic flow conditions cannot be confidently forecast without the application of micro-simulation. Hence, all results for the Del Monte Boulevard at English Avenue intersection should be viewed as "hypothetical" pending a more robust analysis that is beyond the scope of this study.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.



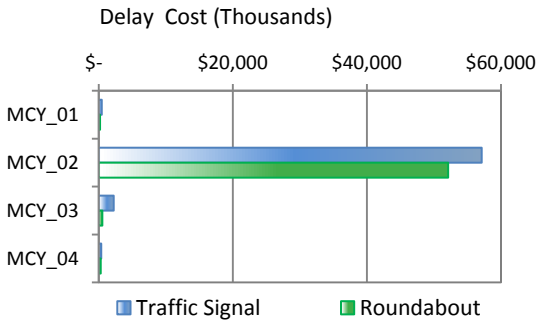
Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

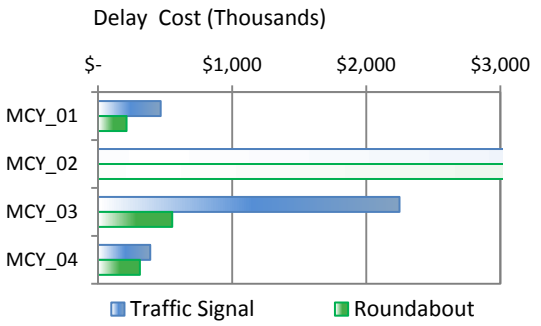
Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersec

during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.



The magnitude of delay cost for MCY_02 in the above bar chart is disproportionate to the other three intersections in the study. The bar chart below sets the maximum delay cost to $3,000,000 to better illustrate the relationship of delay costs for intersections MCY_01, MCY_03, and MCY_04.

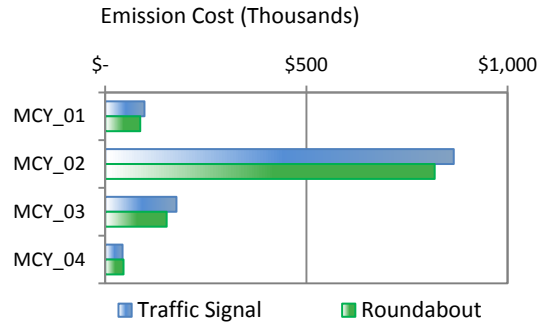


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

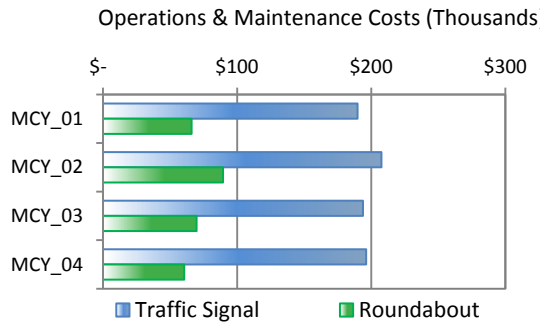
Emissions **Study Intersection**	**Preferred Control**
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

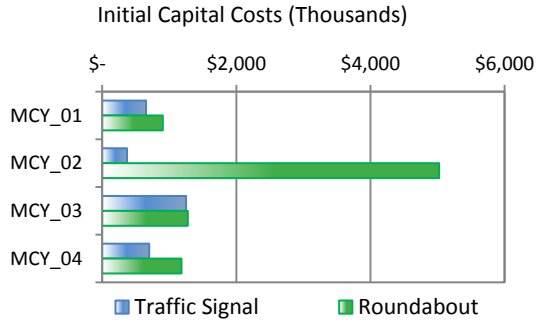


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

Summary of B/C Performance Measures

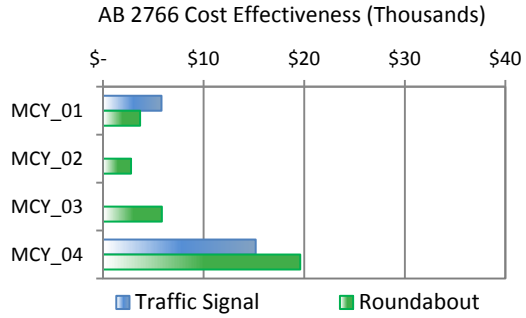
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Pearl Street at Camino El Estero						
Del Monte Boulevard at English Avenue						
Munras Avenue / Abrego Street at El Dorado Street						
East Franklin Street at Camino El Estero						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Monterey.

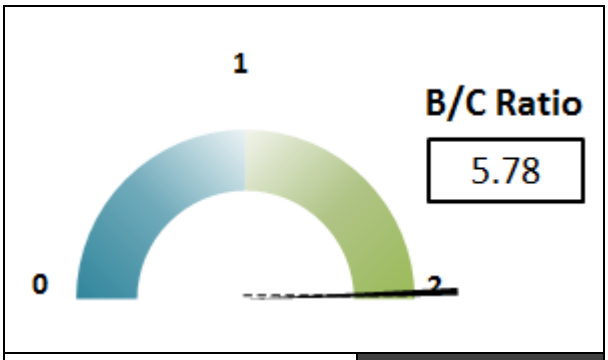


Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness **Study Intersection**	**Preferred Control**
Pearl Street at Camino El Estero	
Del Monte Boulevard at English Avenue	
Munras Avenue / Abrego Street at El Dorado Street	
East Franklin Street at Camino El Estero	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

PEARL STREET AT CAMINO EL ESTERO



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for Pearl Street at Camino El Estero is 5.78. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $1,500,000.

Noteworthy performance measures driving the B/C ratio are *safety* and *operations and maintenance.* The estimated safety costs of the signal are 2 times higher than that of the roundabout. The estimated operations and maintenance costs of the signal are 2.5 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $729,000 when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic and will provide superior operations compared to the existing stop control or signal control alternative. The existing stop control, or no project alternative, will continue to provide adequate capacity in terms of delay. The signal control alternative will provide similar operations as the existing stop control alternative. However, vehicle queuing may affect operations at Anthony Street as travel demand increases. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MCY-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Pearl Street at Camino El Estero	**Pearl Street (City of Monterey)**	2-lane undivided with on street parking	Local	25	Serves residential, commercial/ business, institutional, & recreational land uses	Service provided by Monterey-Salinas Transit Lines 14 & 56	Sidewalks and crosswalks provided	Class II bike Lanes
	Camino El Estero (City of Monterey)	2-lane undivided with on street parking	Local	25	Serves residential, commercial/ business, institutional, tourism, & recreational land uses	Service provided by Monterey-Salinas Transit Line 56	Sidewalks and crosswalks provided	Class II bike Lanes

identified at the study location.

Pearl Street at Camino El Estero is an all-way stop controlled intersection.

Parcels west of Camino El Estero are developed with structures located at or near the existing back of sidewalk. Parcels east of Camino El Estero are open space and part of El Estero Park. The existing intersection is within City of Monterey right of way.

Existing design constraints at the study intersection include (see map for locations):

1. El Estero Presbyterian Church – fatal flaw
2. El Estero water basin
3. Pearl Street Bridge – fatal flaw
4. Office complex
5. Driveways

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Pearl Street at Camino El Estero intersection is located within the City of Monterey Downtown Specific Plan.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

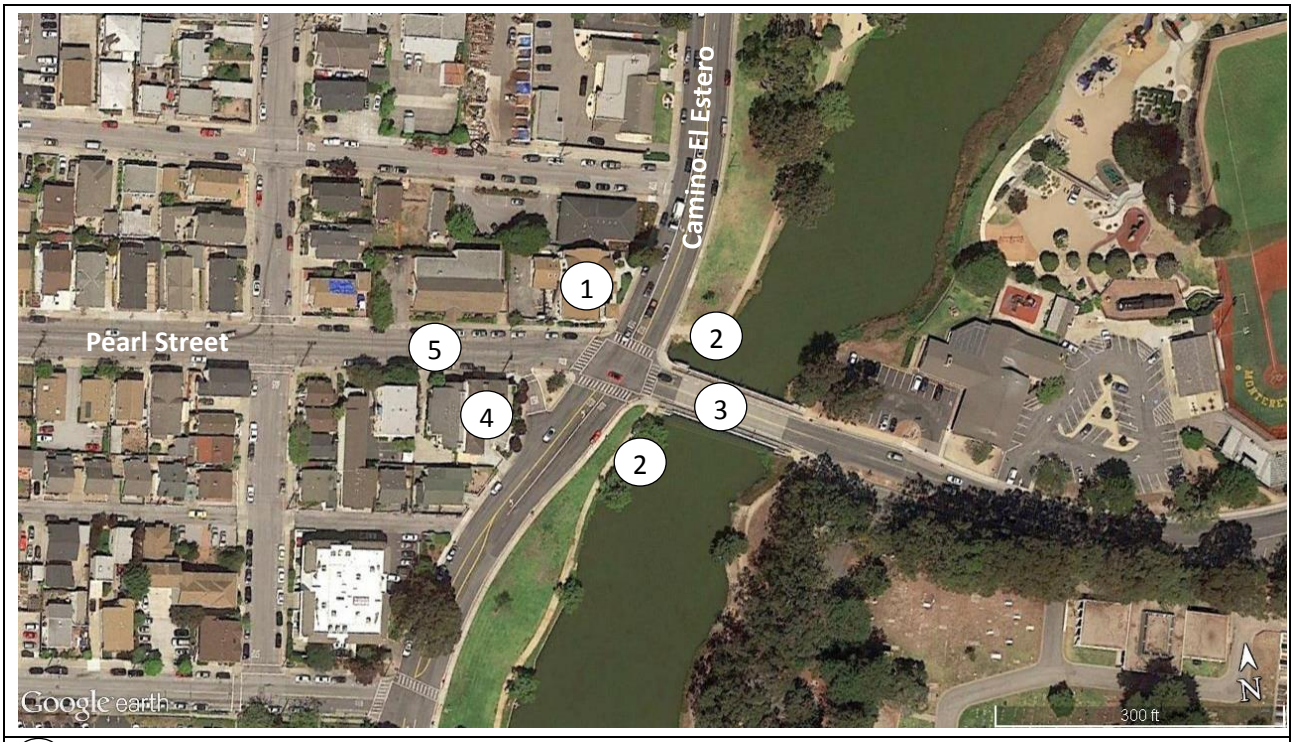
Traffic data for 2015 PM peak hour volumes was provided by the City. 2040 PM peak hour volumes were calculated for a total growth of 5% for all movements. AM peak hour volumes were not provided.

Stop Control (Existing)

With stop control, demand is adequately served for the PM peak period under existing and future design years.

Signal Control

With proposed signal control, the number of approach and departure lanes will remain the same as existing. Vehicle demand will be adequately served for the PM peak period under existing and future design years.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

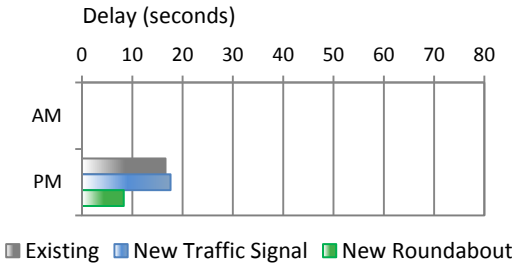
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve existing intersection operations and provide superior operations compared to the proposed signal alternative. Vehicle demand will be adequately served for the PM peak period under existing and future design years.

The proposed single lane roundabout may require a mountable central island and splitter islands to accommodate design vehicles given the design constraints at the intersection.

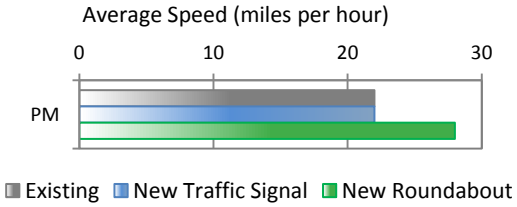
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: AM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- AM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering, topographic survey of bridge and northwest quadrant, and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCY-01**
01/16

Intersection Cost Comparison

Pearl Street at Camino El Estero
Monterey, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.16	$ 23,612	$ 368,871	0.36	$ 52,472	$ 819,714
Predicted PDO Crashes	0.64	$ 6,486	$ 101,319	0.72	$ 7,345	$ 114,740
Subtotal - Safety Costs	**-**	**$ 30,098**	**$ 470,191**	**-**	**$ 59,816**	**$ 934,454**
DELAY						
Delay to Persons in Vehicles (hours)	745	$ 8,183	$ 212,747	1628	$ 17,973	$ 467,288
Subtotal - Delay Costs	-	**$ 8,183**	**$ 212,747**	-	**$ 17,973**	**$ 467,288**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 1,333	20,829
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,000	62,488
Cost of Pavement Rehabilitation			$ 21,166			$ 30,900
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 66,043**	-	**$ 10,170**	**$ 189,778**
EMISSIONS						
Tons of ROG	0.13	$ 122	$ 1,907	0.18	$ 171	$2,670
Tons of NOX	0.37	$ 4,807	$ 75,100	0.41	$ 5,305	$82,869
Tons of PM10	0.0064	$ 641	$ 10,007	0.0077	$ 769	$12,009
Subtotal - Emissions Costs		**$ 5,570**	**$ 87,014**		**$ 6,244**	**$ 97,548**
INITIAL CAPITAL COSTS						
Construction Cost			$ 758,775			$ 548,800
Construction Cost - Structures			$ -			$ -
Capital Support			$ 145,000			$ 105,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 903,775**			**$ 653,800**
NET PRESENT VALUE			**$ 1,652,755**			**$ 2,245,321**

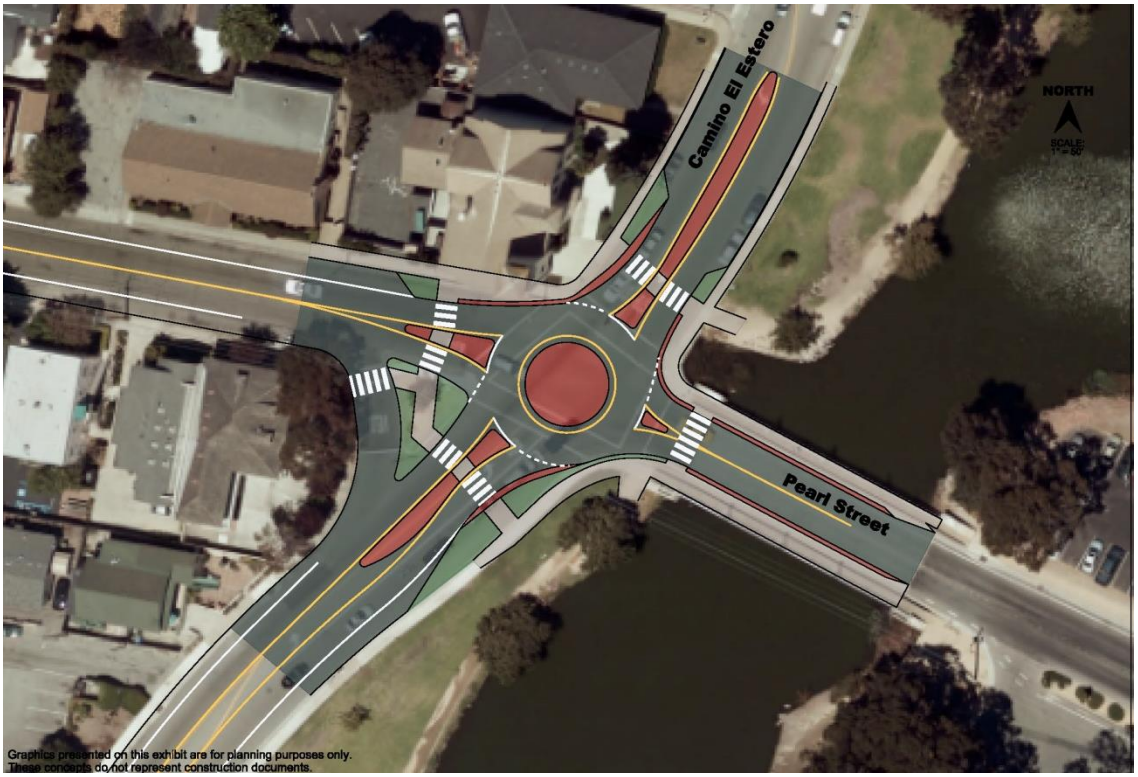
LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$464,264	**LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$254,541	
Emission Reduction Benefit of Roundabout	$10,533	
Total Benefits	**$729,338**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$123,736	**5.78**
Added Capital Costs of a Roundabout	$249,975	
Total Costs	**$126,239**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	499	316
Cost Per Pound Per Life	$46.07	$72.67
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$3,686**	**$5,813**

Intersection Improvement Alternatives

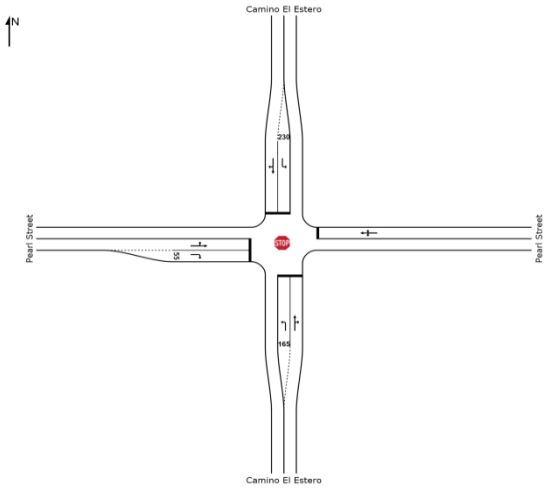
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

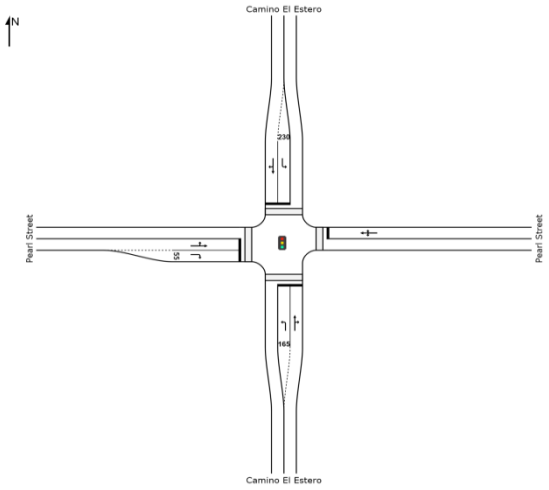


EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	C	15.2	108 (SBT)
2040	-	-	-	C	16.6	128 (SBT)

NOTES:

1. AM data was not provided.

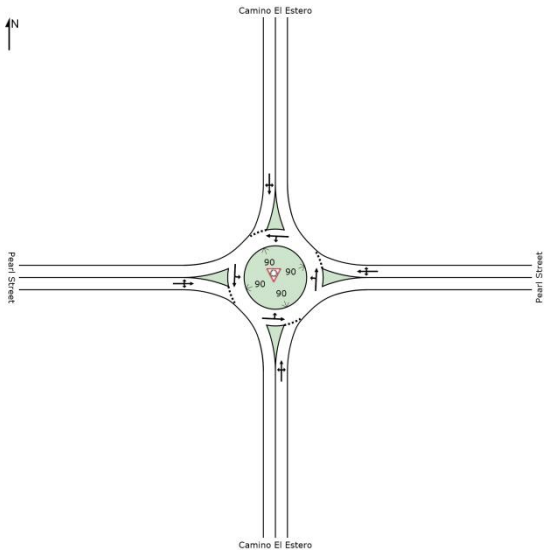


ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	B	17.6	141 (SBT)
2040	-	-	-	B	17.6	169 (SBT)

NOTES:

1. AM data was not provided.



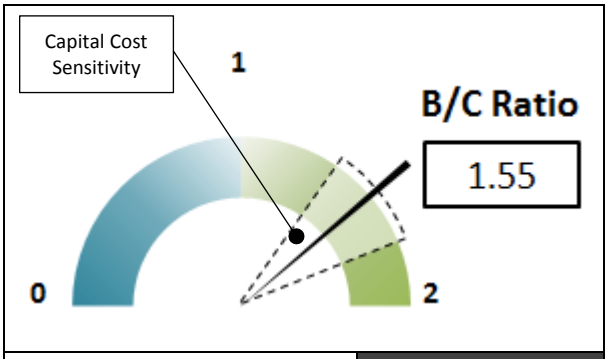
ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	A	7.8	89 (SB)
2040	-	-	-	A	8.3	101 (SB)

NOTES:

1. AM data was not provided.

DEL MONTE BOULEVARD AT ENGLISH AVENUE



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

NOTE: Traffic demand for the Del Monte Boulevard at English Avenue intersection significantly exceeds capacity for both signal and roundabout alternatives during the existing and future PM peak design year periods. The operational effects of such over-saturated traffic flow conditions cannot be confidently forecast without the application of micro-simulation. Hence, all results for the Del Monte Boulevard at English Avenue intersection should be viewed as "hypothetical" pending a more robust analysis that is beyond the scope of this study.

The Benefit Cost (B/C) ratio for Del Monte Boulevard at English Avenue is 1.55. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection may be sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control may change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $7,000,000.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 2.5 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $7,050,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,300 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, neither the roundabout nor the signal is a viable alternative to serve traffic demand during the PM peak design year periods given the project constraints. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MCY-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Del Monte Boulevard at English Avenue	**Del Monte Boulevard (City of Monterey)**	4-lane divided	Regional	40	Serves commercial/ business, tourism, & recreational land uses Provides on/off access to southbound SR 1	Service provided by Monterey-Salinas Transit Lines 10, 12, 20, 55, 56, 74, 75, 76, and 78 Stops at intersection	Sidewalk along south side and multiuse path on north side of street Crosswalk on east leg	Multiuse path on north side of street
	English Avenue (City of Monterey)	2-lane undivided	Regional	30	Serves commercial/ business, tourism, & recreational land uses Provides on/off access to northbound SR 1	No transit services provided	Sidewalks No crosswalk. No pedestrian crossing permitted	Class II

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Del Monte Boulevard at English Avenue is controlled by a traffic signal.

The southeast parcel is developed with a commercial structure located at or near the back of existing sidewalk. Parcels north of Del Monte Boulevard are used for Caltrans/freeway overhead structures and a multi-use path. The southwest parcel is undeveloped.

Freeway bridge columns are located just north of the northerly Del Monte Boulevard curb line. Freeway abutments and retaining structure are located just south of the southerly Del Monte Boulevard sidewalk. The combination of freeway bridge columns, abutments, and retaining walls Constrain the number of lanes and geometry of Del Monte Boulevard at the project intersection.

The existing intersection is within City of Monterey and Caltrans right of way.

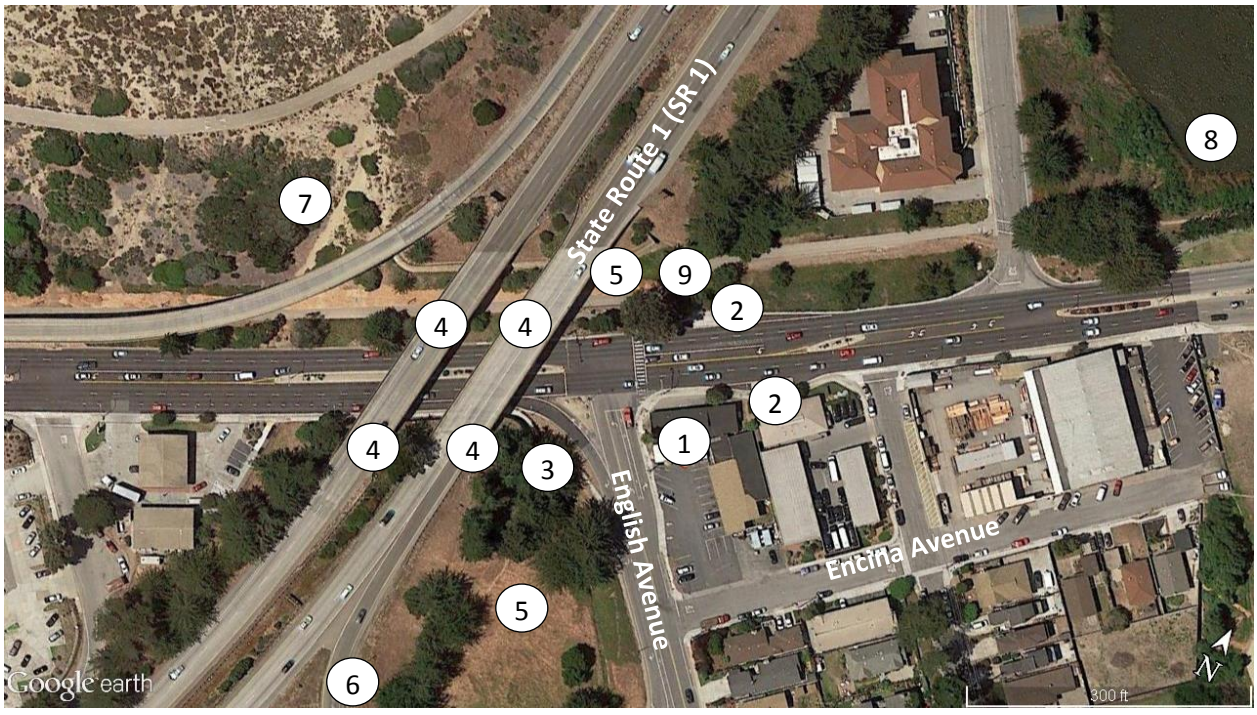
Existing design constraints and considerations at the study intersection include (see map for locations):

1. Peninsula Produce (building and parking lot)
2. Transit stop
3. Pedestrian bridge
4. Freeway column/abutment
5. Caltrans right of way
6. SR 1 on-ramp
7. Monterey State Beach
8. Laguna Del Rey
9. Monterey Peninsula Recreational Trail

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The 2012 Monterey Peninsula Fixed Guideway Study prepared by TAMC identifies the trail corridor north of the intersection as the preferred alignment for a future light rail or bus rapid transit corridor.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Road Improvements	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2007 AM and PM peak hour volumes was provided by the City. 2015 volumes were assumed to be the same as 2007 peak hour volumes. 2040 AM and PM peak hour volumes were calculated using a 1% annual compound growth rate for all movements.

Signal Control (Existing)

The existing signal control, or no project alternative, operates as a 3 phase signal with protected left turn phasing and a free right turn along Del Monte Boulevard. Heavy through volumes along with heavy right turns onto English Avenue cause significant delay along Del Monte Boulevard.

Additional lanes on Del Monte Boulevard are required to increase intersection capacity. The existing freeway columns and abutments were considered a fatal flaw constraint for this study. Therefore, a proposed signal alternative to increase intersection capacity was not evaluated.

Roundabout Control

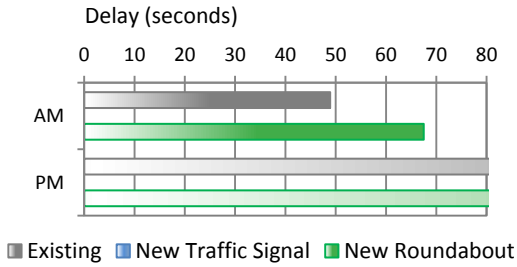
With roundabout control, a multi lane roundabout with two approach and departure lanes on Del Monte Boulevard was evaluated. In coordination with the City of Monterey, the preferred treatment for English Avenue was to provide pedestrian access with single lane crossings between pedestrian refuges.

Similar to the signal control alternative, additional lanes on Del Monte Boulevard are required to increase intersection capacity. The existing freeway columns and abutments were considered a fatal flaw constraint for this study. Therefore, a proposed roundabout alternative with additional lanes was not evaluated.

Crossings will be improved and midway refuge areas can also be provided. Bike lanes and multipurpose paths at the intersections can be maintained with a two lane roundabout. Transit stops at the intersection including the transit pay can be maintained with a two lane roundabout.

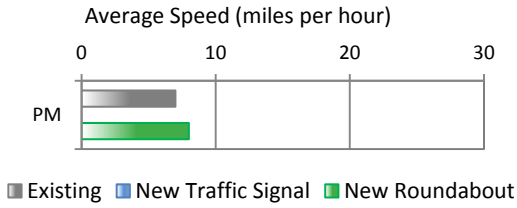
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Current intersection traffic counts.
- Forecast design year traffic volumes at the study intersection.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study Intersection Number **MCY-02**
01/16

Intersection Cost Comparison

Del Monte Boulevard at English Avenue
Monterey, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.36	$ 52,540	$ 820,781	1.23	$ 181,172	$ 2,830,279
Predicted PDO Crashes	3.08	$ 31,453	$ 491,362	3.02	$ 30,801	$ 481,180
Subtotal - Safety Costs	**-**	**$ 83,993**	**$ 1,312,143**	**-**	**$ 211,973**	**$ 3,311,459**
DELAY						
Delay to Persons in Vehicles (hours)	195555	$2,004,489	$52,116,703	201437	$ 2,196,893	$57,119,227
Subtotal - Delay Costs	-	**$2,004,489**	**$52,116,703**	-	**$ 2,196,893**	**$57,119,227**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 1,333	20,829
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,000	62,488
Cost of Pavement Rehabilitation			$ 44,611			$ 48,700
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 89,487**	-	**$ 10,170**	**$ 207,578**
EMISSIONS						
Tons of ROG	2.17	$ 2,064	$ 32,246	2.33	$ 2,217	$34,635
Tons of NOX	3.22	$ 41,525	$ 648,700	3.38	$ 43,601	$681,135
Tons of PM10	0.0885	$ 8,826	$ 137,874	0.0966	$ 9,628	$150,408
Subtotal - Emissions Costs		**$ 52,414**	**$ 818,820**		**$ 55,446**	**$ 866,177**
INITIAL CAPITAL COSTS						
Construction Cost			$ 2,099,125			$ 300,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 1,050,000			$ 70,000
Right-of-Way			$ 1,875,000			$ -
Subtotal - Initial Capital Costs			**$ 5,024,125**			**$ 370,000**
NET PRESENT VALUE			**$58,542,458**			**$61,008,264**

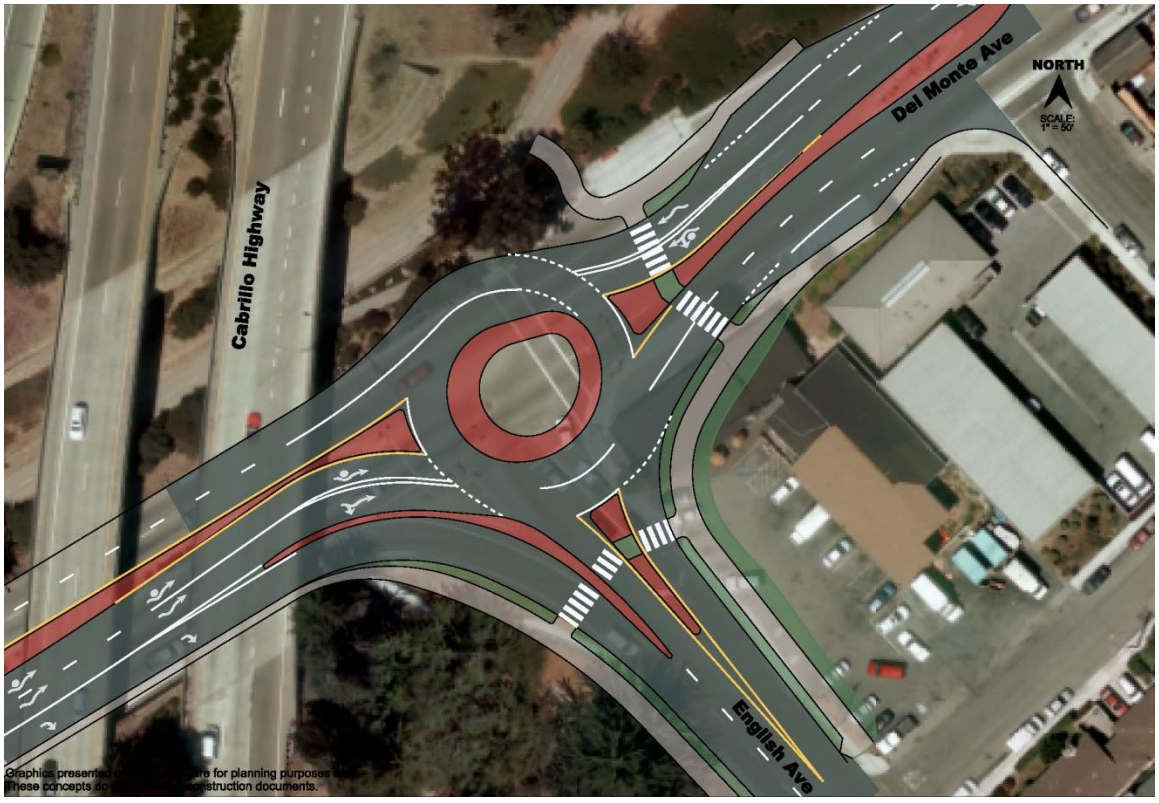
LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$1,999,317	**LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$5,002,524	
Emission Reduction Benefit of Roundabout	$47,358	
Total Benefits	**$7,049,198**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$118,090	**1.55**
Added Capital Costs of a Roundabout	$4,654,125	
Total Costs	**$4,536,035**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	660	N/A - Same as existing
Cost Per Pound Per Life	$34.81	N/A - Same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$2,785**	**N/A - Same as existing**

Intersection Improvement Alternatives

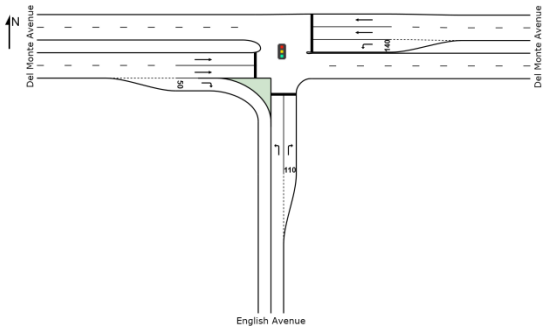
Existing Signal



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

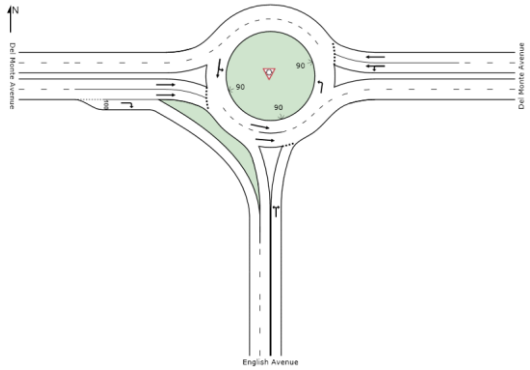


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2007	D	37.8	#862 (WBT)	F	359.6	#1688 (EBT)
2040	D	48.9	#1534 (WBT)	F	304.2	#2651 (EBT)

NOTES:

1. WB queues on Del Monte Avenue will exceed available storage during all scenarios and affect operations at Roberts Avenue.
2. EB queues on Del Monte Avenue will exceed available storage during all scenarios and affect operations at Hannon Avenue.
3. NB queues on English Avenue will exceed available storage during both 2040 peak hour and affect operations at Encina Avenue



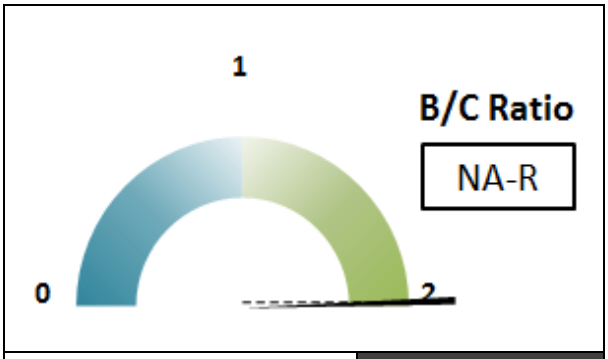
ALTERNATIVE 1
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2007	B	12.9	341 (WB)	F	223.8	5110 (NB)
2040	F	67.5	2621.3 (WB)	F	383.7	7402 (NB)

NOTES:

1. WB queues on Del Monte Avenue will exceed available storage during all scenarios and affect operations at Roberts Avenue.
2. EB queues on Del Monte Avenue will exceed available storage during all scenarios and affect operations at Hannon Avenue.
3. NB queues on English Avenue will exceed available storage during 2015 p.m. peak hour and both 2040 peak hours and affect operations at Encina Avenue

MUNRAS AVENUE / ABREGO STREET AT EL DORADO STREET



Result: *Based on the Life Cycle Benefit Cost ratio*	**Roundabout**

The Benefit Cost (B/C) ratio for Munras Avenue / Abrego Street at El Dorado Street is NA-R. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $3,800,000.

Noteworthy performance measures driving the B/C ratio are *safety* and *delay*. The estimated safety costs of the signal are 2 times higher than the estimated safety costs of the roundabout. The estimated delay costs of the signal are 3 times higher than the estimated safety costs of the roundabout.The total life cycle benefits of the roundabout are estimated at $2,430,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,200 in reduced operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a superior alternative to serve forecast traffic. The proposed traffic signal improvements will improve pedestrian access at the intersection and reduce crosswalk lengths. Traffic signal operations will perform at a similar level as the existing intersection.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number MCY-03 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
							Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context	Transit Service	Pedestrian Considerations	Bicycle Routes
Munras Avenue / Abrego Street at El Dorado Street	**Munras Avenue/ Abrego Street (City of Monterey)**	4-lane undivided with-on street parking (west side)	Local	40	Serves commercial/ business & recreational land uses	Service provided by Monterey-Salinas Transit Lines 2, 18, 19, 22, 24, 69, 91, & 94 Stop at intersection	Sidewalk on westerly side Crosswalk on all legs	No bike lanes provided Trail through park
	Munras Avenue (City of Monterey)	2-lane undivided with on-street parking	Local	25	Serves commercial/ business land uses	No transit services provided	Sidewalks and crosswalks provided	No bike lanes provided
	El Dorado Street (City of Monterey)	2-lane undivided with on street parking	Local	25	Serves residential, commercial/ business, institutional, & recreational land uses	No transit services provided	Sidewalks and crosswalks provided	No bike lanes provided

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Munras Avenue / Abrego Street at El Dorado Street intersection is controlled by a traffic signal.

All parcels, except along the easterly leg of El Dorado Street, are developed at the study intersection. The two northwesterly parcels have a commercial structure at the back of the existing sidewalk. The existing intersection is within City of Monterey right of way.

Existing design constraints and considerations identified by the City at the study intersection include (see map for locations):

1. Intersection with five legs
2. Vertical profile of easterly leg (El Dorado Street)
3. Monterey State Historic Park
4. Multi-use path
5. Restricted open space
6. Jack in the Box (two driveways)
7. Transit stop
8. Monterey Cork 'n' Bottle Liquors (fatal flaw is disturbed)
9. Office Complex (fatal flaw is disturbed)
10. The El Dorado Inn (two driveways)

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

No planned improvements were identified.

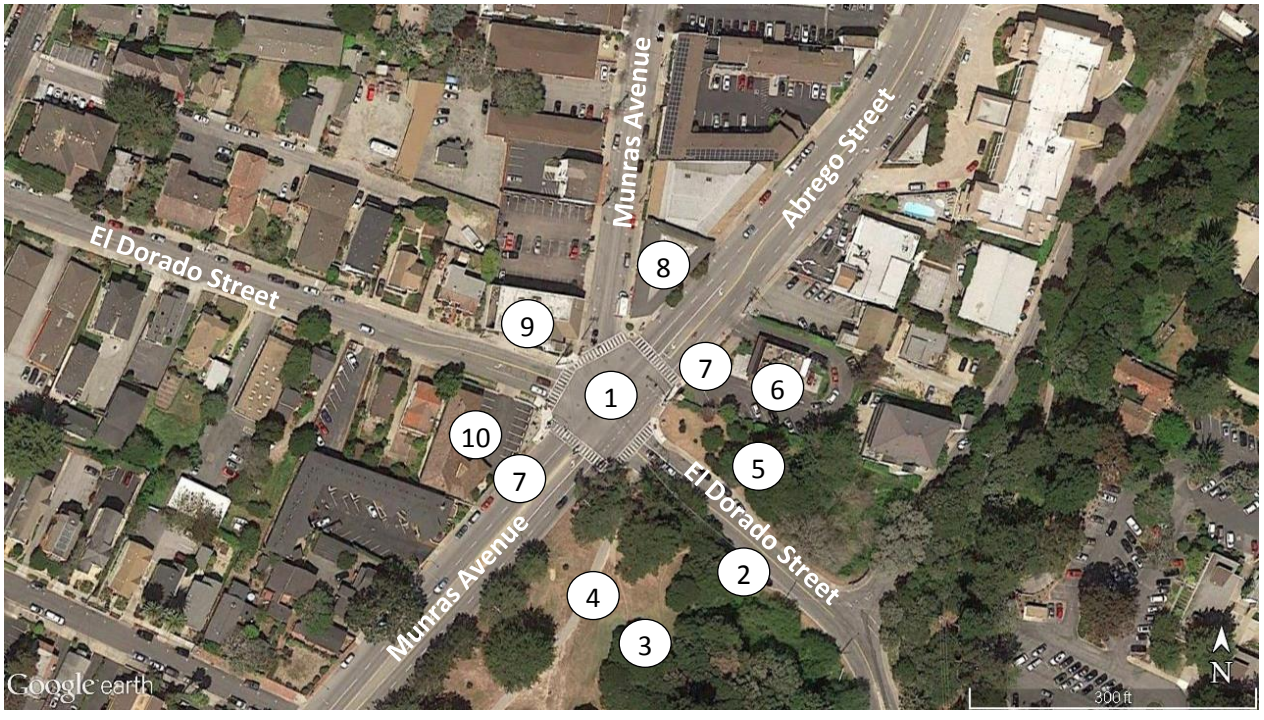
INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Traffic Signal	
Proposed Signal Modification	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM / PM peak hour volumes was provided by the City. 2040 peak hour volumes were calculated using a 1% annual compound growth rate for all movements.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With signal control, demand is adequately served for AM and PM peak hours under existing and future design year conditions. However, PM peak hour is estimated to be near capacity for existing and future design year conditions.

Proposed modifications to the intersection will require relocation, and likely new, signal equipment to construct improved pedestrian facilities. Proposed pedestrian improvements will reduce pedestrian crossing lengths and shift the northerly crosswalk closer to El Dorado Street and away from the Jack in the Box driveway.

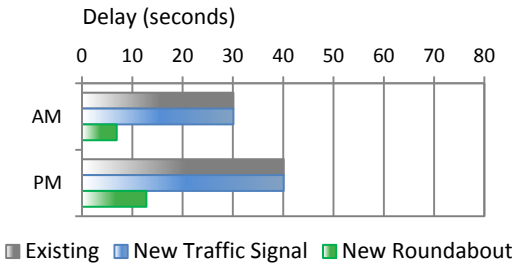
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak hours under future design year conditions.

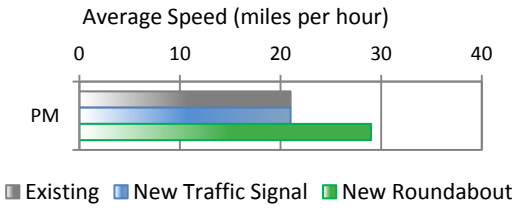
The proposed single lane roundabout is expected to calm traffic and reduce pedestrian crossing lengths at the intersection.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Lane reductions on Munras Avenue / Abrego Street.
- Access to Jack in the Box.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCY-03**
01/16

Intersection Cost Comparison

Munras Avenue / Abrego Street at El Dorado Street
Monterey, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.25	$ 36,372	$ 568,212	0.55	$ 80,827	$ 1,262,693
Predicted PDO Crashes	0.98	$ 10,038	$ 156,822	1.12	$ 11,379	$ 177,759
Subtotal - Safety Costs	**-**	**$ 46,411**	**$ 725,033**	**-**	**$ 92,206**	**$ 1,440,452**
DELAY						
Delay to Persons in Vehicles (hours)	2051	$ 21,282	$ 553,332	8098	$ 86,455	$ 2,247,830
Subtotal - Delay Costs	-	**$ 21,282**	**$ 553,332**	-	**$ 86,455**	**$ 2,247,830**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 1,333	20,829
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,000	62,488
Cost of Pavement Rehabilitation			$ 24,889			$ 34,933
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 69,766**	-	**$ 10,170**	**$ 193,811**
EMISSIONS						
Tons of ROG	0.20	$ 193	$ 3,008	0.28	$ 265	$4,136
Tons of NOX	0.68	$ 8,824	$ 137,848	0.76	$ 9,804	$153,165
Tons of PM10	0.0076	$ 758	$ 11,838	0.0127	$ 1,263	$19,729
Subtotal - Emissions Costs		**$ 9,774**	**$ 152,694**		**$ 11,332**	**$ 177,030**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,065,155			$ 1,000,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 203,000			$ 250,000
Right-of-Way			$ 8,000			$ -
Subtotal - Initial Capital Costs			**$ 1,276,155**			**$ 1,250,000**
NET PRESENT VALUE			**$ 2,624,286**			**$ 5,132,093**

LIFE CYCLE BENEFIT/COST ANALYSIS	
BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$715,418
Delay Reduction Benefit of Roundabout	$1,694,498
Emission Reduction Benefit of Roundabout	$24,336
Total Benefits	**$2,434,252**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$124,045
Added Capital Costs of a Roundabout	$26,155
Total Costs	**-$97,890**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

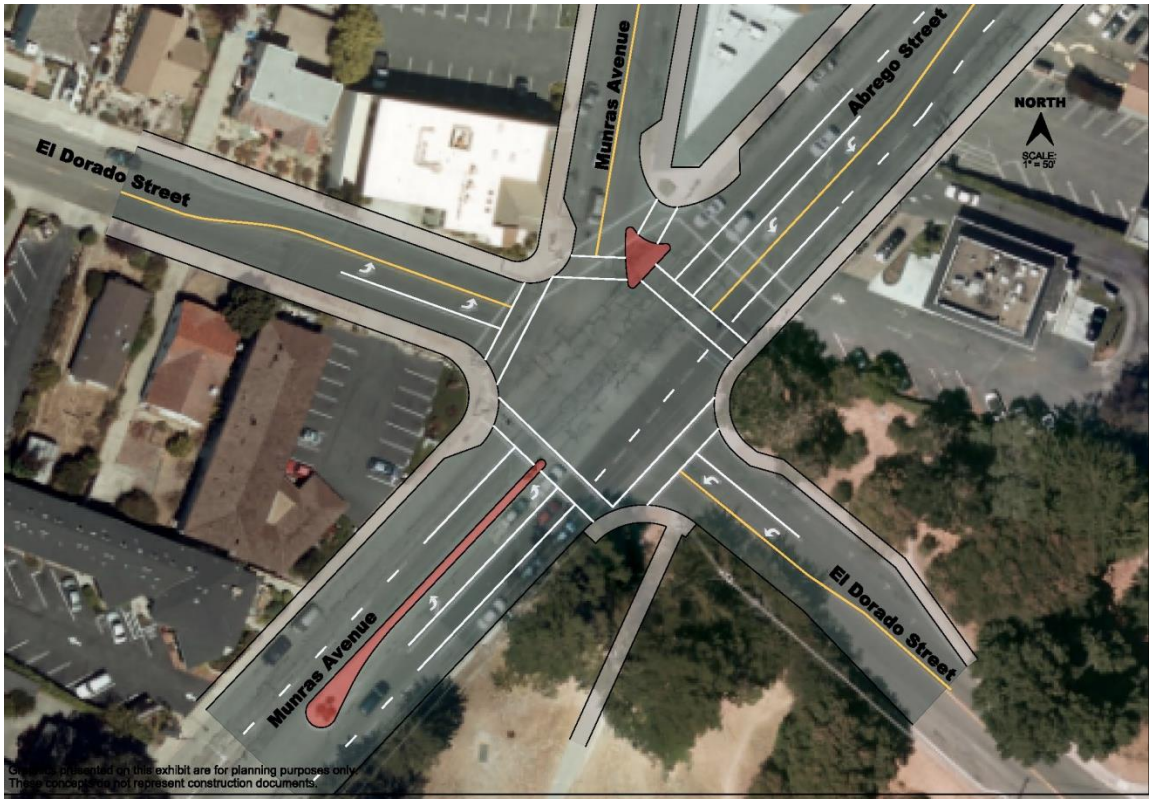
N/A

B/C Preferred: Roundabout Alternative

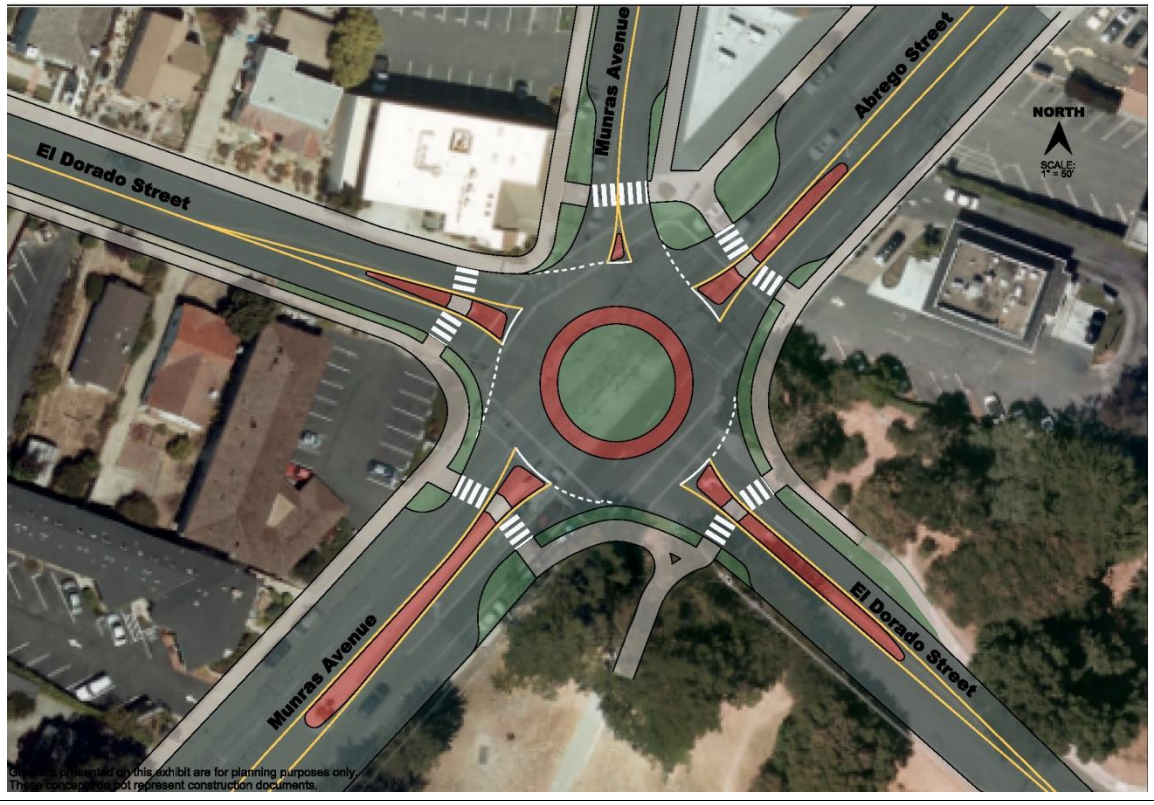
Roundabout Preferred
Cost of Roundabout is less than cost of Traffic Signal, and Roundabout offers benefits compared to Traffic Signal.

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	314	N/A - same as existing
Cost Per Pound Per Life	$73.12	N/A - same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$5,850**	**N/A - same as existi**

Intersection Improvement Alternatives



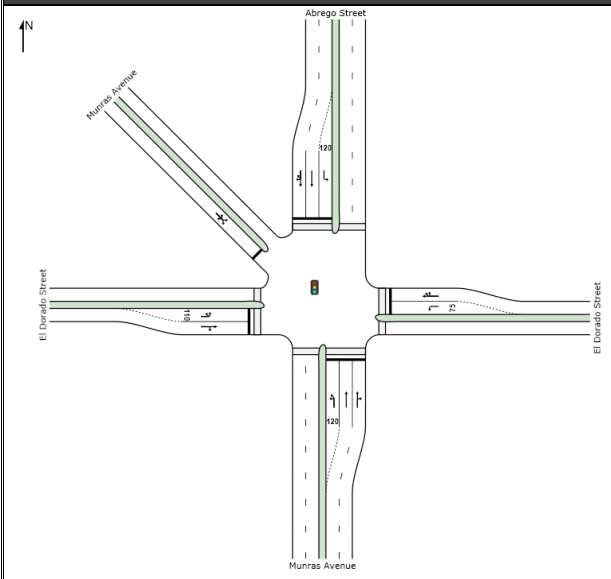
Signal Alternative *(Source: Monterey County)*



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

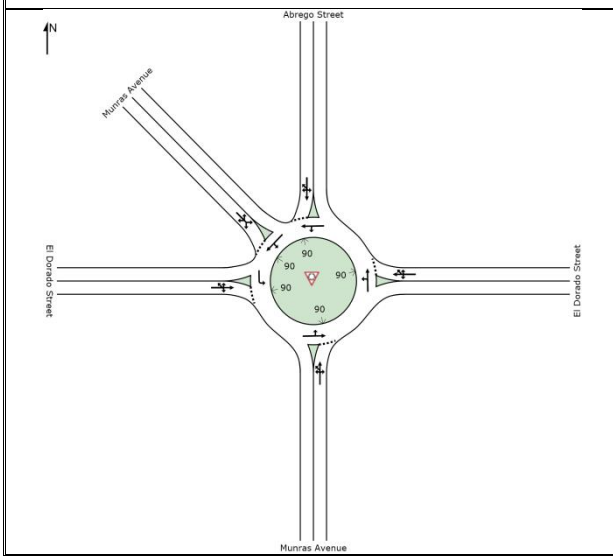


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	C	33.1	134 (EBL)	D	36.2	211 (NBT)
2040	C	30.1	148 (EBL)	D	40.1	#248 (SEL)

NOTES:

1. EBL queues will exceed capacity during all scenarios.
2. WBL queues will exceed capacity during the 2015 and 2040 p.m. peak hours.

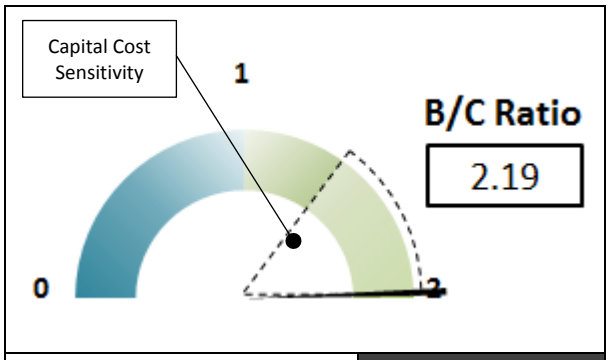


ALTERNATIVE 1
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	5.6	40 (SB)	A	8.2	91 (NB)
2040	A	6.9	59 (SB)	C	12.8	207 (NB)

NOTES:

EAST FRANKLIN STREET AT CAMINO EL ESTERO



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for East Franklin Street at Camino El Estero is 2.19. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

The estimated safety costs of the signal are 2 times higher than that of the roundabout.The total life cycle benefits of the roundabout are estimated at $891,000. The total life cycle benefit includes an estimated $7,200 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic and will provide improved operations compared to the existing stop control or signal control alternative. The existing stop control, or no project alternative, will continue to provide adequate capacity in terms of delay. The signal control alternative will provide improved operations compared to the existing stop control alternative. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number MCY-04 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
East Franklin Road at Camino El Estero	**East Franklin Road (City of Monterey)**	One way east leg with on street parking West Leg: Driveway	Local	25	Serves residential, commercial/ business, institutional, tourism, & recreational land uses	Service provided by Monterey-Salinas Transit Line 10, 20, 55, 56, 74, 75, 76, & 78	Sidewalks provided Crosswalks (safe routes to schools)	No bike lanes provided
	Camino El Estero (City of Monterey)	South Leg: 3-lane undivided with on street parking North Leg: 4-lane undivided	Local	25	Serves residential, commercial/ business, institutional, tourism, & recreational land uses	Service provided by Monterey-Salinas Transit Line 10, 20, 55, 56, 74, 75, 76, & 78	Sidewalks provided Crosswalks (safe routes to schools)	No bike lanes provided

East Franklin Street at Camino El Estero is controlled by stop signs on all approaches.

Parcels in the immediate vicinity of the project are developed. A structure is located within 100 feet of the intersection in the northeast, southeast, and southwest quadrants.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Potential right of way constraint (structure)
2. Monterey County Visitors Center and El Estero Park
3. Trinity Christian High School
4. Utility pole (potential fatal flaw if disturbed)

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Pearl Street at Camino El Estero intersection is located within the City of Monterey Downtown Specific Plan.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

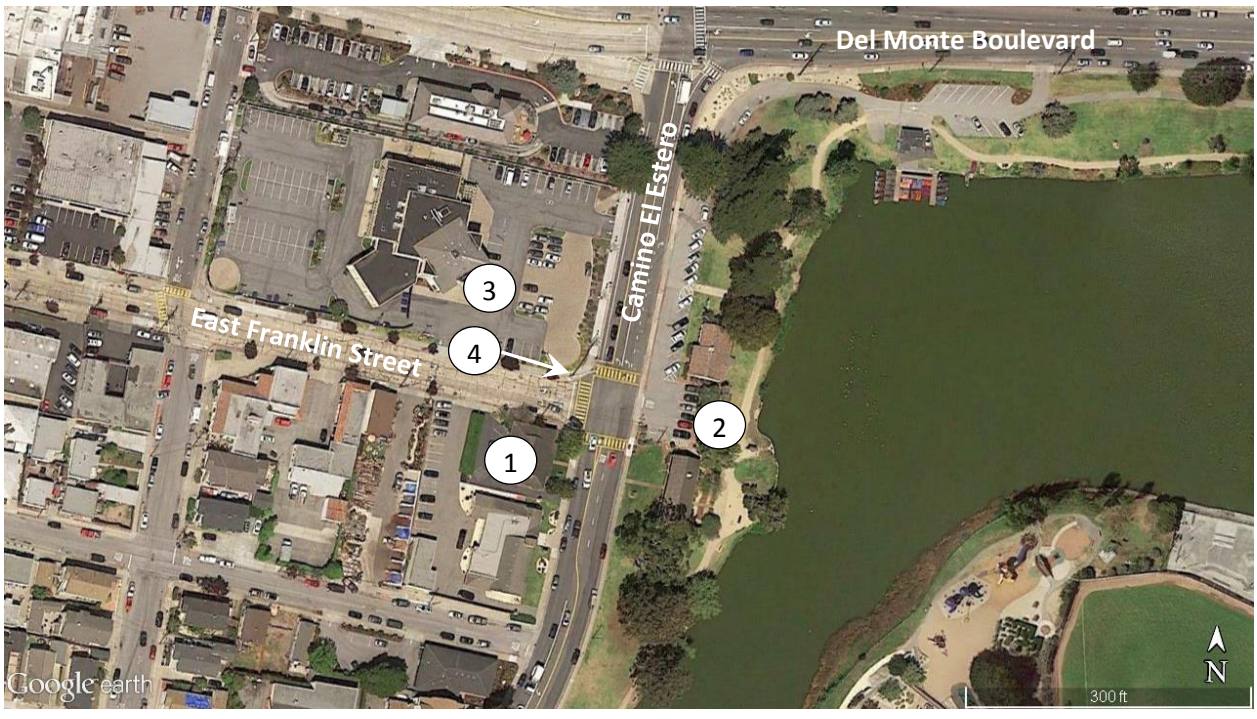
Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 PM peak hour volumes was provided by the City. 2040 AM peak hour volumes were calculated for a total growth of 5% for all movements. AM peak hour volumes were not provided.

Stop Control (Existing)

With stop control, demand is adequately served for the PM peak period under existing and future design years.



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With proposed signal control, the number of approach and departure lanes will remain the same as existing. Vehicle demand will be adequately served for the PM peak period under existing and future design years.

Crossing at the intersection can be maintained and pedestrian phasing will be provided. Bike lanes and transit stops are not provided at the intersection therefore a signal alternative will not impact either facility.

Roundabout Control

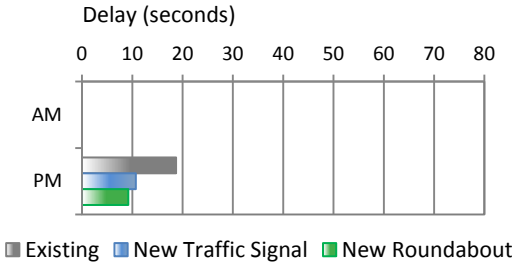
With roundabout control, a single lane roundabout with single lane approaches and departures will provide less delay than the signal alternative and will improve existing intersection operations. Vehicle demand will be adequately served for the PM peak period under existing and future design years.

The proposed single lane roundabout may require a mountable central island and splitter islands to accommodate design vehicles given the design constraints at the intersection.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes and transit stops are not provided at the intersection therefore a one lane roundabout will not impact either facility.

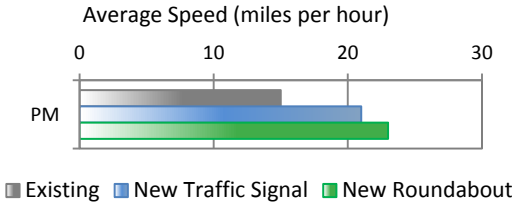
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: AM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- AM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering, topographic survey of bridge and northwest quadrant, and additional site investigations.
- Evaluation of protecting utility pole in place at northwest corner.
- Driveway access and parking circulation for Monterey County Visitors Center and El Estero Park.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **MCY-04**
01/16

Intersection Cost Comparison

E Franklin Street at Camino El Estero
Monterey, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.23	$ 34,567	$ 540,011	0.52	$ 76,816	$ 1,200,025
Predicted PDO Crashes	0.94	$ 9,583	$ 149,703	1.07	$ 10,871	$ 169,835
Subtotal - Safety Costs	**-**	**$ 44,150**	**$ 689,714**	**-**	**$ 87,687**	**$ 1,369,860**
DELAY						
Delay to Persons in Vehicles (hours)	1104	$ 12,009	$ 312,227	1384	$ 14,978	$ 389,415
Subtotal - Delay Costs	-	**$ 12,009**	**$ 312,227**	-	**$ 14,978**	**$ 389,415**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 15,652			$ 38,984
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 60,528**	-	**$ 10,063**	**$ 196,196**
EMISSIONS						
Tons of ROG	0.07	$ 68	$ 1,063	0.07	$ 62	$966
Tons of NOX	0.20	$ 2,519	$ 39,354	0.19	$ 2,435	$38,043
Tons of PM10	0.0033	$ 324	$ 5,069	0.0026	$ 260	$4,055
Subtotal - Emissions Costs		**$ 2,912**	**$ 45,486**		**$ 2,757**	**$ 43,064**
INITIAL CAPITAL COSTS						
Construction Cost			$ 875,925			$ 599,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 167,000			$ 102,000
Right-of-Way			$ 139,000			$ -
Subtotal - Initial Capital Costs			**$ 1,181,925**			**$ 701,000**
NET PRESENT VALUE			**$ 2,244,395**			**$ 2,656,470**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$680,145
Delay Reduction Benefit of Roundabout	$77,188
Emission Reduction Benefit of Roundabout	-$2,422
Total Benefits	**$754,911**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$135,667
Added Capital Costs of a Roundabout	$480,925
Total Costs	**$345,258**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

2.19

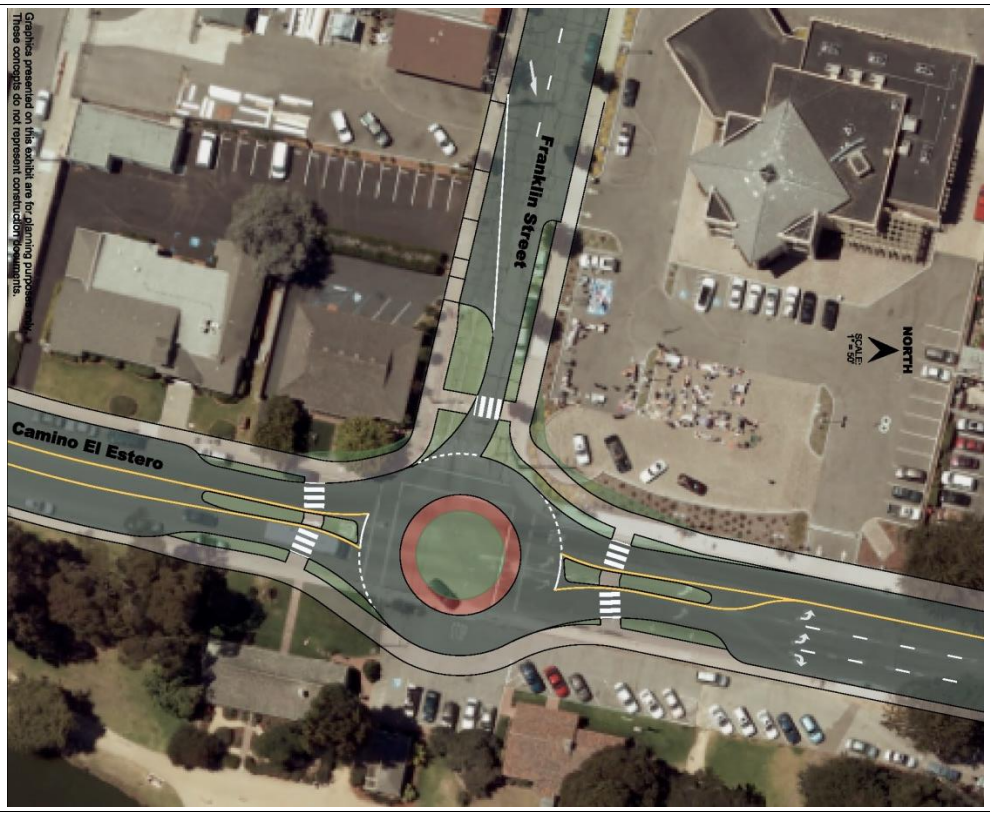
B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	94	121
Cost Per Pound Per Life	$245.06	$189.73
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$19,605**	**$15,178**

Intersection Improvement Alternatives

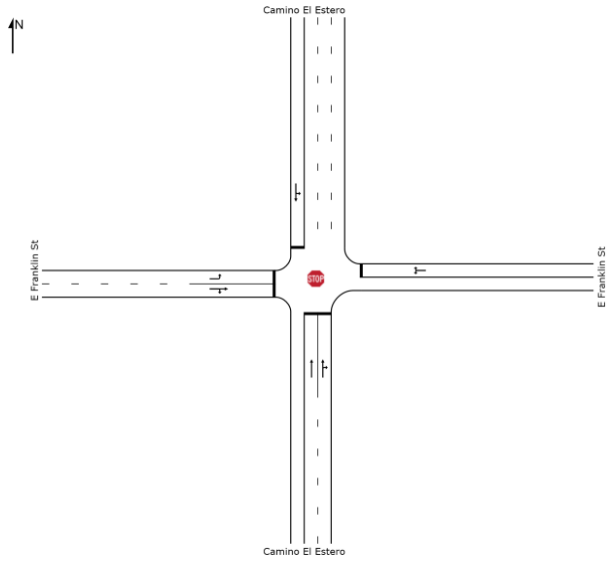
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

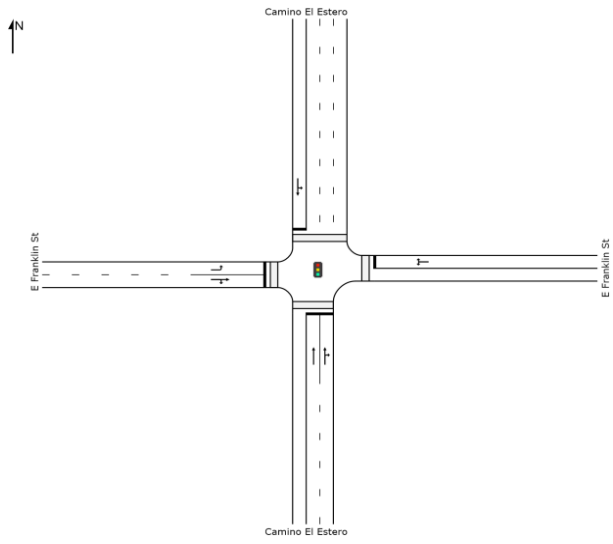


EXISTING INTERSECTION
ALL WAY STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	C	17.0	80 (EBL)
2040	-	-	-	C	18.7	148 (SBT)

NOTES:

1. AM data was not provided.

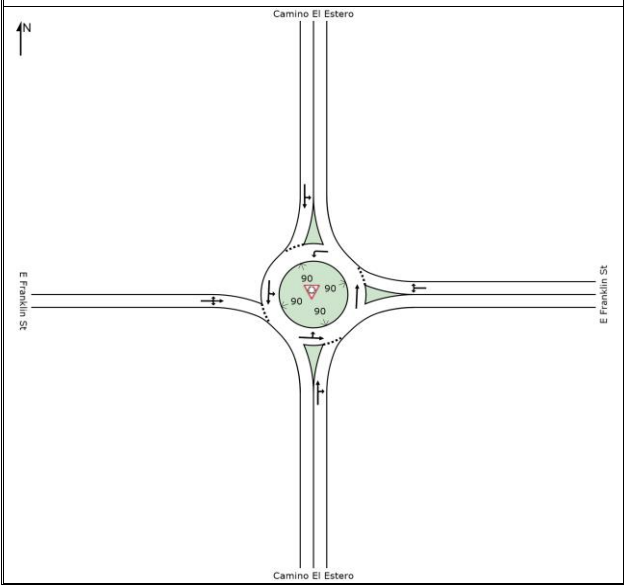


ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	B	10.3	164 (SB)
2040	-	-	-	B	10.7	174 (SBT)

NOTES:

1. AM data was not provided.



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	A	8.4	118 (EB)
2040	-	-	-	A	9.2	138 (EB)

NOTES:

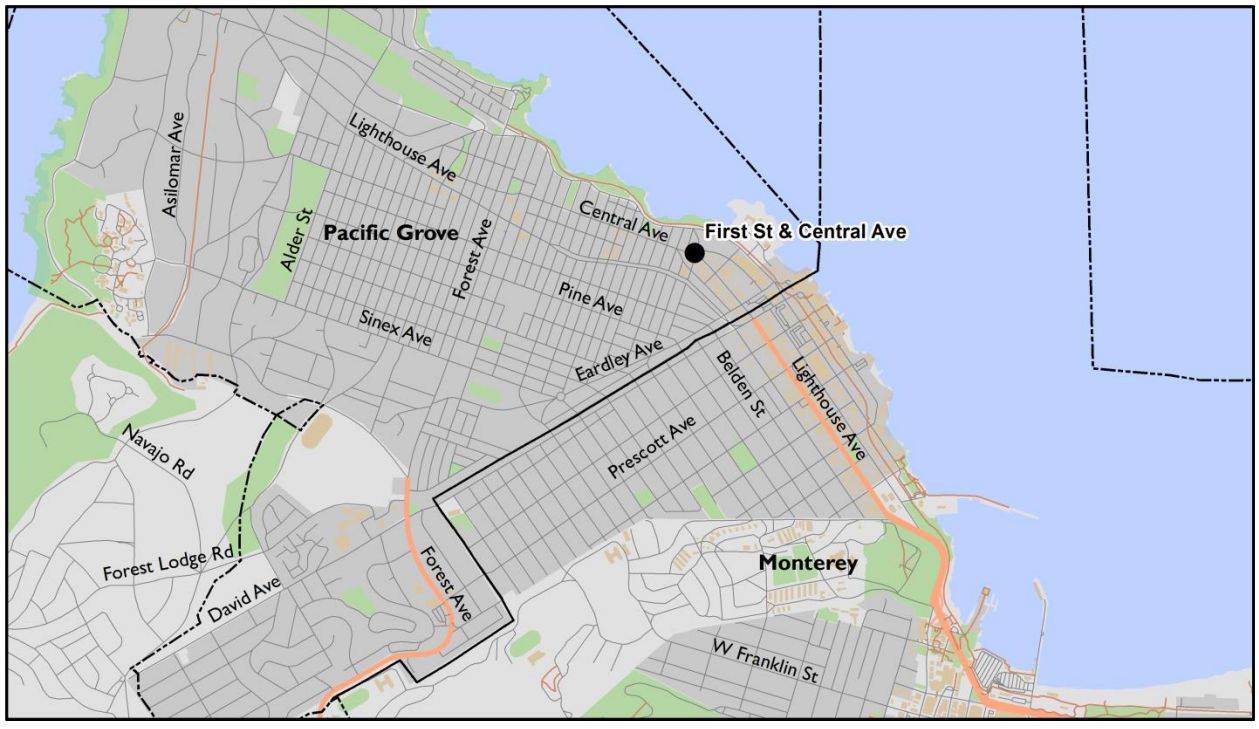
1. AM data was not provided.

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 7:

City of Pacific Grove

Study Intersections:

- FIRST STREET AT CENTRAL AVENUE



CITY OF PACIFIC GROVE SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
First Street at Central Avenue	PCG-01

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Pacific Grove jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Pacific Grove, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
First Street at Central Avenue	**0.95**	

SUMMARY OF KEY PERFORMANCE MEASURES

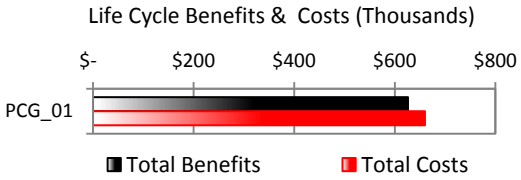
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



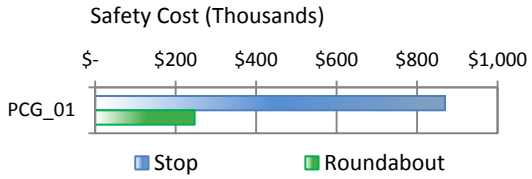
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

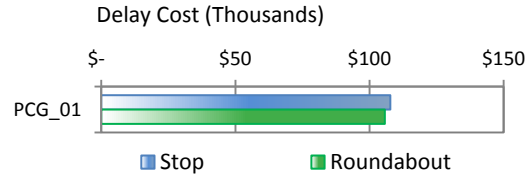


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
First Street at Central Avenue	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

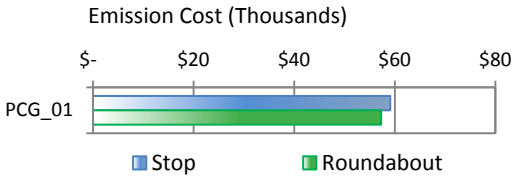


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
First Street at Central Avenue	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

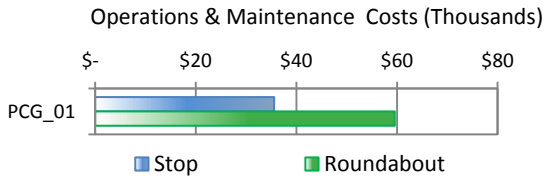
Emissions Study Intersection	Preferred Control
First Street at Central Avenue	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

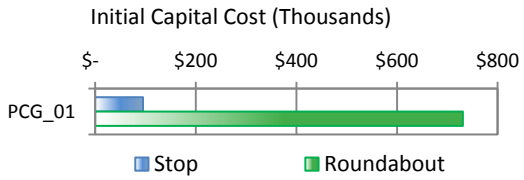


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
First Street at Central Avenue	STOP

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
First Street at Central Avenue	STOP

Summary of B/C Performance Measures

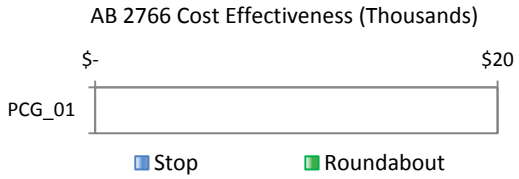
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
First Street at Central Avenue			STOP		STOP	STOP

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Pacific Grove.



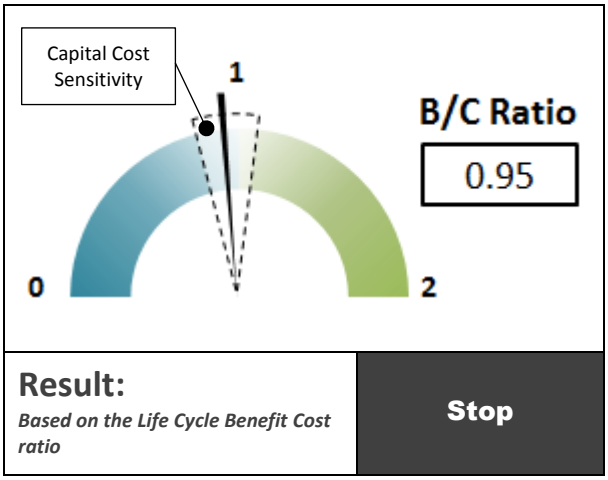
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
First Street at Central Avenue	NONE

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

FIRST STREET AT CENTRAL AVENUE



The Benefit Cost (B/C) ratio for this intersection is 0.95. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a stop.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 3.5 times higher than that of the roundabout. The cost of landscape maintenance was not included in the *Operations & Maintenance* calculation for the stop alternative. The total life cycle benefits of the roundabout are estimated at $630,000 when compared to a stop control.

Operationally, the roundabout and two-way stop control configurations are equally viable alternatives to serve forecast traffic. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number PCG-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

First Street at Central Avenue is controlled by stop signs on the minor approach.

Parcels in the immediate vicinity of the project are developed. The existing intersection is within City of Pacific Grove right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Right of Way constraint (all quadrants)
2. Intersection alignment / large open space
3. On-street parking (all legs)

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
First Street at Central Avenue	**First Street**	2 lane undivided with on street parking	Local	25	Serves residential uses Provides access to coastal recreation	No transit services provided	Sidewalk No crosswalk	No bike lanes provided
	Walnut Avenue	2 lane undivided with on street parking	Local	25	Serves residential, commercial/ retail uses	No transit services provided	Sidewalk No crosswalk	No bike lanes provided

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The study intersection is part of planned improvements on Central Avenue. The improvements at Central Avenue and First Street have been adopted as the stop control alternative for the intersection control evaluation.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Stop improvements	
Proposed Roundabout	

Design Year Traffic

Base year and design year traffic data was provided by the City. 2040 peak hour volumes were calculated using a 1% annual compound growth rate for all movements.

Two-Way Stop Control (Existing)

Demand is adequately served for the AM and PM peak hours under existing conditions.

Two-Way Stop Control with Traffic Calming

The proposed two-way stop control with traffic calming will provide the same capacity as the existing condition. Proposed improvements are targeted to reduce vehicle speeds on Central Avenue, improve intersection geometry, add pedestrian crosswalks, and reduce pedestrian crossing lengths at the intersection. Bike lanes and transit stops are not provided at this location therefore would not be impacted by the proposed traffic calming.

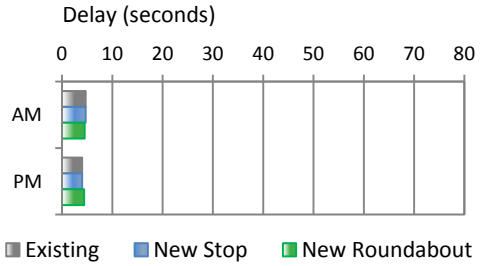
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures is forecast to operate with a similar amount of intersection delay as the two-way stop control alternative. The roundabout will provide pedestrian crossings on all legs and will have a traffic calming effect on all directions of travel. Bike lanes and transit stops are not provided at this location therefore would not be impacted by a one lane roundabout.

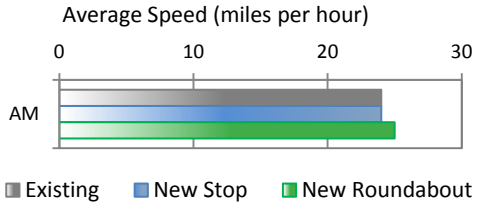
1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	STOP
Initial Capital Cost	STOP
Return on Investment	
Life Cycle B/C Ratio	STOP
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	NONE

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Preliminary engineering and additional site investigations.
-

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **PCG-01**
01/16

Intersection Cost Comparison

First Street at Central Avenue
Pacific Grove, California

Cost Performance Measure	Intersection Type					
	Roundabout			Two-Way Stop Control		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.07	$ 10,988	$ 171,651	0.34	$ 49,944	$ 780,234
Predicted PDO Crashes	0.47	$ 4,827	$ 75,405	0.56	$ 5,708	$ 89,176
Subtotal - Safety Costs	**-**	**$ 15,815**	**$ 247,056**	**-**	**$ 55,653**	**$ 869,409**
DELAY						
Delay to Persons in Vehicles (hours)	379	$ 4,066	$ 105,720	383	$ 4,145	$ 107,767
Subtotal - Delay Costs	-	**$ 4,066**	**$ 105,720**	-	**$ 4,145**	**$ 107,767**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ -	0
Cost of Power for Signal				-	$ -	0
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ -	0
Cost of Pavement Rehabilitation			$ 14,676			$ 26,483
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 59,553**	-	**$ 582**	**$ 35,572**
EMISSIONS						
Tons of ROG	0.08	$ 77	$ 1,196	0.08	$ 77	$1,196
Tons of NOX	0.25	$ 3,234	$ 50,519	0.26	$ 3,349	$52,323
Tons of PM10	0.0036	$ 357	$ 5,578	0.0036	$ 357	$5,578
Subtotal - Emissions Costs		**$ 3,667**	**$ 57,293**		**$ 3,783**	**$ 59,097**
INITIAL CAPITAL COSTS						
Construction Cost			$ 613,925			$ 75,000
Construction Cost - Structures			$ -			$ -
Capital Support			$ 117,000			$ 20,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 730,925**			**$ 95,000**
NET PRESENT VALUE			**$ 1,143,254**			**$ 1,107,748**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Two-Way Stop Control	
Safety Benefit of Roundabout	$622,353
Delay Reduction Benefit of Roundabout	$2,047
Emission Reduction Benefit of Roundabout	$1,804
Total Benefits	**$626,205**
COSTS - Roundabout compared to Two-Way Stop Control	
Added O&M Costs of a Roundabout	$23,982
Added Capital Costs of a Roundabout	$635,925
Total Costs	**$659,907**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

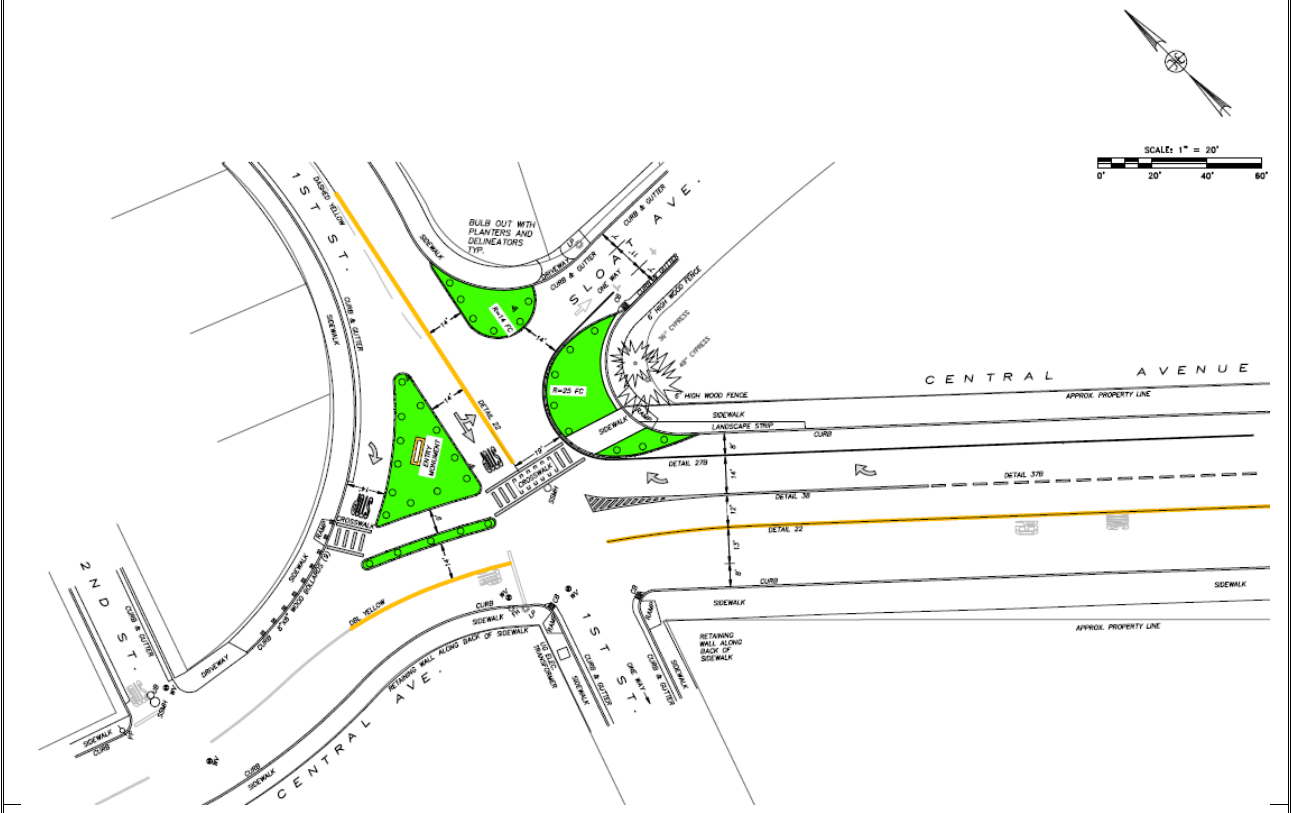
0.95

B/C Preferred: Roundabout Alternative

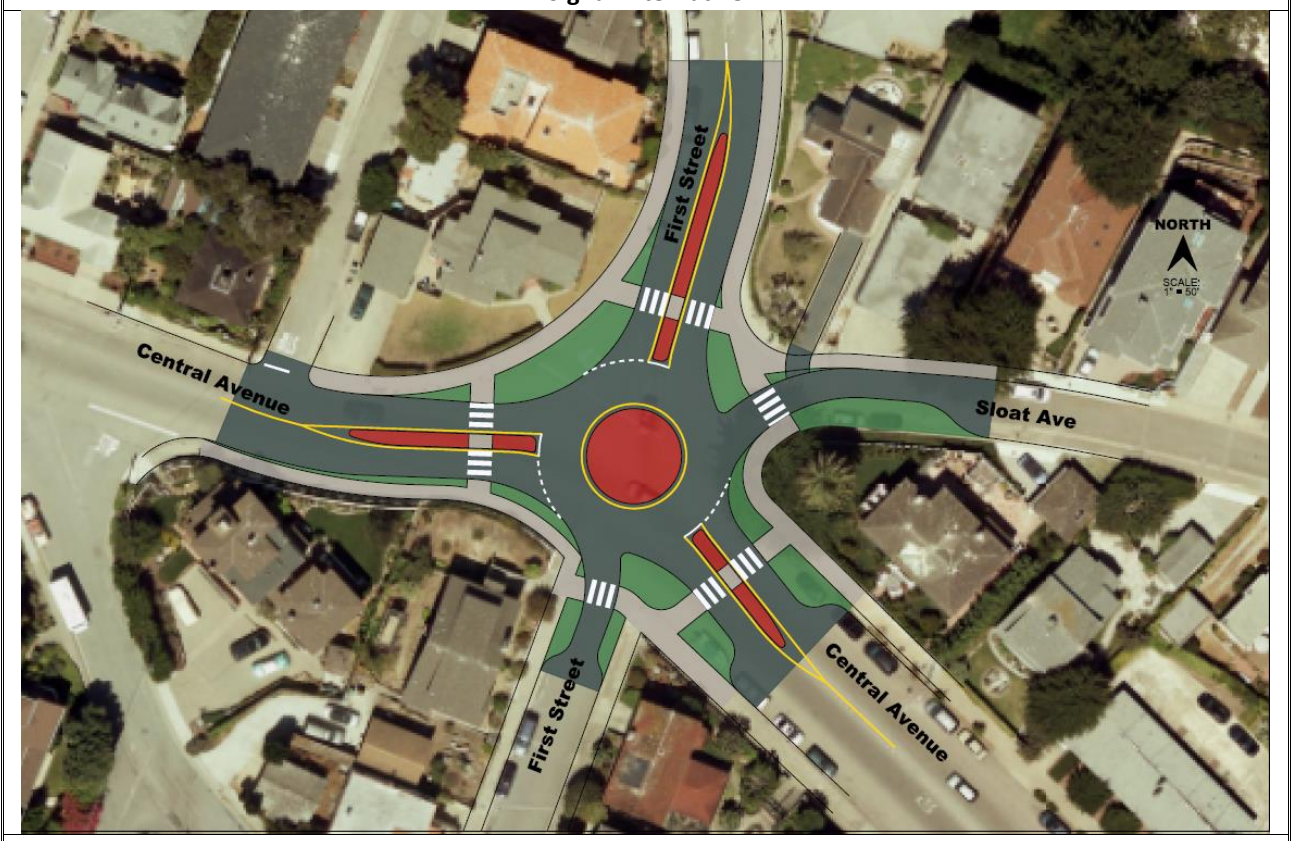
AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Two-Way Stop Control (vs. existing)**
Annual Emission Reduction (lb/year)	18	0
Cost Per Pound Per Life	$1,282.87	N/A - no emissions change
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$102,630**	**N/A - no emissions change**

Intersection Improvement Alternatives



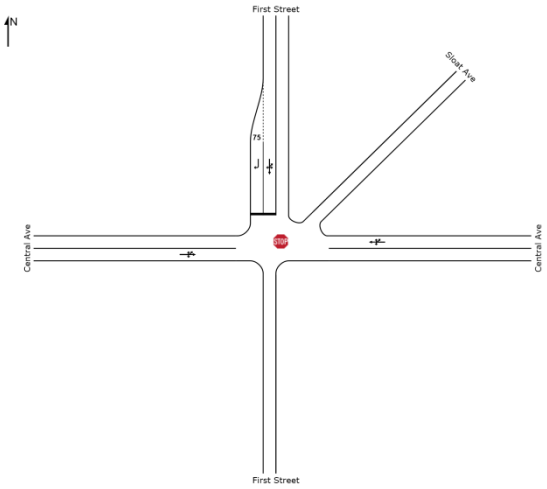
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

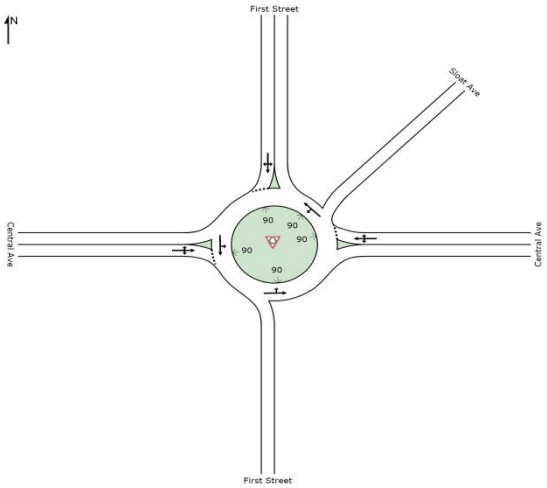


EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	9.3	0	A	9.4	25 (SBT)
2040	A	9.7	50 (EB)	A	9.8	50 (WB)

NOTES:

1. Intersection delay is reported for the worst movement.



ALTERNATIVE 1
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	4	25 (EB)	A	3.9	25 (WB)
2040	A	4.5	50 (EB)	A	4.4	50 (WB)

NOTES:

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 8:

City of Salinas

Study Intersections:

- WEST ALISAL STREET AT CAPITOL STREET
- EAST LAUREL DRIVE AT ST. EDWARDS STREET
- SHERWOOD DRIVE AT SHERWOOD PLACE

CITY OF SALINAS SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
East Alisal Street at Capitol Street	SAL-01
East Laurel Drive at St. Edwards Street	SAL-02
Sherwood Drive at Sherwood Place	SAL-03

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Salinas jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Salinas, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
East Alisal Street at Capitol Street	**1.58**	
East Laurel Drive at St. Edwards Street	**1.85**	
Sherwood Drive at Sherwood Place	**0.44**	

SUMMARY OF KEY PERFORMANCE MEASURES

As stated above, five performance metrics were evaluated at each study intersection to calculate the

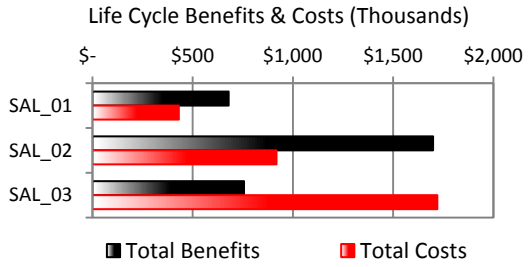
B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



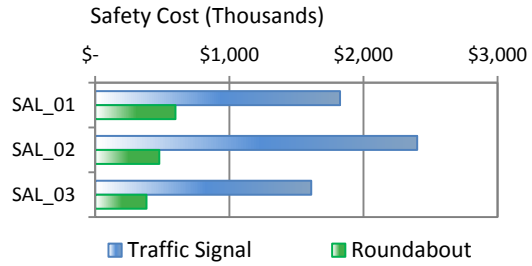
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

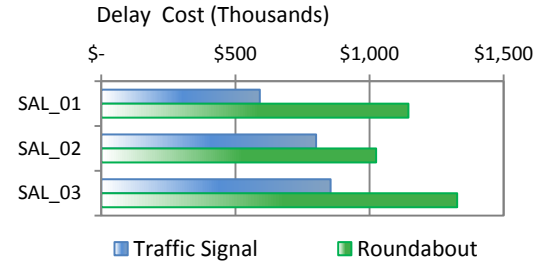


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety Study Intersection	**Preferred Control**
East Alisal Street at Capitol Street	
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

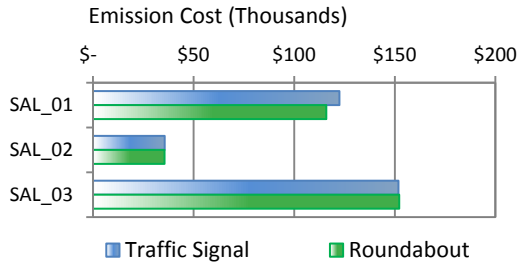


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay Study Intersection	Preferred Control
East Alisal Street at Capitol Street	
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

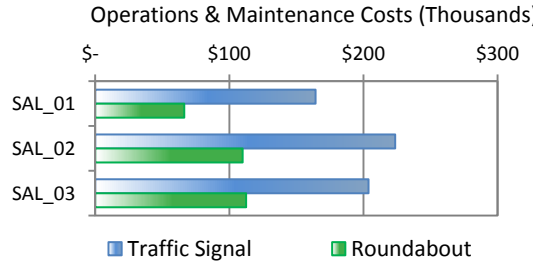
Emissions Study Intersection	Preferred Control
East Alisal Street at Capitol Street	
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

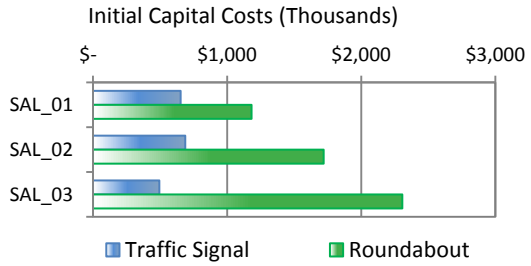


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
East Alisal Street at Capitol Street	
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
East Alisal Street at Capitol Street	
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	

Summary of B/C Performance Measures

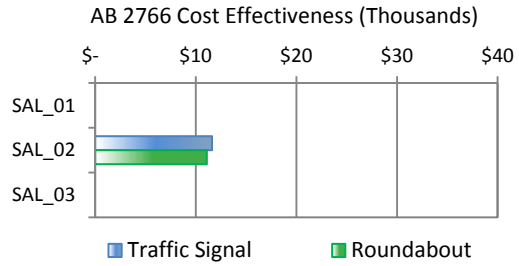
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	**Safety**	**Delay**	**Ops. & Maint.**	**Emission**	**Capital Cost**	**B/C**
East Alisal Street at Capitol Street						
East Laurel Drive at St. Edwards Street						
Sherwood Drive at Sherwood Place						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Salinas.



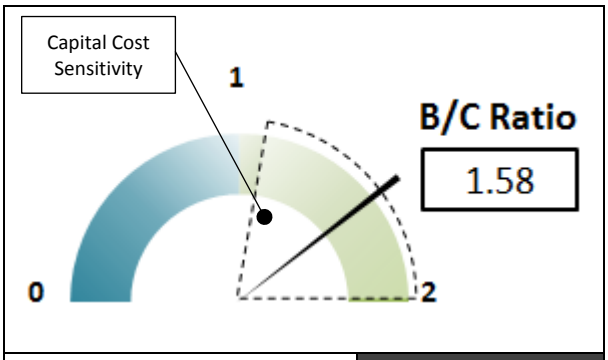
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness **Study Intersection**	**Preferred Control**
East Alisal Street at Capitol Street	NONE
East Laurel Drive at St. Edwards Street	
Sherwood Drive at Sherwood Place	NONE

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are equal to or greater than existing and do not provide a benefit.

WEST ALISAL STREET AT CAPITOL STREET



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for West Alisal Street at Capitol Street is 1.58. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $1,400,000.

Noteworthy performance measures driving the B/C ratio are *safety and delay.* The estimated safety costs of the signal are 3 times higher than that of the roundabout. The estimated delay costs of the signal are 3 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $680,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $6,500 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic and will provide improved operations compared to the existing stop control. The existing stop control, or no project alternative, experiences significant delay on the minor street approaches and will continue to degrade as forecast demand exceeds capacity. The signal control alternative will provide improved operations compared to the existing stop control and the proposed roundabout control. However, as travel demand increases, vehicle queuing may affect operations at Riker Street to the west and Cayuga Street to the east for the signal and roundabout alternatives. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2035 design year. The year 2015 was assumed for the baseline "build" condition for a total 20 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number SAL-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
West Alisal Street at Capitol Street	**West Alisal Street (City of Salinas)**	4 lane undivided with on street parking	Local	25	Serves residential, business, institutional & commercial land uses	Service provided by Monterey-Salinas Transit lines 23, 25, & 82	Sidewalks Crosswalk on westerly leg (school crossing)	No bike lanes provided
	Capitol Street (City of Salinas)	2 lane undivided with on street parking	Local	25	Serves residential, business, institutional & commercial land uses	No transit services provided	Sidewalks Crosswalk on northerly leg (school crossing)	No bike lanes provided

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

West Alisal Street at Capitol Street is controlled by stop signs on the minor approach.

Parcels west of Capitol Street are developed with structures located near the existing back of sidewalk. Parcels east of Capitol Street are developed as surface parking lots. The existing intersection is within the City of Salinas right of way.

Existing design constraints at the study intersection include (see map for locations):

1. Single family residential
2. Multi-family residential
3. Visitor parking lot (Monterey County)
4. County permitted parking lot
5. Salinas Fire Department Station 1

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The West Alisal Street at Capital Street intersection is located within the Salinas Downtown Vibrancy Plan and the Marina-Salinas Multimodal Corridor Conceptual Plan.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop (Capitol Street)	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for the 2013 AM/PM peak hour and the 2035 AM/PM peak hour volumes were provided by the City of Salinas. 2015 volumes were assumed to be equal to 2013 peak hour volumes.

Stop Control (Existing)

With stop control, demand exceeds capacity for the AM peak hour under existing conditions. Northbound Capitol Street vehicles experience significant delay

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

while trying to cross or turn onto West Alisal Street. As demand increases to forecast 2035 peak hour volumes, southbound and northbound Capitol Street delay will continue to increase, resulting in failing operations. Additional capacity required to improve and maintain stop control operations is not feasible based on forecast demand.

Signal Control

With proposed signal control, West Alisal Street will be reduced to a single through, left-turn, and right-turn lane in each direction. Capitol Street approach and departure lanes will remain the same as existing. Vehicle demand will be adequately served for both peak periods under existing and future design years. However, vehicle queues on West Alisal Street are expected to extend beyond Riker Street and Cayuga Street.

The reduction in lanes will decrease crossing distance and reduce overall cycle length for the intersection. Bike lanes and transit stops are not provided at the intersection therefore signalization will not impact either facility.

Roundabout Control

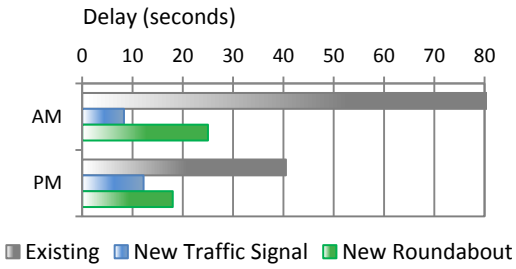
With roundabout control, a single lane roundabout with single lane approaches and departures will provide adequate capacity for both peak periods under existing and future design years. However, vehicle queues on West Alisal Street are expected to extend beyond Riker Street and Cayuga Street.

The proposed single lane roundabout will reduce the number of lanes pedestrians will cross at the intersection.

Crossing distances will be significantly reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes and transit stops are not provided at the intersection therefore the roundabout alternative will not impact either facility.

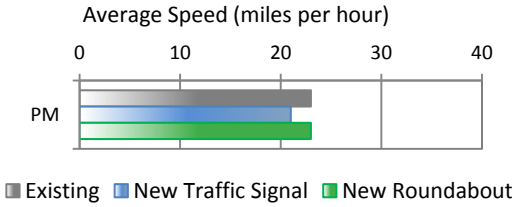
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	NONE

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- AM peak hour traffic data.
- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering, topographic survey of bridge and northwest quadrant, and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SAL-01**
01/16

Intersection Cost Comparison

West Alisal Street at Capitol Street
Salinas, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.21	$ 31,479	$ 427,811	0.80	$ 118,482	$ 1,610,206
Predicted PDO Crashes	1.23	$ 12,548	$ 170,532	1.55	$ 15,825	$ 215,067
Subtotal - Safety Costs	**-**	**$ 44,027**	**$ 598,343**	**-**	**$ 134,307**	**$ 1,825,273**
DELAY						
Delay to Persons in Vehicles (hours)	4919	$ 54,527	$ 1,145,077	2503	$ 28,149	$ 591,124
Subtotal - Delay Costs	-	**$ 54,527**	**$ 1,145,077**	-	**$ 28,149**	**$ 591,124**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 100	1,359
Cost of Power for Signal				-	$ 720	9,785
Cost of Illumination	6	$ 873	$ 11,859	4	$ 582	7,906
Cost of Landscaping Maintenance	-	$ 2,000	$ 27,181			
Cost of Signal Maintenance				-	$ 8,000	108,723
Cost of Pavement Rehabilitation			$ 27,349			$ 36,511
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 66,389**	-	**$ 9,402**	**$ 164,284**
EMISSIONS						
Tons of ROG	0.20	$ 191	$ 2,601	0.22	$ 211	$2,861
Tons of NOX	0.58	$ 7,537	$ 102,435	0.60	$ 7,797	$105,967
Tons of PM10	0.0081	$ 804	$ 10,920	0.0101	$ 1,004	$13,650
Subtotal - Emissions Costs		**$ 8,532**	**$ 115,956**		**$ 9,012**	**$ 122,478**
INITIAL CAPITAL COSTS						
Construction Cost			$ 992,975			$ 548,200
Construction Cost - Structures			$ -			$ -
Capital Support			$ 189,000			$ 105,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,181,975**			**$ 653,200**
NET PRESENT VALUE			**$ 2,991,784**			**$ 3,233,880**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,226,930
Delay Reduction Benefit of Roundabout	-$553,953
Emission Reduction Benefit of Roundabout	$6,522
Total Benefits	**$679,499**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$97,895
Added Capital Costs of a Roundabout	$528,775
Total Costs	**$430,880**

LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO

1.58

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	0	Emissions increase
Cost Per Pound Per Life	N/A - No emissions change	Emissions increase
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**N/A - No emissions change**	**Emissions increase**

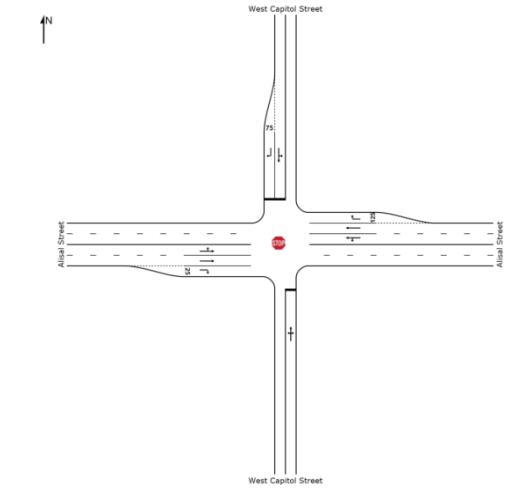
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

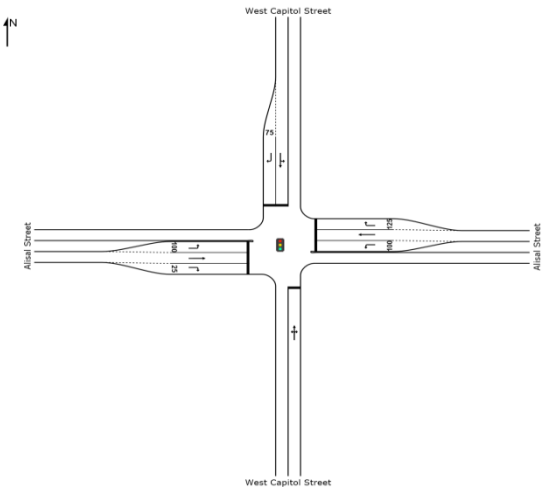


EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	E	40.2	53 (SBT)	C	24.8	58 (SBT)
2035	F	1147	243 (SBT)	F	350	255 (SBT)

NOTES:

1. AM data was not provided.

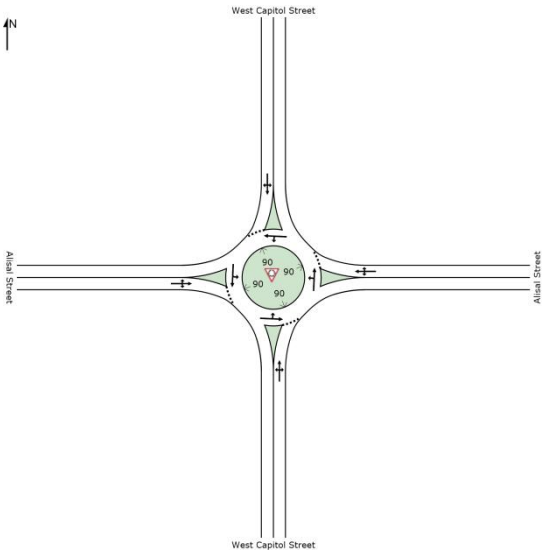


ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	A	5.0	121 (EBT)	A	5.9	144 (EBT)
2035	A	8.3	302 (EBT)	B	12.2	#464 (WBT)

NOTES:

1. EBL queue exceed available storage during 2035 AM peak.
2. EBT and WBT queues will exceed available storage during 2035 PM peak.



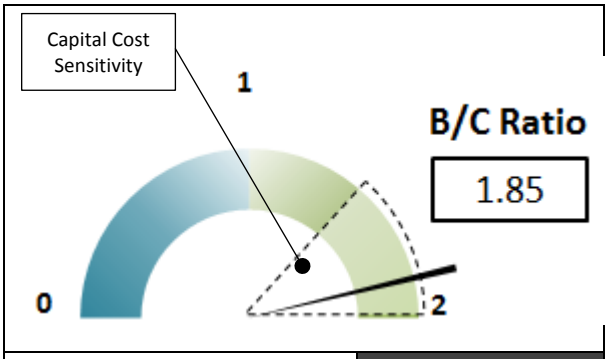
ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2013	A	9.2	144 (EB)	A	8.4	120 (EB)
2035	C	25.0	558 (EB)	C	18.0	354 (EB)

NOTES:

1. EB and WB queues will exceed available storage during 2035 AM and PM peak.

EAST LAUREL DRIVE AT ST. EDWARDS STREET



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for East Laurel Drive at St. Edwards Street is 1.85. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection may be sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control may change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would reduce to 1.00 if initial capital costs for the construction of the roundabout exceed $2,500,000.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are 5 times higher than the estimated safety costs of the roundabout.

The total life cycle benefits of the roundabout are estimated at $1,700,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $6,500 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, both the roundabout and the signal alternatives are expected to improve intersection performance for existing and forecast traffic demand during peak AM and PM design year conditions. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number SAL-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

East Laurel Drive at St. Edwards Street is controlled by a side-stop on St. Edwards Street.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
East Laurel Drive at St. Edwards Street	**East Laurel Drive (City of Salinas)**	4-lane divided	Local	45	Serves residential, recreational, and agricultural land uses.	Service provided by Monterey-Salinas Transit Line 42. Stops located at intersection.	Sidewalk along west side, south of St. Edwards Street. No crosswalks.	Class II lanes north of St Edwards Street.
	St. Edwards Street (City of Salinas)	2-lane undivided	Local	25	Serves residential land uses.	No transit services provided.	Sidewalks are provided. No crosswalk.	None.

The southwest and southeast parcels are developed with residential structures. The easterly parcel is undeveloped, wooded, and provides an approximate 50 foot buffer to multi-unit residential structures that are accessible via North Sanborn Road.

The intersection is located in a cut-slope with westerly parcels approximately 10 feet above East Laurel Drive. Easterly parcels are approximately eight feet below East Laurel Drive.

The existing intersection is within the City of Salinas right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Single family residential
2. Undeveloped parcel (City of Salinas – to be verified)
3. Embankment
4. Transit stop

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

No planned improvements were identified.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop (St. Edwards Street)	
Proposed Road Improvements	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 AM and PM peak hour volumes was provided by the City. 2040 AM and PM peak hour volumes were calculated using a 2% annual compound growth rate for all movements.

Stop Control (Existing)

With stop control, demand exceeds capacity for both peak hours under existing conditions. Eastbound St. Edwards Street vehicles experience significant delay while trying to turn left onto East Laurel Drive. Additional capacity required to improve and maintain stop control operations is not feasible.

Signal Control

With proposed signal control, additional lanes are not required to achieve acceptable design year operations.

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

The existing northbound acceleration lane on East Laurel Drive would be removed and replaced with raised median and a pedestrian refuge.

The proposed signal is expected to improve intersection performance and provide sufficient capacity for both peak hours under future design year conditions.

Crosswalks are currently not stripped at the intersection. Crosswalks with the signal will provide safer movement for pedestrians. Bike lanes along East Laurel Drive will not be affected by signalization. Access to transit stops can be maintained with signalization.

Roundabout Control

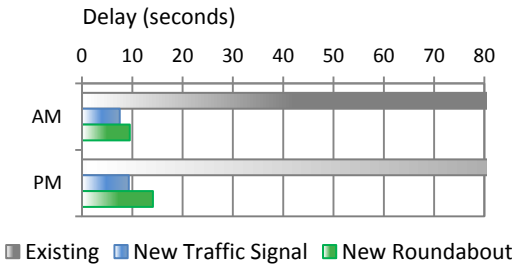
With roundabout control, a multi lane roundabout with two approach and departure lanes on East Laurel Drive, and a single approach and departure lane on St. Edwards Street will be required to serve forecast traffic. Pedestrian crossings with refuges are provided on each leg. Transit stops are improved, but shifted away from the intersection.

The proposed roundabout is expected to improve intersection performance and provide sufficient capacity for both peak hours under future design year conditions.

Crosswalks will be stripped as none are currently provided and provide midway refuge areas. Bike lanes along East Laurel Drive can be maintained with the proposed roundabout. Access to transit stops can be maintained with the proposed roundabout.

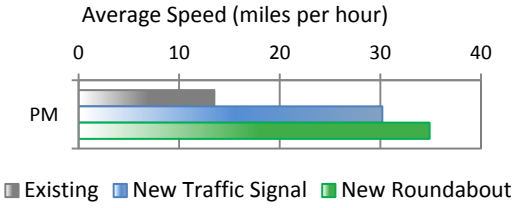
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Preliminary engineering with topographic and boundary surveys.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SAL-02**
01/16

Intersection Cost Comparison

East Laurel Drive at St. Edwards Street
Salinas, CA

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.12	$ 17,813	$ 278,276	0.92	$ 136,062	$ 2,125,570
Predicted PDO Crashes	1.25	$ 12,766	$ 199,434	1.73	$ 17,600	$ 274,943
Subtotal - Safety Costs	**-**	**$ 30,579**	**$ 477,710**	**-**	**$ 153,662**	**$ 2,400,514**
DELAY						
Delay to Persons in Vehicles (hours)	3905	$ 39,410	$ 1,024,664	2985	$ 30,804	$ 800,891
Subtotal - Delay Costs	-	**$ 39,410**	**$ 1,024,664**	-	**$ 30,804**	**$ 800,891**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 100	1,562
Cost of Power for Signal				-	$ 720	11,248
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 8,000	124,977
Cost of Pavement Rehabilitation			$ 65,036			$ 76,777
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 109,912**	-	**$ 9,402**	**$ 223,652**
EMISSIONS						
Tons of ROG	0.05	$ 46	$ 719	0.05	$ 51	$799
Tons of NOX	0.16	$ 2,015	$ 31,473	0.16	$ 2,015	$31,473
Tons of PM10	0.0022	$ 215	$ 3,355	0.0022	$ 215	$3,355
Subtotal - Emissions Costs		**$ 2,275**	**$ 35,548**		**$ 2,281**	**$ 35,628**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,318,620			$ 577,755
Construction Cost - Structures			$ 126,000			$ -
Capital Support			$ 275,000			$ 110,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,719,620**			**$ 687,755**
NET PRESENT VALUE			**$ 3,331,906**			**$ 4,112,812**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,922,804
Delay Reduction Benefit of Roundabout	-$223,773
Emission Reduction Benefit of Roundabout	$80
Total Benefits	**$1,699,111**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$113,740
Added Capital Costs of a Roundabout	$1,031,865
Total Costs	**$918,125**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

1.85

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	242	232
Cost Per Pound Per Life	$110.94	$116.10
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$11,094**	**$11,610**

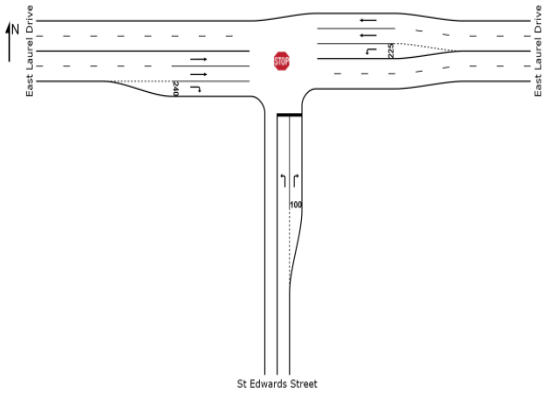
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

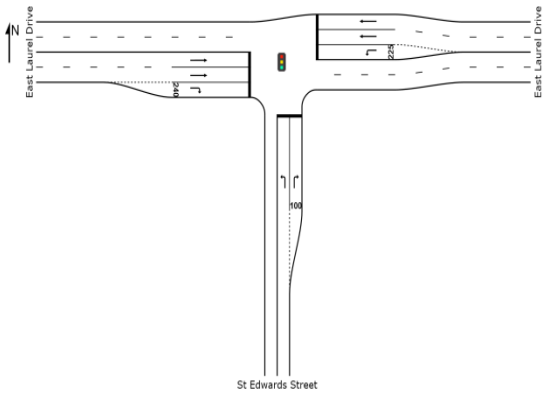
Intersection Control Alternative Summary



EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	E	45.9	88 (NBL)	F	168.9	188 (NBL)
2040	F	1014.9	460 (NBL)	F	3510.0	598 (NBL)

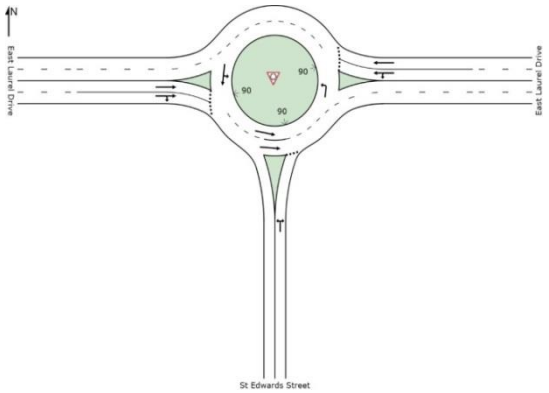
NOTES:



ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	5.8	127 (EBT)	A	6.1	168 (EBT)
2040	A	7.5	280 (EBT)	A	9.3	#470 (EBT)

NOTES:

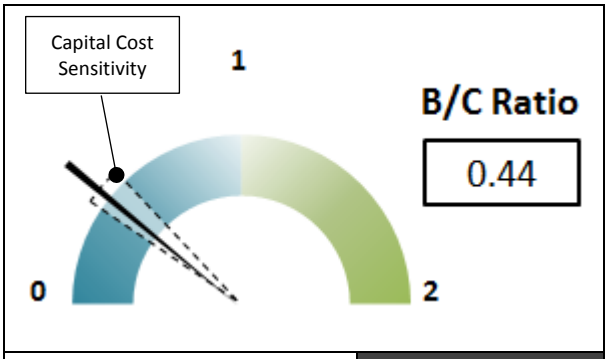


ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	5.6	49 (EB)	A	6.8	73 (EB)
2040	A	9.5	113 (EB)	B	14.1	206 (EB)

NOTES:

SHERWOOD DRIVE AT SHERWOOD PLACE



Result:
Based on the Life Cycle Benefit Cost ratio

Signal

The Benefit Cost (B/C) ratio for Sherwood Drive at Sherwood Place is 0.44. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Signal.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design. The B/C ratio would increase to 1.00 if initial capital costs for the construction of the roundabout do not exceed $1,340,000.

Safety is a notable performance metric driving the B/C Ratio. The estimated safety costs of the signal are over 4 times higher than that of the roundabout.

The total life cycle benefits of the roundabout are estimated at $760,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $6,500 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, both the roundabout and signal alternatives are expected to improve overall intersection operations. Compared to the roundabout alternative, the signal alternative is expected to provide superior operations during the forecast 2030 PM peak period.

The intersection evaluation was based on traffic operations for the 2030 design year. The year 2015 was assumed for the baseline "build" condition for a total 15 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number SAL-03 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Sherwood Drive at Sherwood Place intersection is controlled by a stop sign on Sherwood Place.

All parcels, except for the southeasterly parcel, are currently used for agriculture. The southeasterly parcel is a developed parking lot for Mt. Toro High School. The existing intersection is within the City of Salinas right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Sherwood Drive at Sherwood Place	**Sherwood Drive (City of Salinas)**	4 lane divided (two-way-left-turn-lane)	Local	45	Serves residential, institutional, industrial, & agricultural land uses	Service provided by Monterey-Salinas Transit Line 48 Transit stop at intersection.	Sidewalks are provided No crosswalks	Class II bike lanes
	Sherwood Place (City of Salinas)	2 lane undivided	Local	25	Serves institutional & agricultural land uses	No transit services provided.	Sidewalks on south side No crosswalk	No bike lanes provided

Existing design constraints and considerations identified by the City at the study intersection include (see map for locations):

1. Agriculture field
2. Mt. Toro High School
3. Pump station
4. Transit stop

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

No planned improvements were identified.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop (Sherwood Place)	
Proposed Signal Modification	
Proposed Roundabout	

Design Year Traffic

Base year 2014 and design year 2030 traffic data was provided by the City in the *Haciendas Phase III/IV Traffic Impact Analysis*, dated April 8, 2014, and prepared by Hatch Mott MacDonald. 2015 volumes were assumed to be equal to 2014 peak hour volumes.

Stop Control (Existing)

With stop control, demand is adequately served for both peak hours under existing conditions. Operations are expected to degrade as traffic increases towards 2030 forecasts. In 2030, demand is expected to exceed capacity. Westbound Sherwood Place vehicles are expected to experience significant delay while trying to turn left onto Sherwood Drive during both peak periods. Southbound Sherwood Drive left turning vehicles are expected to experience significant delay in the PM peak period. Additional capacity required to improve and maintain stop control operations is not feasible.

Signal Control

The proposed signal is expected to improve intersection performance and provide sufficient capacity for both peak hours under future design year conditions. The number of approach and departure lanes is expected to remain the same as existing.

Crosswalks are currently not stripped at the intersection. Crosswalks with the signal will provide safer movement for pedestrians. Bike lanes along

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Sherwood Drive will not be affected by signalization. Access to transit stops can be maintained with signalization.

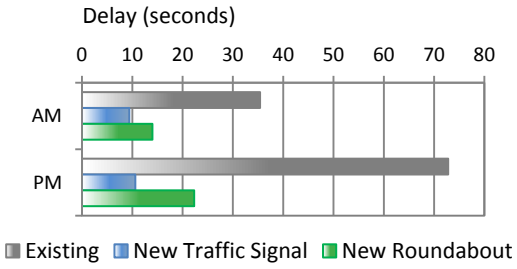
Roundabout Control

With roundabout control, a multi lane roundabout with two approach and departure lanes on Sherwood Drive, two approach lanes and a departure lane on Sherwood Place will be required to serve forecast traffic. Pedestrian crossings with refuges are provided on each leg. Consideration should be given to relocating the transit stop to the departure side of the roundabout, north of Sherwood Place.

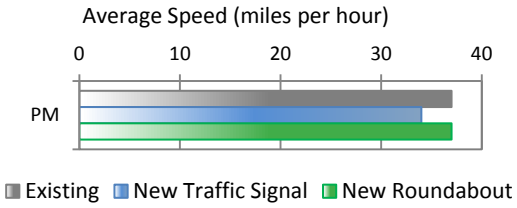
The proposed roundabout is expected to improve intersection performance and provide sufficient capacity for both peak hours under future design year conditions.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Preliminary engineering and additional site investigations
- Evaluation of pump station
- Development or extension of Sherwood Place west of Sherwood Drive.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SAL-03**
01/16

Intersection Cost Comparison

Sherwood Drive at Sherwood Place
Salinas, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.16	$ 24,183	$ 268,875	0.88	$ 129,391	$ 1,438,625
Predicted PDO Crashes	1.00	$ 10,206	$ 113,474	1.52	$ 15,463	$ 171,929
Subtotal - Safety Costs	**-**	**$ 34,389**	**$ 382,349**	**-**	**$ 144,855**	**$ 1,610,553**
DELAY						
Delay to Persons in Vehicles (hours)	6689	$ 82,925	$ 1,326,805	4216	$ 53,437	$ 854,999
Subtotal - Delay Costs	-	**$ 82,925**	**$ 1,326,805**	-	**$ 53,437**	**$ 854,999**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 100	1,112
Cost of Power for Signal				-	$ 720	8,005
Cost of Illumination	6	$ 873	$ 9,702	4	$ 582	6,468
Cost of Landscaping Maintenance	-	$ 2,000	$ 22,237			
Cost of Signal Maintenance				-	$ 8,000	88,947
Cost of Pavement Rehabilitation			$ 80,569			$ 99,240
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 112,508**	-	**$ 9,402**	**$ 203,772**
EMISSIONS						
Tons of ROG	0.26	$ 245	$ 2,721	0.22	$ 210	$2,332
Tons of NOX	0.96	$ 12,344	$ 137,246	0.96	$ 12,344	$137,246
Tons of PM10	0.0110	$ 1,101	$ 12,239	0.0110	$ 1,101	$12,239
Subtotal - Emissions Costs		**$ 13,690**	**$ 152,206**		**$ 13,655**	**$ 151,818**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,558,045			$ 415,545
Construction Cost - Structures			$ -			$ -
Capital Support			$ 297,000			$ 79,000
Right-of-Way			$ 451,000			$ -
Subtotal - Initial Capital Costs			**$ 2,306,045**			**$ 494,545**
NET PRESENT VALUE			**$ 4,127,707**			**$ 3,163,869**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,228,204
Delay Reduction Benefit of Roundabout	-$471,806
Emission Reduction Benefit of Roundabout	-$389
Total Benefits	**$756,009**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$91,264
Added Capital Costs of a Roundabout	$1,811,500
Total Costs	**$1,720,236**

LIFE CYCLE (15 YEAR) BENEFIT/COST RATIO

0.44

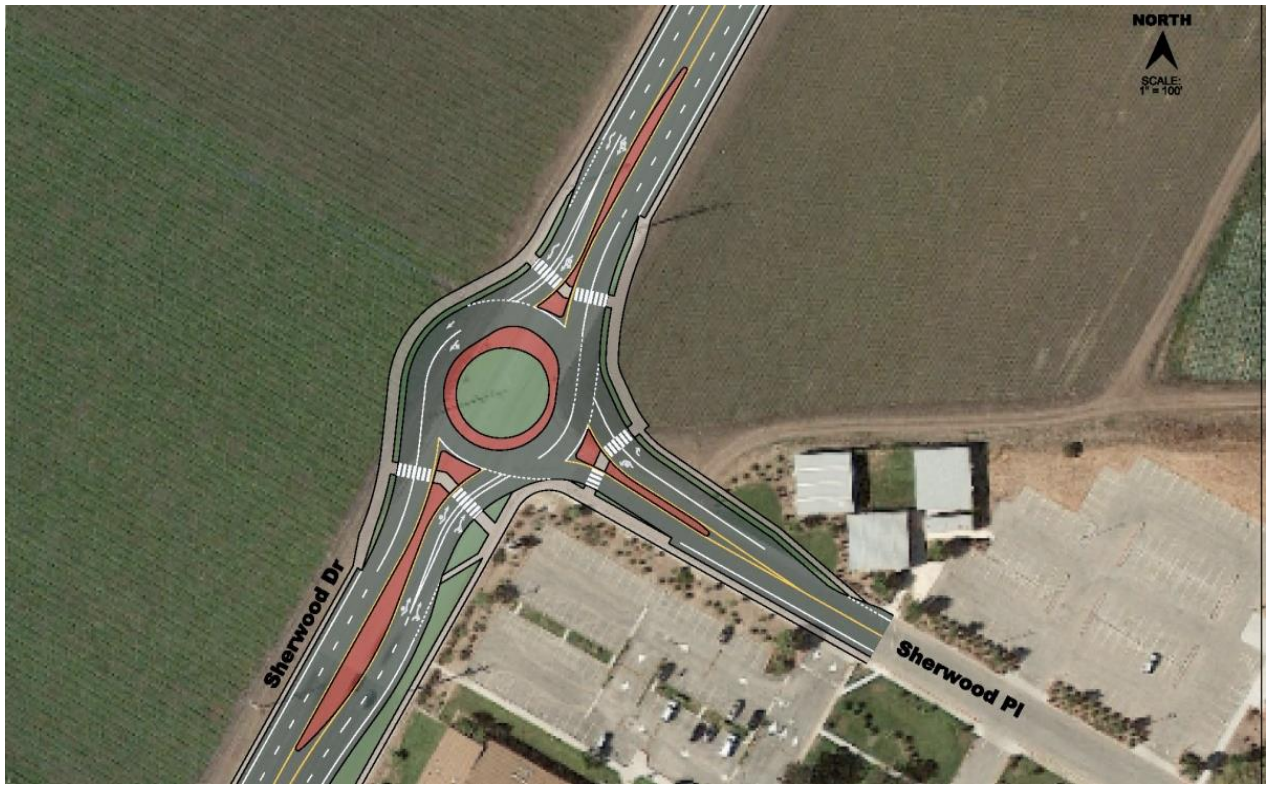
B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	Emissions increase	0
Cost Per Pound Per Life	Emissions increase	N/A - No emissions change
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**Emissions increase**	**N/A - No emissions change**

Intersection Improvement Alternatives

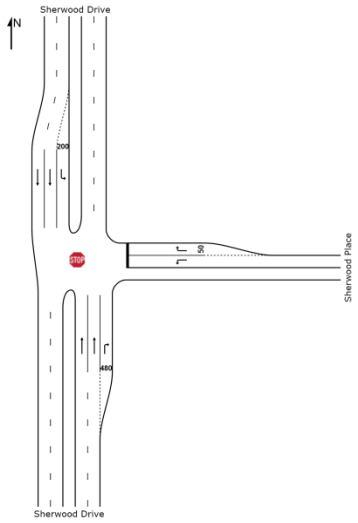
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

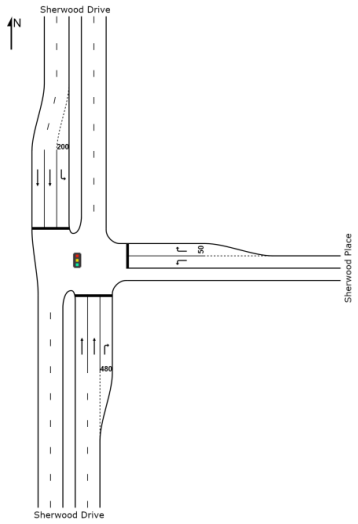
Intersection Control Alternative Summary



EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	C	18.8	23 (WBL)	D	27.5	15 (WBL)
2030	E	35.4	43 (WBL)	F	72.8	88 (WBL)

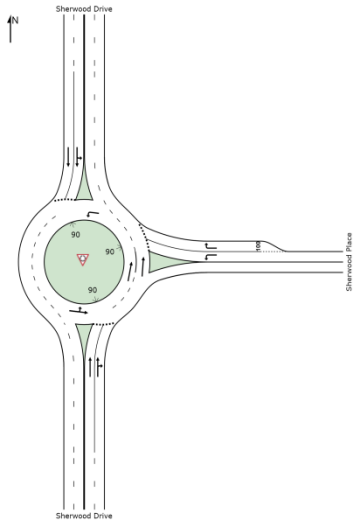
NOTES:



ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	7.9	#138 (SBL)	A	7.0	287 (NBT)
2030	A	9.4	287 (SBT)	B	10.6	705 (NBT)

NOTES:



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2014	A	7.9	126 (SB)	A	9.1	157 (NB)
2030	B	14.0	391 (SB)	C	22.3	747 (NB)

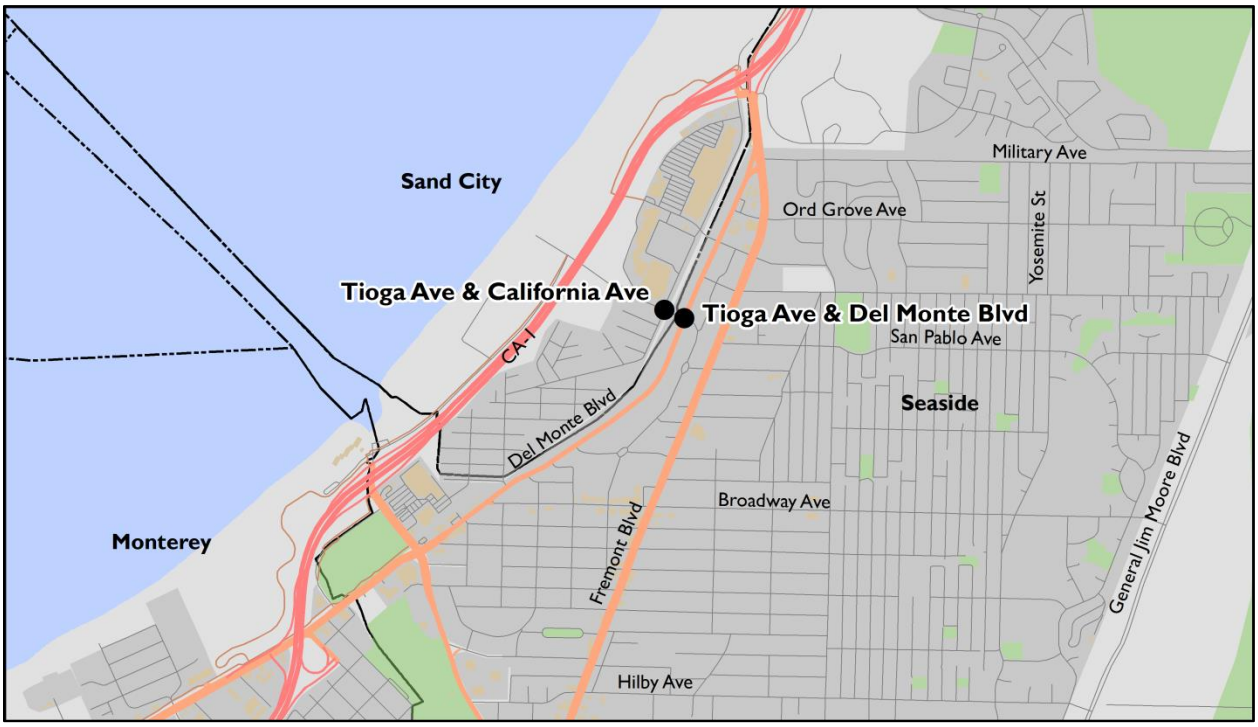
NOTES:

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 9:

Sand City

Study Intersections:

- TIOGA AVENUE AT CALIFORNIA AVENUE
- TIOGA AVENUE AT DEL MONTE BOULEVARD



SAND CITY SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Tioga Avenue at California Avenue	SCY-01
Tioga Avenue at Del Monte Boulevard	SCY-02

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under Sand City jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the Sand City, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Tioga Avenue at California Avenue	**1.33**	
Tioga Avenue at Del Monte Boulevard	**0.69**	

SUMMARY OF KEY PERFORMANCE MEASURES

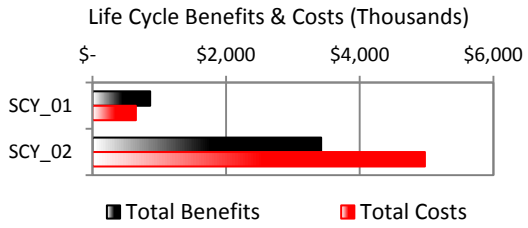
As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



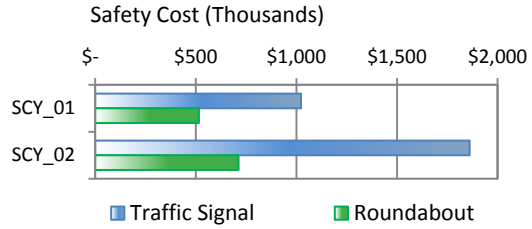
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

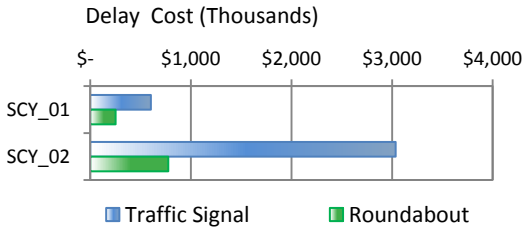


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

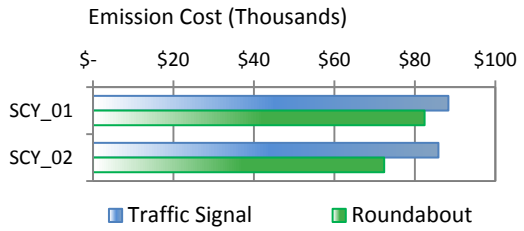


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

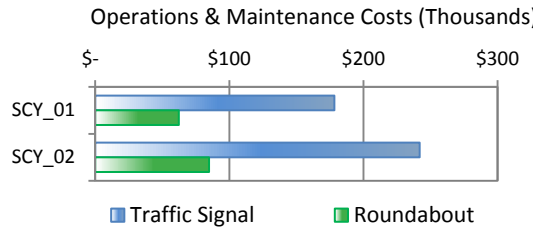
Emissions **Study Intersection**	**Preferred Control**
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

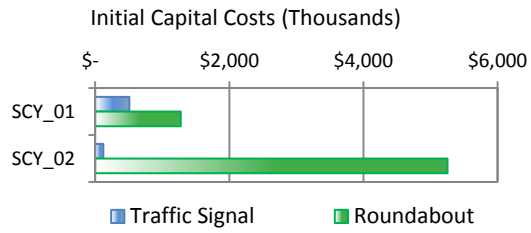


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance **Study Intersection**	**Preferred Control**
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

Summary of B/C Performance Measures

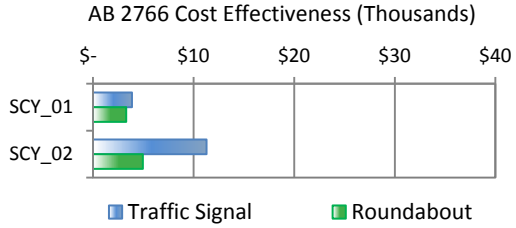
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	**Safety**	**Delay**	**Ops. & Maint.**	**Emission**	**Capital Cost**	**B/C**
Tioga Avenue at California Avenue						
Tioga Avenue at Del Monte Boulevard						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and Sand City.

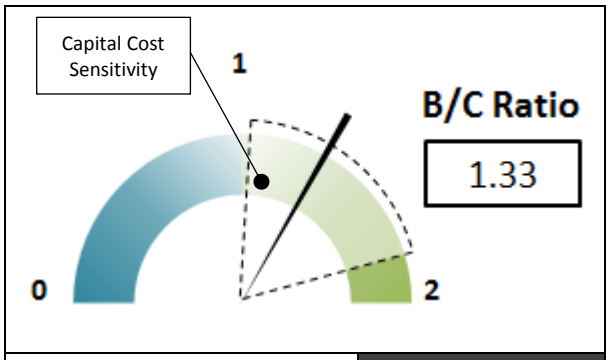


Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
Tioga Avenue at California Avenue	
Tioga Avenue at Del Monte Boulevard	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

TIOGA AVENUE AT CALIFORNIA AVENUE



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) Ratio for this intersection is 1.33. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C Ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C Ratio's sensitivity to estimated capital costs, the preferred intersection control type is may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

The total life cycle benefits of the roundabout are estimated at $860,000 when compared to a traffic signal..

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, is at capacity with westbound queues exceeding available storage during the pm peak hour. Queues are expected to increase over time with delay degrading to an LOS E during the pm peak hour. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration. Any improvements at this intersection should be coordinated with improvements at the Tioga Avenue / Del Monte Boulevard intersection.

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C Ratio.

Refer to the Intersection Cost Comparison for intersection Number SCY-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Tioga Avenue at California Avenue is controlled by stop signs on all approaches.

Parcels in the immediate vicinity of the project are developed with dwelling set-backs exceeding 100 feet from the existing edge of pavement. The Monterey Peninsula Fixed Guideway Corridor is east of the intersection. The existing intersection is within Sand City right of way.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Tioga Avenue at California Avenue	**Tioga Avenue**	2 lane with on street parking along west leg	Urban	25	Serves commercial & industrial land uses Provides coastal access	No transit services provided	Sidewalks Crosswalk on westerly leg	No bike lanes provided
	California Avenue	2 lane with on street parking	Urban	25	Serves commercial & industrial land uses North leg: driveway	No transit services provided	Sidewalk limited to east side of south leg Crosswalk on both legs	No bike lanes provided

Existing design constraints at the study intersection include (see map for locations):

1. Potential right of way constraint
2. Intersection separation with Del Monte Boulevard
3. At-grade crossing provision for future Monterey Peninsula Fixed Guideway

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The 2012 Monterey Peninsula Fixed Guideway Study prepared by TAMC identifies the existing rail corridor east of the intersection as the preferred alignment for a future light rail or bus rapid transit corridor.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

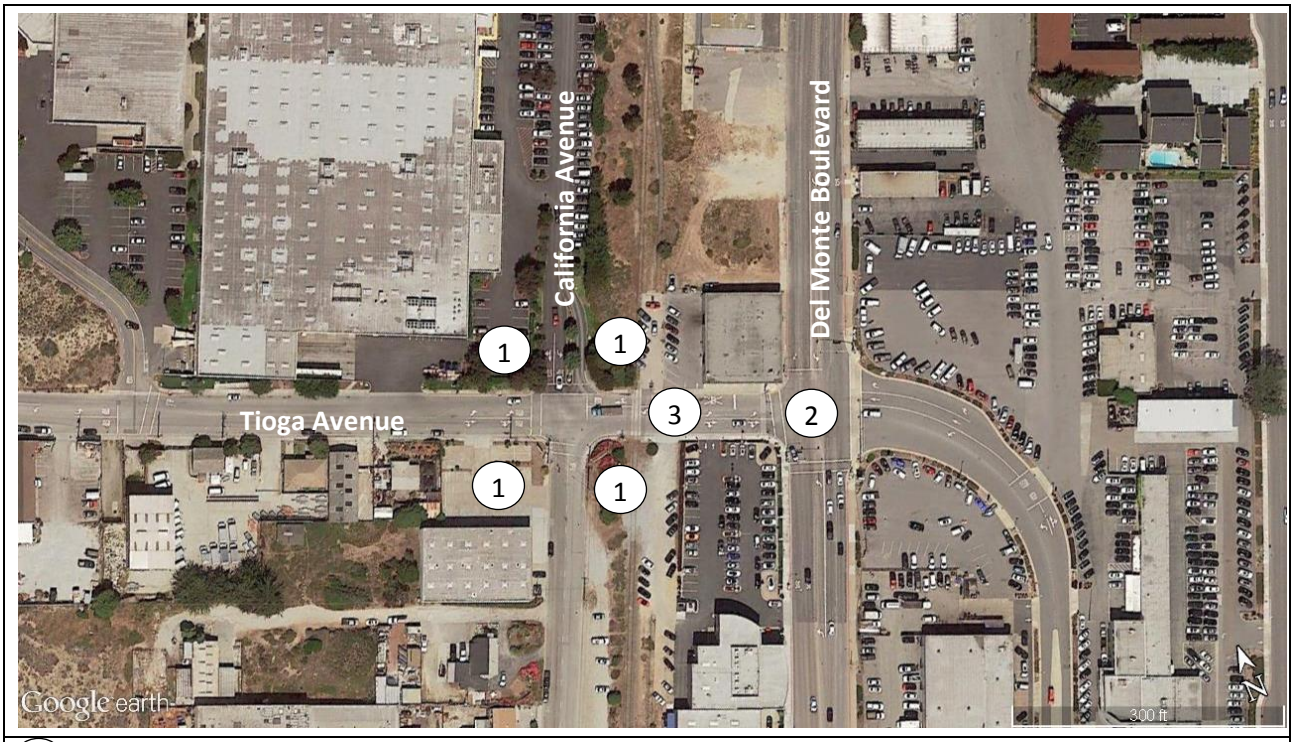
Traffic data for 2012 AM and PM peak hour volumes was provided by the City. Design year 2040 peak hour volumes were calculated with an assumed annual growth rate of 2%.

Stop Control (Existing)

With stop control, demand exceeds available vehicle storage capacity for the pm peak hour under existing conditions. Additional capacity required to improve stop control operations is not feasible based on forecast demand and project constraints.

Signal Control

With signal control, the basic lane configurations existing today would remain. The proposed signal would require coordination with the signal at Del Monte Boulevard to mitigate queuing between intersections. It is expected that traffic signal control



1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

would improve intersection performance for the pm peak period for existing and design year demand. However, southbound queues for left turning vehicles are expected to exceed available storage during the pm peak period.

No physical changes are proposed to the existing intersection therefore there will be no impacts to pedestrian facilities. Bike lanes and transit stops are not provided.

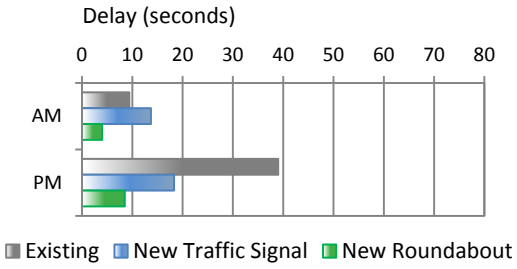
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for both peak periods under existing and design year conditions.

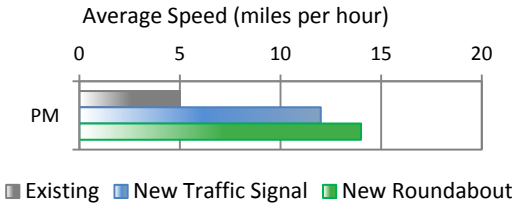
Crosswalks will be improved and provide midway refuge areas. Bike lanes and transit stops are not provided at the intersection therefore the roundabout alternative will not impact either facility.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Operations and coordination of signal and active warning device infrastructure needed for future light rail transit line.
- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SCY_01**
01/16

Intersection Cost Comparison

Tioga Avenue at California Avenue
Sand City, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.17	$ 25,757	$ 402,373	0.39	$ 57,237	$ 894,163
Predicted PDO Crashes	0.71	$ 7,243	$ 113,145	0.81	$ 8,239	$ 128,707
Subtotal - Safety Costs	**-**	**$ 32,999**	**$ 515,519**	**-**	**$ 65,476**	**$ 1,022,870**
DELAY						
Delay to Persons in Vehicles (hours)	923	$ 9,695	$ 252,061	2198	$ 23,182	$ 602,726
Subtotal - Delay Costs	-	**$ 9,695**	**$ 252,061**	-	**$ 23,182**	**$ 602,726**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 17,452			$ 21,100
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 62,329**	-	**$ 10,063**	**$ 178,312**
EMISSIONS						
Tons of ROG	0.17	$ 162	$ 2,537	0.19	$ 182	$2,836
Tons of NOX	0.34	$ 4,410	$ 68,900	0.36	$ 4,670	$72,953
Tons of PM10	0.0070	$ 702	$ 10,963	0.0080	$ 802	$12,530
Subtotal - Emissions Costs		**$ 5,275**	**$ 82,401**		**$ 5,653**	**$ 88,318**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,004,675			$ 427,500
Construction Cost - Structures			$ -			$ -
Capital Support			$ 191,000			$ 82,000
Right-of-Way			$ 80,000			$ -
Subtotal - Initial Capital Costs			**$ 1,275,675**			**$ 509,500**
NET PRESENT VALUE			**$ 2,105,584**			**$ 2,313,408**

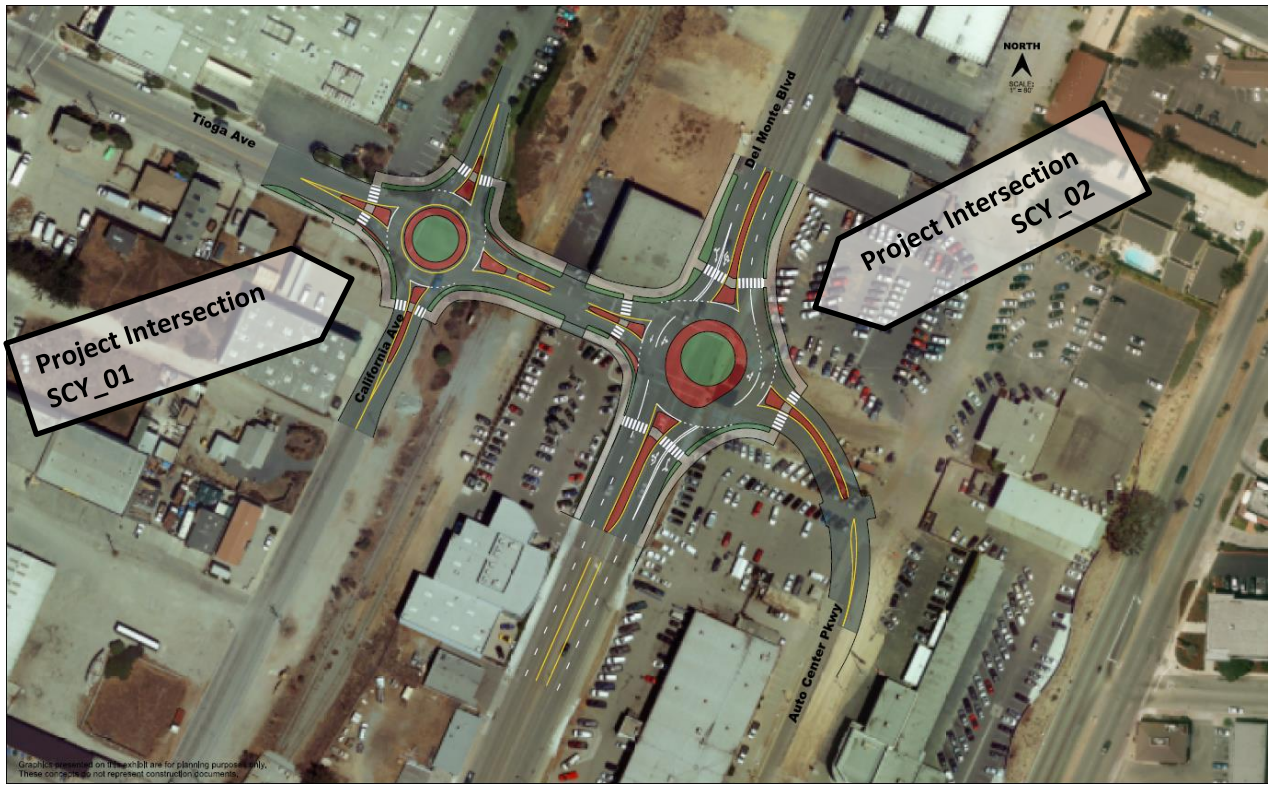
LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$507,352	**LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO**
Delay Reduction Benefit of Roundabout	$350,665	
Emission Reduction Benefit of Roundabout	$5,918	
Total Benefits	**$863,934**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$115,983	**1.33**
Added Capital Costs of a Roundabout	$766,175	
Total Costs	**$650,192**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	557	475
Cost Per Pound Per Life	$41.23	$48.40
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$3,299**	**$3,872**

Intersection Improvement Alternatives

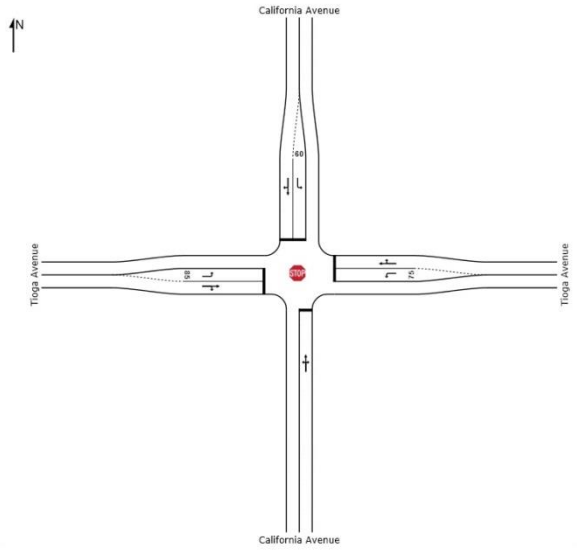
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

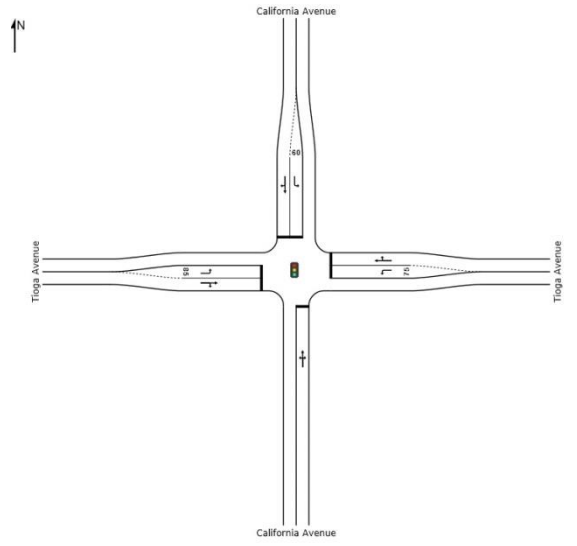


EXISTING INTERSECTION
ALL WAY STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	A	8.3	10 NBT)	C	24.3	270 (WBT)
2040	A	9.4	20 (NBT)	E	39.0	353 (WBT)

NOTES:

1. SBL queues exceed capacity during 2040 p.m. peak hour.
2. WB queues exceed capacity during 2012 and 2040 p.m. peak hours.

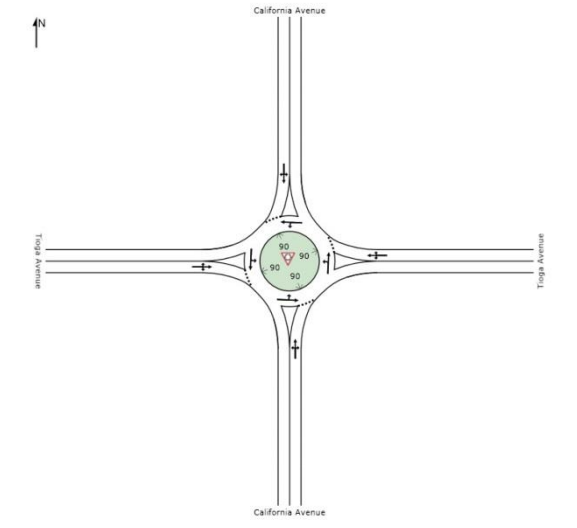


ALTERNATIVE 1
SIGNAL WITH IMPROVEMENTS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	12.3	33 (NBT)	B	15.2	122 (SBL)
2040	B	13.7	57 (WBL)	B	18.3	#226 (SBL)

NOTES:

1. SBL queues exceed capacity during 2040 p.m. peak hour
2. Assumes signal coordination with project intersection SCY_02

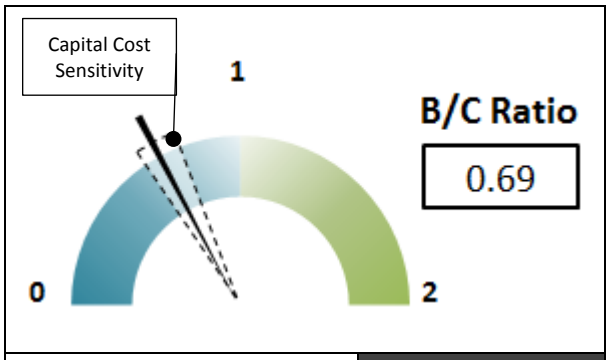


ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	A	5.0	41 (WB)	A	6.2	91 (WB)
2040	A	4.0	23 (WB)	A	8.5	145 (WB)

NOTES:

TIOGA AVENUE AT DEL MONTE BOULEVARD



Result: *Based on the Life Cycle Benefit Cost ratio*	**Signal Modification**

The Benefit Cost (B/C) ratio for this intersection is 0.69. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a signal modification.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs, especially right of way. Right of way costs are estimated to account for nearly half of the estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety, delay, and *right of way* are notable performance metrics driving the B/C Ratio. The estimated safety costs of the signal are 2 times higher than that of the roundabout. The estimated delay costs of the signal are 3.5 times higher than that of the roundabout. The estimated initial capital costs of the roundabout are 30 times higher than that of the signal. The total life cycle benefits of the roundabout are estimated at $3,420,000. The total life cycle benefit includes an estimated $7,200 in reduced operations and maintenance costs when compared to a traffic signal. The estimated right of way costs are $2,340,000 for construction of the roundabout alternative.

Operationally, the roundabout configuration is a superior alternative to serve forecast traffic. The existing signal control, or no project alternative, is near capacity in the PM peak hour with northbound left turn queues exceeding available storage. The proposed signal alternative is limited to modification of the signal timing. Modifications assume construction of a signal at study intersection SCY_01, Tioga Avenue at California Avenue. With the proposed signal modifications, an overall reduction in delay is expected. However, available storage for queued vehicles will be insufficient to meet demand in the am and pm peak periods. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Tioga Avenue at Del Monte Boulevard	**Tioga Avenue (west) / The Mall (east)**	2 lane undivided	Urban	25	Serves commercial & industrial land uses Provides coastal access west	No transit services provided	Sidewalks Crosswalk on both legs	No bike lanes provided
	Del Monte Boulevard	4 lanes with two-way-left-turn-lane and on street parking	Urban	35	Commercial corridor Alternate, parallel route to SR 1	Service provided by Monterey-Salinas Transit for Lines 8, 10, 18, 20, & 55 Stop at intersection	Sidewalks Crosswalk on south leg	No bike lanes provided

The intersection evaluation was based on traffic operations for the 2040 design year. The year 2015 was assumed for the baseline "build" condition for a total 25 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number SCY-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Tioga Avenue at Del Monte Boulevard is controlled by a traffic signal.

Parcels in the immediate vicinity of the project are developed. A commercial building with zero set-back is located at the northwest corner. The remaining corner parcels are frontage for car dealerships. The existing intersection is within Sand City right of way.

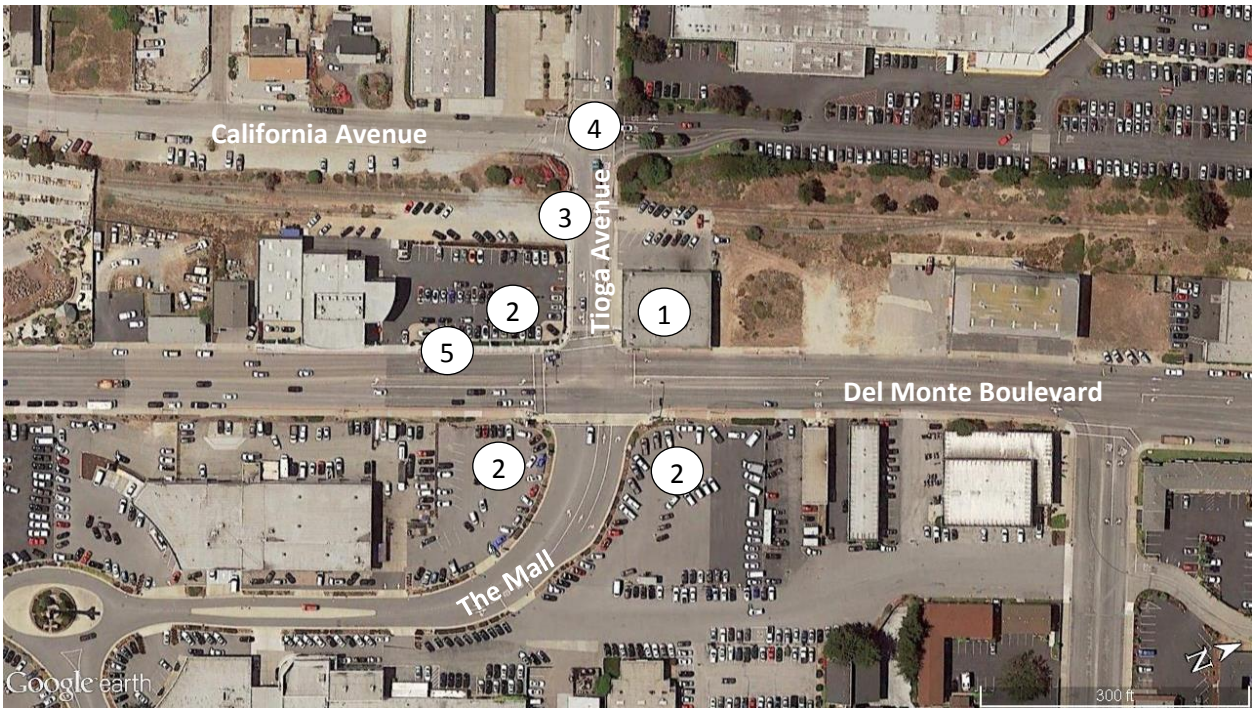
Existing design constraints and considerations at the study intersection include (see map for locations):

1. Commercial building
2. Car dealership
3. At-grade crossing provision for future Monterey Peninsula Fixed Guideway
4. Intersection separation with California Avenue
5. Transit stop

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The 2012 Monterey Peninsula Fixed Guideway Study prepared by TAMC identifies the existing rail corridor east of the intersection as the preferred alignment for a future light rail transit corridor.



(1) Refer to the Existing Conditions section on the previous page for description of the design constraint.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2012 AM and PM peak hour volumes was provided by the City. Design year 2040 peak hour volumes were calculated with an assumed annual growth rate of 2%.

Signal Control (Existing)

The existing signal control, or no project alternative, is near capacity in the PM peak hour with northbound left turn queues exceeding available storage.

Signal Control – Signal Timing Modifications

With signal control, the proposed traffic signal improvements at Tioga Avenue and California Avenue described in SCY_01 are assumed to exist. The proposed signal timing modifications on Tioga Avenue at Del Monte Boulevard are coordinated with improvements at California Avenue. As a result, the proposed signal timing modifications provide a reduction in vehicle delay at Del Monte Boulevard. However, vehicle queuing demand will exceed available storage capacity for southbound traffic during the am and pm peak hours and for northbound traffic during the pm peak hour.

It should be noted that the signal control alternative was limited in scope to signal timing modifications. Capacity improvements needed to mitigate vehicle queuing deficiencies will likely require acquisition of right of way, widening of Tioga Avenue, and additional improvements at California Avenue.

No physical changes are proposed to the existing intersection therefore there will be no impacts to pedestrian facilities and transit stops. Bike lanes are not provided.

Roundabout Control

With roundabout control, two approach and departure lanes are required on Del Monte Boulevard for the northbound and southbound directions. Based on design year traffic assumptions, it is unlikely that a road diet with fewer lanes on Del Monte Boulevard can be applied at this location.

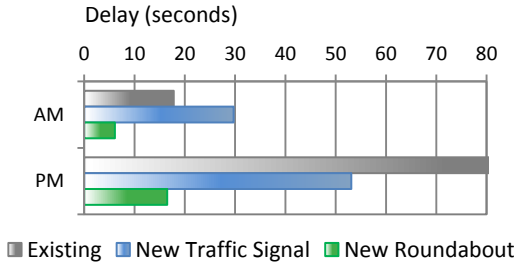
Compared to the proposed signal alternative, the roundabout improvements provide a superior form of traffic control. However, the roundabout will likely require right of way acquisition in all four quadrants.

The multi-lane roundabout is expected to perform below capacity for both peak hours under future design year conditions.

Crosswalks will be improved and provide midway refuge areas. Bike lanes are not provided at the intersection therefore the roundabout alternative will not impact bike access. Access to transit stops can be maintained with the proposed roundabout.

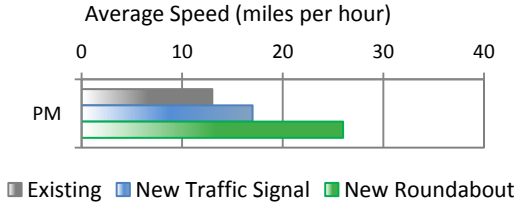
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to

the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Forecast design year traffic volumes at the study intersection.
- Operations and coordination of signal and active warning device infrastructure needed for future light rail transit line.
- Refinement of potential right of way acquisition costs.
- Preliminary engineering and additional site investigations.

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TAMC Regional ICE Study
Intersection Number **SCY_02**
01/16

Intersection Cost Comparison

Tioga Avenue at Del Monte Boulevard
Sand City, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.21	$ 30,490	$ 476,316	0.71	$ 105,138	$ 1,642,469
Predicted PDO Crashes	1.48	$ 15,105	$ 235,976	1.37	$ 13,989	$ 218,534
Subtotal - Safety Costs	**-**	**$ 45,595**	**$ 712,292**	**-**	**$ 119,126**	**$ 1,861,003**
DELAY						
Delay to Persons in Vehicles (hours)	2970	$ 29,833	$ 775,650	11330	$ 116,767	$ 3,035,940
Subtotal - Delay Costs	-	**$ 29,833**	**$ 775,650**	-	**$ 116,767**	**$ 3,035,940**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	8,853
Cost of Power for Signal				-	$ 4,255	66,472
Cost of Illumination	6	$ 873	$ 13,632	4	$ 582	9,088
Cost of Landscaping Maintenance	-	$ 2,000	$ 31,244			
Cost of Signal Maintenance				-	$ 4,660	72,799
Cost of Pavement Rehabilitation			$ 39,987			$ 84,683
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 84,864**	-	**$ 10,063**	**$ 241,894**
EMISSIONS						
Tons of ROG	0.10	$ 97	$ 1,510	0.16	$ 150	$2,350
Tons of NOX	0.32	$ 4,085	$ 63,809	0.36	$ 4,668	$72,925
Tons of PM10	0.0045	$ 451	$ 7,045	0.0068	$ 676	$10,568
Subtotal - Emissions Costs		**$ 4,632**	**$ 72,365**		**$ 5,495**	**$ 85,842**
INITIAL CAPITAL COSTS						
Construction Cost			$ 2,447,250			$ 101,200
Construction Cost - Structures			$ -			$ -
Capital Support			$ 465,000			$ 20,000
Right-of-Way			$ 2,341,000			$ -
Subtotal - Initial Capital Costs			**$ 5,253,250**			**$ 121,200**
NET PRESENT VALUE			**$ 6,826,056**			**$ 5,260,037**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$1,148,711
Delay Reduction Benefit of Roundabout	$2,260,290
Emission Reduction Benefit of Roundabout	$13,477
Total Benefits	**$3,422,478**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$157,030
Added Capital Costs of a Roundabout	$5,132,050
Total Costs	**$4,975,020**

LIFE CYCLE (25 YEAR) BENEFIT/COST RATIO

0.69

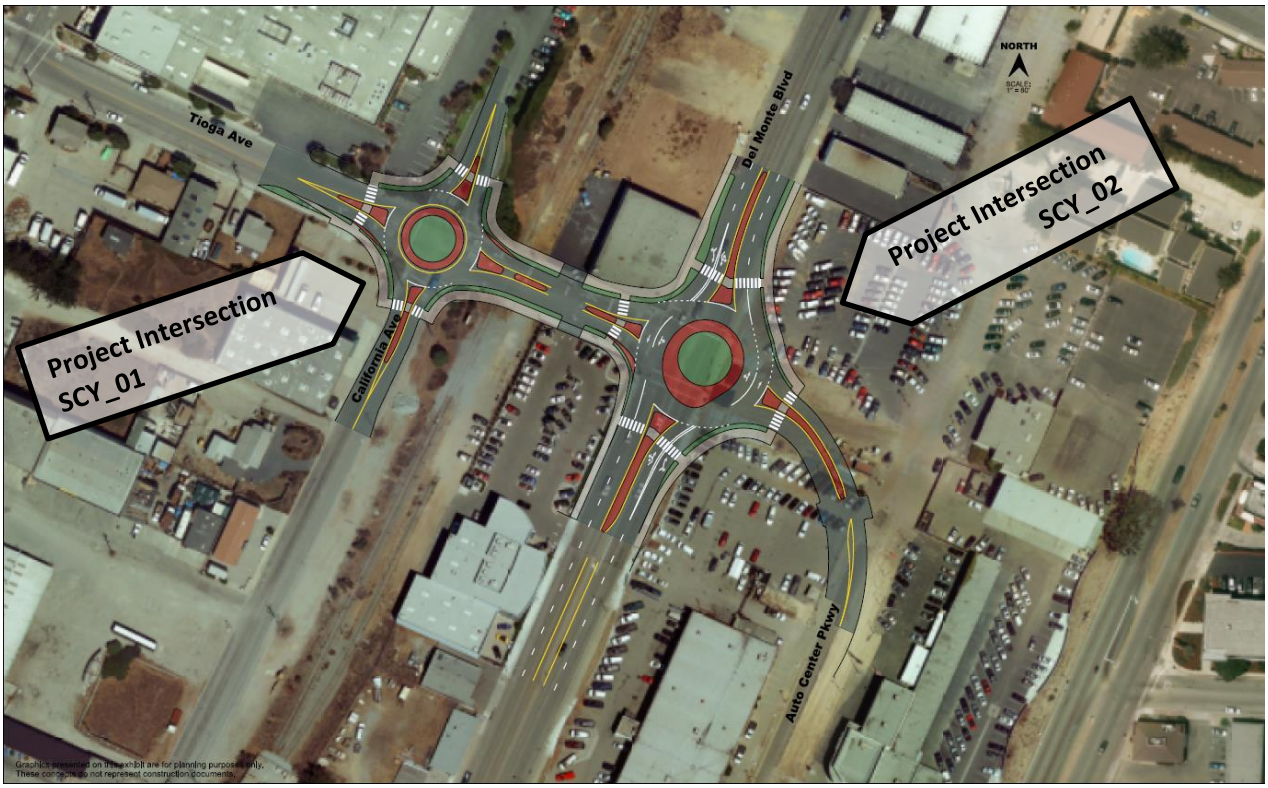
B/C Preferred: Signal Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	371	163
Cost Per Pound Per Life	$61.93	$141.07
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$4,955**	**$11,285**

Intersection Improvement Alternatives

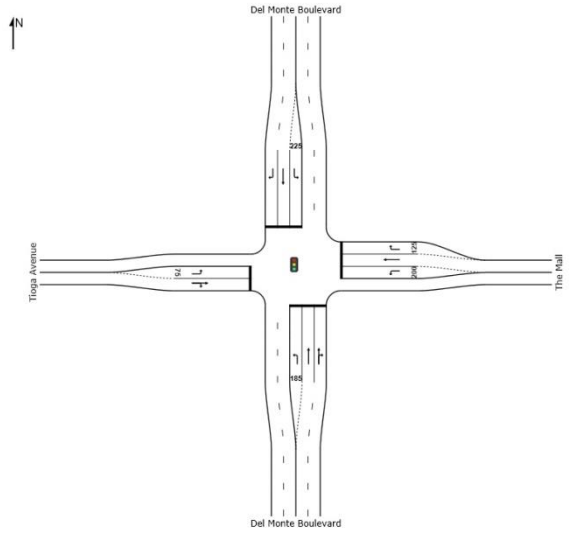
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

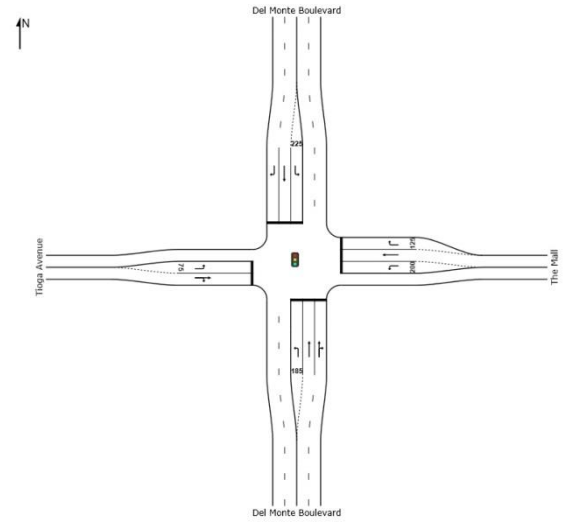


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	13.0	192 (SBT)	D	40.7	#372 (NBL)
2040	B	17.8	#525 (SBT)	F	140.6	#538 (NBL)

NOTES:

1. Referenced Existing and calculated volumes were adjusted for volume balance with Tioga Avenue/California Avenue.
2. NBL queues exceed storage capacity during the 2012 and 2040 p.m. peak hours
3. EBL queues exceed storage capacity during the 2012 and 2040 p.m. peak hours

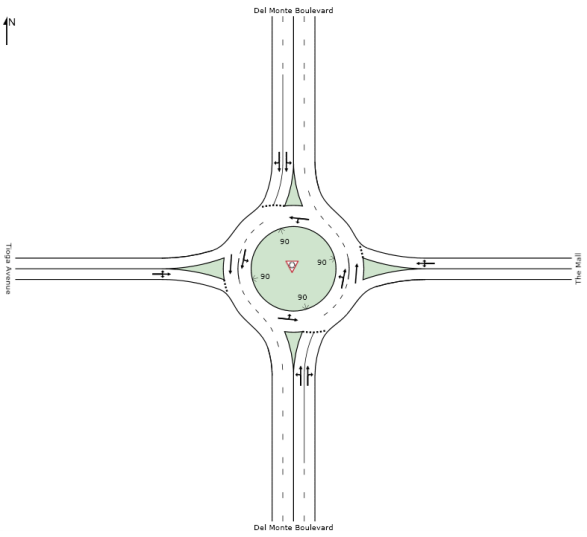


ALTERNATIVE 1
SIGNAL TIMING MODIFICATIONS

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	C	21.0	243 (SBT)	D	35.6	#328 (NBL)
2040	C	29.7	#592 (SBT)	D	53.1	#745 (SBT)

NOTES:

1. Referenced Existing and calculated volumes were adjusted for volume balance with Tioga Avenue/California Avenue
2. NBL queues exceed storage capacity during the 2012 and 2040 p.m. peak hours
3. EBL queues exceed storage capacity during the 2012 and 2040 p.m. peak hours



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	A	4.2	30 (SB)	A	7.2	59 (NB)
2040	A	6.1	66 (SB)	C	16.5	222 (NB)

NOTES:

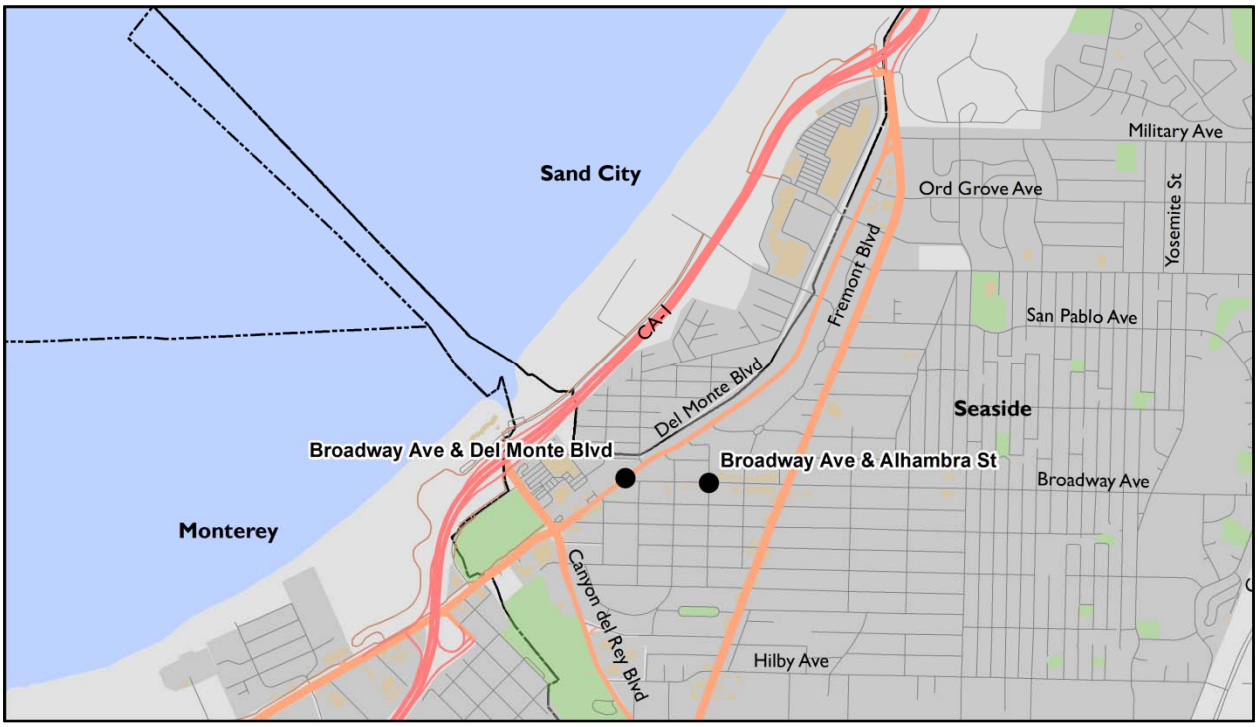
1. Referenced Existing and calculated volumes were adjusted for volume balance with Tioga Avenue/California Avenue

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 10:

City of Seaside

Study Intersections:

- BROADWAY AVENUE AT DEL MONTE BOULEVARD
- BROADWAY AVENUE AT ALHAMBRA STREET



CITY OF SEASIDE SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	SEA-01
Broadway Avenue at Alhambra Street	SEA-02

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Seaside jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Seaside, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	**0.95**	
Broadway Avenue at Alhambra Street	**4.63**	

SUMMARY OF KEY PERFORMANCE MEASURES

As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to

calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

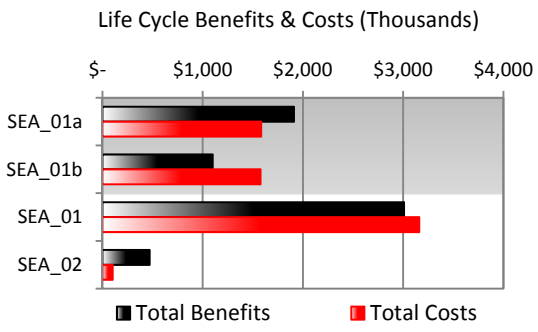
- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:

NOTE: Due to the close proximity of the Broadway Avenue intersection and the Contra Costa Street intersection with Del Monte Boulevard, the performance measures for the Broadway Avenue / Contra Costa Street at Del Monte Boulevard study intersection, SEA-01, are a summation of performance measures at each of the intersections. As a reference, the performance measures for each intersection are reported in the following bar charts to illustrate the performance measure benefits and the performance measure costs that were used to calculate the "study intersection" performance measures. Broadway Avenue at Del Monte Boulevard is assigned intersection number SEA-01a. Contra Costa Street at Del Monte Boulevard is assigned intersection number SEA-01b. SEA-01a and SEA-01b are illustrated with a grey background in the following bar charts. Only the preferred control for the study intersection, SEA-01, is reported in the summary tables for each performance measure.



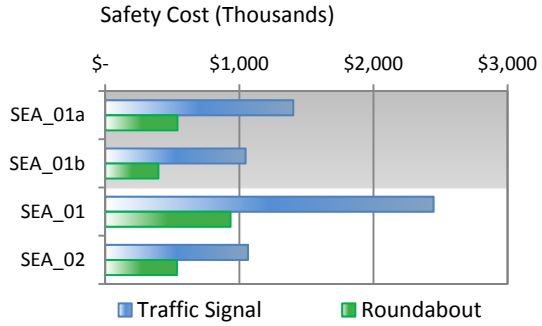
A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.



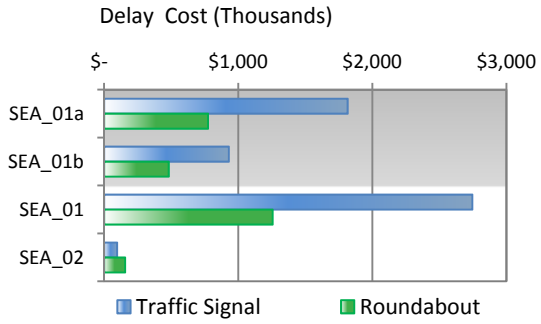
Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	
Broadway Avenue at Alhambra Street	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parame*

2012, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

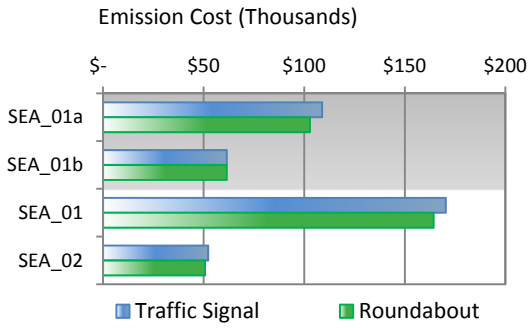


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay Study Intersection	Preferred Control
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	
Broadway Avenue at Alhambra Street	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

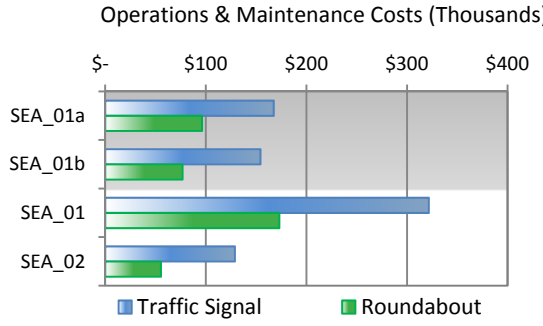
Emissions Study Intersection	Preferred Control
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	
Broadway Avenue at Alhambra Street	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.



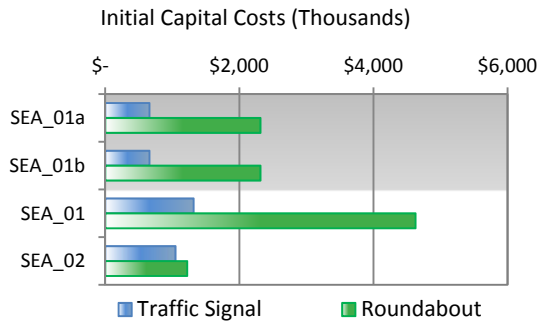
Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance Study Intersection	Preferred Control
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	
Broadway Avenue at Alhambra Street	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.

Specific design requirements for each jurisdiction were not evaluated and any specific design standards or features required by a jurisdiction will be evaluated in future phases of the project. If the specific design standard or feature would impact the cost of the overall intersection, the guiding principle of this study is that design exemptions can be implemented.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost Study Intersection	Preferred Control
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	
Broadway Avenue at Alhambra Street	

Summary of B/C Performance Measures

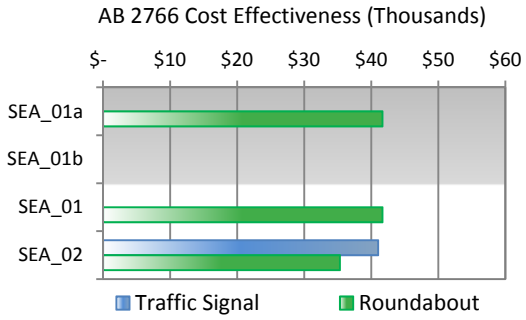
The following table summarizes the five performance measures evaluated at each project location.

	Preferred Intersection Control by Performance Measure					
Study Intersection	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Broadway Ave. / Contra Costa St. at Del Monte Boulevard						
Broadway Avenue at Alhambra Street						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Seaside.



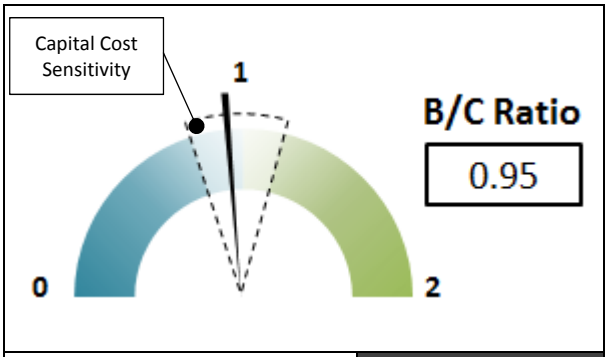
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness **Study Intersection**	**Preferred Control**
Broadway Ave. / Contra Costa St. at Del Monte Boulevard	NONE
Broadway Avenue at Alhambra Street	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

BROADWAY AVENUE / CONTRA COSTA STREET AT DEL MONTE BOULEVARD



Result:
Based on the Life Cycle Benefit Cost ratio

Signal

The Benefit Cost (B/C) ratio for Broadway Avenue / Contra Costa Street at Del Monte Boulevard is 0.95. The B/C ratio of 0.95 represents the combination of performance measures for the Broadway Avenue at Del Monte Boulevard intersection and the Contra Costa Street at Del Monte Boulevard intersection. The intersections were combined into a single project due to the short distance between intersections and the traffic volumes on Del Monte Boulevard. The individual B/C scores for each intersection are as follows:

Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a traffic signal.

Study Intersection	Intersection Number	B/C Ratio
Broadway Avenue at Del Monte Boulevard	SEA-01a	1.21
Contra Costa Street at Del Monte Boulevard	SEA-01b	0.70

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is likely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

Safety, delay, and *right of way* are notable performance metrics driving the B/C ratio. The estimated safety costs of the signal are 3 times higher than that of the roundabout. The estimated delay costs of the signal are 2 times higher than that of the roundabout. The estimated initial capital costs of the signal are 3 times higher than that of the roundabout. The total life cycle benefits of the roundabout are estimated at $3,000,000 when compared to the traffic signal alternative. The total life cycle benefit includes an estimated $14,400 reduction in annual operations and maintenance costs when compared to the traffic signal alternative. The estimated right of way costs are $1,875,000. A capital cost reduction of $152,700 or more would yield a B/C ratio greater than 1.00.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Broadway Avenue and Contra Costa Street at Del Monte Boulevard	**Broadway Avenue (City of Seaside)**	4 lane undivided with on street parking	Local	30	Serves business & commercial land uses (commercial corridor)	Service provided by Monterey Salinas Transit for Line 12	Sidewalks Crosswalk with 2 pedestrian refuges	No bike lanes provided
	Contra Costa Street (City of Seaside)	2 lane undivided	Local	30	Serves business & commercial land uses	None	No Sidewalks Crosswalk	No bike lanes provided
	Del Monte Boulevard (City of Seaside)	4 lane undivided with on street parking	Local	35	Commercial corridor Alternate, parallel route to SR 1	Service provided by Monterey-Salinas Transit for Lines 8, 10, 12, 18, 20, & 55 Stop at intersection	Sidewalks Crosswalk north of Broadway Avenue & north of Contra Costa Street	No bike lanes provided

Initial capital costs for the intersection were estimated as one project and evenly split for each intersection.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic while providing improved pedestrian and bicycle facilities. The existing signal control, or no project alternative, will provide adequate vehicle capacity to serve forecast traffic. The proposed signal alternative will provide pedestrian and bicycle improvements while adequately serving forecast traffic demand. The project assumes improvements are made at Broadway Avenue and the Contra Costa Street intersections with Del Monte Boulevard. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2027 design year. The year 2015 was assumed for the baseline "build" condition for a total 12 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Numbers SEA-01a and SEA-01b on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

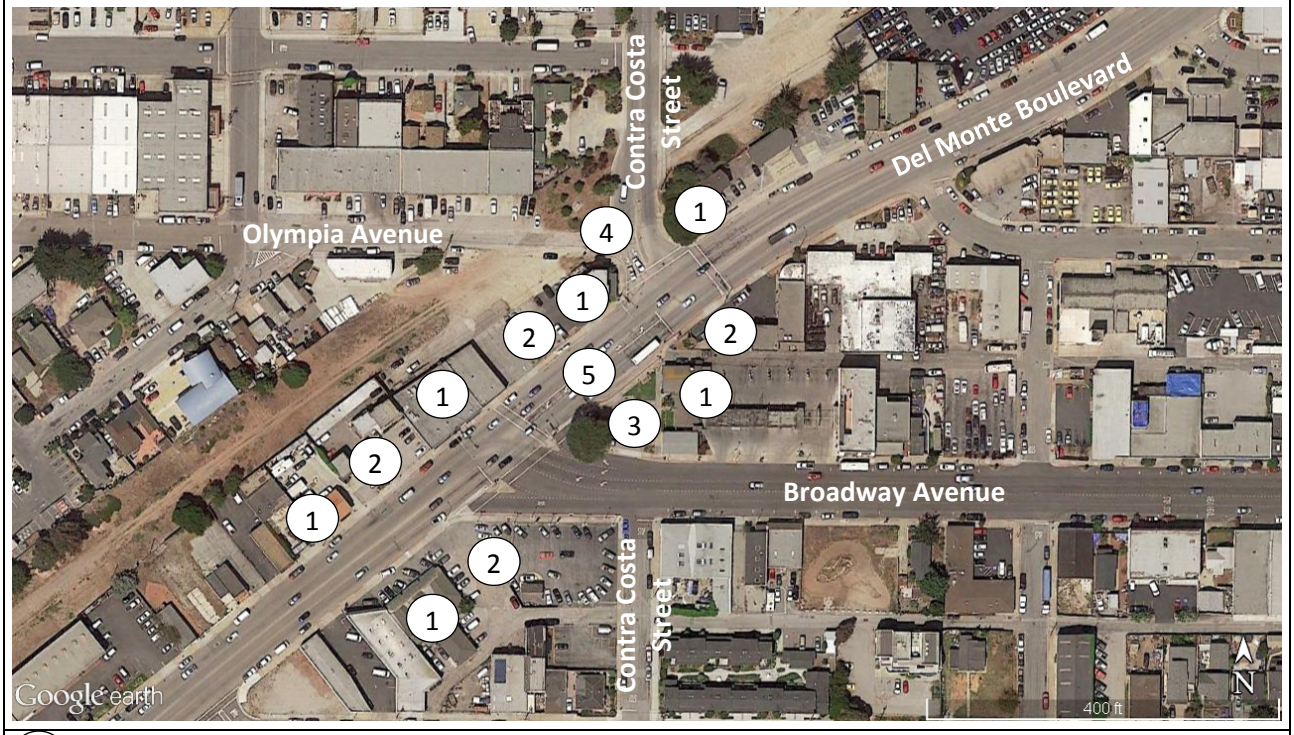
The existing Broadway Avenue at Del Monte Boulevard and the Contra Costa Street at Del Monte Boulevard intersections are controlled by coordinated traffic signals.

Parcels adjacent to the intersections are developed with commercial structures located at the back of existing sidewalks. Off street parking is adjacent to commercial structures. Del Monte Boulevard and Broadway Avenue is City of Seaside right of way. Contra Costa Street is Sand City right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Commercial building
2. Parking lot (private)
3. Parking lot (City of Seaside)
4. At-grade crossing provision for future Monterey Peninsula Fixed Guideway
5. Intersection separation between Broadway Avenue and Contra Costa Street.

The Summary of Existing Conditions table describes the study area roadways. Below, an aerial view of the project location with existing design constraints is provided.



(1) Refer to the Existing Conditions section on the previous page for description of the design constraint.

PLANNED IMPROVEMENTS

The Broadway Avenue at Del Monte Boulevard intersection is located within the City of Seaside West Broadway Urban Village Specific Plan. The West Broadway Urban Village Specific Plan identifies a reduction in traffic lanes on Broadway Avenue from four lanes to two lanes. Additional improvements include intersection modifications at Broadway Avenue and Del Monte Boulevard and installing bicycle lanes on Del Monte Boulevard.

The 2012 Monterey Peninsula Fixed Guideway Study prepared by TAMC identifies the existing rail corridor east of the intersection as the preferred alignment for a future light rail transit corridor.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Signal	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for the 2011 AM /PM peak hour and the 2027 AM / PM peak hour volumes were taken from the West Broadway Urban Village Specific Plan provided by the City.

Signal Control (Existing)

The existing signal control, or no project alternative, operates with coordination between the two closely spaced intersections. The signal is phased to allow vehicles traveling north/south along Del Monte Boulevard to traverse both intersections. Vehicles turning from Del Monte Boulevard have protected left turns. The critical queue areas are northbound left at Contra Costa Avenue and southbound left at Broadway Avenue as the queue here will spill back and affect the other intersection. Queues exceed capacity in the AM peak hour for the northbound left turn and in the PM peak hour for the southbound left under both existing and future design year conditions.

Signal Control Modifications

With the modified signal control alternative, roadway improvements include the addition of bicycle lanes on Del Monte Boulevard and Broadway Avenue, removal of the northbound Del Monte Boulevard right turn lane at Broadway Avenue, removal of the westbound right turn lane on Broadway Avenue, and the removal of one lane in each direction on Broadway Avenue.

Protected phasing for the left turns as well as coordination between the two intersections will be maintained with changes in coordination patterns. The signal is phased to give priority to vehicles traveling north along Del Monte Boulevard as well as turning left onto Contra Costa Street during the AM peak hour. For the PM peak hour priority is given to vehicles traveling south along Del Monte Boulevard as well as turning left onto Broadway Avenue. This proposed coordination plan will help address the queue spill back from turning vehicles on the short segment between the two intersections.

Proposed intersection and roadway reconfiguration will improve pedestrian and bike facilities and maintain transit stops.

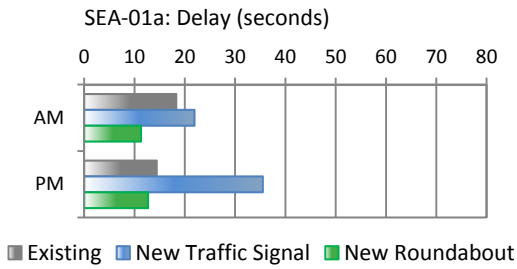
Roundabout Control

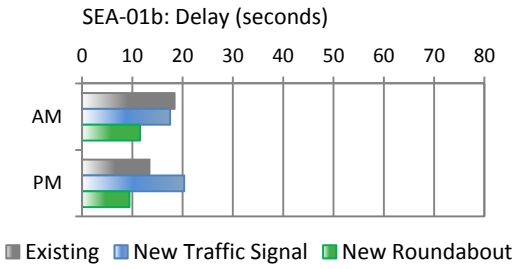
With roundabout control, two multilane roundabouts are proposed. Roadway improvements include the addition of bicycle lanes on Del Monte Boulevard and Broadway Avenue, removal of one lane in each direction on Broadway Avenue, and a lane drop for the southbound Del Monte Boulevard approach to Contra Costa Street. The proposed roundabouts will improve performance at the study intersections for AM and PM peak hours under both existing and future design year conditions.

Proposed intersection and roadway reconfiguration will improve pedestrian and bike facilities and maintain transit stops.

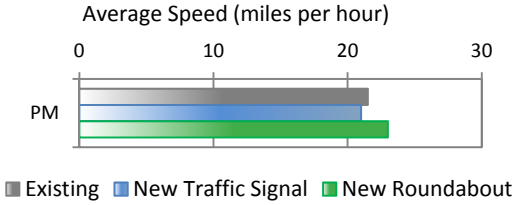
TRAFFIC OPERATIONS SUMMARY

The following bar charts illustrate the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.





The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



NOTE: The average speed identified in the bar chart above is the average of SEA-01a and SEA-01b.

PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	NONE

NONE: Indicates that neither the signal nor roundabout alternative has a cost effectiveness value less than $20,000.

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- Preliminary engineering and additional site investigations.
- Refinement of right of way costs.
- Evaluation of operations with a 2040 design year.
- Evaluation and consideration of removing the westbound Broadway Avenue right turn lane (This option will increase westbound vehicle queuing and increase the westbound approach delay to LOS E for the 2027 PM peak hour).
- Operations and coordination of signal and active warning device infrastructure needed for future light rail transit line.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study Intersection Number **SEA-01a**
01/16

Intersection Cost Comparison

Broadway Avenue at Del Monte Boulevard
Seaside, California

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.26	$ 38,099	$ 357,563	0.89	$ 131,376	$ 1,232,976
Predicted PDO Crashes	1.89	$ 19,272	$ 180,867	1.76	$ 17,970	$ 168,647
Subtotal - Safety Costs	-	**$ 57,371**	**$ 538,430**	-	**$ 149,346**	**$ 1,401,623**
DELAY						
Delay to Persons in Vehicles (hours)	4373	$ 59,620	$ 775,057	10284	$ 139,668	$ 1,815,686
Subtotal - Delay Costs	-	**$ 59,620**	**$ 775,057**	-	**$ 139,668**	**$ 1,815,686**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	5,318
Cost of Power for Signal				-	$ 4,255	39,933
Cost of Illumination	6	$ 873	$ 8,190	4	$ 582	5,460
Cost of Landscaping Maintenance	-	$ 2,000	$ 18,770			
Cost of Signal Maintenance				-	$ 4,660	43,734
Cost of Pavement Rehabilitation			$ 69,252			$ 72,969
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 96,212**	-	**$ 10,063**	**$ 167,415**
EMISSIONS						
Tons of ROG	0.23	$ 222	$ 2,080	0.29	$ 271	$2,543
Tons of NOX	0.75	$ 9,699	$ 91,026	0.78	$ 10,033	$94,164
Tons of PM10	0.0104	$ 1,034	$ 9,704	0.0130	$ 1,292	$12,129
Subtotal - Emissions Costs		**$ 10,955**	**$ 102,810**		**$ 11,597**	**$ 108,837**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,003,987			$ 480,600
Construction Cost - Structures			$ -			$ -
Capital Support			$ 371,500			$ 178,000
Right-of-Way			$ 937,500			$ -
Subtotal - Initial Capital Costs			**$ 2,312,987**			**$ 658,600**
NET PRESENT VALUE			$ 3,722,686			$ 4,043,324

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$863,193	LIFE CYCLE (12 YEAR) BENEFIT/COST RATIO
Delay Reduction Benefit of Roundabout	$1,040,630	
Emission Reduction Benefit of Roundabout	$6,027	
Total Benefits	**$1,909,849**	
COSTS - Roundabout compared to Traffic Signal		
Added O&M Costs of a Roundabout	-$71,202	**1.21**
Added Capital Costs of a Roundabout	$1,654,387	
Total Costs	**$1,583,185**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	161	N/A - Same as existing
Cost Per Pound Per Life	$250.00	N/A - Same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	$41,666	N/A - Same as existing

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SEA-01b**
01/16

Intersection Cost Comparison

Contra Costa at Del Monte Boulevard
Seaside, California

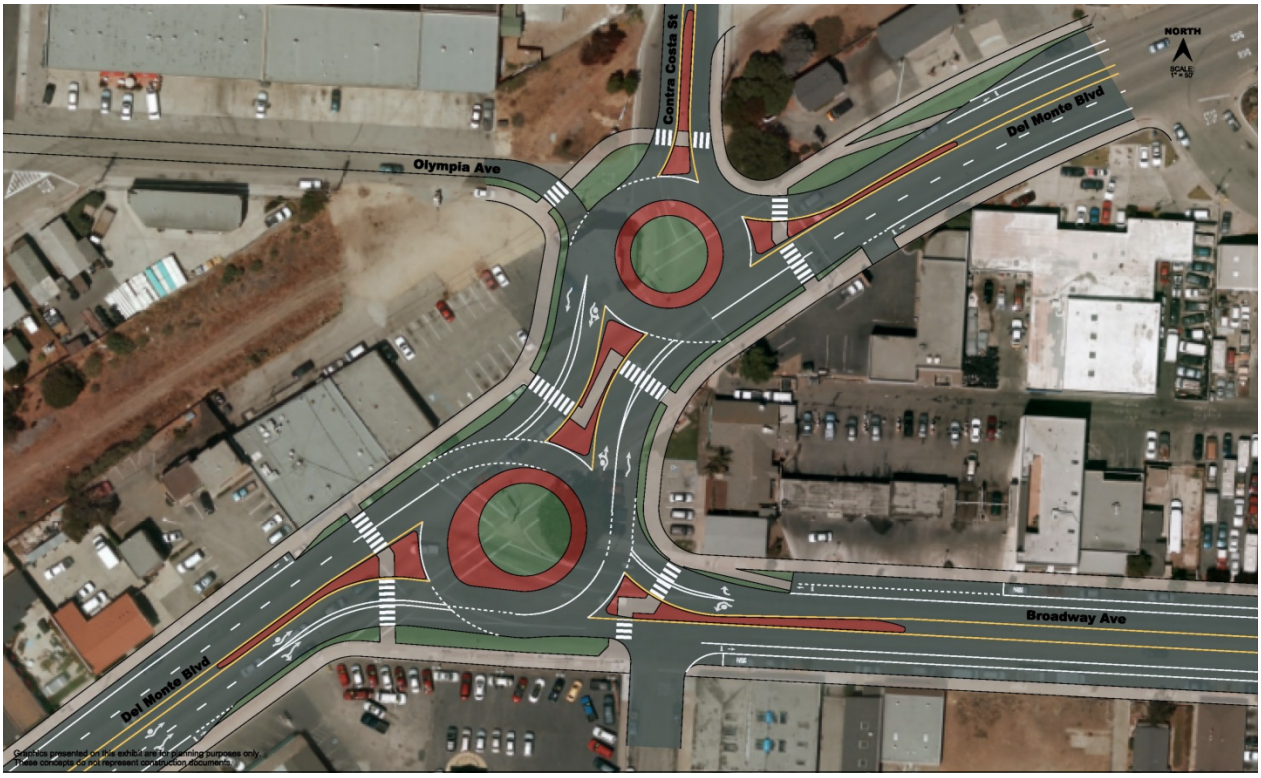
Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.20	$ 28,829	$ 270,558	0.67	$ 99,409	$ 932,958
Predicted PDO Crashes	1.30	$ 13,299	$ 124,815	1.18	$ 12,013	$ 112,744
Subtotal - Safety Costs	-	**$ 42,128**	**$ 395,373**	-	**$ 111,422**	**$ 1,045,702**
DELAY						
Delay to Persons in Vehicles (hours)	2727	$ 37,053	$ 481,694	5239	$ 71,538	$ 929,995
Subtotal - Delay Costs	-	**$ 37,053**	**$ 481,694**	-	**$ 71,538**	**$ 929,995**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	5,318
Cost of Power for Signal				-	$ 4,255	39,933
Cost of Illumination	6	$ 873	$ 8,190	4	$ 582	5,460
Cost of Landscaping Maintenance	-	$ 2,000	$ 18,770			
Cost of Signal Maintenance				-	$ 4,660	43,734
Cost of Pavement Rehabilitation			$ 49,858			$ 59,805
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 76,818**	-	**$ 10,063**	**$ 154,251**
EMISSIONS						
Tons of ROG	0.15	$ 144	$ 1,347	0.15	$ 144	$1,347
Tons of NOX	0.44	$ 5,653	$ 53,058	0.44	$ 5,653	$53,058
Tons of PM10	0.0076	$ 753	$ 7,070	0.0076	$ 753	$7,070
Subtotal - Emissions Costs		**$ 6,550**	**$ 61,475**		**$ 6,550**	**$ 61,475**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,003,987			$ 480,600
Construction Cost - Structures			$ -			$ -
Capital Support			$ 371,500			$ 178,000
Right-of-Way			$ 937,500			$ -
Subtotal - Initial Capital Costs			**$ 2,312,987**			**$ 658,600**
NET PRESENT VALUE			$ 3,266,873			$ 2,788,547

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$650,329	LIFE CYCLE (12 YEAR) BENEFIT/COST RATIO
Delay Reduction Benefit of Roundabout	$448,300	
Emission Reduction Benefit of Roundabout	$0	
Total Benefits	**$1,098,629**	
COSTS - Roundabout compared to Traffic Signal		**0.70**
Added O&M Costs of a Roundabout	-$77,433	
Added Capital Costs of a Roundabout	$1,654,387	
Total Costs	**$1,576,954**	
		Roundabout not Preferred

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	0	N/A - Same as existing
Cost Per Pound Per Life	N/A - No emissions change	N/A - Same as existing
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	N/A - No emissions change	N/A - Same as existing

Intersection Improvement Alternatives

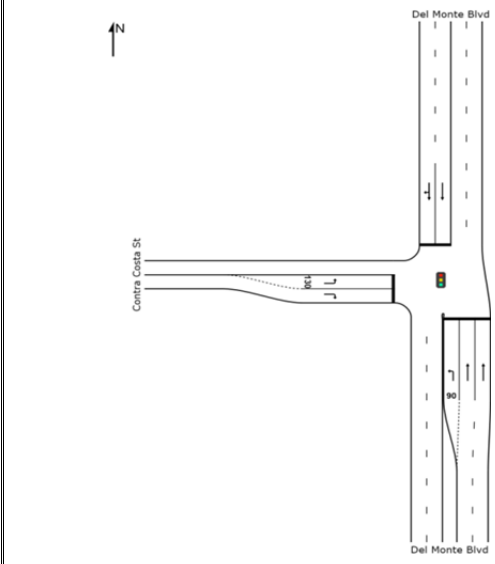
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

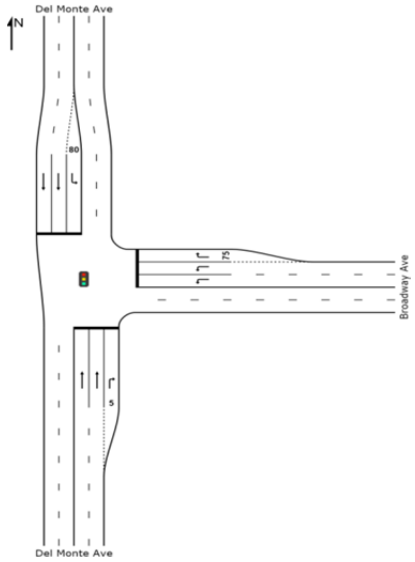
Intersection Control Alternative Summary



EXISTING INTERSECTION – Contra Costa at Del Monte
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	16.0	181 (NBL)	A	9.0	116 (SBT)
2027	B	18.4	229 (NBL)	B	13.4	157 (SBT)

NOTES:
1. NBL queue exceeds available storage during all peak hours.

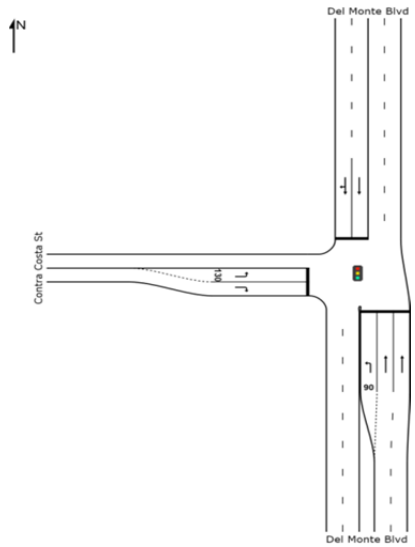


EXISTING INTERSECTION – Broadway at Del Monte
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	13.6	187 (WBL)	B	14.4	277 (NBR)
2027	B	18.3	206 (WBL)	B	14.1	343 (NBR)

NOTES:

1. NBR significant queuing during all peak hours.
2. SBL queue exceeds available storage during 2012 and 2027 p.m. peak hours.



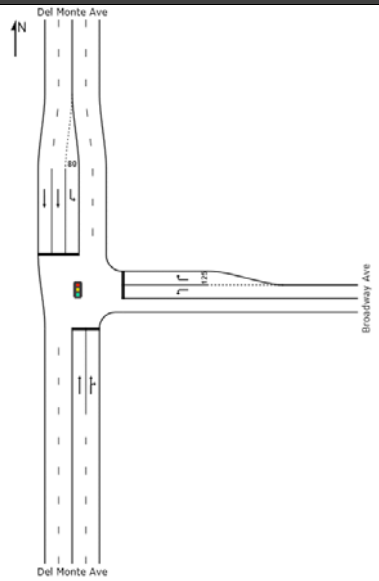
ALTERNATIVE 1– Contra Costa at Del Monte
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	13.1	140 (NBL)	B	18.6	113 (SBT)
2027	B	17.5	161 (NBL)	C	20.3	154 (SBT)

NOTES:

1. NBL queue exceeds available storage during all peak hours.

Intersection Control Alternative Summary

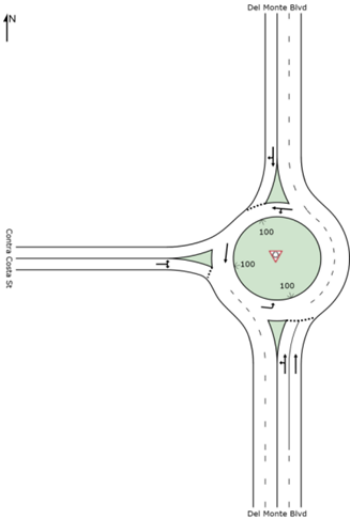


ALTERNATIVE 1 - Broadway at Del Monte SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	B	18.6	293 (WBL)	C	23.2	486 (NBT)
2027	C	21.9	376 (WBL)	D	35.5	657 (NBT)

NOTES:

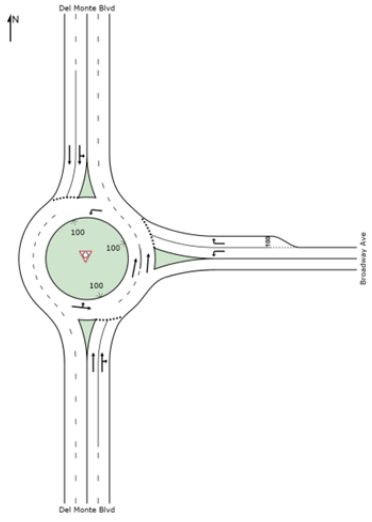
1. NBT significant queuing during all peak hours.
2. SBL queue exceeds available storage during 2012 and 2027 p.m. peak hours



ALTERNATIVE 2 – Contra Costa at Del Monte ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	A	8.3	116 (SB)	A	7.5	88 (SB)
2027	B	11.5	172 (SB)	A	9.4	121 (SB)

NOTES:

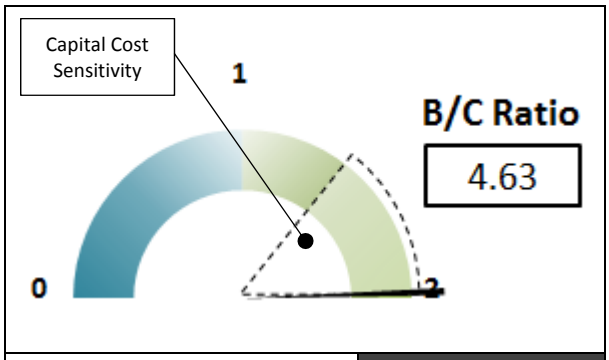


ALTERNATIVE 2 – Broadway at Del Monte ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2012	A	8.9	85 (SB)	A	9.9	116 (NB)
2027	B	11.3	119 (SB)	B	12.7	157 (NB)

NOTES:

BROADWAY AVENUE AT ALHAMBRA STREET



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for Broadway Avenue at Alhambra Street is 4.63. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs, especially the costs to acquire right of way. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change to the traffic signal alternative with further refinement of the project costs as proposed improvements progress through detailed planning and design.

As an example, the potential cost to acquire right of way for the construction of the roundabout is not included in the calculated B/C ratio. However, if right of way acquisition costs are greater than $540,000, this will result in a B/C ratio less than 1.0. A change in the B/C ratio to a value less than 1.0 will make the traffic signal alternative more preferable to the roundabout when comparing the potential return on investment for the proposed intersection improvements. So, if the costs to acquire right of way exceed $540,000 in constructing the roundabout, then the traffic signal is the more favorable alternative. Refer to Appendix B10, Capital Cost Worksheet, line item "Custom 1", which shows a B/C ratio of 0.67 with an assumed right of way acquisition cost of $600,000 for the roundabout alternative.

The total life cycle benefits of the roundabout are estimated at $470,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $7,200 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, will provide adequate vehicle capacity through the design year. Reducing the number of through lanes on Broadway Avenue to one lane each direction, while maintaining stop control, is not expected to provide adequate capacity for the design year. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2027 design year. The year 2015 was assumed for the baseline "build" condition for a total 12 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection number SEA-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Broadway Avenue at Alhambra Street	**Broadway Avenue (City of Seaside)**	4 lane undivided with on street parking	Local	30	Serves business & commercial land uses Commercial corridor	Service provided by Monterey Salinas Transit for Line 12	Sidewalks Crosswalk on east & west legs	No bike lanes provided
	Alhambra Street (City of Seaside)	2-lane undivided with on street parking	Local	25	Serves residential, business, & residential land uses	No Service	Sidewalks Crosswalk on south & north legs	No bike lanes provided

Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Broadway Avenue at Alhambra Street is controlled by stop signs on all approaches.

Parcels in the northwest, northeast, and southeast quadrants are developed with commercial structures located at the back of existing sidewalks. The southwesterly parcel provides customer parking for the adjacent business. The existing intersection is within the City of Seaside.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Existing commercial structure – identified as fatal flaw if disturbed.
2. Existing parking lot

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Broadway Avenue at Alhambra Street intersection is located within the City of Seaside West Broadway Urban Village Specific Plan. The West Broadway Urban Village Specific Plan identifies a reduction in traffic lanes on Broadway Avenue from 4 lanes to 2 lanes.

As part of this process, the City of Seaside has prepared plans for improvements to Broadway Avenue, including installation of a traffic signal at the study intersection. The calculated B/C ratio in this report assumes similar effort and capital support costs for both the roundabout and traffic signal alternatives. Since the City of Seaside has already completed work on the traffic signal alternative, the estimated capital support costs assumed in this report for the traffic signal alternative could be reduced to the amount of effort required to complete the design, if any. The reduction in estimated capital support costs would in turn reduce the B/C ratio.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for the 2011 PM peak hour and the 2027 PM peak hour volumes were taken from the West Broadway Avenue Corridor Transportation Analysis provided by the City. Volumes were not provided for the AM peak hour.

Stop Control (Existing)

With stop control and four travel lanes on Broadway Avenue, there is adequate capacity to serve forecast demand for the PM peak hour. Reducing the number of travel lanes on Broadway Avenue from four to two, while maintaining all way stop control, will not provide adequate capacity to serve forecast demand for either design period during the PM peak hour. Operations for the reduced lane stop control option are provided in the Operations Summary. A B/C ratio was not calculated for this alternative.

Signal Control

With signal control, two travel lanes on Broadway Avenue will provide adequate capacity to serve forecast demand for the PM peak hour. Intersection improvements, such as bulb outs, are suggested to reduce pedestrian crossing distances.

The proposed traffic signal is expected to improve intersection performance and provide adequate capacity for the PM peak hours under both existing and future design year conditions.

Proposed intersection and roadway reconfiguration will improve pedestrian and bike.

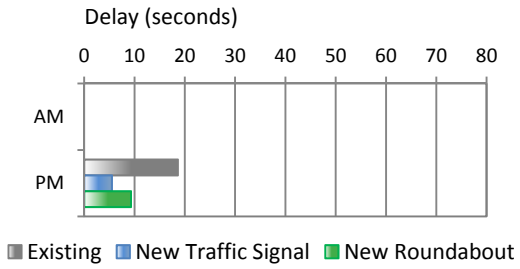
Roundabout Control

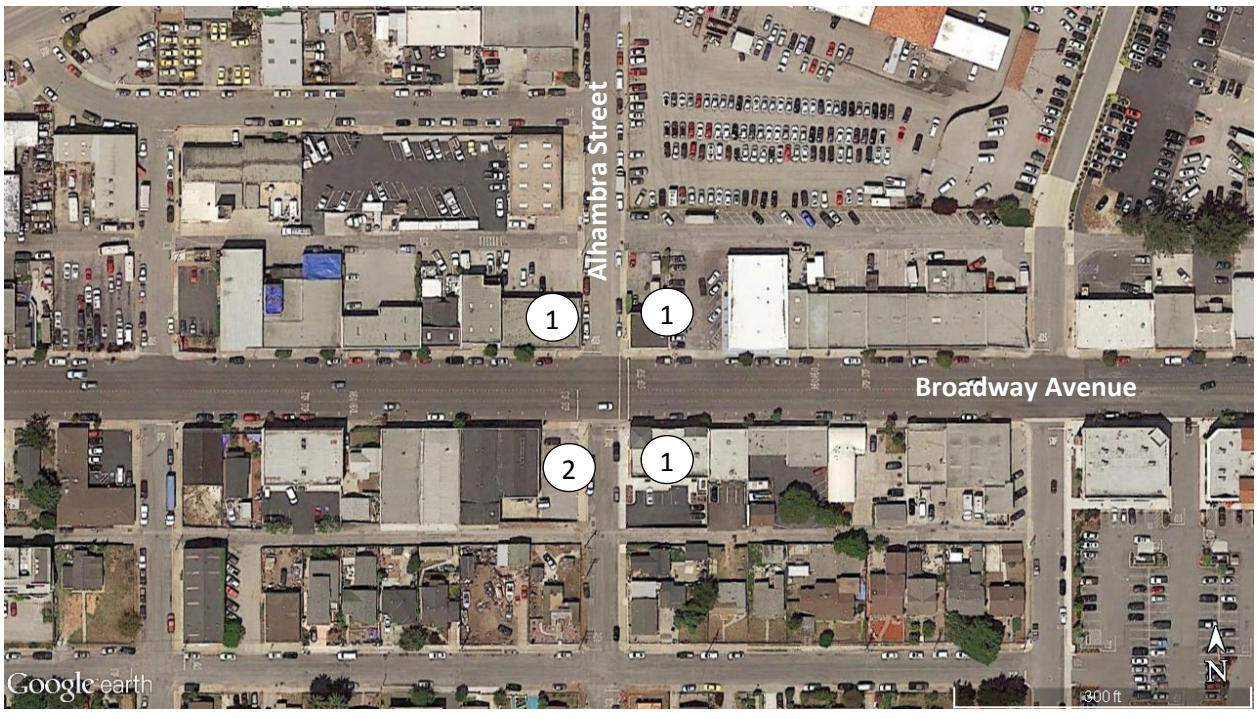
With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to improve intersection performance and provide sufficient capacity for AM and PM peak hours under both existing and future design year conditions.

Proposed intersection and roadway reconfiguration will improve pedestrian and bike facilities and maintain transit stops.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.

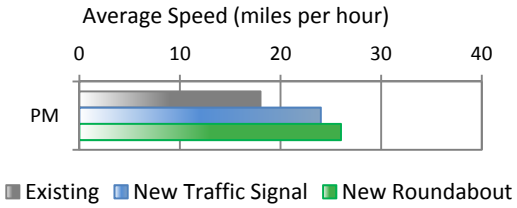




1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

NOTE: AM data was not provided.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	NONE

NONE: Indicates that neither the signal nor roundabout alternative has a cost effectiveness value less than $20,000.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- AM peak hour traffic data.
- Preliminary engineering and additional site investigations, especially topographic and boundary survey.
- Cost to acquire right of way.
- The width of sidewalks and buffer treatments between the sidewalks and roundabouts at property corners (increased sidewalk width could change B/C ratio and preferred intersection control type or result in a fatal flaw if impacts to existing structures are unavoidable).
- Evaluation of pedestrian and bicycle flows through the intersection and evaluation of multi-use paths.
- Impact to surface parking lot operations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SEA-02**
01/16

Intersection Cost Comparison

Broadway Avenue at Alhambra Street
Seaside, CA

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.30	$ 44,856	$ 420,976	0.67	$ 99,680	$ 935,503
Predicted PDO Crashes	1.19	$ 12,120	$ 113,750	1.34	$ 13,682	$ 128,406
Subtotal - Safety Costs	-	**$ 56,976**	**$ 534,727**	-	**$ 113,362**	**$ 1,063,910**
DELAY						
Delay to Persons in Vehicles (hours)	892	$ 12,067	$ 156,870	546	$ 7,416	$ 96,412
Subtotal - Delay Costs	-	**$ 12,067**	**$ 156,870**	-	**$ 7,416**	**$ 96,412**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 567	5,318
Cost of Power for Signal				-	$ 4,255	39,933
Cost of Illumination	6	$ 873	$ 8,190	4	$ 582	5,460
Cost of Landscaping Maintenance	-	$ 2,000	$ 18,770			
Cost of Signal Maintenance				-	$ 4,660	43,734
Cost of Pavement Rehabilitation			$ 28,325			$ 34,384
Subtotal - Operations and Maintenance Costs	-	**$ 2,873**	**$ 55,285**	-	**$ 10,063**	**$ 128,830**
EMISSIONS						
Tons of ROG	0.12	$ 113	$ 1,057	0.12	$ 113	$1,057
Tons of NOX	0.37	$ 4,757	$ 44,642	0.38	$ 4,927	$46,237
Tons of PM10	0.0053	$ 525	$ 4,929	0.0053	$ 525	$4,929
Subtotal - Emissions Costs		**$ 5,395**	**$ 50,628**		**$ 5,564**	**$ 52,222**
INITIAL CAPITAL COSTS						
Construction Cost			$ 891,775			$ 763,650
Construction Cost - Structures			$ -			$ -
Capital Support			$ 330,000			$ 283,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,221,775**			**$ 1,046,650**
NET PRESENT VALUE			$ 1,968,657			$ 2,335,802

LIFE CYCLE BENEFIT/COST ANALYSIS		
BENEFITS - Roundabout compared to Traffic Signal		
Safety Benefit of Roundabout	$529,183	LIFE CYCLE (12 YEAR) BENEFIT/COST RATIO
Delay Reduction Benefit of Roundabout	-$60,458	
Emission Reduction Benefit of Roundabout	$1,594	
Total Benefits	**$470,320**	
COSTS - Roundabout compared to Traffic Signal		**4.63**
Added O&M Costs of a Roundabout	-$73,545	
Added Capital Costs of a Roundabout	$175,125	
Total Costs	**$101,580**	

B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS		
AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	190	163
Cost Per Pound Per Life	$211.90	$246.08
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	$35,317	$41,014

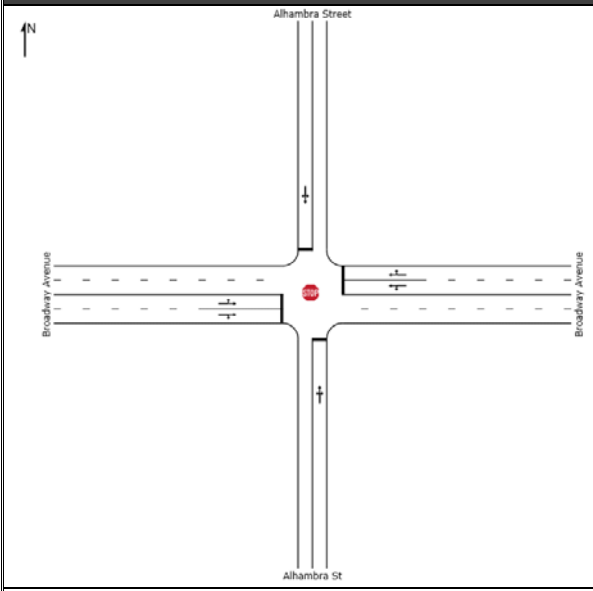
Intersection Improvement Alternatives

Signal Alternative

Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

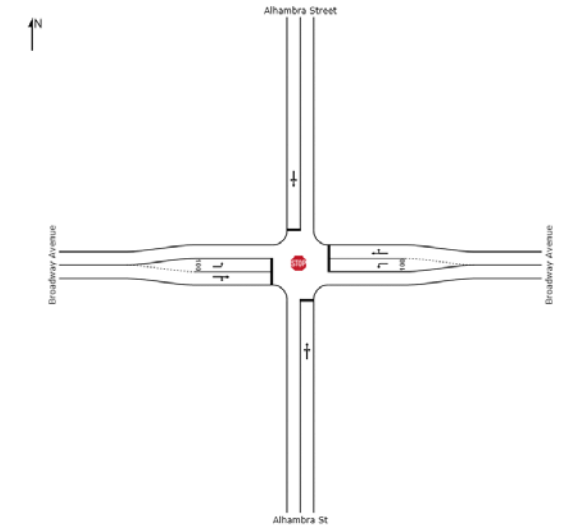


EXISTING INTERSECTION
STOP

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	-	-	-	B	12.4	73 (EBT)
2027	-	-	-	C	18.6	133 (EBT)

NOTES:

1. AM traffic data was not provided.

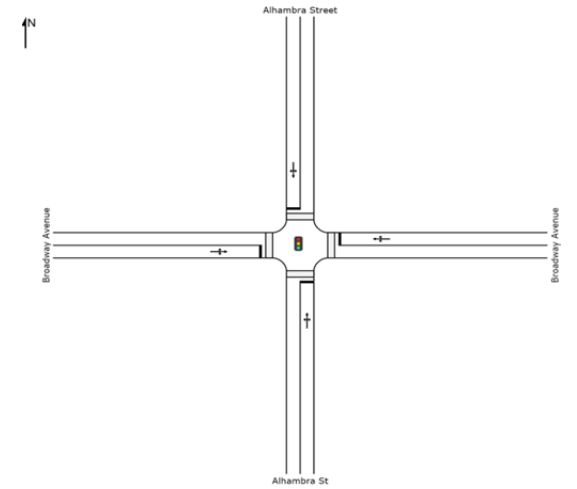


ALTERNATIVE 1
STOP (BROADWAY AVENUE LANE REDUCTION)

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	-	-	-	E	37.2	385 (EBT)
2027	-	-	-	F	53.1	373 (WBT)

NOTES:

1. AM traffic data was not provided.



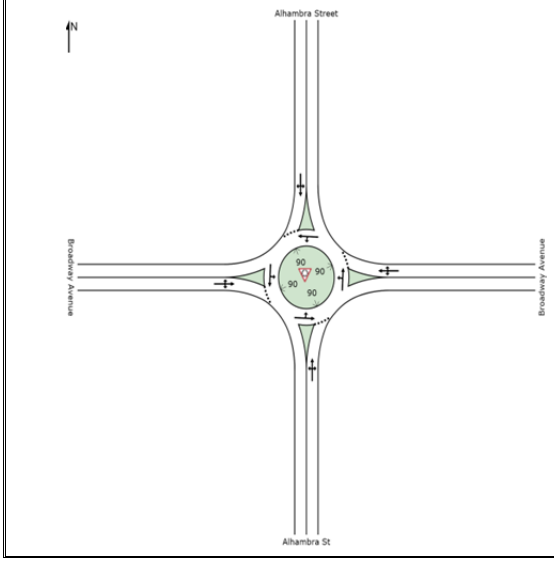
ALTERNATIVE 2
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	-	-	-	A	4.6	161 (EB)
2027	-	-	-	A	5.5	267 (EB)

NOTES:

1. AM traffic data was not provided.

Intersection Control Alternative Summary



ALTERNATIVE 3
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2011	-	-	-	A	7.1	102 (EB)
2027	-	-	-	A	9.3	144 (EB)

NOTES:

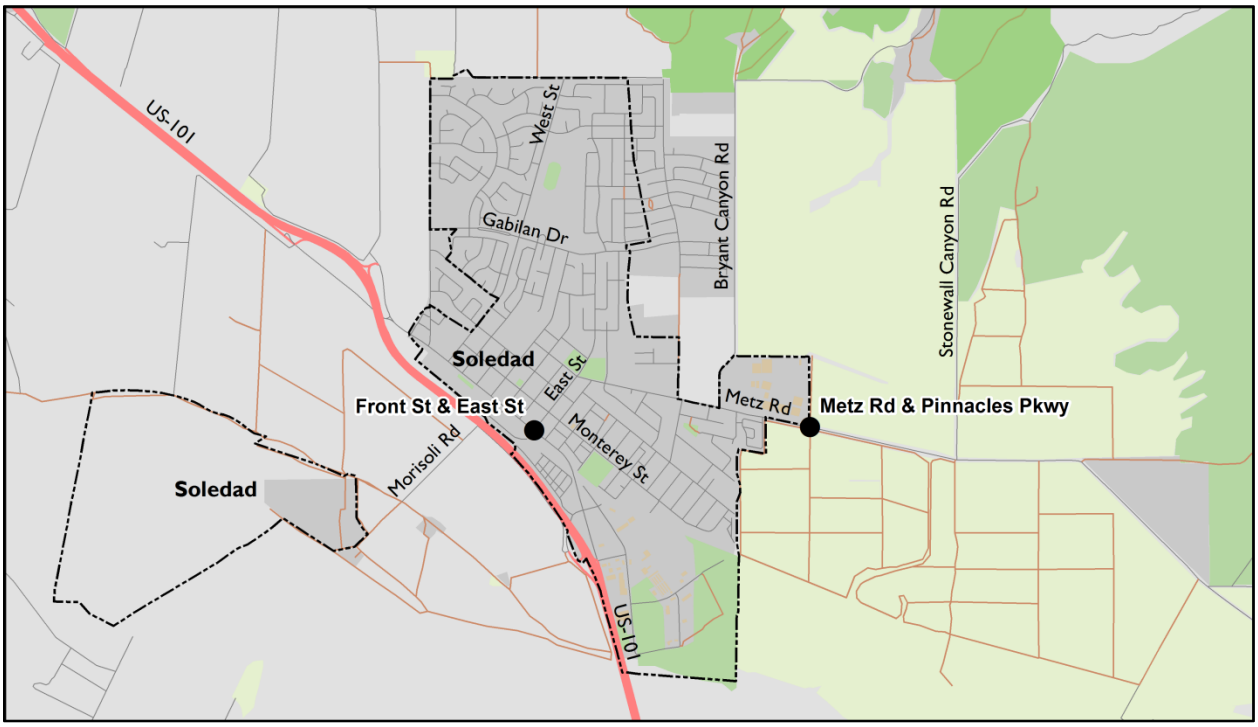
1. AM traffic data was not provided.

Regional Roundabout Study – Utilizing Caltrans' Intersection Control Evaluation
Section 11:

City of Soledad

Study Intersections:

- METZ ROAD AT PINNACLES PARKWAY (PROPOSED)
- FRONT STREET AT EAST STREET



CITY OF SOLEDAD SCREENING SUMMARY

STUDY OVERVIEW

An Intersection Control Evaluation (ICE) was performed to objectively evaluate and screen intersection control alternatives at the following intersection(s):

Study Intersection	Intersection Number
Metz Road at Pinnacles Parkway (Proposed)	SOL-01
Front Street at East Street	SOL-02

This screening summary provides an overview of performance measures used to calculate the return on investment for study intersections under City of Soledad jurisdiction. Results of the analysis and preferred traffic control type are presented in graphical form for quick reference.

Following the screening summary, a section is provided for each study intersection summarizing the design year peak hour operations, site constraints, concept layouts, and benefit cost calculations for each control alternative.

The table below lists the symbols of intersection control types evaluated (refer to the intersection summary for the list of alternatives evaluated at each intersection).

Control Type	Legend	
	Existing	Proposed
Stop Sign		
Traffic Signal		
Roundabout	N/A	

RETURN ON INVESTMENT SUMMARY

Benefit Cost Ratio Scoring

Benefit cost (B/C) ratios were calculated for each study intersection. The B/C ratio measures the expected return on investment when either a proposed stop control or a proposed signal controlled intersection is compared relative to a proposed roundabout controlled intersection.

B/C = 1.00: A B/C ratio of 1.00 is a neutral rating. This indicates that the return on investment for either stop or signal control improvement is equal to a roundabout.

B/C < 1.00: A B/C ratio less than 1.00 indicates that a stop/signal will provide a better return on investment when compared to a roundabout.

B/C > 1.00: A B/C ratio greater than 1.00 indicates that a roundabout provides a better return on investment when compared to either stop or signal control.

B/C = NA-R: When the cost of a roundabout is less than the cost of a stop/signal and the roundabout provides benefits over the stop/signal, a B/C ratio cannot be computed. This special case is denoted by "NA-R" and indicates that a roundabout provides a better return on investment when compared to a stop/signal.

Benefit Cost Ratio Results

Based on data provided by the City of Soledad, a holistic B/C score was developed based on the net present value (i.e., life cycle duration using a discount rate of 4%) for the following five performance measures:

- ***Safety Benefit***
- ***Delay Reduction Benefit***
- ***Emission Reduction Benefit***
- ***Operations and Maintenance Costs***
- ***Initial Capital Costs***

The resulting B/C ratio and the preferred intersection control type based on return on investment for each study intersection(s) is as follows:

Study Intersection	B/C Ratio	Preferred Control
Metz Road at Pinnacles Parkway (Proposed)	**NA-R**	
Front Street at East Street	**1.98**	

SUMMARY OF KEY PERFORMANCE MEASURES

As stated above, five performance metrics were evaluated at each study intersection to calculate the B/C ratio. The performance measures used to

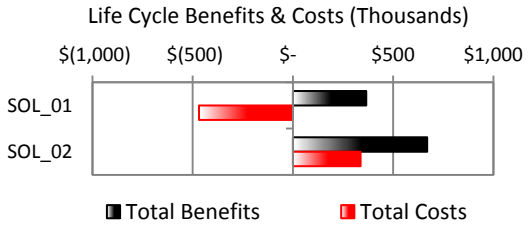
calculate the ***benefits*** of a roundabout compared to a stop or traffic signal are:

- ***Safety Benefit*** (of a roundabout)
- ***Delay Reduction Benefit*** (of a roundabout)
- ***Emission Reduction Benefit*** (of a roundabout)

Performance measures used to calculate the ***costs*** of a roundabout compared to a stop or traffic signal are:

- ***Operations and Maintenance Cost (***added costs of a roundabout)
- ***Initial Capital Cost*** (added costs of a roundabout)

The summation of the performance measure benefits and performance measure costs are illustrated below for each intersection:



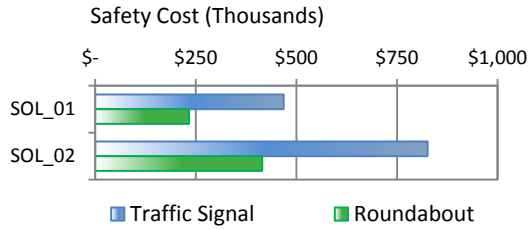
A negative cost is shown for SOL_01 as the comparison calculates roundabout cost minus signal control and for this intersection the intersection initial cost is greater than that of the roundabout. A brief overview of each performance measure and the assumptions used to calculate the performance measure costs are provided below. A bar chart illustrating the calculated cost of each performance measure by intersection control type is provided for each intersection. Following the performance measure overview is a table summarizing the preferred form of intersection control based solely on the results of individual performance measure.

Benefit Performance Measures

The following performance measures are used to calculate the benefit, or cost savings, of a roundabout compared to stop or signal control. For each performance measure, the roundabout provides a benefit if the calculated life-cycle cost of the roundabout is less than the life-cycle cost of stop or signal control. The magnitude of the benefit is the difference between the life-cycle cost of the stop or signal less the life-cycle cost of the roundabout.

Safety

Safety measures the societal cost associated with the predicted number and severity of collisions that may occur for each proposed intersection control type. The number of predicted collisions was calculated using Highway Safety Manual predictive methods and crash modification factors. The societal cost of property damage only (PDO) collisions is consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*. The societal cost of fatal/injury collisions are a weighted average based on the 2012 SWITRS proportion of fatal/injury collisions. Safety costs are the summation of predicted PDO and fatal/injury collisions.

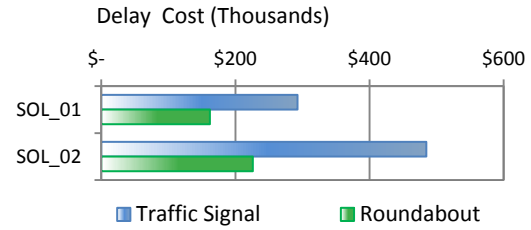


Based solely on the lowest predicted life-cycle cost for safety, the preferred intersection control type for each study intersection is as follows:

Safety **Study Intersection**	**Preferred Control**
Metz Road at Pinnacles Parkway (Proposed)	
Front Street at East Street	

Delay

Delay measures the societal cost associated with the number of person-hours of delay at the intersection during the study period. Consistent with the *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012*, vehicle occupancy of 1.15 is used to convert delay to person-hours of delay at a value of $17.35 per vehicle-hour of delay.

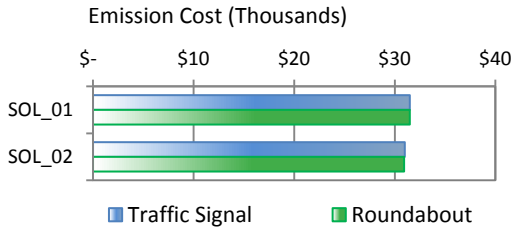


Based solely on lowest expected person hours of delay, the preferred intersection control type for each study intersection is as follows:

Delay **Study Intersection**	**Preferred Control**
Metz Road at Pinnacles Parkway (Proposed)	
Front Street at East Street	

Emissions

The emissions performance measure calculates the societal cost associated with exposure to health based pollutants emitted by motor vehicles. Pollutant emissions are running emissions based on the average speed of vehicles traveling through the intersection during the study period. Pollutant emissions evaluated include reactive organic gasses (ROG), nitrogen oxides (NOx), and particulate matter (PM10). The societal cost of emissions is calculated using emission data from the California Air Resource Board (CARB) *Methods to Find the Cost-Effectiveness of Funding Air Quality Projects, Table 4 Emission Factors by Speed, April 2013* and cost per ton data from *Caltrans Life-Cycle Benefit-Cost Analysis Economic Parameters 2012* for emissions (Note: VOC is assumed to be synonymous with ROG).



Based solely on fewer tons per year of mobile source pollutant emissions (i.e., fewer vehicle stops, fewer hard acceleration events, higher average speeds through the intersection) and the societal cost associated with exposure to these health based pollutant emissions, the preferred intersection control type for each study intersection is as follows:

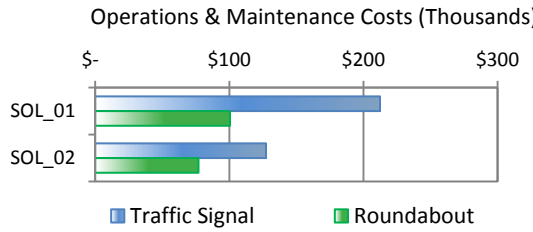
Emissions **Study Intersection**	**Preferred Control**
Metz Road at Pinnacles Parkway (Proposed)	EQUAL
Front Street at East Street	

Cost Performance Measures

The following performance measures are used to calculate the added cost of a roundabout compared to stop or signal control. For each performance measure, the roundabout adds to the cost of the intersection if the calculated life-cycle cost of the roundabout is greater than the life-cycle cost of stop or signal control. The magnitude of the cost is the difference between the life-cycle cost of the roundabout less the life-cycle cost of the stop or signal.

Operations and Maintenance

The operations and maintenance performance measure incorporates common annualized costs associated with operating and maintaining the proposed type of intersection control. Common costs include signal timing and maintenance, power consumption for signal operations and intersection illumination, landscape maintenance, and pavement rehabilitation. Average annualized costs were used if intersection specific costs were not provided.

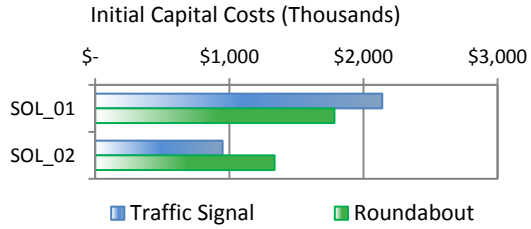


Based solely on lowest expected annual operations and maintenance costs, the preferred intersection control type for each study intersection is as follows:

Operations and Maintenance **Study Intersection**	**Preferred Control**
Metz Road at Pinnacles Parkway (Proposed)	
Front Street at East Street	

Initial Capital Costs

The initial capital costs performance measure estimates the capital costs needed to plan, design, and construct the proposed intersection improvement. The capital costs include construction, capital support, and right of way.



Based solely on lowest estimated initial capital cost, the preferred intersection control type for each study intersection is as follows:

Initial Capital Cost **Study Intersection**	**Preferred Control**
Metz Road at Pinnacles Parkway (Proposed)	
Front Street at East Street	

Summary of B/C Performance Measures

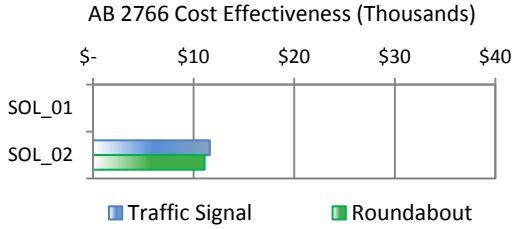
The following table summarizes the five performance measures evaluated at each project location.

Study Intersection	Preferred Intersection Control by Performance Measure					
	Safety	Delay	Ops. & Maint.	Emission	Capital Cost	B/C
Metz Road at Pinnacles Parkway (Proposed)				EQUAL		
Front Street at East Street						

COST EFFECTIVENESS TO REDUCE POLLUTANT EMISSIONS (AB 2766 GRANT)

The cost effectiveness to reduce pollutant emissions measures the return on investment of funding intersection improvements based on the California Air Resources Board (CARB) Cost Effectiveness Analysis Tools for the Motor Vehicle Registration Fees Program (AB 2766) and the Congestion Mitigation and Air Quality (CMAQ) Program. The emission factors used in the calculations are based on the year 2013 Table 4 Emission Factors by Speed for Project Life 6-10 years. The assumed funding amount is $400,000 with an effectiveness period equaling the life cycle analysis period. The discount rate for emissions is 3% and the capital recovery factor (CRF) is 0.12.

Intersection alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less should be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD). This funding source could help with the cost to TAMC and the City of Greenfield.



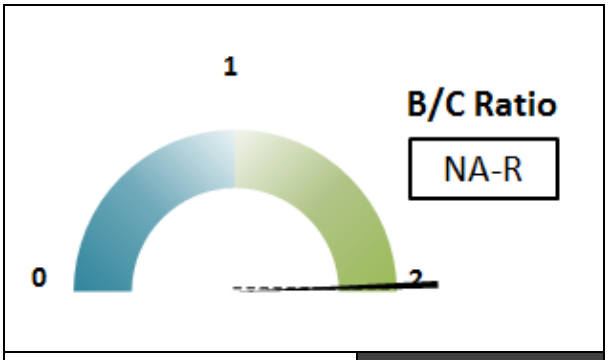
Based solely on lowest cost per ton in reducing pollutant emissions, the preferred intersection control type for each study intersection is provided below.

AB 2766 Cost Effectiveness Study Intersection	Preferred Control
Metz Road at Pinnacles Parkway (Proposed)	NONE
Front Street at East Street	

NOTE: Only the alternative with the lowest cost effectiveness score is reported. Both alternatives may be cost effective to reduce pollutant emissions.

None: The average speeds of the proposed improvements are similar to existing and do not provide a benefit.

METZ ROAD AT PINNACLES PARKWAY (PROPOSED)



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for Metz Road at Pinnacles Parkway is NA-R. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is not sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type is unlikely to change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

The B/C ratio is assigned a value NA-R due to the higher initial capitol cost of the signal alternative compared to the roundabout alternative. The key contributing factor to the higher estimated signal cost is the length of left turn channelization that is required for each leg approaching the intersection. The total life cycle benefits of the roundabout are estimated at $370,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $4,500 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. Since no intersection exists today, non-roundabout intersection operations were evaluated for stop control and traffic signal control. The stop control alternative assumed a side-stop for the minor road on the proposed Pinnacles Parkway. Demand is expected to exceed capacity of the stop control intersection. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2035 design year. The year 2015 was assumed for the baseline "build" condition for a total 20 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number SOL-01 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
						Transit Service	Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context		Pedestrian Considerations	Bicycle Routes
Metz Road at Pinnacles Parkway (Proposed)	**Metz Road (SR 146) (Caltrans)**	2 lane undivided	Conventional highway	55 east, 35 west	Serves recreational, residential, institutional, industrial, & agricultural land uses SR 146 provides access to Pinnacles National Park	No transit service provided	No sidewalks provided	No bike lanes provided
	Pinnacles Parkway (Proposed)	2 lane undivided (Proposed)	Arterial	35 assumed	Serves residential, institutional, industrial, & agricultural land uses	TBD	TBD	TBD

Metz Road, or State Route 146 (SR 146), is currently a conventional highway with private, farm access driveways at the intersection with the proposed Pinnacles Parkway and the future Gabilan Drive extension.

Parcels in the immediate vicinity of the project are vacant or have dwelling set-backs exceeding 100 feet from the existing edge of pavement. The existing intersection is within City of Soledad and Caltrans right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Potential right of way constraint
2. High speed approach

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

Planned improvements by the City of Soledad include the northerly extension of Los Coches Road (proposed as Pinnacles Parkway) and the southerly extension of Gabilan Drive to create the proposed intersection at Metz Road. For the purpose of this study, Pinnacles Parkway is assumed to exist for existing and future design year conditions. Gabilan Drive is assumed to be constructed at beyond the year 2035 and is therefore not considered in the B/C ratio calculations. However, intersection operations including the Gabilan Drive extension were evaluated for signal and roundabout control alternatives for the 2035 design year. Refer to the Intersection Control Alternative Summary table.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Proposed Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for 2015 / 2035 AM and PM peak hour volumes were taken from the Soledad Business Park TIA provided by the City. Design year 2035 AM and PM peak hour volumes for the future intersection with Gabilan Drive were taken from the Gabilan Drive Extension Study provided by the City.

Stop Control

With stop control, operations were evaluated with Metz Road maintaining uninterrupted flow and stop control installed for northbound Pinnacles Parkway

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

traffic. Roadway improvements include the widening of Metz Road to accommodate westbound left turn channelization in both directions. Design year PM peak hour demand is expected to exceed capacity for northbound Pinnacles Parkway. Northbound Pinnacle Parkway vehicles are expected to experience significant delay while trying to enter Metz Road.

Based on the design year PM peak hour operations, a B/C ratio was not developed for this alternative. The costs to construct the left turn channelization improvements are comparable to the cost of the signal control, less the signal equipment. In addition, the added cost in delay is over $1,500,000 more than the signal alternative.

Signal Control

With signal control, roadway improvements include the widening of Metz Road to accommodate westbound left turn channelization in both directions. Demand is adequately served for AM and PM peak hours under both existing and future design year conditions.

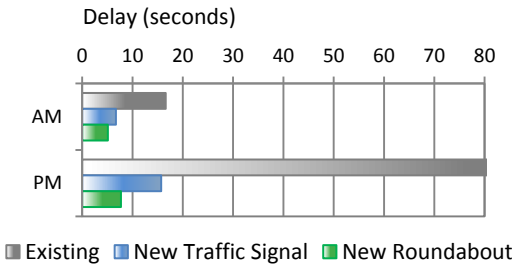
Crosswalks are currently not stripped at the intersection but with signalization can be provided with increased safety. Bike lanes and transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access. Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to perform below capacity for AM and PM peak hours under both existing and future design year conditions.

Crosswalks are currently not stripped at the intersection but can be provided with midway refuge areas. Bike lanes and transit stops are not provided at the intersection therefore the necessary lane additions will not impact transit access.

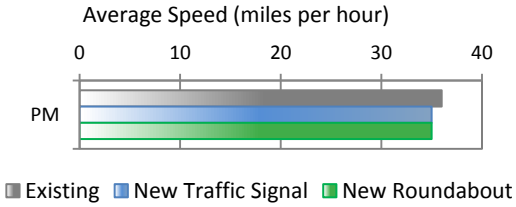
TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



NOTE: Intersection delay is limited to 80 seconds in the chart above. 80 seconds is equivalent to a Level of Service F (LOS F) for signal control.

The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



NOTE: Traffic is not controlled on Metz Road and is able to travel at a high rate of speed for the existing condition.

PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Table below. Intersection control alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified

Performance Measure Summary Performance Measure	Preferred Control
Benefits	
Safety	
Delay	
Emission	EQUAL
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	N/A - New Intersection

RECOMMENDATIONS FOR FURTHER STUDY

The following recommendations for further study will likely have the greatest effect on the B/C Ratio and the potential return on investment:

- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SOL-01**
01/16

Intersection Cost Comparison

Los Coches Drive at Metz Street
Soledad, CA

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.09	$ 13,909	$ 189,022	0.21	$ 30,908	$ 420,048
Predicted PDO Crashes	0.32	$ 3,244	$ 44,089	0.35	$ 3,548	$ 48,215
Subtotal - Safety Costs	**-**	**$ 17,153**	**$ 233,111**	**-**	**$ 34,456**	**$ 468,263**
DELAY						
Delay to Persons in Vehicles (hours)	724	$ 7,715	$ 162,017	1310	$ 13,937	$ 292,667
Subtotal - Delay Costs	-	**$ 7,715**	**$ 162,017**	-	**$ 13,937**	**$ 292,667**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 500	6,795
Cost of Power for Signal				-	$ 1,500	20,385
Cost of Illumination		$ 1,000	$ 13,590		$ 1,000	13,590
Cost of Landscaping Maintenance	-	$ 1,000	$ 13,590			
Cost of Signal Maintenance				-	$ 3,500	47,566
Cost of Pavement Rehabilitation			$ 73,307			$ 124,000
Subtotal - Operations and Maintenance Costs	-	**$ 2,000**	**$ 100,488**	-	**$ 6,500**	**$ 212,337**
EMISSIONS						
Tons of ROG	0.04	$ 36	$ 484	0.04	$ 36	$484
Tons of NOX	0.16	$ 2,095	$ 28,468	0.16	$ 2,095	$28,468
Tons of PM10	0.0019	$ 187	$ 2,539	0.0019	$ 187	$2,539
Subtotal - Emissions Costs		**$ 2,317**	**$ 31,491**		**$ 2,317**	**$ 31,491**
INITIAL CAPITAL COSTS						
Construction Cost			$ 1,188,700			$ 1,426,100
Construction Cost - Structures			$ -			$ -
Capital Support			$ 595,000			$ 714,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,783,700**			**$ 2,140,100**
NET PRESENT VALUE			**$ 2,279,316**			**$ 3,113,368**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$235,153
Delay Reduction Benefit of Roundabout	$130,650
Emission Reduction Benefit of Roundabout	$0
Total Benefits	**$365,802**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$111,850
Added Capital Costs of a Roundabout	-$356,400
Total Costs	**-$468,250**

LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO

N/A

B/C Preferred: Roundabout Alternative

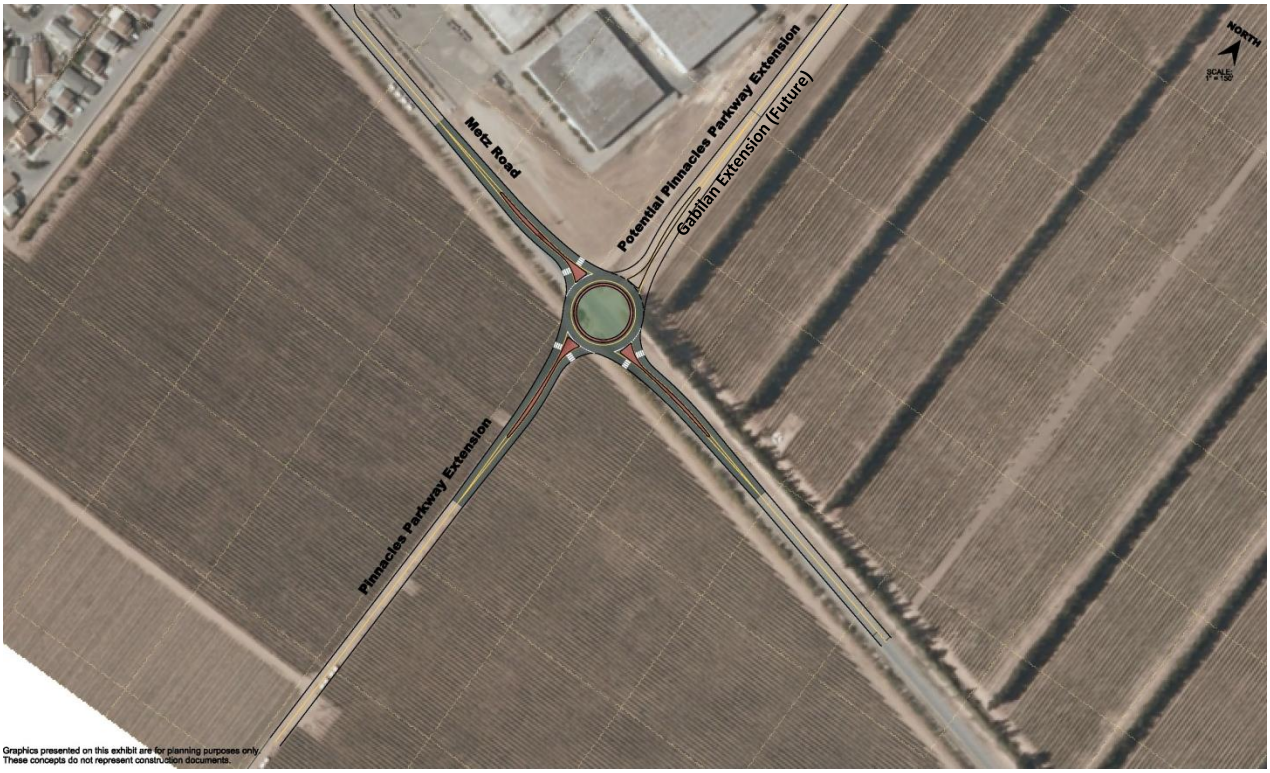
Roundabout Preferred
Cost of Roundabout is less than cost of Traffic Signal, and Roundabout offers benefits compared to Traffic Signal.

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	N/A - New intersection	N/A - New intersection
Cost Per Pound Per Life	N/A - New intersection	N/A - New intersection
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**N/A - New intersection**	**N/A - New intersection**

Intersection Improvement Alternatives

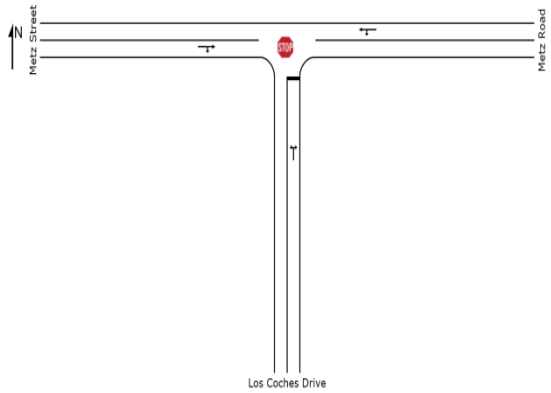
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

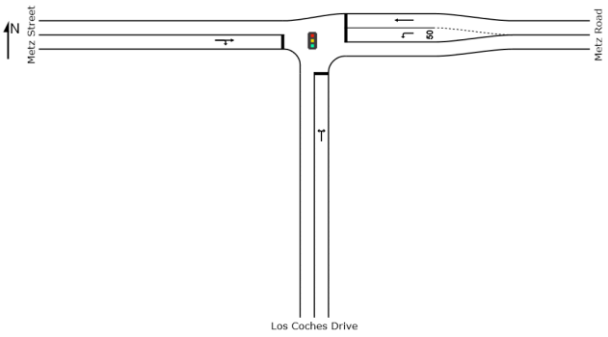
Intersection Control Alternative Summary



ALTERNATIVE 0
STOP CONTROL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	9.4 (NB)	3 (NB)	B	10.3 (NB)	23 (NB)
2035	C	16.6 (NB)	48 (NB)	F	149.5 (NB)	565 (NB)

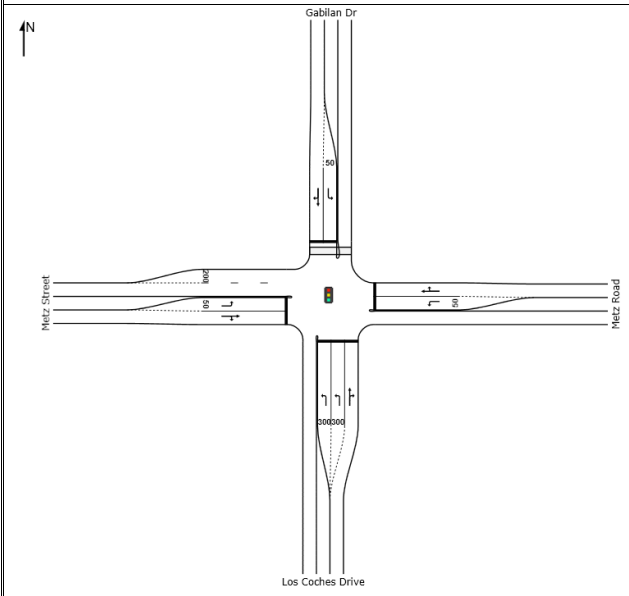
NOTES:



ALTERNATIVE 1
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	6.1	16 (EBT)	A	5.4	21 (EBT)
2035	A	6.7	66 (NB)	B	15.7	292 (NB)

NOTES:

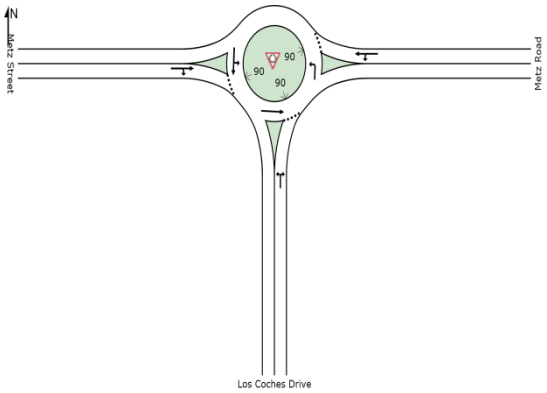


ALTERNATIVE 1
SIGNAL (With Gabilan Extension)

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	Not Evaluated					
2035	B	11.6	135 (EBT)	B	18.1	373 (EBT)

NOTES:

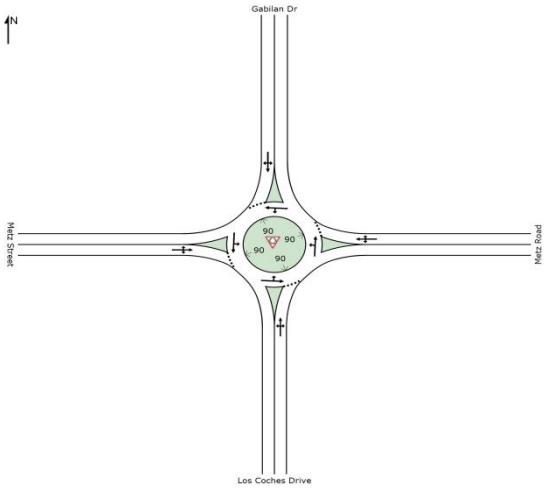
Intersection Control Alternative Summary



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	A	3.1	10 (EB)	A	3.4	14 (EB)
2035	A	5.1	56 (EB)	A	7.7	91 (NB

NOTES:

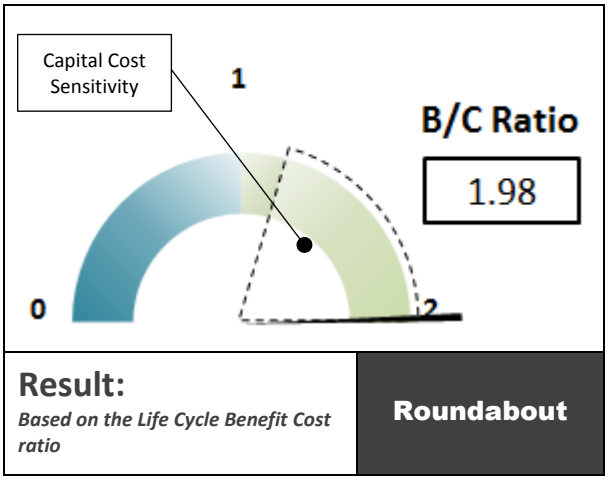


ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	Not Evaluated					
2035	A	5.8	63 (EB)	B	10.6	172 (NB)

NOTES:

FRONT STREET AT EAST STREET



Result:
Based on the Life Cycle Benefit Cost ratio

Roundabout

The Benefit Cost (B/C) ratio for Front Street at East Street is 1.98. Based on the B/C ratio, the form of intersection control with the greatest potential return on investment is a Roundabout.

CAPITAL COST SENSITIVITY

The B/C ratio for this study intersection is sensitive to estimated capital costs. Based on the B/C ratio's sensitivity to estimated capital costs, the preferred intersection control type may change with further refinement of the project costs as proposed improvements progress through detailed planning and design.

The total life cycle benefits of the roundabout are estimated at $670,000 when compared to a traffic signal. The total life cycle benefit includes an estimated $4,500 reduction in annual operations and maintenance costs when compared to a traffic signal.

Operationally, the roundabout configuration is a viable alternative to serve forecast traffic. The existing stop-control or, no project alternative, is near capacity in the PM peak hour and will continue to degrade over time. Signal control is a viable alternative considering the project constraints given for this evaluation. There may be other considerations, constraints, and project factors identified in future design evaluations that could affect the feasibility and prioritization of a specific configuration.

The intersection evaluation was based on traffic operations for the 2035 design year. The year 2015 was assumed for the baseline "build" condition for a total 20 year life cycle duration to determine the B/C ratio.

Refer to the Intersection Cost Comparison for intersection Number SOL-02 on the following pages for a complete summary of the Life Cycle Benefit/Cost Analysis.

EXISTING CONDITIONS

This section provides a brief overview of the transportation facilities and geometric characteristics of the roadways within the study area. This section also describes the existing conditions and constraints identified at the study location.

Front Street at East Street is controlled by stop signs on all approaches.

Parcels in the north, east, and south quadrants are developed with commercial structures located at the back of existing sidewalks. The westerly parcel is undeveloped. The existing intersection is within the

Summary of Existing Conditions

Intersection	Roadway	Corridor Context				Multimodal Transportation		
							Active Transportation Links	
		Cross Section	Functional Classification	Speed (mph)	Regional Context	Transit Service	Pedestrian Considerations	Bicycle Routes
Front Street at East Street	**Front Street (SR 146 south of East Street)**	2 lane divided north of East St.	Local	25	Serves business & commercial land uses SR 146 provides access to Pinnacles National Park.	Service provided by Monterey Salinas Transit for Line 23 on Front Street south of East Street	Sidewalks Crosswalk on north leg	Class II Bike lanes south of East Street
	East Street (SR 146)	2 lane undivided	Local	25	Serves residential, business, & commercial land uses SR 146 provides access to Pinnacles National Park	Service provided by Monterey Salinas Transit for Line 23	Sidewalks Crosswalk on east and west leg	Class II Bike lanes

City of Soledad. The south leg of Front Street and the north leg of East Street are part of State Route 146 (SR 146) and Caltrans right of way.

Existing design constraints and considerations at the study intersection include (see map for locations):

1. Existing commercial structure – identified as fatal flaw if disturbed.
2. Identified as potential future parking lot

The Summary of Existing Conditions table describes the study area roadways. An aerial view of the project location with existing design constraints is provided below.

PLANNED IMPROVEMENTS

The Front Street at East Street intersection is located within the City of Soledad Downtown Specific Plan area.

INTERSECTION CONTROL ALTERNATIVES

The existing and proposed intersection control options that were evaluated at the study intersection include:

Control Type	Legend
Existing Stop	
Proposed Signal	
Proposed Roundabout	

Design Year Traffic

Traffic data for the 2015 PM peak hour and the 2035 AM and PM peak hour volumes were taken from the Soledad Business Park TIA provided by the City. Volumes were not provided for the existing AM peak hour.

Stop Control (Existing)

With stop control, demand is approaching capacity for the PM peak hour under existing conditions. Westbound Front Street vehicles experience significant delay and queuing. Improvements to increase capacity while maintaining stop control operations for the design year PM peak hour demand are not feasible based on existing site constraints.

1 Refer to the Existing Conditions section on the previous page for description of the design constraint.

Signal Control

With signal control, additional lanes are not required to achieve acceptable design year operations. Intersection improvements, such as bulb outs, are suggested to reduce pedestrian crossing distances.

The proposed traffic signal is expected to improve intersection performance and provide sufficient capacity for AM and PM peak hours under both existing and future design year conditions.

No physical changes are proposed to the existing intersection therefore there will be no impacts to pedestrian facilities. Bike lanes and transit stops are not provided.

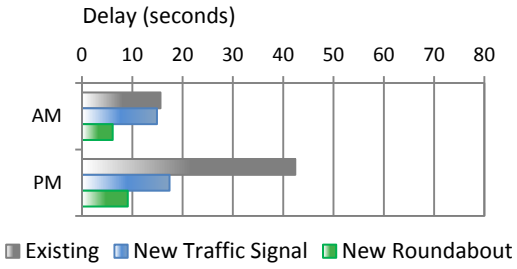
Roundabout Control

With roundabout control, a single lane roundabout with single lane approaches and departures will improve intersection performance. The single lane roundabout is expected to improve intersection performance and provide sufficient capacity for AM and PM peak hours under both existing and future design year conditions.

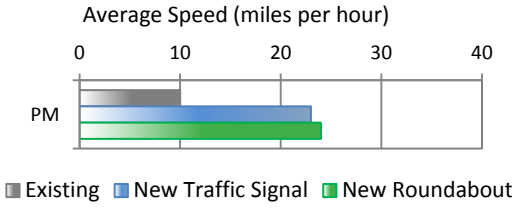
Crossing distances will be reduced with the one lane roundabout and midway refuge areas can also be provided. Bike lanes along Front Street and East Street can be maintained with a one lane roundabout. Transit stops can be maintained with a one lane roundabout.

TRAFFIC OPERATIONS SUMMARY

The following bar chart illustrates the peak hour intersection delay for design year traffic operations by intersection control form. Refer to the Intersection Control Alternative Summary table for additional information.



The following bar chart illustrates the calculated average speeds through the study intersection used to determine AB 2766 cost effectiveness.



PERFORMANCE MEASURE SUMMARY

The following table summarizes the five performance measures evaluated to calculate the B/C ratio and the cost effectiveness to reduce pollutant emissions. Refer to the Screening Summary for a brief overview of each performance measure and the assumptions used to calculate the performance measure costs. Refer to the Intersection Cost Comparison table for performance measure costs and B/C ratio calculations.

Intersection alternatives that may be considered for grant funding through the Motor Vehicle Registration Fees Program (AB 2766) administered by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) are noted in the Performance Measure Summary Table. Alternatives with a cost effectiveness to reduce pollutant emissions of $20,000 or less are identified.

Performance Measure Summary **Performance Measure**	**Preferred Control**
Benefits	
Safety	
Delay	
Emission	
Costs	
Operations and Maintenance	
Initial Capital Cost	
Return on Investment	
Life Cycle B/C Ratio	
AB 2766 Cost Effectiveness	
Cost effectiveness < $20,000	

Neutral: Indicates that the value of the performance measure is equal for each proposed alternative.

Recommendations for Further Study

The following recommendations for further study will likely have the greatest effect on the B/C ratio and the potential return on investment:

- Preliminary engineering and additional site investigations.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

TAMC Regional ICE Study
Intersection Number **SOL-02**
01/16

Intersection Cost Comparison

Front Street at East Street
Soledad, CA

Cost Performance Measure	Intersection Type					
	Roundabout			Traffic Signal		
	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost	Annual Quantity	Annual Cost	Total Discounted Life Cycle Cost
SAFETY						
Predicted Fatal/Injury Crashes	0.16	$ 24,051	$ 326,867	0.36	$ 53,448	$ 726,371
Predicted PDO Crashes	0.64	$ 6,495	$ 88,273	0.72	$ 7,331	$ 99,636
Subtotal - Safety Costs	**-**	**$ 30,547**	**$ 415,140**	**-**	**$ 60,779**	**$ 826,007**
DELAY						
Delay to Persons in Vehicles (hours)	945	$ 10,763	$ 226,032	2015	$ 23,083	$ 484,744
Subtotal - Delay Costs	-	**$ 10,763**	**$ 226,032**	-	**$ 23,083**	**$ 484,744**
OPERATIONS & MAINTENANCE						
Cost of Signal Retiming				-	$ 500	6,795
Cost of Power for Signal				-	$ 1,500	20,385
Cost of Illumination		$ 1,000	$ 13,590		$ 1,000	13,590
Cost of Landscaping Maintenance	-	$ 1,000	$ 13,590			
Cost of Signal Maintenance				-	$ 3,500	47,566
Cost of Pavement Rehabilitation			$ 49,815			$ 39,010
Subtotal - Operations and Maintenance Costs	-	**$ 2,000**	**$ 76,995**	-	**$ 6,500**	**$ 127,347**
EMISSIONS						
Tons of ROG	0.05	$ 46	$ 626	0.05	$ 51	$695
Tons of NOX	0.16	$ 2,015	$ 27,380	0.16	$ 2,015	$27,380
Tons of PM10	0.0022	$ 215	$ 2,919	0.0022	$ 215	$2,919
Subtotal - Emissions Costs		**$ 2,275**	**$ 30,924**		**$ 2,281**	**$ 30,994**
INITIAL CAPITAL COSTS						
Construction Cost			$ 891,525			$ 632,600
Construction Cost - Structures			$ -			$ -
Capital Support			$ 446,000			$ 317,000
Right-of-Way			$ -			$ -
Subtotal - Initial Capital Costs			**$ 1,337,525**			**$ 949,600**
NET PRESENT VALUE			**$ 2,055,692**			**$ 2,387,698**

LIFE CYCLE BENEFIT/COST ANALYSIS

BENEFITS - Roundabout compared to Traffic Signal	
Safety Benefit of Roundabout	$410,867
Delay Reduction Benefit of Roundabout	$258,713
Emission Reduction Benefit of Roundabout	$70
Total Benefits	**$669,649**
COSTS - Roundabout compared to Traffic Signal	
Added O&M Costs of a Roundabout	-$50,352
Added Capital Costs of a Roundabout	$387,925
Total Costs	**$337,573**

LIFE CYCLE (20 YEAR) BENEFIT/COST RATIO

1.98

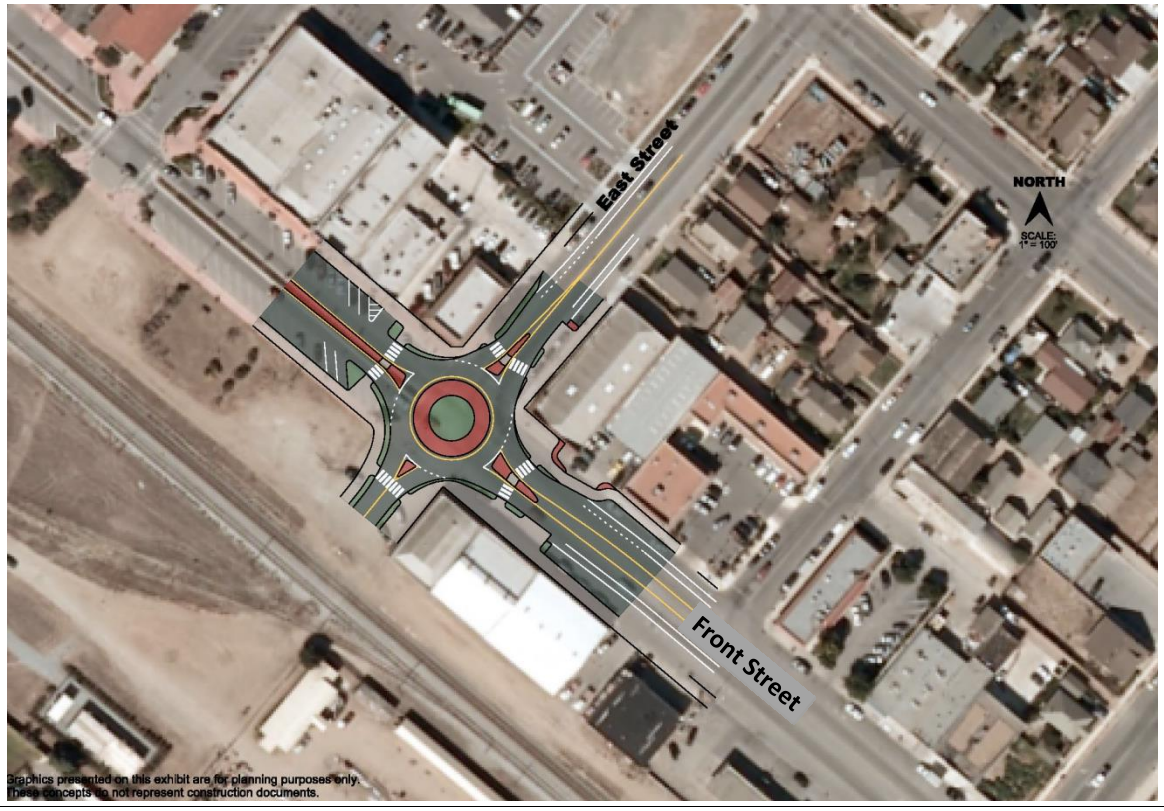
B/C Preferred: Roundabout Alternative

AIR QUALITY ANALYSIS

AIR QUALITY	**Roundabout (vs. existing)**	**Traffic Signal (vs. existing)**
Annual Emission Reduction (lb/year)	242	232
Cost Per Pound Per Life	$110.94	$116.10
AIR QUALITY COST EFFECTIVENESS ($ / ton / year)	**$11,094**	**$11,610**

Intersection Improvement Alternatives

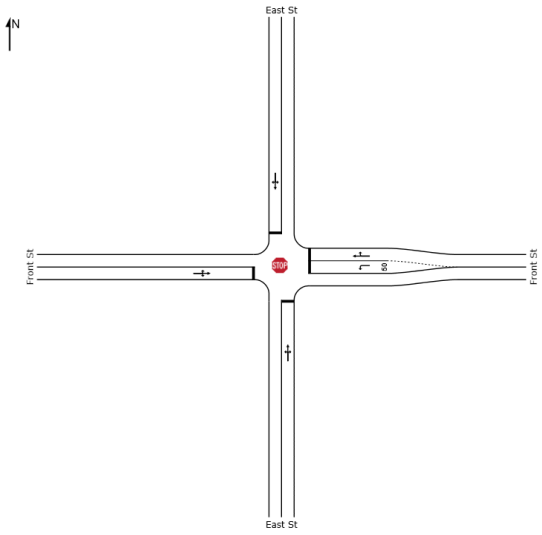
Signal Alternative



Roundabout Alternative

Note: Intersection alternative improvements are conceptual and for planning purposes only. Alternatives are not to scale.

Intersection Control Alternative Summary

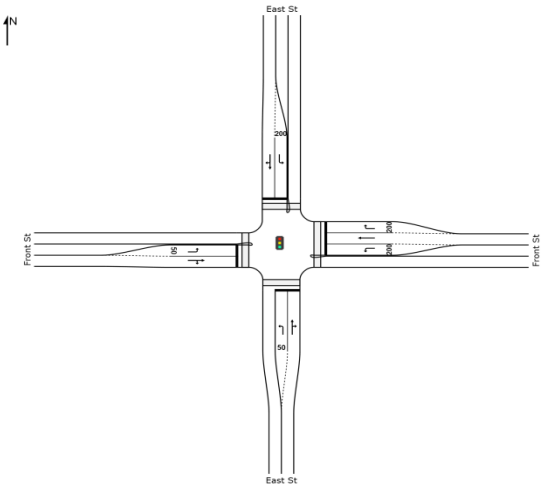


EXISTING INTERSECTION
SIGNAL

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	D	32.7	323 (WBT)
2035	C	15.6	108 (SB)	E	42.4	365 (WBL)

NOTES:

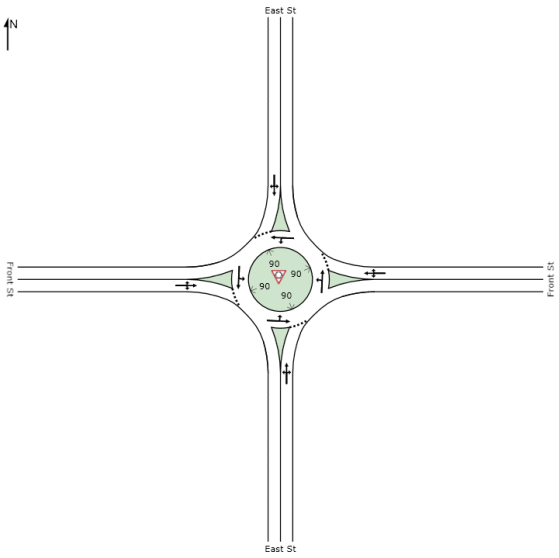
1. WB queue exceeds available storage for the 2015 and 2035 p.m. peak hours and operations at Dixie Street.



ALTERNATIVE 1
SIGNAL MODIFICATION PER COUNTY PLAN

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	B	15.7	197 (WBT)
2035	B	14.9	141 (SBL)	B	17.4	248 (WBT)

NOTES:



ALTERNATIVE 2
ROUNDABOUT

Summary of Operations						
	AM			PM		
Design Year	LOS	Delay (s)	95% Queue (ft)	LOS	Delay (s)	95% Queue (ft)
2015	-	-	-	A	6.9	81 (WB)
2035	A	6.1	48 (SB)	A	9.1	148 (WB)

NOTES:

Looking north at US/101 Los Osos Valley Road interchange in San Luis Obispo County

Caltrans District 5

District Director

Timothy Gubbins

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

SPRING 2016

District Director's Report

A quarterly publication for our transportation partners

US 101/LOVR Interchange Completed

Caltrans and its local partners recently celebrated the completion of the US 101/Los Osos Valley Road interchange in San Luis Obispo County. The $24 million project was completed ahead of schedule with cost savings. The completed project now provides:

- Widened Los Osos Valley Road crossing over US 101 and San Luis Obispo Creek.
- Class II bicycle lanes, wider sidewalks on both sides of the bridge and connection to the local Bob Jones Trail.
- Upgraded on and off ramps at the interchange.
- Landscaping project with welcoming city gateway.

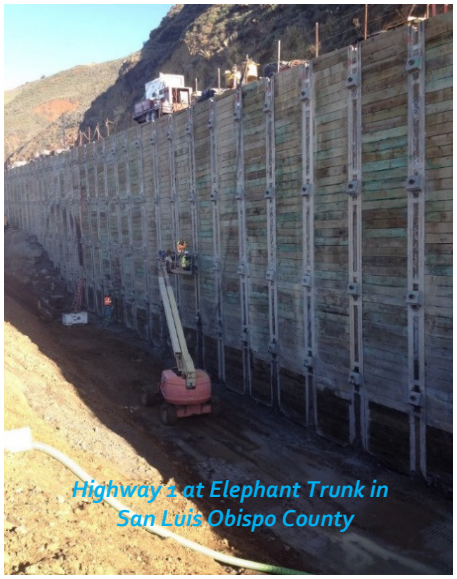
Latest Mile Marker Released

The Mile Marker: A Caltrans Performance Report is now available online. The plain language report addresses how well Caltrans is protecting and improving California's transportation system.

The latest issue covers the new Asset Management Program, declining gas tax revenues, and a pilot program analyzing the potential of replacing the gas tax with a road charge.

More information:
http://www.dot.ca.gov/MileMarker/2016-1/index.html.

Sustainable Project Restores Slide Area



Highway 1 at Elephant Trunk in San Luis Obispo County

The Highway 1 Elephant Trunk Slide Restoration project is constructing a 1,000-foot-long soldier pile wall beneath and alongside the highway. It will stand about 50 feet tall at its highest point, but will remain below the highway's elevation with minimal visibility.

Views of the wall from the highway will be brief for northbound travelers and longer for those heading southbound without affecting the ocean view.

(Continued on bac

Please Submit Maintenance Service Requests at the Following Link: http://www.dot.ca.gov/hq/maint/msrsubmit/

Sustainable Project Continued

The $9.5 million project will stabilize settlement affecting the highway. John Madonna Construction is the contractor for the project scheduled for completion in winter 2017.

Input Sought

CALIFORNIA STATE BIKE&PED PLAN

District 5 is hosting a regional forum with local agencies on the first *California State Bicycle and Pedestrian Plan*. The event, which requires an RSVP, is scheduled from 1:30 to 3:30 p.m. Thursday, May 5, at the San Luis Obispo County Library, 995 Palm Street, San Luis Obispo.

Immediately following the forum, an open house for the public is scheduled from 4 to 5:30 p.m. This is one in a series of eight forums to be held around the state.

The forums will focus on how Caltrans can strengthen collaboration and coordination in planning, designing and implementing active transportation projects at the local level. Caltrans will gather further input on the plan's emerging goals, objectives and strategies and, particularly, how they relate to the local community. The visionary plan will promote active multimodal transportation and create a framework to increase safe bicycling and walking in California. More information:

http://www.cabikepedplan.org/
http://www.cabikepedplan.org/rsvp-stakeholders.

Workers Memorial Ceremony

The public is invited to join a special ceremony honoring the District's eight highway workers who have fallen in the line of duty since 1921. The event is scheduled 10 a.m. Thursday, April 28, on the District's front lawn. The keynote speaker is John Lindsey, Pacific Gas and Electric Company meteorologist/community liaison. Throughout April, Caltrans is observing *Worker Memorial Day* at each district and Sacramento.

On average, 1,000 Caltrans vehicles are struck each year. Last year in District 5, overall occupational injuries decreased 15.28 percent compared to the previous year, and preventable motor vehicle accidents decreased by 23.91 percent. Nationwide, more than 20,000 workers are injured in road construction work zones every year, according to the Federal Highway Administration. The greatest hazards are motorists speeding or not exercising caution in work zone areas.
Safety is Caltrans' top priority, and we remind everyone to *SLOW for the Cone Zone* and move over for all emergency response and roadside work vehicles.

Scholarships for High School Seniors

The California Transportation Foundation is offering three $750 scholarships to eligible high school seniors. Caltrans employees raise the funds through coffee and baked goods sales at the District offices. The annual scholarships recognize and assist students who are planning to pursue a transportation-related career.

Applications are open to students graduating from a high school located within the District, which includes the counties of Santa Barbara, San Luis Obispo, Monterey, San Benito and Santa Cruz. The candidates must also intend to enroll in a community college, university or trade school in California. Students pursuing a transportation career, in all academic ranges, are encouraged to apply.

Applications are due to District 5 *Friday, April 29, 2016*. More information: http://transportationfoundation.org/scholarships/.

PROJECT UPDATE – MONTEREY COUNTY

PREPARED FOR APRIL 27, 2016 TRANSPORTATION AGENCY FOR MONTEREY COUNTY'S MEETING

CONSTRUCTION PROJECTS										
	Project	**Location**	**Description**	**Construction Timeline**	**Construction Cost**	**Funding Source**	**Implementing Agency**	**Project Manager (Resident Engineer)**	**Contractor**	**Comments**
1.	**Highway 1 Elephant Trunk Slide Permanent Restoration (1A7004)**	On Highway 1 in northern San Luis Obispo County and southern Monterey County about 3 miles north of San Carporforo Creek Bridge to Limekiln Creek (PM 73.7-74.0)	Construct a 1,000-foot-long retaining wall for permanent restoration and to stabilize settlement	Spring 2015 – Winter 2016/17	$9.5 million	SHOPP	Caltrans	Lisa Lowerison (RS)	John Madonna Construction of San Luis Obispo, CA.	Daytime work only, consisting of one-way reversing traffic control.
2.	**Highway 1 Cow Cliffs Viaduct (1F8904)**	In Monterey County Near Lucia from 0.1 Mile South of Big Creek Bridge to 2.8 Miles South of Dolan Creek Bridge (PM 28.0-28.4)	Construct Viaduct	Summer 2015-Fall 2016	$3.9 million	SHOPP	Caltrans	Ken Dostalek (TL)	RGW Construction Inc. Livermore, CA	Signal controlled one-way traffic control. 10-minute traffic holds for movement of equipment. A few full overnight closures starting in February, weather permitting.
3.	**Hwy. 1 Monterey to Marina CAPM (1A7604)**	In Monterey County, from Sloat Avenue Undercrossing to South Marina Overhead (PM R77.56-R85.3)	Pavement Preservation (CAPM)	Fall 2015-Summer 2016	$9.2 million	SHOPP	Caltrans	Kathy DiGrazia (TL)	Granite Construction Co. Watsonville, CA	On-going daytime roadwork. Project scheduled to be completed at the end of summer, 2016, weather permitting.
4.	**Accelerated Accessible Pedestrian Signals (1G280)**	9 intersections in Monterey County along Routes 68, 156, 183 and 218 (other locations in SCr, SBt and SLO Counties)	Install accessible pedestrian signals	Winter 2015/2016--Fall 2016	$1.3 Million	SHOPP	Caltrans	Kathy DiGrazia (LB)	PTM Engineering, Riverside, CA	Locations: 5 locations on Hwy. 68 1 location on Hwy. 156 2 locations on Hwy183 1 location on Hwy 218

California Department of Transportation
District 5, 50 Higuera Street, San Luis Obispo, California 93401
District 5 Public Information Office (805) 549-3318
www.dot.ca.gov/dist05 email: Info-d5@dot.ca.gov
Monterey – San Benito – San Luis Obispo – Santa Barbara – Santa Cruz

CONSTRUCTION PROJECTS (Cont'd.)										
	Project	**Location**	**Description**	**Construction Timeline**	**Construction Cost**	**Funding Source**	**Implementing Agency**	**Project Manager (Resident Engineer)**	**Contractor**	**Comments**
5.	**Monterey-Santa Cruz ADA (0R5104)**	On SR 1 and Hwy. 68 and 218 at various locations (other locations in Santa Cruz County)	Construct curb ramps, sidewalks, and modify signal and lightings	Fall 2015 – Fall 2016	$1.2 Million	SHOPP	Caltrans	Kathy DiGrazia (BR)	Pacific Infrastructure, Vacaville, CA	Locations: 35 curb ramps at 16 intersections in Mon. County along Routes 1, 68 and 218.
6.	**Highway 68 Salinas River Bridge Widening (0F7004)**	In Monterey County on Route 68 near Salinas from 0.2 mile East of Reservation Rd. undercrossing to Spreckels Blvd. undercrossing (PM R17.4/R18.0)	Bridge Widening	April 19, 2016—Winter 2018	$9.8 million	SHOPP	Caltrans	David Rasmussen (BR)	Viking Construction Co. of Rancho Cordova	Construction begins with K-rail installation on April 19, 2016
7.	**Hwy. 101 South Greenfield Median Barrier (1E0604)**	In and near Greenfield from Teague Ave. to Walnut Ave. OC (PM 47.7-53.9)	Concrete median barrier, inside shoulder widening and rumble strip	Spring 2016—Fall 2016	$4, 475,000	SHOPP	Caltrans	Aaron Henkel (PM)	Granite Construction Company, Watsonville	Project currently in winter suspension until possibly late April/early May and will take approximately five and a half months to complete.
8.	**Hwy. 101 Soledad CAPM (1F69U4)**	In Monterey County North of Greenfield Overcrossing to North of Gonzales Overcrossing (PM 55.2-73.8)	Pavement Preservation	February 1, 2016-Winter 2016	$22.9 million	SHOPP	Caltrans	Aaron Henkel (PM)	Graniterock, Watsonville	Construction began February 1.

CONSTRUCTION PROJECTS (Cont'd.)										
	Project	**Location**	**Description**	**Construction Timeline**	**Construction Cost**	**Funding Source**	**Implementing Agency**	**Project Manager (Resident Engineer)**	**Contractor**	**Comments**
9.	**Hwy. 101/San Juan Road Interchange (31580_)**	On Route 101 near Prunedale.4 mile south of Dunbarton Road in Mon. Co. (PM 100.0-101.3)	Construct new interchange at San Juan Road and US 101	Dec. 3, 2012-Spring 2016 (Timeframe includes Plant Establishment Work)	$46.2 Million	STIP/CMIA/ARRA	Caltrans	David Silberberger (JW)	GCC/MCMA JV, Watsonville	The new interchange and related improvements were fully open to traffic on July 17, 2015. However, the project remains active due to a 1 year plant establishment process which is targeted to be completed in May 2016.

PROJECTS IN DEVELOPMENT									
	Project	**Location**	**Description**	**Construction Timeline**	**Construction Cost**	**Funding Source**	**Implement-ing Agency**	**Project Manager (Resident Engineer)**	Comments
10.	**Highway 1 Paul's Slide Repair (0T850)**	Near Lucia north of Limekiln Creek Bridge to south of Lucia (PM 21.6/22.1)	Widen Highway, Install Catchment	Fall 2019	$16.1 million	SHOPP	Caltrans	Ken Dostalek (PM)	Project scope has changed from constructing a viaduct to installing a catchment and improving drainage. May require widening of highway and installation of retaining structures.
11.	**Highway 1 Safety Upgrades: Hurricane Pt. to Rocky Creek Viaduct (1A000)**	In Monterey County north of Big Sur south of Bixby Creek Bridge to south of Rocky Creek Bridge (PM 58.3/59.8)	Shoulder Widening, Guardrail Upgrades, Potential Retaining Wall	Summer 2019	$5 million	SHOPP	Caltrans	Ken Dostalek (PM)	Project Development Team making concerted effort to minimize visual impacts. Formation of proposed Aesthetic Design Advisory Committee (ADAC) put on hold until visual impacts better assessed (target date around the time environmental phase in September of 2016).

PROJECTS IN DEVELOPMENT (Cont'd.)

	Project	Location	Description	Construction Timeline	Construction Cost	Funding Source	Implement-ing Agency	Project Manager (Resident Engineer)	Comments
12.	**Highway 68 Pacific Grove Shoulder Widening (1C250)**	In Monterey County, Pacific Grove to Scenic Drive (PM 1.6/L4.0)	Shoulder Widening, Rumble Strips, Guardrail	Spring 2021	$2.5 million	SHOPP	Caltrans	David Rasmussen (PM)	Project is currently in environmental phase and it is expected to move to design phase in 2016.
13.	**Highway 68 Pacific Grove Centerline Rumble Strip (1G450)**	In Monterey County East of Piedmont Avenue to West of the JCT RTE 1/68 (PM 1.6/L4.1)	Centerline Rumble Strip & OGAC	Summer 2018	$1.7 million	SHOPP	Caltrans	David Rasmussen (PM)	Project is currently in environmental phase and it is expected to move to design phase in 2016.
14.	**Highway 101 King City Rehab (1F750)**	In Monterey County in and near King City from 0.4 miles south of wild Horse Rd to 0.2 miles north of Jolon Rd (PM R36.9/43.2)	Pavement Rehabilitation	Fall 2018	$57.6 million	SHOPP	Caltrans	Aaron Henkel (PM)	Project is currently in the design phase. Estimated RTL date of June 2018.
15.	**Highway 101 North Greenfield Median Barrier (1G380)**	In Monterey County from just North of Walnut Avenue (PM 53.9-57.1)	Median barrier and inside shoulder rumble strip with shoulder widening	Fall 2018	$4.1 million	SHOPP	Caltrans	Aaron Henkel (PM)	Project is in design phase and will be ready to go to bid by 3/1/2017.
16.	**Highway 156 Castroville Median Barrier (1F730)**	In Monterey County in and near Castroville from junction of SR1 to Castroville (PM R0.1/R1.6)	Median Barrier and Rumble Strip	Summer 2016	$900,000	SHOPP	Caltrans	David Silberberger (PM)	Project awarded early April and should begin construction early summer.

PROJECTS IN DEVELOPMENT (Cont'd.)									
	Project	**Location**	**Description**	**Construction Timeline**	**Construction Cost**	**Funding Source**	**Implement-ing Agency**	**Project Manager (Resident Engineer)**	Comments
17.	**Highway 156 West Corridor (31600)**	On SR 156 btwn Castroville and Prunedale (PM R1.6-T5.2)	Construct new 4-lane divided freeway and new interchanges	Fall 2019-Fall 2023	$264 million	STIP / Federal Demo	Caltrans	David Silberberger (PM)	The project team is now focusing their attention on delivering a Supplemental Environmental Impact Report (EIR) through a standard process, with Caltrans and TAMC partnering to produce the final document. This Supplemental EIR will provide important information regarding the feasibility of moving ahead with tolling as a source of revenue for this project.
18.	**Highway 183 Blackie Road Rumble Strip Project (1G390)**	In Monterey County from Davis Rd to Blackie Rd (PM 1.8/R8.6)	Centerline/shoulder rumble strip and resurfacing	Fall 2018	$1.4 million	SHOPP	Caltrans	Aaron Henkel (PM)	Project is currently in the design phase with an estimated RTL date of October 2017.
19.	**Highway 198 North Fork Widening (1C660)**	In Monterey County about 22 miles East of San Lucas (PM 22.4/22.8)	Widen shoulders and correct superelevation	Fall 2017	$1.8 million	SHOPP	Caltrans	Aaron Henkel (PM)	Project is currently in the design phase with an estimated RTL date of February 2017.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY (TAMC)
SERVICE AUTHORITY FOR FREEWAYS AND EXPRESSWAYS
MONTEREY COUNTY REGIONAL DEVELOPMENT IMPACT FEE
JOINT POWERS AGENCY

Draft Minutes of March 23, 2016 TAMC Board Meeting

Held at the
Agricultural Center Conference Room
1428 Abbott Street, Salinas

TAMC BOARD MEMBERS	MAR 15	APR 15	MAY 15	JUN 15	AUG 15	SEP 15	OCT 15	DEC 15	JAN 16	FEB 16	MAR 16
F. Armenta, Supr. Dist. 1- Chair (J. Martinez)	P	P	P(A)	P	P	P	P	P(A)	P	P	P
J. Phillips, Supr. Dist. 2 (J. Stratton; C. Link)	P	P	P	P	P(A)	P	P	P(A)	P	P	P
S. Salinas, Supr. Dist. 3- (C. Lopez)	P	P	P(A)	P	P	P	P	P(A)	P	P	P
J. Parker, Supr. Dist. 4- (K. Markey)	P(A)	P(A)	P	P(A)	P(A)	P	P	P	P(A)	P	P(A)
D. Potter, Supr. Dist 5 - 2nd Vice Chair (~~K. Lee~~; J. Mohammadi)	P	P	P(A)	P(A)	P(A)	P	P	P(A)	P(A)	P(A)	P
J. Burnett, Carmel-by-the-Sea (V. Beach)	P	P	P(A)	P	P(A)	P(A)	P	-	P(A)	P(A)	-
J. Edelen, Del Rey Oaks- (K. Clark)	P	P	P	P	E	P	P	P	-	P	P
M. Orozco, Gonzales (J. Lopez)	-	P	P	P(A)	P	P	P	P	P	P	-
J. Huerta, Greenfield (R. Rodriguez)	P	P	P	P	P	-	-	P(A)	P	P	P
M. LeBarre, King City (B. Hendrickson)	-	P	P	E	P	P	P	P	P(A)	P(A)	P
B. Delgado, Marina (F. O'Connell)	P(A)	P	P	-	P	P	P	P	P(A)	P	P
E. Smith, Monterey (R. Deal)	P	P	-	P	P	E	P	-	P	P	P
R. Huitt, Pacific Grove (C. Lucius)	P	P	P	P	P	P	P	P	P	P	P
K. Craig, Salinas - Past Chair (R. Russell, J. Serrano)	P	P	P	P	E	P	P	P(A)	P	P	P
T. Bodem, Sand City (L. Gomez)	P	P	P	P	P	-	P	-	P	P	P
R. Rubio, Seaside (I. Oglesby)	P	P	P	P	P	P	P	P	P	P(A)	P
A. Chavez, Soledad - 1st Vice Chair (F. Ledesma)	P	P	P	P	P	P	P	P	P	P	P
M. Twomey, AMBAG (H. Adamson)	P(A)	P	P	P	P(A)	P(A)	P(A)	P(A)	P	P	P(A)
T. Gubbins, Caltrans, Dist. 5 (~~A. Loe, C. Jones, J. Olenik, Rider~~)	P	P	P	P(A)	P(A)	P(A)	P(A)	P(A)	P(A)	P	P(A)
R. Stedman, Monterey Bay Unified Air Pollution Control District (A. Clymo, ~~A. Romero~~)	P(A)	P(A)	P	-	-	P(A)	P	P	P	-	-
B. Sabo, Monterey Regional Airport	P	-	P	P	P	-	P	P	P	P	P
C. Sedoryk, MST (~~M. Hernandez, H. Harvath~~, L. Rheinheimer)	P	P	P	P	P(A)	P	P	P(A)	P	P	P
E. Montesino, Watsonville (D. Dodge)	-	-	-	-	-	-	-	-	-		

TAMC STAFF	MAR 15	APR 15	MAY 15	JUN 15	AUG 15	SEP 15	OCT 15	DEC 15	JAN 16	FEB 16	MAR 16
D. Delfino, Finance Officer/Analyst	P	P	P	P	P	P	P	P	P	P	P
R. Goel, Dir. Finance & Administration	P	P	P	P	P	P	P	P	P	P	E
A. Green, Transportation Planner	P	P	P	P	P	P	P	P	P	P	P
G. Leonard, Transportation Planner	P	P	P	P	P	P	P	P	P	P	P
M. Montiel, Administrative Assistant	P	P	P	P	P	P	P	P	P	P	E
T. Muck, Deputy Executive Director	P	P	P	P	P	P	P	P	P	P	P
V. Murillo, Assistant Trans. Planner	P	P	P	P	P	P	P	P	P	P	P
H. Myers, Sr. Trans. Planning Engineer	P	P	P	P	P	P	P	P	P	P	P
K. Reimann, Legal Counsel	P	P	P	P	P	P	P	P	P	P	P
E. Rodriguez, Senior Admin. Assistant	E	P	P	P	P	P	P	P	P	E	P
L. Terry, Accountant Assistant	E	E	E	E	E	E	E	E	E	E	E
C. Watson, Principal Trans. Planner	E	P	P	E	E	P	P	P	P	P	P
M. Zeller, Senior Trans. Planner	E	P	P	P	P	P	P	P	P	P	P
T. Wright, Community Outreach	P	P	P	P	P	P	P	P	P	P	P

OTHERS PRESENT

Dell Matt	101 Bypass Committee	Eric Petersen	Salinas resident
Tim O'Halloran	City of Seaside	Kalah Bumba	Public resident
Alex Vasquez	Access Monterey Peninsula	Jeanette Pantoja	Bldg. Healthy Communities
Mario Romo	Access Monterey Peninsula	Rachel Saunders	Big Sur Land Trust
Doug Yount	Monterey Peninsula Chamber	Tom Rowley	Tax Payer's Association
MacGregor Eddy	We Could Car Less	Terry Feinberg	Moxxy Marketing
Norm Groot	Monterey County Farm Bureau	Meagan Edwards	Public resident
Sean Houck	Kimley Horn	Scott Waltz	Public resident
Barbara Meister	Monterey Bay Aquarium	Phyllis Meurer	Public resident
Dale Ellis	MCHA	Reed Sanders	Public resident
Tanya Diamond	PFW		

1. CALL TO ORDER

Chair Armenta called the meeting to order at 9:00 a.m., and led the pledge of allegiance.

1.1 ADDITIONS OR CORRECTIONS TO THE AGENDA

Director Hale reported the following corrections to the March 23, 2016 agenda:

3.1.3 – Typo: the California Transportation Foundation symposium was on February 10 not May 25.

3.2.3 – Typo: see replacement pages on the dais; new service should refer to Line 85: King City to Templeton.

3.4.3 – Misordering of pages - The request letter from Pacific Grove was inadvertently attached to the Sand City request in the prior agenda item.

Item 5- has a revised staff report and attachments which were included in the electronic version and emailed out, but were too late to send in paper.

2. PUBLIC COMMENTS

None this month.

3. **CONSENT AGENDA**

M/S/C Salinas/Bodem

Craig, Huerta and alternate Markey arrived after consent.

The Board approved the consent agenda as follows:

ADMINISTRATION and BUDGET

3.1.1 Approved minutes of the Transportation Agency for Monterey County and the Joint Powers Agency for Monterey County meetings of February 24, 2016.

3.1.2 Accepted the list of checks written for February 2016 and credit card statements for the month of January 2016.

3.1.3 Received report on conferences attended by agency staff.

3.1.4 Approved revisions to the HR Rules and Regulations.

3.1.5 Regarding Video Recording and Broadcasting of Board Meetings:

1. Received a report regarding the status of the TAMC Board Recordings; and
2. Authorized a Sole Source Authorization for Access Monterey Peninsula to provide video recording, production, broadcasting and live stream services of Transportation Agency Board meetings; and
3. Approved the use of administration funds budgeted to this purpose.

BICYCLE, PEDESTRIAN, TRANSIT and SOCIAL SERVICES

3.2.1 Amended the Agency's Transportation Development Act Guidelines.

3.2.2 Regarding Section 5311 Program of Projects:

1. Approved the Section 5311 Program of Projects in the amount of $582,033 for Monterey-Salinas Transit service on rural transit routes;
2. Adopted Resolution 2016-05 authorizing federal funding under the Federal Transit Administration Section 5311 program; and
3. Authorized the Executive to sign Regional Agency Certifications and Assurances as part of the project application.

3.2.3 Regarding Monterey-Salinas Transit Intercity Bus Grant Application:

1. Adopted Resolution 2016-06 authorizing federal funding for Monterey-Salinas Transit under the Federal Transit Administration Section 5311(f) Intercity Bus Program through the California Department of Transportation, and
2. Authorized the Executive Director to sign and submit regional agency certifications and assurances.

3.2.4 Regarding Bicycle Secure Program:

1. Received 2015 Bicycle Secure Program Annual Report; and
2. Approved funding each 2016 Bicycle Secure Program application, with partial awards to the largest applications, and the ability to adjust awards as funding allows.

PLANNING

3.3.1 Received state legislative update and adopted positions on bills of interest to the Agency.

3.3.2 Released Draft 2014 Regional Transportation Plan Amendment No. 1 for public review.

PROJECT DELIVERY and PROGRAMMING

3.4.1 Regarding City of Sand City Regional Surface Transportation Program Fair Share Allocation:

1. Approved the request by the City of Sand City to reprogram $116,406.57 in Regional Surface Transportation Program fair share funds to the Hickory Street Improvement project; and
2. Approved amending Exhibit A of the local funding agreement to include this project and funding.

3.4.2 Regarding City of Pacific Grove Regional Surface Transportation Program Fair Share Allocation:

1. Approved the request by the City of Pacific Grove to allocate $100,000.00 in Regional Surface Transportation Program fair share funds to the Holman Highway 68 Roundabout Project; and
2. Approved amending Exhibit A of the local funding agreement to include this project and funding.

3.4.3 Regarding County of Monterey Regional Surface Transportation Program Fair Share Allocation:

1. Approved the request by the County of Monterey to allocate $68,000.00 in Regional Surface Transportation Program fair share funds to the Holman Highway 68 Roundabout Project; and
2. Approved amending Exhibit A of the local funding agreement to include this project and funding.

RAIL PROGRAM

3.5.1 Regarding Request for Proposals for Cal Am Pipeline Easement Appraisal:

1. Approved the scope of work for the Request for Proposals for right-of-way appraisal services and legal and negotiation assistance for the proposed Cal Am Pipeline easements; and
2. Approved staff to release the Request for Proposals and return to the Board of Directors with a recommendation for approval of the consultant contract, including scope of work.

3.5.2 Regarding 17 Station Place Lost Rent Agreement:

1. Authorized the Executive Director to execute a lost rent agreement with Elaine Molinari, as Trustee of the Elaine M. Molinari Revocable Trust, in an amount not-to-exceed $67,200, to potential lost rent at 17 Station Place, Salinas, CA while acquisition negotiations proceed;
2. Approved the use of lease revenue reserves budgeted to this purpose; and
3. Authorized the Executive Director to make administrative changes to the agreement if such changes do not increase the Agency's net cost, subject to approval by Agency counsel.

REGIONAL DEVELOPMENT IMPACT FEE

3.6.1 No items this month.

COMMITTEE MINUTES

3.7.1 Accepted minutes from Transportation Agency committees:

- Executive Committee – Draft March 2, 2016
- Bicycle & Pedestrian Facilities Advisory Committee – Draft March 2, 2016 (online at www.tamcmonterey.org)
- Rail Policy Committee – Draft March 7, 2016
- Technical Advisory Committee – Draft March 3, 2016 (online at www.tamcmonterey.org)

4. SR 68 SCENIC HIGHWAY PLAN

M/S/C Potter/Craig/unanimous

The Board received an update on the SR 68 Scenic Highway Plan.

Grant Leonard, Assistant Transportation Planner, reported that the SR 68 Scenic Highway plan will evaluate current and future travel patterns between Salinas and the Monterey Peninsula, the feasibility of affordable mid-term operational and capacity improvements in the SR 68 corridor in context to other planned regional improvements, and the potential for wildlife connectivity enhancements. The Monterey-Salinas Highway 68 plan is funded with a $270,970 Caltrans Sustainable Transportation Planning Grant, matched with an additional $176, 686 of state and local funds for a total project cost of $447, 656.

Public comment:
Rachel Sanders, Big Sur Land Trust, expressed her support for wildlife study associated with Highway 68 Scenic Highway Plan and thanked TAMC for including this study.

Tom Rowley commented that he lives on the corridor and shared the history of projects along SR 68, he urged the board to move forward with this plan.

Dell Matt, 101 Bypass Committee, commented that doctor's offices moving to Ryan Ranch draws patients from all over the county.

Norm Groot, Monterey County Farm Bureau, commented that he hopes this study will provide options and solutions to increase capacity.

5. TRANSPORTATION SAFETY AND INVESTMENT PLAN

M/S/C Craig/Phillips/unanimous

1. The Board amended the Transportation Safety & Investment Plan previously adopted with the following modifications:
    a. Add Holman Highway safety project ($10 million) as the final regionally funded project;
    b. Reduce Imjin Safety & Traffic Improvements by $5 million;
    c. Increase Highway 68 – Salinas to Monterey – Safety and Traffic Flow by $5 million;

2. Released the plan to the cities and county for adoption; and
3. Adopted the Policies and Project Descriptions for the Transportation Safety & Investment Plan and release the document to the public for review.

The Investment Plan is a crucial part of the Agency's efforts to become a "self-help" county. Gaining this status would give Monterey County the opportunity to compete for federal and state grants for local projects. The proposed 3/8% sales tax will raise approximately $20 million per year, for a total of $600 million over 30 years for road repair, safety and mobility improvements. 60% of the funds (est. $360 million) will be allocated to the cities and County for road repairs and safety projects, and 40% (est. $240 million) for regional safety and mobility projects.

The Agency will now seek the Plan's adoption from each of the cities and the Monterey County Board of Supervisors over the next two months. The proposed Transportation Safety and Investment Plan must be adopted by a majority of the cities representing a majority of the population and then placed on the ballot by the County Board of Supervisors. The proposed November 2016 ballot measure will require at least 2/3rds voter approval to be successful.

Public comments:
Tom Rowley, Vice president of the Tax Payers Association, reported at this time the association cannot support.

Doug Yount, Monterey Peninsula Chamber, expressed he supports the proposed plan and applauded the board for coming to a balanced program.

Dale Ellis, Government Affairs Committee, reported that the committee is prepared to support the measure, and looks forward to moving forward as a Self Help County.

Jeanette Pontilla, Building Healthy Communities, expressed her support to "Mobility for All" projects.

Barbara Meister, Monterey Bay Aquarium, expressed her support, noting she stands to see the fruition of the Highway 156 interchange project, also noting she is pleased with the options.

6. REPORTS ON MEETINGS ATTENDED BY BOARD MEMBERS AT TRANSPORTATION AGENCY EXPENSE, AS REQUIRED BY STATE LAW

None this month.

7. REPORTS FROM TRANSPORTATION PROVIDERS

Caltrans – Aileen Loe, Caltrans, announced the California Transportation Plan (CTP) provides a long-range policy framework to meet our future mobility needs and reduce greenhouse gas emissions. The CTP defines goals, performance-based policies, and strategies to achieve our collective vision for California's future statewide, integrated, multimodal transportation system. The plan envisions a sustainable system that improves mobility and enhances our quality of life. Ms. Loe highlighted the list of projects in the agenda. Board member Rubio thanked Caltrans for their immediate action on the striping on Highway 1.

Monterey Regional Airport District – Bill Sabo reported that the airport cancellation routes have improved. He noted that the airport is working with American Airlines on adding flights to Dallas, Seattle and Denver.

Monterey-Salinas Transit District – Carl Sedoryk, General Manager, reported that MST ridership has decreased due to low fuel prices, people are using their vehicles. He noted that over the next three-months they are using GPS phones to obtain real time.

Monterey Bay Unified Air Pollution Control District – No report this month.

8. EXECUTIVE DIRECTOR'S REPORT

Director Hale reported there is major repaving projects on ramps, permanent solution soon. She announced TAMC is offering free bike and safety training for Monterey County. Ms. Hale reminded the Board members that the State of Economic Interests form 700 is due by April 1, 2016.

9. ANNOUNCEMENTS AND/OR COMMENTS FROM TRANSPORTATION AGENCY MEMBERS

None this month.

10. ADJOURNMENT

Chair Armenta adjourned the meeting at 11:00 a.m.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: David Delfino, Finance Officer / Analyst

Meeting Date: April 27, 2016

Subject: **TAMC payments for the month of March 2016**

RECOMMENDED ACTION

ACCEPT the list of checks written for the month of March 2016 and credit card statements for the month of February 2016.

SUMMARY

The list of checks and copies of credit card statements are submitted to the Transportation Agency Board each month in accordance with the recommendation from the Transportation Agency's independent Certified Public Accountant to keep the Board informed about the Transportation Agency's financial transactions.

FINANCIAL IMPACT

The checks processed this period total $949,212.96, which included checks written for March 2016 and payments of the February 2016 Platinum Plus Credit Card statement.

DISCUSSION

During the month of March 2016 normal operating checks were written, as well as a check for $3,443.00 to Alta Planning + Design for services for the Wayfinding Plan for Monterey County, a check for $3,680.00 to Pathways For Wildlife for planning services for Highway 68 Scenic Plan Salinas/Monterey Corridor, a check for $156,910.99 to HDR Engineering Inc. for engineering services for the Salinas Rail Extension Kick-Start Project, two checks totaling $8,478.85 to HDR Engineering Inc. for work on the Salinas/San Jose Coast Daylight Environmental Impact Report, a check to Eisen/Letunic for $11,971.48 for planning services for Highway 68 Pacific Grove Corridor, a check for $12,039.62 to Clifford Moss for public outreach and research for the Transportation Safety and Investment Plan for Monterey County, a check for $2,527.78 to Capitol Corridor Joint Powers Authority for planning efforts to bring rail service to the city of Salinas, a check for $7,989.75 to Kittelson & Associates Inc. for planning services for

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Highway 68 Scenic Plan and a check for $550,842.00 to CALPERS Fiscal Services Division to pay TAMC's Unfunded Pension Liability.

Approved by: _____ Date Signed: April 12, 2016
Debra L. Hale, Executive Director

Consent Agenda Counsel Approval: N/A
Finance Approval: Yes

Attachments:

1. List of checks written during the month of March 2016
2. Platinum Plus Credit Card Statement for February 2016

Transportation Agency for Monterey County (TAMC)
Union Bank Operating Account
March 31, 2016

DATE	ITEM	NAME	CHECK	DEPOSIT	DESCRIPTION
03/03/2016	DEP	Haedrich and Lithia		2,602.41	Railroad Right Way Rent
03/03/2016	DEP	Portola Leasing		400.00	Railroad Right Way Rent
03/03/2016	DEP	SCCRTC		267.50	Reimbursed Costs
03/03/2016	DEP	FOR A		5,626.74	Reimbursement of Costs for FOR A Fee Update
03/03/2016	DEP	Rita Goel		35.44	Reimbursed Costs
03/03/2016	EFT	TAMC Monterey County Acct. 691		650,000.00	Funds Transfer from TAMC County Acct. 691
03/04/2016	16631	American Public Transportation Association	192.00		Advertising for Coast Daylight EIR
03/04/2016	16632	AT&T Wireless Services	44.42		SAFE Call Box - Phone Service
03/04/2016	16633	California Highway Patrol	196.96		Freeway Service SAFE Call Box Program
03/04/2016	16634	California Towing and Transport	27,748.96		Freeway Service Patrol
03/04/2016	16635	Capitol Corridor Joint Powers Authority	2,527.78		Planning Effort to Bring Rail Service to the City of Salinas
03/04/2016	16636	Casey Printing	144.17		Office Supplies
03/04/2016	16637	Central Valley Business Forms	596.38		Office Supplies
03/04/2016	16638	Clifford Moss	12,039.82		Public Outreach & Research for Transportation Improvements for Monterey Cty
03/04/2016	16639	De Lage Landen Financial Services	280.91		Office Copier Lease
03/04/2016	16640	Enterprise Rent-a-Car	58.08		Auto Rental
03/04/2016	16641	HDR Engineering Inc.	3,621.33		Salinas / San Jose - Coast Daylight EIR
03/04/2016	16642	Leadership Monterey Peninsula	1,500.00		Staff Training & Professional Development
03/04/2016	16643	Verizon Wireless	105.70		Call Box - Phone Service
03/04/2016	16644	VSP	143.37		Employee Benefits
03/08/2016	EFT	CalPers Health Benefits	8,152.88		Employee Benefit
03/11/2016	16645	Alvarez Technology Group, Inc.	1,467.04		Computer Support and Telecommunication
03/11/2016	16646	AT & T (Carol Stream, Il.)	37.87		Call Box - Phone Service
03/11/2016	16647	CalPERS Fiscal Services Division	550,842.00		Unfunded Pension Liability Payment
03/11/2016	16648	Delta Dental	849.43		Employee Benefits
03/11/2016	16649	Enterprise Rent-a-Car	35.44		Auto Rental
03/11/2016	16650	HDR Engineering Inc.	156,910.99		Engineering Services Salinas Rail Extension Kick-Start Project
03/11/2016	16651	Peninsula Messenger LLC	250.00		Courier Service
03/11/2016	16652	Pure Water	56.70		Water
03/11/2016	EFT	Payroll	35,236.04		Payroll
03/11/2016	EFT	Form 941	9,026.18		Payroll Taxes & Withholding
03/11/2016	EFT	EDD	22.69		Payroll Taxes & Withholding
03/11/2016	EFT	EDD	3,021.01		Payroll Taxes & Withholding
03/11/2016	EFT	Pers Retirement	6,335.44		Employee Benefits
03/11/2016	EFT	Pers Retirement PEPRA	870.59		Employee Benefits
03/11/2016	EFT	CalPERS	5,668.22		Employee Benefits
03/11/2016	16653	United Way of Monterey County	65.00		Employee Deduction - Charitable
03/11/2016	EFT	Virginia Murillo	100.00		Employee Development - LMP
03/11/2016	EFT	Grant Leonard	56.16		Mileage
03/11/2016	EFT	Mike Zeller	40.00		CTC Travel Expenses
03/18/2016	16654	Alta Planning + Design	3,443.00		Services for Wayfinding Plan for Monterey County
03/18/2016	16655	AT & T (Carol Stream, Il.)	346.29		Telecommunications, Call Box - Phone Service and Rideshare
03/18/2016	16656	Business Card	784.03		Meeting and Office Supplies, Staff Travel & Professional Development
03/18/2016	16657	Case Systems Inc.	6,700.05		SAFE Call Box - Maintenance
03/18/2016	16658	CDS Net, LLC	137.64		Safe Call Boxes
03/18/2016	16659	Costco Wholesale	427.59		Office and Meeting Supplies
03/18/2016	16660	HDR Engineering Inc.	4,857.52		Salinas / San Jose - Coast Daylight EIR
03/18/2016	16661	JEA & Associates	2,083.33		Legislative Consultants
03/18/2016	16662	Kittelson & Associates, Inc.	7,989.75		HWY 68 Scenic Plan : Traffic Study
03/18/2016	16663	Office of the County Counsel	4,159.54		Legal Services
03/18/2016	16664	Pacific Grove Chamber of Commerce	380.00		Association Dues

Transportation Agency for Monterey County (TAMC)
Union Bank Operating Account
March 31, 2016

DATE	ITEM	NAME	CHECK	DEPOSIT	DESCRIPTION
03/18/2016	16665	Pathways For Wildlife (V)	3,680.00		HWY 68 Scenic Plan : Wildlife Study
03/21/2016	DEP	Cardinale, Graniterock, Newton Bros., P&S Real Estate and Jaguar		18,877.15	Railroad Right Way Rent
03/21/2016	DEP	Marina Concrete Co. and AllUS Credit Union		5,382.00	Railroad Right Way Rent
03/21/2016	EFT	State of California		114,758.91	Rural Planning Funds - 2nd Quarter 15/16
03/21/2016	EFT	State of California		27,619.90	PTA Funds - Reimbursement for Coast Daylight Expenses
03/22/2016	EFT	Christina Watson	1,159.28		Section 125 Reimbursement and Employee Travel
03/22/2016	EFT	Dave Delfino	288.49		Section 125 Reimbursement
03/22/2016	EFT	Debbie Hale	208.54		Section 125 Reimbursement
03/22/2016	EFT	Theresa Wright	193.98		Section 125 Reimbursement
03/22/2016	EFT	Dave Delfino	70.17		Section 125 Reimbursement
03/25/2016	16666	United Way of Monterey County	65.00		Employee Deduction - Charitable
03/25/2016	16667	Eisen / Letunic	11,971.48		Planning Services for Highway 68 Pacific Grove Corridor
03/25/2016	16668	FedEx (Printing)	265.89		Agenda Printing
03/25/2016	16669	Lincoln National Life Insurance Co.	584.29		Employee Benefits
03/25/2016	16670	Office Depot	276.38		Office Supplies
03/25/2016	16671	Oppidea, LLC	2,335.00		Accounting Services
03/25/2016	16672	Plaza Circle, Ltd	8,027.61		Office Rent
03/25/2016	16673	Sentry Alarm Systems	283.50		Office Security
03/25/2016	16674	Shell	51.02		Auto Expense - Gasoline
03/25/2016	16675	Valero Marketing and Supply	11.01		Auto Expense - Gasoline
03/25/2016	ACH	Union Bank	54.00		Bank Service Charges
03/25/2016	EFT	Payroll	35,141.75		Payroll
03/25/2016	EFT	Form 941	9,043.40		Payroll Taxes & Withholding
03/25/2016	EFT	EDD	24.81		Payroll Taxes & Withholding
03/25/2016	EFT	EDD	3,025.38		Payroll Taxes & Withholding
03/25/2016	EFT	Pers Retirement	6,335.44		Employee Benefits
03/25/2016	EFT	Pers Retirement PEPRA	884.87		Employee Benefits
03/25/2016	EFT	CalPERS	5,679.37		Employee Benefits
03/28/2016	EFT	State of California		97,313.71	Planning, Programming and Monitoring (PPM) 2nd Quarter 15/16
03/28/2016	EFT	State of California		22,358.01	SR HWY 156 Funds
03/30/2016	EFT	County of Monterey		75,707.00	Transfer from TAMC Acct. 691
		TOTAL	949,212.96	1,012,016.68	

D D. - Checks March 2016 Att. 2.

Bank of America

ELOUISE RODRIGUEZ

Platinum Plus® for Business

February 05, 2016 - March 04, 2016

Cardholder Statement

Account Information:
www.bankofamerica.com

Mail Billing Inquiries to:
BANK OF AMERICA
PO BOX 982238
EL PASO, TX 79998-2238

Mail Payments to:
BUSINESS CARD
PO BOX 15796
WILMINGTON, DE 19886-5796

Customer Service:
1.800.673.1044, 24 Hours

TTY Hearing Impaired:
1.888.500.6267, 24 Hours

Outside the U.S.:
1.509.353.6656, 24 Hours

For Lost or Stolen Card:
1.800.673.1044, 24 Hours

Business Offers:
www.bankofamerica.com/mybusinesscenter

Payment Information

New Balance Total	$340.77
Minimum Payment Due	**$10.00**
Payment Due Date	**03/31/16**

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay a fee based on the outstanding balance:
$19.00 for balance less than $100.01
$29.00 for balance less than $1,000.01
$39.00 for balance less than $5,000.01
$49.00 for balance greater than $5,000.01

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance.

Account Summary

Previous Balance	$736.34
Payments and Other Credits	-$736.34
Balance Transfer Activity	$0.00
Cash Advance Activity	$0.00
Purchases and Other Charges	$340.77
Fees Charged	**$0.00**
Finance Charge	**$0.00**
New Balance Total	$340.77
Credit Limit	$5,000
Credit Available	$4,659.23
Statement Closing Date	03/04/16
Days in Billing Cycle	29

Transactions

Posting Date	*Transaction Date*	*Description*	*Reference Number*	*Amount*
		Payments and Other Credits		
02/22	02/20	PAYMENT - THANK YOU		- 736.34
		TOTAL PAYMENTS AND OTHER CREDITS FOR THIS PERIOD		**-$736.34**
		Purchases and Other Charges		
02/05	02/03	THE BAGEL CORNER SALINAS CA		21.50
02/08	02/05	THE BAKERY STATION INC SALINAS CA		191.37
02/09	02/06	DEVICE MAGIC INC RALEIGH NC		30.00
02/18	02/17	MSFT * E02001TQOE 800-642-7676 NV		68.00

Account Number:
February 05, 2016 - March 04, 2016

New Balance Total	$340.77
Minimum Payment Due	**$10.00**
Payment Due Date	**03/31/16**

BUSINESS CARD
PO BOX 15796
WILMINGTON, DE 19886-5796

ELOUISE RODRIGUEZ
TAMC
ATTN DAVE DELFINO
55 PLAZA CIR STE B
SALINAS, CA 93901-295274

Enter payment amount

$

☐ *Check here for a change of mailing address or phone numbers. Please provide all corrections on the reverse side.*

Mail this coupon along with your check payable to: BUSINESS CARD,
or make your payment online at www.bankofamerica.com

DD - Checks March 2016 Att. Z.

Bank of America

ELOUISE RODRIGUEZ

February 05, 2016 - March 04, 2016

Transactions

Posting Date	Transaction Date	Description	Reference Number	Amount
02/24	02/23	STARBUCKS #06629 SALIN Salinas CA	--	29.90
		TOTAL PURCHASES AND OTHER CHARGES FOR THIS PERIOD		**$340.77**

Finance Charge Calculation

Your **Annual Percentage Rate (APR)** is the annual interest rate on your account.

	Annual Percentage Rate	Balance Subject to Interest Rate	Finance Charges by Transaction Type
PURCHASES	17.99%	$0.00	$0.00
CASH	24.49% V	$0.00	$0.00

V = Variable Rate (rate may vary), Promotional Balance = APR for limited time on specified transactions.

Important Messages

Your credit card now has an added security feature. To learn more about EMV chip card technology, visit bankofamerica.com/businesschipcard.

DD - Checks March 2016 Att. 2.

Bank of America

DEBRA L HALE

Platinum Plus® for Business | February 05, 2016 - March 04, 2016 | Cardholder Statement

Account Information:
www.bankofamerica.com

Mail Billing Inquiries to:
BANK OF AMERICA
PO BOX 982238
EL PASO, TX 79998-2238

Mail Payments to:
BUSINESS CARD
PO BOX 15796
WILMINGTON, DE 19886-5796

Customer Service:
1.800.673.1044, 24 Hours

TTY Hearing Impaired:
1.888.500.6267, 24 Hours

Outside the U.S.:
1.509.353.6656, 24 Hours

For Lost or Stolen Card:
1.800.673.1044, 24 Hours

Business Offers:
www.bankofamerica.com/mybusinesscenter

Payment Information

New Balance Total	$443.26
Minimum Payment Due	**$10.00**
Payment Due Date	**03/31/16**

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay a fee based on the outstanding balance:
$19.00 for balance less than $100.01
$29.00 for balance less than $1,000.01
$39.00 for balance less than $5,000.01
$49.00 for balance greater than $5,000.01

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance.

Account Summary

Previous Balance	$1,015.88
Payments and Other Credits	-$1,015.88
Balance Transfer Activity	$0.00
Cash Advance Activity	$0.00
Purchases and Other Charges	$443.26
Fees Charged	**$0.00**
Finance Charge	**$0.00**
New Balance Total	$443.26
Credit Limit	$5,000
Credit Available	$4,556.74
Statement Closing Date	03/04/16
Days in Billing Cycle	29

Transactions

Posting Date	*Transaction Date*	*Description*	*Reference Number*	*Amount*
		Payments and Other Credits		
02/22	02/20	PAYMENT - THANK YOU	05215300000000528973419	- 1,015.88
		TOTAL PAYMENTS AND OTHER CREDITS FOR THIS PERIOD		**-$1,015.88**
		Purchases and Other Charges		
02/11	02/09	AMTRAK .CO0400663576793 08008727245 DC HALE/DEBRA 0400663576793		80.00

Account Number
February 05, 2016 - March 04, 2016

New Balance Total $443.26
Minimum Payment Due $10.00
Payment Due Date 03/31/16

BUSINESS CARD
PO BOX 15796
WILMINGTON, DE 19886-5796

Enter payment amount

$

DEBRA L HALE
TAMC
ATTN DAVE DELFINO
55 PLAZA CIR STE B
SALINAS, CA 93901-295274

☐ *Check here for a change of mailing address or phone numbers. Please provide all corrections on the reverse side.*

Mail this coupon along with your check payable to:
BUSINESS CARD,
or make your payment online at
www.bankofamerica.com

DD - Checks March 2016 Att. Z.

Bank of America

DEBRA L HALE

February 05, 2016 - March 04, 2016

Transactions

Posting Date	Transaction Date	Description	Reference Number	Amount
		Departure Date: 02/09/16 Airport Code: SJC		
		2V S SAC		
02/11	02/09	AMTRAK .CO0400742596267 08008727245 DC		31.00
		HALE/DEBRA		
		0400742596267		
		Departure Date: 02/11/16 Airport Code: DAV		
		2V S SNS		
02/19	02/18	OFFICE DEPOT 1135 800-463-3768 CA		185.47
03/03	03/02	NOB HILL #607 SALINAS CA		146.79
		TOTAL PURCHASES AND OTHER CHARGES FOR THIS PERIOD		**$443.26**

Finance Charge Calculation

Your **Annual Percentage Rate (APR)** is the annual interest rate on your account.

	Annual Percentage Rate	Balance Subject to Interest Rate	Finance Charges by Transaction Type
PURCHASES	17.99%	$0.00	$0.00
CASH	24.49% V	$0.00	$0.00

V = Variable Rate (rate may vary), Promotional Balance = APR for limited time on specified transactions.

Important Messages

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TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Todd Muck, AICP, Deputy Executive Director

Meeting Date: April 27, 2016

Subject: **Conferences Attended by Agency Staff**

RECOMMENDED ACTION:

RECEIVE report on conferences or trainings attended by agency staff.

SUMMARY:

Agency staff occasionally attends conferences or trainings at Agency expense that are pertinent to their roles in pursuing the Agency's mission. These events allow the staff to stay current and participate in the development of transportation practices and policies related to their roles.

FINANCIAL IMPACT:

Expenses related to staff conferences are included in the Travel and Training item in the adopted Agency budget.

DISCUSSION:

On March 30, 31 and April 1, the California Association of Councils of Government held its annual Regional Leadership Forum in Monterey. Executive Director Debbie Hale attended the event with the Agency's CalCOG Delegate Jerry Edelen and Deputy Executive Director Todd Muck. The forum attracted leaders from transportation agencies throughout the state, including Caltrans, the California Transportation Commission, and other regional transportation agencies. The attached summary highlights some of the sessions conducted at the forum.

Approved by: _____ Date signed: April 14, 2016
Debra L. Hale, Executive Director

Consent Agenda

Counsel Approval: N/A
Finance Approval: N/A

Attachment: Summary Report on CalCOG Regional Leadership Forum

55-B Plaza Circle • Salinas, California 93901-2902
(831) 775-4404 FAX (831) 775-0897 • E-mail: todd@tamcmonterey.org
www.tamcmonterey.org

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Debra L. Hale, Executive Director

Meeting Date: April 27, 2016

Subject: **CalCOG Regional Leadership Forum, Monterey**

On March 30, 31 and April 1, the California Association of Councils of Government held its annual Regional Leadership Forum in Monterey. I attended the event with our CalCOG Delegate Jerry Edelen and Deputy Executive Director Todd Muck. The forum attracted leaders from transportation agencies throughout the state, including Caltrans, the California Transportation Commission, and other regional transportation agencies. Below is a summary of some interesting information from sessions.

Coachella Valley Link Project

The Coachella Valley Association of Governments gave an overview of their Coachella Valley link ("CVlink"): a 50 mile long, 14" wide grade-separated transportation corridor for bicyclists, pedestrians and neighborhood electric vehicles (i.e. golf carts). By including golf carts, the corridor can attract more usage than a traditional bike/ped path, by offering seniors and others a slower, safer way to get from one place to another. The corridor links key destinations in the region, is within ½ mile of many schools, and parallels a major regional arterial. Responding to findings that increasingly people are seeking active vacations, the CV Link is designed as a landmark attraction that will encourage visitors to extend their stays. In addition, the facility recognizes the value of taking bicyclists off the busy Highway 111 corridor.

This $100 million project shares many of the same features of the proposed Fort Ord Regional Trail and Greenway, and gave us several ideas for how to refine and update that project to better meet the needs of more travelers. Notably, the CV Link has already secured $75 million of its $100 million cost, even though the project is only currently in environmental review. For more information, a project video is available at: http://www.coachellavalleylink.com/

Enhanced Infrastructure Financing Districts

Mark Pisano of USC's School of Public Policy talked about the benefits of the new law regarding Enhanced Infrastructure Financing Districts, SB 628 (Beall), which took effect in 2015. These Enhanced Infrastructure Financing Districts are a restructured

Transportation Agency for Monterey County
55-B Plaza Circle • Salinas, California 93901-2902
(831) 775-4406 FAX (831) 775-0897 • E-mail: debbie@tamcmonterey.org
www.tamcmonterey.org

redevelopment agency-type program, designed to allow cities and counties to finance public capital facilities. The district is required to adopt an infrastructure financing plan and upon approval by 55% of the voters can issue bonds to finance projects in the plan. Tax increment financing is available to such districts, but unlike prior redevelopment agency law, school district tax revenue may not be diverted to the financing districts. In addition, the projects need not be located in "blighted" areas. Several government entities (Los Angeles, Placer County, Santa Clara County Valley Transportation Authority) are currently working with financial firms to evaluate the potential to use this new tool for financing the construction of transportation projects.

***Go Human!* Program**

We learned about the Southern California Association of Governments' program to reduce pedestrian and bicyclist accidents and fatalities, as well as help reduce growing obesity rates: *Go Human!* This program provides safety education to reduce risky behaviors, such as: motorists failing to yield to pedestrians at intersections, bicyclists riding the wrong way, and pedestrians crossing at mid-block. TAMC can learn from the program's engaging website (gohumansocal.org) and eye-catching graphics. The designs are available to be copied and utilized by other agencies, upon request, free of charge.

Future Trends in Transportation

Two speakers talked about new transportation technology and other developments. Dan Spering from UC Davis discussed the upcoming impact of "three revolutions" in transportation: vehicle electrification, shared mobility (Uber, Lyft and beyond) and automated vehicles. He noted that transit agencies are thinking about how to utilize the shared mobility services to help provide rides to people in remote areas at a lower cost.

Robert Bertini, Cal Poly San Luis Obispo, expanded the discussion by presenting information on the five levels of vehicle automation: from minor automation (cruise control) to full automation (driverless cars). He noted that driverless cars provide a new mobility opportunity for those who are too young or too old to drive, or blind. He also suggested that planning agencies need to update their regional transportation plans to take into account the potential impact of driverless cars and connected vehicles (which expand the capacity of roadways), as well as the shared mobility companies. Finally, both speakers discussed how the rise of automated vehicles will require new infrastructure, such as better road striping and connected vehicle infrastructure in the roadbed.

Aspiring Counties Networking Event

The event provided an opportunity for elected officials and staff to exchange information among each other and industry representatives on their plans to become self-help counties. At present, the several counties are still moving forward with transportation investment proposals in 2016, most aimed towards the November ballot, including the following "aspiring counties", who are brand new to self-help:

- Mendocino (County and Ukiah)
- Placer
- San Benito (June ballot)
- San Luis Obispo
- Santa Cruz
- Solano (June ballot)
- Stanislaus
- Ventura

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: TAMC Board of Directors

From: Theresa Wright, Community Outreach Coordinator, Assistant Transportation Planner

Meeting Date: April 27, 2016

Subject: **2015-2016 Annual Report**

RECOMMENDED ACTION

1. **AUTHORIZE** the Executive Director to execute a contract with Milestone Communications, Inc, (doing business as Monterey County Weekly), in an amount not to exceed $74,000 to produce and distribute the Agency's 2015-2016 Annual Report;
2. **AUTHORIZE** the Agency to use $65,000 in Agency funds budgeted to this project and to increase the budget by $9,000, for a total of $74,000;
3. **AUTHORIZE** the Executive Director to make administrative changes to the contract if such changes do not increase the Agency's net cost, subject to approval by Agency counsel; and,
4. **APPROVE** the sole source funding, attached.

SUMMARY

The Annual Report is a public outreach tool that the Agency produces each year to highlight the Agency's accomplishments and its goals for the following year. The report is distributed to Monterey County residents and posted on the Agency's website.

FINANCIAL IMPACT

Costs to design, print, translate and distribute the 2015-2016 Annual Report are included in the Agency budget in the amount of $65,000. The proposed approach of inserting the annual report into the Monterey County Weekly, in addition to mailing the report to all households, will cost a total of $74,000 (approximately $26,500 for mailing and the proposed $47,140 for report production and newspaper distribution). The proposal is to add $9,000 to the Annual Report budget from the agency's undesignated reserve, the benefit of which is distribution of an additional 36,000 to the readers of the Monterey County Weekly.

DISCUSSION

The Annual Report is a public outreach tool that the Agency has distributed since 2005. Each year the report has a theme which summarizes the Agency's accomplishments and future planning activities. The report is then distributed by mail to Monterey County residents and used in other outreach efforts. A Spanish language version is also produced.

In May 2015, the Agency's Board of Director approved the development of an outreach effort to inform the public about Monterey County transportation needs, the funding shortfalls in meeting these needs and the concept of becoming a "self-help" county. As the Agency is still actively engaged in this outreach effort, one important feature of the 2015-2016 Annual Report will be the Agency's "Transportation Safety & Investment Plan" and it's role in the self-help effort.

The Agency received a proposal from the Monterey County Weekly to produce a bilingual annual report for $46,300. For comparative purposes, the staff requested a proposal to produce 163,500 copies of the annual report from Eric Gouldsberry Art Direction, the Agency's on-call graphic designer, and PSP/Donnelley, the printing company previously used to produce the annual report. The production cost for Eric Gouldsberry Art Direction and PSP/Donnelley to produce the annual report is $41, 525.

Staff is recommending approval of a contract with Milestone Communications Inc, (doing business as Monterey County Weekly) to produce and distribute the annual report. Though $4,775 more expensive to produce, contracting with the Weekly gives the added bonus of further outreach by distributing 36,000 copies of the annual report as an insert in the June 16, 2016 edition of the Weekly, plus eight weeks of print and digital advertising in print and online media. Remaining copies will be mailed to all households and used by the Agency for public outreach presentations. The other benefit is that the Weekly will write and translate the report, with TAMC oversight, (work that TAMC staff had done in the past) allowing TAMC staff to focus on other Agency projects. Monterey County Weekly's print and digital formats with county-wide distribution is unique for Monterey County therefore it meets the justification for awarding a sole-source contract.

After analyzing the number of copies needed for this hybrid approach of distributing the annual report, which will double as an outreach tool for the Transportation Safety & Investment Plan, staff increased the order for 170,000 copies of the report. With oversight from staff, the Weekly will write, edit, illustrate, design, translate, print and distribute a 16-page annual report. The 10.75' x11.5' report will be a flip book, with 8 English language pages and 8 Spanish languages pages. The total cost for the Weekly to produce 170,000 copies of the annual report is $47, 140 and the cost to mail the annual report to Monterey County residents is $26, 500.00, for a total contract cost of $73,640.00.

Attachment 1 is the Sole Source Finding. Attachment 2 is the Monterey County Weekly Annual Report Contract Proposal. Attachment 3 is the Monterey County Weekly Audit & Distribution list.

Approved by: _____ Date Signed: April 14, 2016
Debra L. Hale, Executive Director

Regular Agenda Counsel Approval: Yes
Finance Approval: Yes

Attachments:
1. Sole Source Finding
2. Monterey County Weekly Annual Report Contract Proposal
3. Monterey County Weekly Audit & Distribution List

SOLE SOURCE JUSTIFICATION

Project Manager: Theresa Wright Date: 4-13-16

Consultant/Vendor: Milestone Communications dba Monterey County Weekly

Contract Amount: $ 74,000

Project Description: TAMC 2015-2016 Annual Report

Notice: Contracting without providing for full and open competition is prohibited unless justified on one or more of the boxes below. A Procurement Request must be attached to this form.

THE FOLLOWING MUST BE ANSWERED AFFIRMATIVELY

BY MARKING THE BOXES BELOW, YOU ARE AFFIRMING THAT THE FOLLOWING STATEMENTS ARE TRUE.

- ☑ The need for a sole source is not due to a failure to plan or a lack of advanced planning.
- ☐ Yes, the need for a sole source is due to a failure to plan or a lack of advanced planning, but the amount is de minimis.
- ☐ The need for a sole source is not due to concerns about the amount of State or Federal assistance available to support the procurement (for example, expiration of state or Federal assistance available for award).

JUSTIFICATIONS FOR AWARD OF SOLE SOURCE CONTRACT (without FEDERAL FUNDING)

For non-federally funded contracts, at least one of these justifications must apply:

- ☑ Only one contractor/consultant/vendor can provide unique/highly specialized item/service.
- ☐ Economy or efficiency supports award to existing contractor/consultant as a logical follow-on to work already in progress under a competitively awarded contract.
- ☐ Cost to prepare for a competitive procurement exceeds the cost of the work or item.
- ☐ The item is an integral repair part or accessory compatible with existing equipment.
- ☐ The item or service is essential in maintaining research or operational continuity.
- ☐ The item/service is one with which staff members who will use the item/service have specialized training and/or expertise and retraining would incur substantial cost in time and/or money.

EXPLANATION: (please include a written explanation)

The Annual Report is a public outreach tool that the Agency has distributed since 2005. Each year the report has a theme which summarizes the Agency's accomplishments and future planning activities. The report is then distributed by mail to Monterey County residents and used in other outreach efforts.

In May 2015, the Agency's Board of Director approved the development of an outreach effort to inform the public about Monterey County transportation needs, the funding shortfalls in meeting these needs and the concept of becoming a "self-help" county. As the Agency is still actively engaged in this outreach effort, one important feature of the 2015-2016 Annual Report will be the Agency's "Transportation Safety & Investment Plan" and it's role in the "self-help" effort.

Monterey County Weekly's print and digital formats with county-wide distribution are unique for Monterey County. Contracting with the Weekly gives the added bonus of further outreach by distributing 36,000 copies of the annual report as an insert in the June 16, 2016 edition of the Weekly, plus eight weeks of print and digital advertising in print and online media. Remaining copies will be mailed to all households and used by the Agency for public outreach presentations.

The other benefit is that the Weekly will write and translate the report, with TAMC oversight, (work that TAMC staff had done in the past) allowing TAMC staff to focus on other Agency projects. As stated before, Monterey County Weekly's print and digital formats with county-wide distribution are unique for Monterey County therefore it meets the justification for awarding a sole-source contract.

-

2016 PUBLISHING AGREEMENT BETWEEN
TAMC AND MILESTONE COMMUNICATIONS INC.

Milestone Communications Inc, (doing business as Monterey County Weekly aka MCW**)** agrees to a custom publishing contract with Transportation Agency for Monterey County **(TAMC)** to produce the Annual Report and Investment Plan in 2016. Milestone will publish, print, market and distribute the Report at the direction of TAMC.

The Annual Report and Investment Plan will be the property and copyright of TAMC.

Annual Report and Investment Guide

Publication:

- Size: 10.75 x 11.5 inches, saddle-stitched (stapled) bindery.
- Cover: Four-color, on high quality coated heavy 70# stock, magazine style cover.
- Interior: 12 pages high quality 40# hibrite newsprint stock, 4-color process on all pages.
- Length: 16 pages total, 8 in English, 8 in Spanish with the same exact content and design.
- Quantity:170,000
- Delivery: June 16, 2016

Distribution:

- Milestone will insert a Report inside each copy of the June 16th edition of Monterey County Weekly newspaper--total distribution 36,000. The distribution audit of Monterey County Weekly is attached for inspection.
- Milestone will arrange for the mailing of approximately 132,500 inserts directly to all Monterey County residents within one (1) week of June 16, 2016.
- Milestone will deliver the remaining approximately 2,000 copies on behalf of TAMC to 15 other countywide locations of TAMC's choosing.

Editorial Content

- Milestone will write, edit, photograph and illustrate the Report under the direction of TAMC.TAMC will have full and final approval.

Production

- MCW will be responsible for the design and production of the Report.
- Milestone will provide a first draft of the Report by May 20, 2016.
- Milestone will provide a final draft of the Report by June 2, 2016.
- TAMC will sign off on all proofs prior to publishing.
- MCW will provide TAMC with a digital "flip book" edition of the Report.

Marketing

- TAMC will receive 8 weeks of print, digital, newsletter and social media advertising to support the release of the Report.
- TAMC will determine the schedule for the 8 color 1/3-page print ads, 8 Monday e-newsletter ads, the web banner ads and the social media posts.

Costs

- MCW will invoice TAMC $47,140 for the production of the Annual Report on delivery of the Annual Report and Investment Plan on June 16, 2016.
- MCW will invoice TAMC up to $26,500 for the actual costs of mailing the Annual Report upon completion of such mailing.
- Payment is due to MCW net 10 days. Late fees of 1.5% per month accrue after 30 days.

Debbie Hale, date	**Erik Cushman, date**
Transportation Agency for Monterey County	**Monterey County Weekly**

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ANNUAL AUDIT REPORT
OCTOBER 1, 2014 - SEPTEMBER 30, 2015

MONTEREY COUNTY WEEKLY

MONTEREY COUNTY WEEKLY
668 Williams Ave.
Seaside, CA 93955
(831) 394-5656; (831) 394-2909 (Fax)
www.montereycountyweekly.com

PUBLICATION DESCRIPTION:

Monterey County Weekly is the big fish in a beautiful pond. As the largest circulation newspaper in one of the most spectacular counties in America, Monterey County Weekly has long been recognized for its thoughtful, provocative and engaging coverage of news, arts and entertainment. Founded in 1988, the newspaper has received scores of California and national newspaper awards over the past 18 years. Good journalism has proved to be good for business too, as Monterey County Weekly today out-circulates the MediaNews and Gannett-owned daily papers in the market. Every Thursday, the Weekly delivers insight to our readers and offers advertisers access to the most highly sought after demographic in the market. Monterey County Weekly -- we mean business.

VERIFICATION OF DISTRIBUTION, PRINTING AND INTERNAL RECORDS:

Verification of distribution is conducted by appropriate survey methodology(s). An audit of internal records is conducted by a professional circulation auditor in conformity with accepted circulation auditing procedures, prior to Verified's issuance of an initial audit report and annually thereafter. This audit of internal records includes a review of source printing, distribution and subscription records as well as supporting financial documents. Please see the following pages for additional details.

WEEKLY CIRCULATION: TWELVE MONTH AVERAGE

	MONTEREY COUNTY WEEKLY THURSDAY
FREE CIRCULATION	
MAIL	171
TARGET	33,695
TOTAL FREE	33,866
TOTAL QUALIFIED CIRCULATION	**33,866**
AVERAGE PRESS RUN	**36,000**
PRESS RUN AS OF 09/24/2015	**36,000**
QUALIFIED CIRCULATION HISTORY	
3 MONTHS ENDING SEPTEMBER, 2015	34,048
3 MONTHS ENDING JUNE, 2015	33,996
3 MONTHS ENDING MARCH, 2015	33,665
3 MONTHS ENDING DECEMBER, 2014	33,759
12 MONTHS ENDING SEPTEMBER, 2014	33,965
12 MONTHS ENDING SEPTEMBER, 2013	34,162

MONTEREY COUNTY WEEKLY

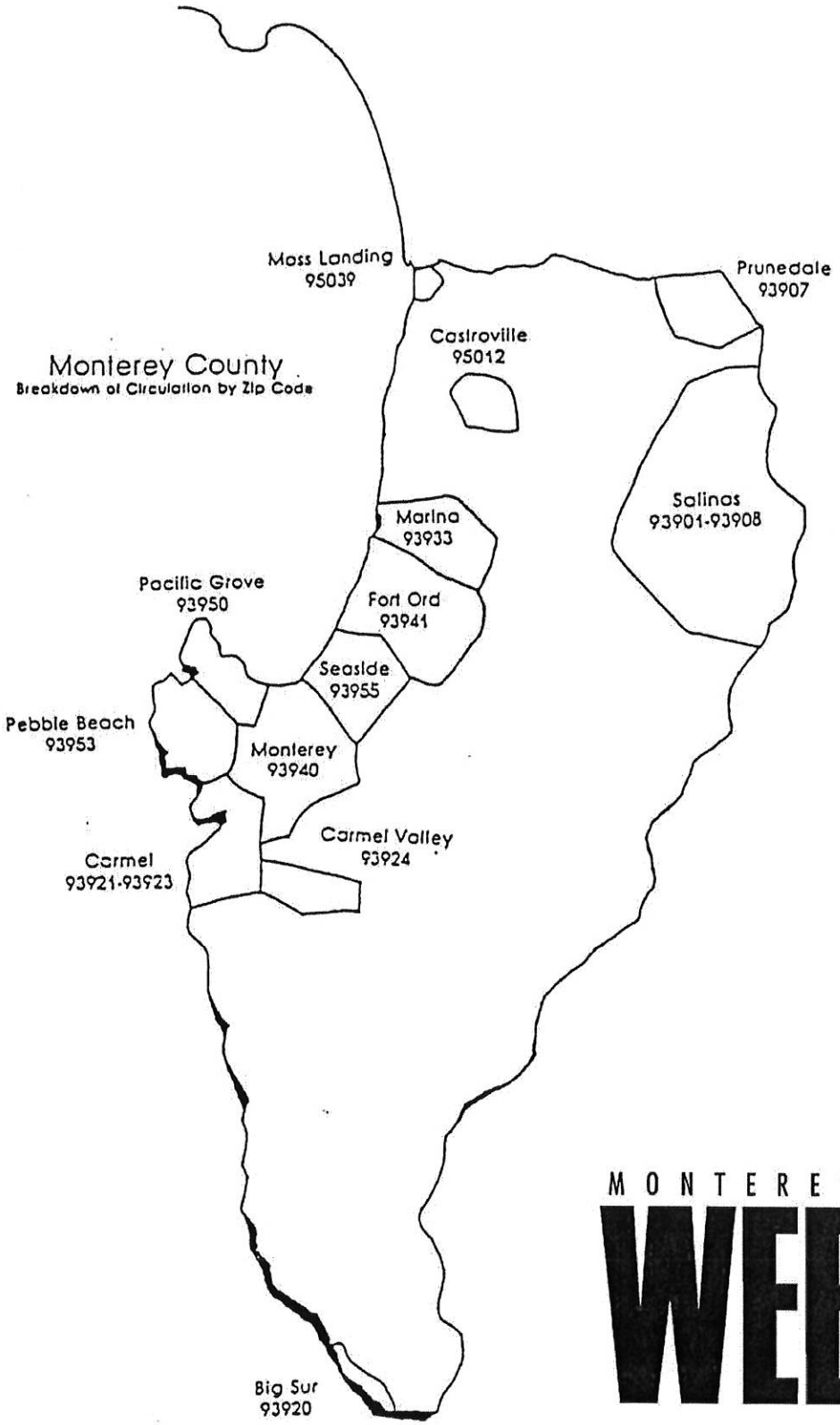
BASED ON ISSUE DATE: 09/03/2015 TOTAL QUALIFIED CIRCULATION: 34,374

GROSS DISTRIBUTION

COMMUNITY	ZIP CODE	DISTRIBUTION
Monterey	93940	9,100
Seaside	93955	4,015
Salinas	93901	3,685
Pacific Grove	93950	3,345
Carmel	93923	2,935
Salinas	93906	2,650
Marina	93933	2,380
Carmel	93921	1,750
Salinas	93907	750
Big sur	93920	630
Carmel Valley	93924	585
Moss Landing	95039	540
Soledad	93960	510
Salinas	93905	495
Watsonville	95076	390
Gonzales	93926	290
Pebble Beach	93953	230
Castroville	95012	200
Aromas	95004	170
Salinas	93908	120
Chualar	93925	55
SALINAS	93912	50
MISCELLANEOUS		1,050

GROSS DISTRIBUTION	35,925
NON-QUALIFIED RETURNS FROM RACK DISTRIBUTION	(1,551)
TOTAL QUALIFIED CIRCULATION	34,374
MISCELLANEOUS NON-QUALIFIED DISTRIBUTION (Includes non-qualified mail, office use, advertising, sales, and extra copies)	75
TOTAL PRINTED	36,000

CIRCULATION AREA MAP



MONTEREY COUNTY
WEEKLY

Verification of Distribution

Monterey County Weekly is regularly made available at designated locations for reader pickup. Publishers are required to maintain detailed distribution records for every issue documenting the number of papers delivered and returns for every distribution point. Quarterly updates of the route lists are maintained by VERIFIED as a reference. "Accuracy of Claimed Distribution" is determined by a comparison of these records with the results of VERIFIED's field verification of distribution. The field verification consists of monitoring of the number of papers delivered and number of papers remaining from the prior issue (returns), for a randomly selected sample of distribution locations.

Monterey County Weekly has met or exceeded VERIFIED's standard of 90% "Accuracy of Claimed Circulation," as documented below:

SURVEY DATE(S):

12/04/15
06/06/15
09/05/14
09/13/13

VERIFIED AUDIT CIRCULATION'S Field Verification Summary Reports contain detailed information concerning verification procedures and results.

Audit of Records and Affidavit

Verified has conducted an audit of printing, distribution, and financial records, as well other data to substantiate circulation data submitted to Verified. This audit followed guidelines prepared in conformity with generally accepted circulation auditing procedures involving records covering all distribution methods utilized for qualified circulation during the period(s) covered by the reports. The results of this audit warrant the issuance of this audit report as a true and accurate statement of the qualified circulation of the client publication.

VERIFIED AUDIT CIRCULATION swears that to the best of its knowledge all statements contained in this report are true.
January 28, 2016

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Debra L. Hale, Executive Director

Meeting Date: April 27, 2016

Subject: **Updated Procurement Policies and Procedures, and Contract Management Manual**

RECOMMENDED ACTION:

APPROVE the updated *Procurement Policies and Procedures and Contract Management Manual*.

SUMMARY:

The Transportation Agency prepared and submitted this manual to Caltrans for review on July 31, 2015. These revisions are proposed pursuant to recommendations by Caltrans in their letter of January 28, 2016.

FINANCIAL IMPACT:

The proposed revisions will have no financial impact to the Agency.

DISCUSSION:

The *Procurement Policies and Procedures, and Contract Management Manual* sets forth the Agency's policies for procuring goods and services and managing procurement contracts. The manual is designed to assure that our Agency meets state and federal funding requirements and sets forth procedures in a manner that can be understood and followed by staff. Attached is a letter from Caltrans listing their requested modifications to the draft policies as submitted to them on July 31, 2015. Staff has worked with legal counsel to make the contract template changes and is hereby requesting that the Board approve the updated manual.

Approved by:_____ Date: March 14, 2016
Debra L. Hale, Executive Director

Consent Agenda Counsel Review: n/a

Attachment: Letter from Caltrans with comments on the draft manual

Web attachment: *Procurement Policies and Procedures and Contract Management Manual*

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3111
TTY 711
http://www.dot.ca.gov/dist05/

Serious drought
Help save water!

January 28, 2015

Ms. Debra Hale
Executive Director
Transportation Agency for Monterey County
55-B Plaza Circle
Salinas, CA 93901-2902

Dear Ms. Hale:

This letter is to provide comments to draft *Procurement Policies and Procedures and Contract Management Manual* developed by the Transportation Agency for Monterey County (TAMC) in response to required corrective actions from the *Caltrans Incurred Cost Audit: Transportation Agency for Monterey County*, dated January 15, 2014. The following are general and specific comments to these draft documents:

Comments on *Procurement Policies and Procedures and Contract Management Manual (July 31, 2015):*

1. A Table of Contents (with hyperlinks) would be helpful to navigate through the contents of the manuals.

2. No steps on the procedures relating to **routine supplies is documented**. Please provide a process for the purchase of routine supplies and the appropriate documentation for this procurement. Currently the manual does not identify procedures that document: upon receipt of any procured supplies equipment, or materials; verification that the items procured comply with the description and technical requirements in the contract or Purchase Order; and other procedures for procurement of supplies. TAMC should make note that the individual who orders supplies should not also receive the supplies etc.

3. Credit Card use – During the audit TAMC indicated they have credit cards which are used to make purchases of supplies. TAMC should discuss P&P's associated to the use of the credit cards.

4. Chapter 1, Page 1, PROCUREMENT REQUEST FORM, item 3 - Should read: "$150,000 or greater and federal or state funded: Requires a pre-award contract review which may include a Conformance Letter from Caltrans Audits & Investigations and DBE documentation."

Note: 49 CFR part 18—Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments and 49 CFR part 19—Uniform Administrative Requirements—Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations), except that grants and cooperative agreements executed prior to December 26, 2014 shall continue to be subject to 49 CFR parts 18 and 19 as in effect on the date of such grants or agreements.

16. Contract templates also do not mention the consultant and sub-consultant are required to maintain an accounting system conforming to GAAP.

17. Remove all reference to Underrepresented Disadvantaged Business Enterprise (UDBE). DOT currently only recognizes Disadvantaged Business Enterprise (DBE).

18. Chapter 2, Page 25, Bidder's List: delete the following sentence, "TAMC will utilize this information to assist in the Overall Annual DBE Goal Setting process". Local agencies are not required to set Annual Goals.

19. Chapter 2, Page 25, U/DBE Consultant Commitment: delete the sentence starting with "TAMC has adopted…" and replace with TAMC has adopted a DBE Implementation Agreement that has been approved by Caltrans District 5 Local Assistance. TAMC also submits on a yearly basis the DBE Annual Submittal Form.

20. Chapter 4, Page 4, all references to Exhibit 17-A should be changed to Exhibit 17-F.

In addition to the comments above, Caltrans requests an updated status to the Corrective Action Plan that was developed in June 2015. Should you have any additional questions please feel free to contact me at 805-549-3970.

Sincerely,

Brandy K Rider

BRANDY K. RIDER
Senior Transportation Planner

Procurement Policies and Procedures and Contract Management Manual

Adopted April 27, 2016

Table of Contents

INTRODUCTION

The purpose of the procurement process is to assure that the Transportation Agency for Monterey County engages in full and fair competition, and obtains the best value, price and quality for taxpayer-funded goods and services. The policies in this manual are based on the State Contracting Code and the Code of Federal Regulations for procurement, since the majority of all TAMC monies are from state or federal funding sources. In the appendices, several forms are included to assist in complying with the requirements; these forms are shown in *italics* in the text and can be found in the appendix for the given chapter.

Questions may arise in the implementation of these policies, and the laws and regulations do change from time to time. Answers to procurement questions may be obtained from a variety of resources, including:

- TAMC's Attorney and Executive Director
- Caltrans Audits and Investigations, via Caltrans Planning
- Caltrans District 5's Local Assistance Engineer
- Local Transportation Assistance Program training.

CHAPTER 1: INITIATION OF PROCUREMENT

All procurement of goods (supplies/equipment/property) or services should commence with a *Procurement Request Form*. The Procurement Request Form should be prepared by the Project Manager and approved by the authorized TAMC approving authorities (Deputy Executive Director, Director for Finance and Administration, Executive Director or Board of Directors, as required in the Agency's approval policies). The package to be submitted by the Project Manager to the approving authority should include the following:

- Procurement Request form
- Scope of Work or Product Specifications
- Independent Cost Estimate
- Method of Procurement Selection form
- Contract Payment Type Selection form
- Sole Source Justification form (if applicable)

PROCUREMENT REQUEST FORM

In order to select the appropriate method of procurement, several questions need to be answered. The TAMC *Procurement Request Form* is designed to guide the Project Manager to assure that all the appropriate questions are answered.

Government or Private Entity Procurement

Will the procurement be from another government entity? No competitive process is required for a contract with a government entity, or if the purchase off of a state or federal contracts list (such as a vehicle, or office supplies); however, it is important that the government entity follow the required procurement policies if it is contracting out any portion of the work. TAMC should verify that the applicable state and federal procurement policies are being followed by the government entity that it is contracting with.

Goods vs. Services

Will the purchase be for goods or services? Different procurement requirements and different cost thresholds apply to the purchase of goods versus services.

Cost of Procurement

How much is the initial cost estimate? The expected cost of the purchase will govern the procurement rules and the required approvals. The cost estimate is determined by the preparation of an Independent Cost Estimate.

For services, the procurement threshold categories are:

- Occupancy Costs (please see the TAMC Accounting and Financial Policies Manual)
- Small: less than $5,000
- Standard: $5,000 or greater
- $150,000 or greater and federally-funded:
  Requires a pre-award contract review which may include obtaining a Conformance Letter from Caltrans Audits & Investigations and Disadvantaged Business Enterprise documentation.

For goods, the procurement categories are:

- Routine Supplies
- Food: less than $2,500 (local funds only – competition not required)
- Small: less than $25,000
- Standard: $25,000 or greater

Use of Credit Cards

The Agency has authorized the Executive Director and Senior Administrative Assistant to have an Agency credit card issued in his/her names for authorized Agency expenditures. The policy for use of credit cards is detailed in the TAMC Accounting and Financial Policies Manual.

Competitive Procurement vs. Non-Competitive

Will it be a competitive or sole source procurement? The project manager should use the Method of Procurement Selection form to determine which procurement process to utilize. A sole source procurement or contract amendment is only allowable under specified circumstances.

Project Funding Source

What is the funding source? Will federal funds be involved? Federally-funded projects have an additional set of requirements, primarily associated with setting goals and documenting Disadvantaged Business Enterprise participation. Utilization of federal funds requires following these procedures as part of the issuance of a Request for Qualifications or Proposals. No expenses incurred prior to the approval of the federal authorization (E-76) will be reimbursed with federal funds.

PROCUREMENT APPROVAL

All purchases must be approved in accordance with the following TAMC's policies concerning delegation of authority:

- **Director of Finance and Administration** (or Executive Director if absent) must review all procurement requests for consistency with the adopted TAMC budget.
- **Deputy Executive Director or Director of Finance and Administration** may approve procurement requests for $2,000 and under, per the delegation of authority by the Executive Director.
- **Executive Director** may approve purchases under $10,000, within the adopted budget.
- **TAMC Board of Directors** must approve purchases of $10,000 and over, or amounts not in the adopted budget.

A request for approval shall be accompanied by a Procurement Request Form, with a summary of the proposed Scope of Work (for services); the proposed method of procurement, including any sole source findings; the proposed contract type; the estimated project cost (supported by an independent cost estimate); the proposed funding source and the projected not-to-exceed amount. A Procurement Request Form shall never be used to circumvent established competitive procurement procedures.

SCOPE OF WORK OR PRODUCT SPECIFICATIONS

A brief scope of work or list of required product specifications should be included with the procurement request. TAMC is responsible for preparing specifications that describe its needs, while assuring that those specifications are not exclusionary, discriminatory, unreasonably restrictive, or otherwise in violation of federal laws or regulations. The specifications or scope of work should describe the goods or services to be procured.

It is TAMC policy to review proposed procurements to avoid purchase of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase, but procurements should not be broken down to avoid meeting a standard purchase procurement threshold.

INDEPENDENT COST ESTIMATE

According to federal law, grantees should perform a cost or price analysis in connection with every procurement action including change orders, contract modifications and sole source procurements.

As such, an independent cost estimate must be prepared for all procurements; however, the degree of the analysis and the degree of detail of the in-house cost estimate depend on the size and complexity of the procurement. The person responsible for developing the independent cost estimate must be free from financial and organizational conflicts of interest. A consultant not otherwise involved in the procurement who has signed appropriate conflict of interest forms, and does not have a conflict, may prepare and sign the Independent Cost Estimate if a TAMC staff member will be involved in negotiating the final price, level of effort, or other cost issues.

It is advisable but not required that separate individuals prepare the Independent Cost Estimate and negotiate the final contract. If these functions are performed by the same person, the Executive Director or designee shall review and approve the final scope of work and budget.

Two recommended forms are provided for Independent Cost Estimates:

- *Independent Cost Estimate for Small Procurements*
- *Independent Cost Estimate for Standard Procurements*

For construction projects, an Engineers' Estimate shall serve as the independent cost estimate. For acquisition of real property, an appraisal shall serve as the independent cost estimate.

METHOD OF PROCUREMENT SELECTION FORM

The method of procurement is based on several factors:

- Purchase of goods (supplies/equipment) versus services
- Estimated cost of goods or services
- Architectural and Engineering services (or not)
- Federal funding (or not)
- Competitive Procurement, Sole Source Procurement or Government Agency contract

The Project Manager shall complete the Method of Procurement Selection form for all purchases of non-routine supplies/equipment or services unless directed otherwise by the Executive Director.

CONTRACT PAYMENT TYPE SELECTION FORM

The Project Manager will use the Contract Payment Type Selection form in order to determine which TAMC contract payment type to utilize. Such selection may be made in consultation with the TAMC Attorney. All contracts shall include a not-to-exceed amount.

The allowed methods of payment are:

- Actual Cost plus Fixed Fee
- Lump Sum
- Cost per Unit of Work
- Rates of Compensation

ON-CALL CONTRACTS

Another contract type is an On-Call Contract. On-Call Contract is a contract for a number of projects, under which task or work orders are issued on an as-needed basis for an established contract period. On-Call Contracts are typically used when a specialized service of indefinite delivery or indefinite quantity are needed for a number of different projects (such as construction engineering, design, environmental analysis, traffic studies, geotechnical studies, field surveying, etc.). Many agencies use these contracts to address peaks in workload and/or to perform a specialized service which the agency does not have. On-Call Contracts shall specify a reasonable maximum length of contract, not to exceed 5 years, and a maximum total contract dollar amount.

On-Call Contracts are established through the Request for Qualifications process. The awarded contract defines a general scope of work, level of complexity, and professional nature of services and then utilizes a specified a "task order" procedure by which the local agency specifies the work. Each task order will have a separate scope of work and budget that is independently negotiated.

If multiple consultants are to be selected and multiple on-call contracts awarded through a single solicitation for specific services, a Request for Qualifications process is used to establish a pre-qualified list. The RFQ must:

- Identify the number of consultants that may be selected or contracts that may be awarded.
- Specify the procedures that TAMC will use to competitively award task orders among the consultants:
    - Either through an additional qualification-based selection process in which each on-call consultant is asked to submit a proposal for each task order, OR
    - On regional basis whereby the region is divided into areas identified in the solicitation, and consultants are selected to provide on-call services for assigned areas only.

ROLE OF THE PROJECT MANAGER AS CONTRACT ADMINISTRATOR

At TAMC, the Project Manager will assume the role of the Contract Administrator. This role is detailed in the Caltrans Local Assistance Procedures Manual, Chapter 10, as follows:

- Provides direction to ensure the proposed work is advertised properly;
- Prepares and distributes the Request for Qualifications (RFQ), description of work, and Request for Proposals (RFP), if used;
- Prepares the draft contract;
- Arranges for preparation in advance of an independent estimate of the value of the work to be contracted out;
- Ensures that the selection procedures are followed;
- Analyzes the selected/best-qualified consultant's cost proposal;
- Serves as the local agency's primary contact person for the successful consultant;
- Monitors the consultant's progress and provides direction;
- Reviews billings and determines whether costs billed are reasonable in relation to the work performed during billing period;
- Approves the consultant's progress payments and ensures that billings are in accordance with the terms and conditions of the contract; and,
- Identifies other local agency staff for the consultant to contact, if needed.

CONFLICT OF INTEREST POLICY

TAMC staff is required to follow TAMC's Conflict of Interest Policy when carrying out procurement or contracting functions. In addition to the provisions of the Political Reform Act, as enforced by the Fair Political Practices Commission, a conflict of interest exists when it is likely that a staff member could be influenced, or could be perceived to be influenced, by a personal interest in carrying out their duties of employment. Conflict of interest that leads to biased decision making may constitute corrupt conduct. For more specifics, see the adopted *Conflict of Interest Policy* in TAMC's Human Resources Policies.

CHECKLIST - INITIATION OF PROCUREMENT

Before finalizing a procurement request, staff should be sure to have prepared the following documentation:

☐ Procurement Request form, including summary of scope of work
☐ Independent Cost Estimate
☐ Method of Procurement Selection form
☐ Contract Payment Type Selection form

If applicable:

☐ Sole Source Justification form

CHAPTER 2: SOLICITATION PROCESS

Once the Project Manager has taken the necessary steps to prepare a Procurement Request Form, Method of Procurement Selection form and the Independent Cost Estimate, and has obtained the required TAMC approvals, then the solicitation process can begin. The solicitation process is different depending on the following factors:

- Competitive Procurement or Non-Competitive Procurement
- Goods or Services
- Independent Cost Estimate
- Architectural & Engineering Services vs. Non- Architectural & Engineering Services
- Funds used: local, state or federal

COMPETITIVE SOLICIATIONS

Most TAMC procurements should follow the competitive solicitation process. There are certain exceptions, but if the project manager has determined that the goods or services needed cannot be obtained from another government agency and cannot be justified for a sole source or limited competition process, then a competitive solicitation is required. TAMC will provide for full and open competition when soliciting bids or proposals, consistent with this manual. By working throughout the procurement process to encourage full and open competition among potential contractors, TAMC will assure that both its interests and those of the state and federal government are protected and that TAMC is getting a fair return on the expenditure of federal, state, and local tax dollars.

Splitting of Procurements

TAMC may break out procurements into smaller amounts to provide greater opportunities for Disadvantaged Business Enterprises, small and minority firms to participate; however, TAMC will not split a larger procurement merely to gain the advantages of small purchase procedures. TAMC will consider procurement size in deciding whether to consolidate or break out the procurement to obtain a more economical purchase.

Local or Geographic Preference

In order to assure full competition that provides the best value to TAMC, local preference may not be taken into consideration for projects that are state or federally-funded. However, local knowledge may be one of the evaluation factors for consultant services contracts. Also, product cost may be affected by the location of the supplier. TAMC will distribute solicitations to the local chambers of commerce and regional professional agencies to encourage local businesses to compete for contracts.

PROCUREMENT OF GOODS

The rules for procurement of goods vary depending on the size of the purchase. There are special rules for purchase of food, which is ineligible for state or federal funding reimbursement, except when it is for travel expenses.

Procurement of Routine Office Supplies, Memberships and Subscriptions

Routine office supplies are considered supplies of a de minimus cost that are necessary for the day-to-day activities of the Agency. Memberships and subscriptions are specific to the organization or publication and therefore are procured on a sole source basis.

For procurement of routine office supplies, memberships and subscriptions, a Procurement Request Form shall be completed by the project manager or staff member prior to purchase and no other procurement forms (method of payment selection, contract payment selection type) are required. The Procurement Request Form shall state the supplies, membership or subscriptions to be purchased, the estimated cost, and the vendor/vendors to be used. The Procurement Request Form shall be approved according to the procedures listed above and given to the Accounting Clerk or Administrative Assistant for procurement. To the extent that it is possible and cost-effective, routine supplies will be procured by using a state-approved vendor.

The Accounting Clerk or Administrative Assistant will order the supplies from the vendor/vendors. The individual who orders the goods/supplies shall not receive the goods. A different staff member shall confirm the receipt of the physical merchandise ordered by signing the receipt of merchandise. The packing slip shall be compared to the goods received to ensure that the items procured comply with the description and technical requirements of the procurement request form. If correct, the packing slip and resulting invoice will be initialed by the receiving officer and sent to the project manager or staff member responsible for that particular procurement request for approval of payment. The approved documents, including a copy of the original procurement request form, will be sent to the Accounting Department for payment.

Procurement of Goods – Food and Other State/Federal Ineligible Expenses

Food may be provided for certain committee meetings, ribbon cuttings or special events, but is not eligible for reimbursement for state or federal funding, unless it is part of a travel claim (see *TAMC Administrative Policies* for travel claim information). A competitive procurement process is not required for the purchase of food less than $2,500. Approval for purchase of food and other state/federally ineligible expenses should still be obtained via the Procurement Request Form.

Procurement of Goods – Less than $25,000

Small purchase procedures are those relatively simple and informal procurement methods for securing equipment, supplies, or other property, which do not cost more than the acquisition threshold of $25,000. Examples include: office supplies, computers, office equipment. If it is expected that purchases will total more than $25,000 over a three year period, then the large purchase procurement procedures should be followed.

After determining via the Independent Cost Estimate that the goods/supplies/equipment or construction costs total less than $25,000 and receiving approval to purchase, the following procedures apply:

Product Specifications

The Project Manager will prepare the product specifications and required terms and conditions.

Approval of Purchase

The Project Manager will obtain approval for the purchase from the TAMC Board, the Executive Director (if less than $10,000 and in the adopted budget), or designee (if less than $2,000).

Method of Procurement

TAMC will utilize one of these methods for purchases of goods less than $25,000:

- Purchase on the Open Market
- Informal Invitations for Bid

Purchase on the Open Market

A purchase on the open market (i.e. Internet or stores) may be made if the selection is to be made on a price comparison only. Three prices must be obtained for comparison purposes and documented to the file; for example, three screen shots of the product, supplier and price.

Informal Invitation for Bids

If an Invitation for Bids solicitation method is used, the process is as follows:

- Prepare the solicitation and include the product specifications, terms and conditions and deadline for response.
- Distribute the solicitation to at least three qualified sources. This may be accomplished by sending a fax or email request to firms using any combination of TAMC's bid list or known sources or sources generated from published documents.
- Attempt to obtain written bids or document oral bids from at least three suppliers, in a manner that permits prices and other terms to be compared.

Select the Lowest Responsive, Responsible Bidder

The Project Manager will review the bids or prices and select the supplier that is determined to be the lowest responsive and responsible bidder. Responsive and responsible means: meeting the terms, conditions, and specifications of the solicitation; taking into account the possible range of competing product and materials available, fitness of purpose, manufacturer's warranty; and considering other similar factors, in addition to price.

Documentation

The Project Manager will document which vendors were sent quote requests or informal invitations for bids, the responses received, and the low bid.

Procurement of Goods – Equal to or Greater Than $25,000

TAMC typically does not often purchase goods or supplies that exceed $25,000. Examples of such purchases, however, are: bike racks or lockers, an agency vehicle, or a construction project.

Product Specifications

The Project Manager will prepare the *Product Specifications and Required Terms and Conditions*.

Approval of Procurement

TAMC Board approval in a public meeting is required prior to issuing the Invitation for Bids because the procurement exceeds the Executive Director's $10,000 threshold.

Lease vs. Purchase Analysis

For purchases of goods exceeding $25,000, such as a vehicle or other major asset as appropriate, to obtain the best value, TAMC should analyze lease versus purchase alternatives to determine the more economical alternative. Before leasing an asset, TAMC shall make a written comparison of the cost of leasing compared with purchasing or constructing the asset, based on the expected useful service life of the asset.

Method of Procurement

Two methods may be utilized for purchases within this procurement category:

- Invitation for Bids, or
- Purchase on the Open Market or Request for Proposals

Guidelines for Alternatives to Invitations for Bids

Purchase on the Open Market

In certain cases, particularly for purchases of equipment or supplies that are widely available and not customized for agency use, purchase on the open market may be more advantageous than an

Invitation for Bids. The Open Market process involves comparison of the same product (i.e. a vehicle) and comparing prices offered on the open market by various vendors. A comparison of at least three vendors is recommended. If staff seeks authorization to utilize this method of procurement, the *Method of Procurement Selection Form* should set forth the reasons a deviation from the typical competitive bidding process is warranted, along with a technical evaluation of the articles, prices, and suppliers should be placed in the contract folder.

Justifications for purchases on the open market are as follows:

- The purchase may be made at a lower price on the open market; or,
- Competitive bidding is an inadequate method of procurement because it is necessary to purchase prototype equipment or modifications in order to conduct and evaluate operational testing.

Request for Proposals

In limited cases, a Request for Proposals may be issued for the purchase of goods. The justification for utilization of a Request for Proposals procurement method is as follows:

- The article(s) to be procured is undergoing rapid technological changes, and it is in the public's interest to issue an RFP so that the broadest possible range of competing product and materials available, fitness of purpose, manufacturer's warranty, and other similar factors in addition to price can be taken into consideration.

Guidelines for Invitation for Bids

An Invitation for Bids is typically utilized for purchases of high value goods that may be customized or discounted if provided in bulk (i.e. transit vehicles, bike racks). The *Invitation for Bids*, including specifications and attachments, should permit full and open competition consistent with the requirement for the property or services to be procured. The requirement should represent TAMC's minimum needs and be sufficiently described to promote full and open competition. Under this procurement process, bids are publicly-solicited, and a firm, fixed-price contract (lump sum or cost per unit with a not-to-exceed amount) is awarded to the responsive and responsible bidder whose bid, conforming to all the material terms and conditions of the invitation for bids, is the lowest in price.

Contact With Prospective Bidders

From the time the Invitation for Bids is being prepared to the time of contract award, only the Project Manager should have contact with potential or actual proposers in order to reduce the likelihood of any unfair advantage in the competitive process. The Project Manager should take care that the same information is provided to all bidders. For example, if additional information becomes available or bidder questions are raised, the Project Manager should publish an addendum that is posted on the TAMC website and distributed to all bidders who requested copies of the Invitation for Bids.

Invitation for Bids – Required Contents

The Invitation for Bids includes the complete assembly of related documents (whether attached or incorporated by reference) furnished to prospective bidders for the purpose of bidding.

- *Format*

The format is specified in the TAMC Invitation for Bids form.

- *Specifications*

Invitation for Bids must be based on a clear and accurate description of the technical requirements for the material, product, or service to be procured. The description should not contain, in competitive procurements, features that unduly restrict full and open competition. The "brand name or equal" description may be used to define the performance or other necessary requirements of a procurement. When so used, the specific features of the brand name product that must be met by bidders must be clearly identified. Brand names that are known to meet the "approved equal" requirements described below should be listed in the specifications.

- *Sample Products*

Bidders should not be required to furnish samples unless there are certain characteristics of the product that cannot be described adequately in the specification or purchase description, thus necessitating inspection of a sample to assure procurement of an acceptable product. If a "bid sample" is required by the Invitation for Bids, to assist in determining whether the item will perform exactly as required in the invitation, the sample may be used solely for the purpose of determining responsiveness and should not be used to determine the bidder's ability to produce the required items.

- *Schedule*

The Invitation for Bids will include the schedule for the solicitation, including the deadline for bidder response, and the time and place for the bid opening.

- *Bidding Time*

Consistent with the need for obtaining the supplies or services, all Invitation for Bids should allow sufficient bidding time (i.e., the period of time between the date of distribution of an Invitation for Bids and the date set for opening the bids) to permit prospective bidders to prepare and submit bids. Generally, **bidding time should not be less than 21 calendar days** when procuring standard commercial articles and services. It should not be less than 30 calendar days when procuring other than standard commercial articles or services. The exception is when the urgency of the need does not permit such delay.

- *Payment Method: Fixed Price*

Contracts awarded as a result of Invitation for Bids should utilize the fixed price payment method. Escalation may be appropriate where unusual risks for labor or material are present and some flexibility is necessary and feasible. When escalation is necessary, an escalation ceiling must be established and must be the same for all bidders. Payment for unbid items, including items in change orders will not call for payment to the contractor on the basis of cost, plus a fixed percentage of cost. Markup amounts must be negotiated and determined reasonable on each item added to a low-bid procurement.

- *Descriptive Literature for the Procurement of Tangible Items*

Bidders should not be required to furnish descriptive literature as a part of their bids, unless the Project Manager determines that such literature is needed to determine whether the product(s) offered meet the specification requirements of the Invitation for Bids or establish exactly what the bidder proposes to furnish. The term "descriptive literature" means information, such as cuts, illustrations, drawings, and brochures, which describe or show the characteristics or construction of a product or explain its operation. The term includes only information required to determine acceptability of the product. It excludes other information such as that furnished in connection with the qualifications of a bidder or for use in operating or maintaining equipment.

- *Sealed Bid Procurements*

Sealed bid procurements are utilized for construction contracts. If the sealed bid procurement method is used, in addition to the above requirements, the following requirements apply:

  - Two or more responsible bidders must be willing and able to compete effectively for the business;
  - All bids will be publicly opened at the time and place described in the Invitation for Bids;
  - Bid amounts will be included in the bid opening documentation.
  - There is no price negotiation with bidders before sending out the notice of intent to award.

- *"Approved Equal" Requirement for Purchases of Supplies*

It is important not to exclude bidders based on the use of a different brand or manufacturer than is specified in the solicitation, if the alternative brand or product can be approved by TAMC as "equal" to what was specified. Certain materials, equipment, or kinds of materials may be specified in order to establish a basis of quality, functionality, and/or performance, either by description of functionality and/or performance or by designating a manufacturer by name and referring to his brand of product designation, make, model, or part number or by specifying a kind of material. However, the solicitation should not exclude other processes, equipment or materials of equal functionality and/or performance, utility, or merit, which may be approved by TAMC upon request. Brand names that are known to meet the "approved equal" requirements should be listed in the specifications.

Requests for "approved equal" products, clarification of the solicitation specifications, and complaints on specifications must be received by TAMC, in writing, by the time specified in the solicitation. Any request for an approved equal or protest of the specifications must be fully supported with technical data, test results, or other pertinent information as evidence that the substitute offered is equal to or better than the specification requirement.

- *Final Review of Invitation for Bids*

The Project Manager's supervisor and the TAMC Attorney shall review each Invitation for Bids as necessary to correct any discrepancies or ambiguities that could limit competition unnecessarily.

- *Protests*

TAMC's Protest Procedures shall be included in the Invitation for Bids.

Solicitation of Bids

- *Distribution of Invitation for Bids*

Notice of Availability of Invitation for Bids should be publicized through means as may be appropriate in sufficient time to enable bidders to prepare and submit their best bids before the time set for the public opening of bids. These methods shall include:

- E-mail or mail distribution to prospective bidders;
- Posting on the TAMC website; and
- Advertisement in a newspaper of general circulation.

Also desirable is:

- Distribution to appropriate professional associations or builders exchanges (as applicable); and,
- Distribution to the local chambers of commerce.

Notice of Availability of the Invitation for Bids should be sent via email or otherwise delivered to the maximum number of prospective bidders to promote and ensure maximum full and open competition. The notice should specify where the Invitation for Bids may be obtained on the Agency's website, so that the Agency may track who has requested a copy of the solicitation.

Invitation for Bids should be advertised in a manner that promotes participation in the bidding by all qualified and capable firms. Advertising only in the immediate local news media may not be adequate for large projects needing contractors of a type that are not common locally.

The Project Manager should keep a record in the file of the distribution of the notice of availability, the advertisement and requests for copies invitation for bids, including screen shots and copies of emails.

- *Addenda to the Invitation for Bids*

If after issuance of Invitation for Bids, but before the time set for bid opening it becomes necessary to make changes or corrections in quantities, specifications, delivery schedules, opening dates, etc., or to correct a defective or ambiguous invitation, the changes will be accomplished by issuance of an addendum to the Invitation for Bids.

In addition, any information given to a prospective bidder concerning an Invitation for Bids should be furnished promptly to all other prospective bidders as an addendum to the Invitation for Bids. Distribution of the addendum will be made to each interested party to whom the Invitation for Bids has been furnished and/or placed on TAMC's website.

All Addenda shall be issued at least 72 hours before the bid is due. Before amending an Invitation for Bids, the period of time remaining to bid opening and the possible need to extend this period should be considered and, if necessary, confirmed in the addendum. No award should be made unless the addendum has been issued in sufficient time to permit all prospective bidders to consider the information in submitting or modifying their bids.

- *Pre-bid Conference*

A pre-bid conference is not required but is a useful way to brief prospective bidders and explaining to them complicated specifications and requirements. The pre-bid conference should not be used as a substitute for amending a defective or ambiguous Invitation for Bids. If a modification is proposed as a result of the pre-bid conference, such modifications should be made through a formal addendum and not through the pre-bid notes.

- *Modification or Withdrawal of Bids*

Bids may be modified or withdrawn by written notice of the bidder or his/her authorized representative. The notice must be received in the office designated in the Invitation for Bids not later than the exact time set for bid opening. A bid may be withdrawn, in person, by a bidder or his authorized representative provided:

  - His/her identity is made known;
  - He/she signs a receipt for the bid; and
  - The withdrawal is prior to the exact time set for bid opening.

Modifications and requests for withdrawal of bids that are received after the exact time set for bid opening are considered "late modifications" and "late withdrawals," respectively. A late modification will not be considered.

- *Late Bids*

All bids must be received by the date, time and location specified in the Invitation for Bids. All late bids must be rejected.

- *Cancellation of Invitation for Bids Before Bid Opening*

If the Invitation for Bids is cancelled before the time set for bid opening, the reason for the cancellation should be recorded to the file, together with a statement of the number of organizations invited to bid and the number of bids received.

Opening of Bids and Award of Contracts

- *Recording and Preservation of Bids*

All hard copy bids must be time and date stamped upon their receipt. A time-and-date stamp should be kept at the desks of the receptionists and administrative staff handling mail, and these staff members should be instructed to place a time-and-date stamp on all proposals/bids. The original copy of each bid should be carefully safeguarded, particularly until a summary of the bids has been made and its accuracy verified.

- *Electronic Bids*

TAMC may allow for electronic bidding of Invitation for Bids. If electronic bidding is allowed, the electronic process will record all data, and the results will be immediately available on TAMC website for the public to view.

- *Designation of Bid Officer*

An official separate from the Project Manager (i.e. Deputy Executive Director or Executive Director) should be designated as the bid opening officer. This Bid Officer decides when the time set for bid opening has arrived and so declares to those present. All bids received prior to the time set for opening should be publicly opened, read aloud to the persons present, and be recorded. The name of the bidder and the total amount of each bid should be read and documented in the Invitation for Bids file. Bidders may obtain copies of the bid documents that must be disclosed pursuant to the California Public Records Act at any time after the bid amounts are publicly read and recorded.

- *Bid Summary Form*

All bids received against an Invitation for Bids must be documented using a *Bid Summary Form*. The bid opening date, general description of the procurement item, names of bidders, prices bid, and any other information required for bid evaluation should be entered into the bid summary. The bid summary should be completed as soon as practicable after the bids have been opened and read. The bid opening officer will certify the accuracy of the information.

- *Responsiveness of Bids*

Review of bids for responsiveness and bidders for responsibility should be conducted by the Project Manager. Consultants or non-employees that assist staff in evaluating and reviewing bids must fill out a *Declaration Concerning Conflicts for Evaluators* prior to reviewing bids. No oral discussion or

written communication should be conducted with bidders except to obtain clarification regarding the bid contents or provide information regarding protests or delays.

To be considered responsive, a bid should comply in all material aspects with the Invitation for Bids. Bidders must use any required TAMC bid forms in order to be in material compliance with the Invitation for Bids requirements. This applies to both the method and timeliness of submission and the substance of any resulting contract. It is imperative that all bidders be afforded an equal opportunity so that the integrity of the bidding system is maintained. Bids should be completed, executed, and submitted in accordance with the instructions contained in the Invitation for Bids.

TAMC's Responsiveness Checklist can be used to facilitate the Project Manager's review of the responsiveness of the bids or proposals.

- *Rejection of Individual Bids as Non-Responsive*

Any bid that fails to conform to the essential requirements of the Invitation for Bids, such as specifications, delivery schedule, or any alternatives to these or other requirements specifically provided for in the Invitation for Bids should be rejected as nonresponsive. Ordinarily, a bid will be rejected when a bidder imposes conditions that would modify requirements of the Invitation for Bids or limit its liability to the buyer in a way that gives the bidder an advantage over other bidders.

- *Minor Deviations May be Waived*

A minor deviation is an error that does not go to the substance of a bid. A condition goes to the substance of a bid when it affects the price, quantity, quality, or delivery of the items offered. Waivers of minor deviations should be consistently applied to avoid allegations of favoritism. Any bid may be rejected if TAMC determines that it is unreasonable as to price, and the determination is supported by review and analysis of the action. If a bid guarantee is required and the bidder fails to furnish the guarantee in accordance with the requirements of the Invitation for Bids, the bid must be rejected.

Rejection of Bids

Any or all bids may be rejected if there is a sound, documented reason. When it is determined to reject all bids, the Contracts Officer should notify each bidder in writing that all bids have been rejected, stating the reason(s) for such action if appropriate.

Cancellation of Invitation After Opening

Preservation of the integrity of the competitive bid system dictates that, after bids have been opened, award must be made to that responsible bidder who submitted the lowest-priced, responsive bid unless there is a compelling reason to reject all bids and cancel the invitation. An Invitation for Bids should probably be cancelled if one of the following occurs (this is not an exhaustive list):

- All bids contained unreasonable prices;
- There is evidence of collusion or bad faith; or

- Competition was not adequate to ensure a reasonable price.

The solicitation documents will be corrected, when necessary, before the procedure for re-solicitation may be followed.

- *Options and Assignments*

Determination of the lowest bidder must include the bid amount that includes all options that may be awarded. If the option bid amounts are not used to determine the low bidder, such options, if exercised, will need to be justified as a sole source.

TAMC may not add quantities or options to contracts solely to permit assignment to another party at a later date. These limits on assignments do not preclude joint procurements that are entered into simultaneously by two or more parties to obtain advantages unavailable for smaller procurements. If the quantity of property or services reasonably believed as needed at the time of contract award changes, TAMC may assign its unneeded contract authority to another entity.

- *Firm, Fixed-Price Contract*

A firm-fixed-price contract award will be made in writing to the lowest responsive and responsible bidder. For the procurement of tangible items, when specified in bidding documents, factors such as discounts, transportation costs, and life cycle costs may be considered in determining which bid is lowest; payment discounts will only be used to determine the low bid when industry practice for the type of project involved indicates that such discounts are usually taken advantage of.

- *Timing of Award*

Award should not be made until the protest period specified in the Invitation for Bids has ended and all required TAMC approvals have been obtained.

If, after bid opening, administrative problems threaten to delay award beyond the bidder's acceptance period, bidders should be requested to extend the bid acceptance period. This request must be made and confirmed in writing prior to the expiration of their bids (with consent of sureties, if any) to avoid the need for re-advertisement.

- *Written Notice of Award*

Award should be made by written notice within the time specified for acceptance in the bid or extension thereof.

- *Information to Unsuccessful Bidders*

All unsuccessful bidders should be sent a notice of intent to award as soon as possible in order to start the clock running on the protest period, particularly if the award is made to other than the apparent low bidder. The notification should state the reason for rejection of their bid. In addition, notification that an award has been made to another firm should be given immediately to all unsuccessful bidders.

- *Recommendation Memorandum*

A recommendation memo to the Executive Director should be prepared by the Project Manager for each Invitation for Bids procurement. The recommendation memo should include a certifying statement confirming that the low bidder is acceptable with respect to the technical specifications of the Invitation for Bids. The memorandum should be supported by documentation and placed in the contract file.

Conflicts of Interest - Evaluators

Any non-TAMC employee involved in evaluating bidders or bids will be given TAMC *Evaluator Guidelines* and fill out a *Declaration Concerning Conflicts for Evaluators*.

CHECKLIST – PROCUREMENT OF GOODS

The following documentation, in addition to the documentation prepared in the Initiation of Procurement phase, should be made to the file during the bidder solicitation and selection process:

- ☐ Product specifications, including terms and conditions
- ☐ *Notice of Availability of Invitation for Bids*
- ☐ *Invitation for Bids* form or documentation of open market prices
- ☐ Record of distribution and advertisement of Invitation for Bids to Bidders
- ☐ Signed *Declarations Concerning Conflicts of Interest for Evaluators*
- ☐ Written Bids
- ☐ *Bid Summary Form*
- ☐ *Responsiveness Checklist*
- ☐ *Notice of Intent to Award - Goods*
- ☐ *Recommendation for Bidder Selection* memo to the TAMC Executive Director

PROCUREMENT OF SERVICES

The requirements for procurement of services vary depending on the cost, nature and funding source for the services.

Cost

A simplified set of rules applies to a procurement for which the cost of services is estimated at less than $5,000.

Use of Architectural and Engineering Consultant Services

"Architectural and Engineering Services" are defined in federal and state law as the services provided *with respect to a construction project* by private consulting firms providing architectural, landscape architectural, engineering, environmental, land surveying, construction engineering, or construction project management services.

TAMC will use competitive proposal procedures based on the Brooks Act and California Mini-Brooks Act when contracting for Architectural and Engineering services as defined in 40 U.S.C. §541 and California Government Code 4525. Consultant selection of Architectural and Engineering Consultants must be made on a qualifications-based selection process, under the federal Brooks Act, and state "mini-Brooks Act."

Cost proposals submitted to the local agency, if above the small purchase procurement threshold, must be sealed and may not be included as a criterion for rating such consultants. Also, specific audit requirements apply for Architectural and Engineering contracts that are above $150,000.

Non-Architectural and Engineering Services

Somewhat different rules apply to contracts for other non-Architectural and Engineering services that TAMC typically engages in, such as planning, graphic design, auditing, environmental review of plans, regional impact fee development, travel forecast modeling, and project cost estimating. Specifically, consultant selection for these non-A&E services may include cost as a selection factor.

Use of Federal Funds

Contracts involving federal funds have additional requirements, primarily related to the setting of Disadvantaged Business Enterprise goals and documentation of the DBE ownership of firms receiving contract awards.

Procurement of Services – Less than $5,000

If the *Independent Cost Estimate* for services is less than $5,000, an informal Request for Proposals or Qualifications may be followed. The steps are listed below.

Scope of Work

The Project Manager will prepare a scope of work to include in the solicitation request.

Selection Criteria and Schedule

The Project Manager will develop a list of selection criteria to include in the solicitation, a schedule for decision-making and a response deadline. Cost may be a factor for non-Architectural and Engineering Contracts, but may not be a selection factor for Architectural and Engineering work.

Distribution of Solicitation

The Project Manager will distribute the scope of work and evaluation criteria to an adequate number of qualified sources to ensure that TAMC is obtaining a fair and reasonable price, and the best value to TAMC – generally this means distribution to at least three consultants. E-mail distribution may be utilized as long as a record is retained.

Proposals

The Project Manager will obtain proposals from each interested proposer. If fewer than three proposals are submitted, document the reasons why the other proposers declined to submit.

Cost Proposals

Because of the small size of the procurement, all proposals may include cost proposals within the consultant response.

Evaluation of Proposals

Proposals will be evaluated, negotiated, selected and any award made in accordance with the criteria and procedures included in the solicitation. Proposals may not be evaluated on the basis of criteria that were not included in the solicitation. After receipt of initial proposals, written or oral discussion may be conducted with all responsible bidders who submitted proposals.

Procurement of Services - Equal to or Greater Than $5,000

If the Independent Cost Estimate for the services equals or exceeds $5,000, then the standard consultant competitive procurement process should be utilized. This process will apply to most TAMC consultant procurements. Note that the standard consultant services procurement can take from 4 to 6 months, depending on its complexity, whether federal funding is involved, and whether or not it is an Architectural and Engineering contract. It is important to allow time to carry out all the steps involved to assure a competitive process.

Solicitation Documents

The Project Manager will determine whether to issue the solicitation in the form of a Request for Proposals, a Request for Qualifications or a Two-Step Process. TAMC has templates for both the RFQ and RFP solicitations.

Requests for Qualifications (RFQ)

In the RFQ process, proposers are asked to provide their proposed staff team and experience with similar work. Selection is made based on general qualifications of the proposed team. RFQs can be effective for smaller procurements, for the first step of a Two-Step Procurement Process, or for the development of a pre-qualified or on-call consultant list. A Request for Qualifications (RFQ) should focus on the qualifications and experience desired to perform the work. TAMC has a template RFQ that should be used to assure that all the required contents are included.

Requests for Proposals (RFP)

In the RFP process, the solicitation specifies the scope of work and deliverables and asks proposers to respond with their proposed staff team and experience with similar work, as well as list of tasks and specific approach to the work. Selection is based on the team qualifications as well as their proposed approach to the scope of work and deliverables. RFPs are typically used for standard solicitations for consultant services. A Request for Proposals (RFP) should contain sufficient information to enable a prospective bidder to properly prepare a response that includes information on their qualifications and experience as well as a proposed approach to the project. TAMC has a *template RFP* that should be used to assure that all the required contents are included.

Two-Step Process

For more complex procurements or to develop a pre-qualified consultant list a two-step process can be used. If a two-step procurement method is used, TAMC will utilize a Request for Qualifications to identify a short-listed group of the highest-scoring proposers in the first step based on specified evaluation factors. The firm(s) that are deemed responsible and responsive and who receive the highest scores will be short-listed.

Short-listed proposers should be sent a notice that they are short-listed and those who have not made the short-list should be sent a notice of failure to make the short-list. This notice will trigger the protest period. Following approval by the Executive Director or designee, the Project Manager may then issue the final version of the RFP to the qualified firm(s) or team(s).

The short-listed group of proposers will be requested to submit proposals as second step of the competitive process. The final selection of the consultant from the short list shall follow the same process as the Request for Proposals evaluation and selection process.

Contents of the RFQ or RFP Solicitation

TAMC's RFQ and RFP templates will assist the Project Manager in assuring that all required provisions are included. However, the Project Manager should review and tailor the RFQ or RFP template to assure that the evaluation criteria, weighting and timeframe are specific to the desired scope of work. The required contents of the solicitation are as follows:

- Scope of work and required deliverables, including any optional tasks;
- Desired experience and technical experience;

- TAMC furnished information or activities, if any;
- Request for project organization and key personnel, including a list of all subcontractors;
- Not-to-exceed maximum cost amount (based on the Independent Cost Estimate), except in the case of non-Architectural and Engineering Contracts, for which the Project Manager may decide to exclude the not-to-exceed amount to increase cost competition;
- Pass/fail criteria to be used as an initial screening of responses;
- Evaluation factors and their relative importance (i.e. points);
- Method for conducting technical evaluations of the proposals received and for selecting awardees;
- any DBE reporting forms and participation goals (for federal contracts);
- Consultant evaluation, selection and award schedule;
- Project schedule;
- Proposed duration of the agreement;
- Payment method;
- Notice of Potential for Conflict of Interest;
- Confidentiality Statement;
- Protest Procedures;
- Copy of the TAMC standard contract based on the payment method, which includes standard contract language that the successful bidder will be required to comply with, including all applicable federal clauses and certifications; and,
- Date, time and location for submittal of responses, and method for determining compliance with this requirement.

Scope of Work

The Project Manager will develop a scope of work that includes a list of tasks and deliverables, and expected contract outcomes.

- *Optional Tasks*

TAMC contracts may include optional tasks to ensure the future availability of needed services. Options, for a specified time, may allow TAMC to acquire additional services or also may extend the term of the contract. To be used without being considered a sole source, however, such options must be requested in the scope of work and evaluated as part of the selection process.

If optional tasks are to be considered in the contract, the solicitation must detail the desired options, the proposals shall include those options as part of the response and they shall be evaluated as part of the evaluation process. It is important to document the evaluation and inclusion of these options in

the selection process. If the optional work is not evaluated up front, such options, if exercised, will need to be justified as a sole source.

- *Pass/Fail Criteria*

The solicitation will include any pass/fail criteria which would make the proposer ineligible to perform the work. These criteria should include, but not be limited to, insurance and licensing requirements.

- *Evaluation Factors*

The Project Manager will develop and include in the solicitation a list of evaluation factors and their relative weight (points per criterion). Cost may be a factor for non-Architectural and Engineering Contracts, but may not be a selection factor for Architectural and Engineering work.

- *Consideration of Cost as an Evaluation Factor*

For Architectural and Engineering services, the selection must be made on qualifications, not cost. Selection is governed by the Brooks Act (federal) and mini-Brooks Act (state) which require that: a proposer's qualifications be evaluated; price be excluded as an evaluation factor; negotiations be conducted with only the most qualified offeror; and failing agreement on price, negotiations with the next most qualified offeror should be conducted until a contract award can be made to the most qualified offeror whose price is fair and reasonable to TAMC.

A&E services cost proposals shall be requested and submitted in a separate, sealed envelope and not opened until after the qualification-based selection of a top-ranked firm is made. Upon selection of the most qualified bidder, TAMC may elect to conduct negotiations with one or more bidders in the competitive range.

For non-Architectural and Engineering services, the selection is made based on the proposal that provides the best value to TAMC. A cost proposal shall be submitted along with the technical proposal and will be used as an evaluation factor by the evaluation committee.

- *Consultant Selection Schedule*

The Project Manager shall include in the solicitation document a schedule for decision-making. The key elements are included in the RFQ or RFP templates and include: issuance date; date of the pre-proposal conference; due date and time for the proposals; interview date or week, as applicable; action by the TAMC Board. A standard of 4 weeks for consultant response is recommended.

- *Notice of Potential Consultant Conflict of Interest*

A notice of potential for conflict of interest is part of the Request for Proposals or Qualifications issued by TAMC and shall be included in all proposals in order to be considered responsive.

- *Confidentiality Statement*

The RFQ/RFP template includes a statement that proposals will not be treated as confidential documents unless they are marked as such by the proposer and the proposer is able to demonstrate the documents contain the type of information protected by law as confidential or trade secret.

- *Protests*

Procedures for protesting the award or selection process shall be included in the solicitation. TAMC has adopted *Protest Procedures* consistent with state and federal requirements.

Distribution of the Solicitation

Proposals should be solicited from an adequate number of qualified sources to permit reasonable competition consistent with the nature and requirements of the procurement. Requests for the solicitation by other potential sources as a result of the advertisement should be honored to the maximum extent practicable.

- *Notice of Availability*

Posting a *Notice of Availability of an RFQ* or *Notice of Availability of an RFP* and asking for interested parties to request a copy from the Project Manager is one way to keep track of who is looking closely at the solicitation and who to send any addenda to. The Notice of Availability should state that TAMC is interested in receiving responses from qualified firms and indicate how additional information can be obtained and the time and place for receiving responses.

The distribution of the Notice of Availability should include:

- Posting on the TAMC website;
- Mailing to the TAMC consultant list, as available, and firms or individuals who have expressed an interest in providing services; and,
- Advertisement in a newspaper of general circulation, at least 3 weeks before the due date.

Also desirable is:

- Distribution to the regional chambers of commerce; and,
- Distribution to professional organizations, as appropriate to the scope of work, such as: APWA, AEP, APA, WTS.

- *Distribution to DBE Firms*

For federally-funded projects, the Project Manager will distribute the solicitation to DBE firms with relevant skills, as listed on the Caltrans website: http://www.dot.ca.gov/hq/bep/ or any lists TAMC maintains of small and emerging businesses or DBE firms or individuals registered with TAMC. The Notice of Availability also should be published in one or more minority newspapers in the county if a DBE goal is required.

- *Documentation of Distribution of the Solicitation*

Documentation of each method of distribution (screen shots, copies of email lists, photocopy of the consultant list or newspaper clipping) should be retained in the contract file to verify that a competitive procurement has been conducted.

- *Maintenance of the Competitive Process*

Each RFQ/RFP should be available to all prospective bidders at the same time, and no bidder should be given the advantage of advance knowledge regarding scope of work details or evaluation factors that could affect the competitive process.

- *Addenda to the RFQ or RFP*

Any information given to one proposer should be furnished promptly to all other prospective proposers as an addendum to assure that no party has a competitive advantage. If after issuance of the solicitation, but before the time set for the proposal deadline, it becomes necessary to make changes or corrections to information in the RFQ or RFP, to answer questions posed by prospective proposers or to correct a defective or ambiguous language, the changes will be accomplished by issuance of an addendum as soon as possible, but at least 72 hours before proposals are due.

Before issuing the addendum, the period of time remaining until the proposal deadline and the possible need to extend this period should be considered and, if necessary, confirmed in the addendum. No award should be made unless the addendum has been issued in sufficient time to permit all prospective sufficient time to submit or modify their proposals. In this regard, changes to DBE goals or requirements that may require additional time for proposers to conduct a good faith effort to locate DBE firms will be considered in determining whether an extension of the deadline is needed.

Distribution of an addendum will be via TAMC's website and sent to all parties who have requested the TAMC solicitation, as well as the original RFQ/RFP recipients.

Pre-Proposal Meeting

A pre-proposal meeting may be held as a means of briefing prospective bidders and explaining to them complicated specifications and requirements, including DBE information, goals, and documentation. The timing of the pre-proposal should be announced in the solicitation and should occur as early as possible after the solicitation has been issued and before the proposals are due. The pre-proposal meeting should not be used as a substitute for amending a defective or ambiguous solicitation.

After a pre-proposal meeting is held, question-and-answer notes should be taken and posted on the website. If a modification is proposed as a result of the pre-proposal meeting, such modifications should be made through a formal addendum and not through the question-and-answer notes.

For federally-funded contracts, a list of interested small and DBE firms should be prepared and posted within three days after the pre-proposal meeting on TAMC website to assist contractors and subcontractors in locating each other to potentially partner on the project.

Timeliness of Responses

Solicitations must specify a date, time and location for submission of proposals. Any extension of time should be granted uniformly to all prospective bidders. The Project Manager will document the receipt of all proposals. A time-and-date stamp shall be kept at the desks of the receptionists and administrative staff handling mail, and these staff members shall be instructed to place a time-and-date stamp on all proposals. **No late proposals will be accepted.**

Consultant Contact

Care should be exercised to avoid providing any information to a proposer which would give a competitive advantage. From the time the solicitation is being prepared to the time of contract negotiations, only the Project Manager should have contact with potential or actual proposers in order to reduce the likelihood of any unfair advantage in the competitive process. All questions should be answered in writing via a separate addendum, rather than individually to proposers, to assure that all prospective proposers receive the same information.

Evaluation of Proposals

Proposals will be evaluated, negotiated, selected and any award made in accordance with the criteria and procedures included in the RFQ/RFP.

Proposals may not be evaluated on the basis of criteria that were not included in the RFQ/RFP. After receipt of initial proposals, written or oral discussion may be conducted with all responsible bidders who submitted proposals.

- *Opening of Proposals*

Proposals will not be publicly opened. All detailed cost estimates ("cost proposals") and evaluations related to costs will be kept strictly confidential throughout the evaluation, negotiation, and selection process. Only the members of the evaluation committee and TAMC officials, employees and agents having a legitimate interest will be provided access to the cost proposals and cost evaluation results during this period.

- *Responsiveness of Proposals*

Review of the proposals for responsiveness should be conducted by the Project Manager. To be considered responsive, the proposal should comply in all material aspects with the Request for Qualifications or Request for Proposals. This applies to both the method and timeliness of submission and the substance of any resulting contract. TAMC's *Responsiveness Checklist* can be used to facilitate the Project Manager's review of the responsiveness of the proposals.

- *Rejection of Statements of Qualifications/Proposals as Non-Responsive*

Any proposal that fails to conform to the essential requirements of the solicitation should be rejected as nonresponsive.

- *Minor Deviations May be Waived*

A minor deviation is an error that does not go to the substance of a submittal. Waivers of minor deviations should be consistently applied to avoid allegations of favoritism.

- *Evaluation Committee and Guidelines*

Evaluation of proposals should be conducted by one or more committees of technically qualified personnel concerned with the procurement and should include at least one non-TAMC staff member. Care should be taken to avoid using direct supervisors and their reports as the sole staff scoring evaluators. Additional staff members/advisers, who do not participate in scoring, may sit in on evaluation panels if needed to provide expertise.

All non-TAMC staff members must receive the *Evaluator Guidelines* and complete a *Declaration Concerning Conflicts of Interest* before taking part in the evaluation. The Project Manager is responsible for approving the selection of evaluation committee members after their completion of the Declaration Concerning Conflicts of Interest.

Evaluation Committee members will evaluate and provide their individual ratings of the technical component of the proposals based on the published evaluation criteria. The Project Manager is responsible for checking references and (for non-Architectural and Engineering Contracts) analyzing the cost proposals and providing the results to the Evaluation Committee.

- *Interviews*

TAMC may elect to conduct interviews with all responsible proposers who submit proposals within a competitive range. Selection Committee members may participate in the proposer interviews. Questions asked in the interviews must relate to the evaluation criteria published in the solicitation. All proposer teams must be ranked based on the same interview questions.

Alternatively, TAMC may elect to negotiate with the highest-scoring offerer based on proposal evaluating factors alone, and forgo interviews if TAMC has sufficient information to determine that the bidder provides the best value (or qualifications, for A&E contracts) to TAMC and the interview process is unnecessary.

- *Consideration of Additional Evidence by Nonresponsive or Nonresponsible Bidders*

TAMC will make its determination of responsiveness and responsibility based upon information submitted by bidders, and, if necessary, interviews with previous owners, clients, design professionals, or subcontractors with whom the bidder has worked, including TAMC Project Managers. If a nonresponsive or nonresponsible bidder submits additional evidence within the time limitation provided by TAMC, then that additional evidence should be considered by the director in

making the recommendation to the Executive Director regarding determination of the bidder that should be awarded the contract.

Notification to Unsuccessful Proposers

Unsuccessful proposers should be notified at the earliest practicable time that their offer is no longer being considered for award. Upon written request, unsuccessful proposers should be informed (in general terms only) of the reasons for not being awarded a contract, but this should not be done until after the contract has been executed with the awarded consultant in order to preserve the competitive process.

After award of a contract, the Project Manager may debrief the unsuccessful proposers, upon request. The Project Manager may not discuss the qualifications of the other firms but will focus on the evaluation of the non-selected firm.

- *Material Departure*

When the Project Manager deems a proposal to be the most favorable and that proposal involves a material departure from the requirements stated in the solicitation, all bidders should be given an opportunity to submit new proposals on a basis comparable to that of the bidder tentatively selected.

- *Recommendation for Consultant Selection Memorandum*

The Project Manager should summarize the findings of the evaluation committee in a recommendation memo to the Executive Director. The memo should include the evaluation committee's recommendation for negotiations with the top-ranked firm. The memorandum should be supported by documentation and placed in the contract file. Approval by the Executive Director of the recommendation shall be deemed approval to enter into negotiations with one or more firms in the competitive range.

- *Executive Director Authority Not to Award*

The Executive Director retains the authority to decide not to make a contract award if he/she determines that the bids/proposals received or contract terms negotiated by staff are not in TAMC's best interests.

Federally-Funded Contracts and DBE Requirements

Disadvantaged Businesses (DBEs) should have the maximum opportunity to participate in the performance of TAMC's federally-funded procurements and contracts. TAMC will fulfill its DBE obligations by ensuring fair and full utilization of Disadvantaged Business Enterprises in the purchase of equipment, materials, and supplies and in the performance of contracts and subcontracts.

It is the policy of the US Department of Transportation and TAMC that Disadvantaged Business Enterprises as defined in 49 CFR Part 23 should have the maximum opportunity to participate in the performance of contracts financed in whole or part with federal funds. Consequently, the

Disadvantaged Business Enterprise requirements of 49 CFR Part 23 apply to such procurements. Contractors must agree to ensure that Disadvantaged Business Enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds. Contractors must not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

Calculating the DBE Goal

FHWA contracts follow a "race conscious" method and require the setting of a Underrepresented/Disadvantaged Business Enterprise goal. The *Caltrans Local Assistance Procedures Manual, Exhibit 9-D* provides the methodology for calculating the goal.

FTA contracts follow a "race neutral" method and require documentation of the Disadvantaged Business Enterprise participation by the proposer. The TAMC Project Manager should coordinate with Caltrans Local Assistance on the preparation of the Disadvantaged Business Enterprise goal and required paperwork.

Notice to Proposers of DBE Information

TAMC will include in its federally-funded solicitations a *Notice to Proposers of DBE Information* (similar or equivalent to Caltrans Local Programs Procedures Manual Exhibit 10-I - http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/chapter10/10i.pdf) that includes information on the Underrepresented/Disadvantaged Business Enterprise requirements for the contract.

Distribution of RFQ or RFPs to DBE Firms

Federally-funded consultant solicitations will be published in one or more minority newspapers in the county and distributed to DBE firms with relevant skills, as listed on the Caltrans website: http://www.dot.ca.gov/hq/bep/ or any lists TAMC maintains of small and emerging businesses or DBE firms or individuals registered with TAMC.

Website Posting after Pre-Proposal Meeting

A list of interested small and DBE firms should be prepared and posted within three days after the pre-proposal meeting on TAMC website to assist contractors and subcontractors in locating each other to potentially partner on the project.

Bidders List

The U.S. Department of Transportation requires the agencies to create and maintain a DBE Bidders List containing information about all firms (Disadvantaged Business Enterprise and non-DBEs) that bid, propose, or quote on the federally-assisted contracts in accordance with 49 CFR 26.11.

The federally-funded solicitations will require that all proposers and proposed subconsultants complete and include the *DBE Information for Bidders List* form with their proposals. The Bidders List content will not be considered in evaluating the proposal or determining award of any contract.

DBE Consultant Commitment

For federally-funded contracts, *DBE - Consultant Proposers Commitment*, Exhibit 10-O1 or its equivalent, must be provided by all proposers and indicate the consultant team's share of DBE participation or indicate good faith efforts to meet the goal. If at the time of bid or proposal submittal the DBE goal is not met and if required by law, the *DBE - Consultant–Good Faith Efforts* form shall be completed. The Project Manager will document that the bidder/proposer was either found responsive to the DBE requirements of the solicitation or has been deemed non-responsive.

TAMC has adopted a Disadvantaged Business Enterprise program that has been approved by Caltrans District 5 Local Assistance. TAMC also will enter into an implementation agreement for its Disadvantaged Business Enterprise program when required by a funding agency.

CHECKLIST – PROCUREMENT OF CONSULTANT SERVICES

During the solicitation and award process for consultant services contracts, in addition to the documentation prepared in the Initiation of Procurement (Chapter 1), the Project Manager will copy the following documentation to the contract file:

- ☐ Scope of Work, including terms and conditions
- ☐ *Notice of Availability of RFQ* or Notice of Availability *of RFP*
- ☐ *Request for Qualifications* or *Request for Proposals* (or both, for two-step process)
- ☐ Documentation of distribution and advertisement of the Notice of Availability and RFP/Q
- ☐ Addenda to the RFQ or RFP, if any
- ☐ Statements of Qualifications or Proposals, from consultants
- ☐ Signed *Declarations Concerning Conflicts of Interest for Evaluators*
- ☐ *Proposal Scoring Sheets*
- ☐ *Proposal Ranking Summary Form*
- ☐ For Federally-funded Contracts, required DBE forms:
  - *Documentation of DBE Goal Calculation*, as applicable
  - *Notice to Proposers of DBE Information*
  - List of DBE firms the solicitation was distributed to
  - Website Posting of DBE firms attending Pre-Proposal Conference or Expressing Interest
  - Newspaper advertisement in minority paper or journal
  - *DBE Information for Bidders List form*
  - *DBE Consultant Proposers Commitment*, or Exhibit 10-O1, from all proposers
- ☐ *Recommendation for Consultant Selection* memo

NON-COMPETITIVE SOLICITATIONS

Generally, TAMC is required to provide for full and open competition in solicitations. The rules for competitive procurement are listed in the next section of this chapter. However, certain types of solicitations do not require a fully competitive solicitation:

- Procurements with Other Government Agencies
- Sole Source Procurement

PROCUREMENT FROM OR WITH OTHER GOVERNMENT AGENCIES

Public Utilities Code section 132352.4(b)(2) states that agencies are permitted to contract in conjunction with other government agencies without utilizing competitive procurement procedures. Such contracts are known as "intergovernmental agreements". This exception to competitive procurement is allowed as long as the procuring government agency followed applicable state and federal procurement requirements. If evidence that a competitive procurement process was followed by the procuring agency is sufficient, then purchases under another entity's procurement are allowable.

TAMC may contract with any department or agency of the United States or the State of California and local governmental authorities within or outside of the region, including those in Mexico, any city, county, public district, public corporation, or joint powers authority formed pursuant to the provisions of the Joint Exercise of Powers Act, Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code upon those terms and conditions as TAMC finds are in its best interests without conducting a competitive procurement.

Government agency contracts allow TAMC to contract with one or more specific contractors/vendors using pre-established prices, terms and/or conditions set by the procuring government agency. Examples of such procurements include procurements directly from other government agencies, joint procurements, piggybacks, and state purchasing schedules.

Federal Required Clauses

When obtaining property or services in this manner, TAMC staff should ensure that all federal requirements, required clauses, and certifications (including Buy America, as applicable) are properly followed and included in the master intergovernmental contract or in TAMC contract as applicable. When buying from another government entity's purchasing schedule, and as applicable, TAMC will obtain Buy America certification before entering into the contract. If the product is not Buy America-compliant, TAMC should obtain a waiver from the relevant federal agency before proceeding if the procurement will be federally-funded.

SOLE SOURCE PROCUREMENTS

Sole source procurements are accomplished through solicitation or acceptance of a proposal from only one source. A contract amendment or change order that is not within the scope of the original contract also is considered a sole source procurement that must comply with this section. Sole Source procurements require TAMC to make specific findings and justifications that supplies or services are available from only one responsible source and no other supplies or services will satisfy its requirements.

It must be documented that the need for the sole source is not due to either failure to plan or a lack of advance planning or concerns about the amount or expiration of financial assistance available to support the procurement.

The Project Manager is responsible for providing the necessary data to support his/her recommendation for a noncompetitive procurement, and certifying that data as accurate and complete. To request approval for sole source procurement, the Project Manager shall prepare:

- A Method of Procurement Selection form indicating that a sole source is appropriate, and,
- A Sole Source Justification form indicating one of the justifications allowed by the applicable funding source (local, state or federal).

The Project Manager should work with his/her supervisor and the TAMC attorney to determine if a particular contract or contract amendment is considered a sole source.

The Executive Director's approval is required for sole source procurement. TAMC Board of Directors' approval at a public meeting is also required of a sole source contract or amendment that equals or exceeds $10,000 or is not in the Agency's adopted budget.

Sole Source Procurement with Federal Funds

When the sole source acquisition will be paid for in whole or in part by federal funds, one of the following conditions must be met:

- Staff solicited competitive bids and was unable to obtain more than one responsive bidder (however, a cost analysis to determine that the proposal is the best value for the Agency is still required).
- The grantor agency providing the federal funds has approved a sole source procurement.
- The service is only available from a single source because the contractor will be required to use confidential information, intellectual property, or trade secrets owned by the contractor.
- The federal grantor agency made the award of funds being used based on TAMC's use of a particular team of contractors, and the contractor to be sole sourced is one of the team members identified in the funding application.

- The work is necessary to continue development or production of highly specialized equipment or components thereof, and it is likely that award to another contractor would result in substantial duplication of costs that are not expected to be recovered through competition or when it is likely that award to another contractor would result in unacceptable delays in fulfilling TAMC's needs.
- The sole source is authorized by statute, or only one contractor can comply with specific statutory requirements.
- A national emergency exists and a particular facility or contractor is needed to achieve mobilization.
- The disclosure of TAMC's needs in a public procurement process would compromise national security.
- A particular expert or neutral person's services are needed for a current protest, dispute, claim, or litigation.
- A competitive procurement is precluded by the terms of an international agreement or treaty or the written directions of a foreign government providing reimbursement for the cost of the supplies or services.
- To establish or maintain an educational or other nonprofit institution or a federally funded research and development center that has or will have an essential engineering, research, or development capability.

Sole Source Procurement without Federal Funds

When there are no federal funds involved, one of the following additional factors may also be utilized to justify a sole source acquisition (in addition to the factors available for federally-funded contracts):

- There is only one contractor/consultant/vendor who can provide unique/highly specialized item/ service.
- Economy or efficiency supports award to existing contractor/consultant as a logical follow-on to work already in progress under a competitively awarded contract.
- The cost to prepare for a competitive procurement exceeds the cost of the work or item.
- The item is an integral repair part or accessory compatible with existing equipment.
- The item or service is essential in maintaining research or operational continuity.
- The item/service is one with which staff members who will use the item/service have specialized training and/or expertise and retraining would incur substantial cost in time and/or money.

CONSULTANT CONFLICTS OF INTEREST

All procurements must be conducted in compliance with the TAMC Conflict of Interest policy. A contractor is eligible for an award by TAMC so long as the procurement in question does not create an actual, potential, or apparent conflict of interest. A prohibited conflict of interest exists when a firm is or may be unable to render impartial, objective assistance or advice to TAMC or where a firm would receive an unfair competitive advantage. A notice of potential conflicts of interest must be included in the proposer's response to document compliance with these requirements.

Prohibited Conflicts of Interest for Consultants

Prohibited conflicts of interest include, but are not limited to, the situations listed in this section.

Participation in Related, Future Solicitations

If the selected consultants and/or subconsultants will be assisting TAMC in the preparation of one or more documents that will be used for a future solicitation, assisting TAMC evaluate the work of others on the project, or designing the specifications for a future project, the consultant team selected will not be allowed to participate as a proposer or join a team submitting a proposal in response to future solicitation(s) because this could cause an organizational conflict to arise.

Lack of Impartiality Based on Contracts with Other Entities

A consultant that provides legal, lobbying, auditing, or public relations services to an entity with a conflicting position from TAMC, or with whom TAMC is in or previously was in litigation, may be precluded from providing services to TAMC if TAMC believes the consultant may not be able to render impartial advice or provide effective advocacy on behalf of TAMC.

Definitions

For purposes of this section of the manual, the following definitions apply:

- "Firm" is defined as any company or family of companies where there is a single parent board of directors or staff of officers who can influence the policies and actions of the design company.
- "Affiliate" is a firm that is subject to the control of the same persons through joint ownership or otherwise.
- "Ineligible" shall include the prime contractor for the services, subcontractors for portions of the services, and affiliates of either.

Written Ruling

If there is any doubt by a firm regarding a potential conflict of interest for a specific project or function, the Project Manager's supervisor will (upon written request) provide a written ruling. Contractors should be encouraged to use this procedure prior to submittal of a bid or proposal.

Appeals

In the event a conflict of interest is determined to exist, a written appeal may be made by the affected firm to the Executive Director within five calendar days of notice from TAMC of the conflict. The Executive Director will determine the adequacy of the appeal and make a subsequent final decision. No further appeal shall be considered.

Waivers

Waiver of any actual, potential, or apparent conflict of interest that may exist or arise as a result of concurrent legal representation of TAMC and parties whose interests may conflict shall be decided by the Executive Director in consultation with Legal Counsel.

DOCUMENTATION OF PROCUREMENTS

TAMC will maintain and make available to authorized agencies, records detailing the history of a given procurement. At a minimum, these records should include:

- Rationale for the Method of Procurement

  TAMC will provide the rationale it used for each contract, including a limited competition or sole source justification for any acquisition that does not qualify as competitive (via the Method of Procurement Selection form);

- Selection of Contract Payment Type

  TAMC will state the reasons for selecting the contract type it used, such as fixed-price or cost reimbursement (via the Contract Payment Type Selection form);

- Reasons for Contractor Selection or Rejection

  TAMC will state its reasons for contractor selection or rejection and includes a written responsibility determination for the successful contractor (via the Recommendation of Consultant Selection memo); and

- Basis for Contract Cost or Price

  TAMC will evaluate and state its justification for the contract cost or price (via the Independent Cost Estimate and the Record of Negotiation – see Chapter 3). In addition, any Board agenda report requesting approval to award a third-party contract or recommendation memo will serve as a record detailing procurement history.

CHAPTER 3: CONTRACT NEGOTIATIONS, AWARD AND EXECUTION

Contract negotiation is the next step after a top-ranked consultant has been recommended by the Evaluation Team, or the Project Manager (for small or non-competitive procurements). After negotiations and any required audits (for Architectural and Engineering contracts over $150,000) are completed, the Project Manager can request authorization to award the contract.

NEGOTIATIONS

The objective of contract negotiation is to obtain complete agreement on all the basic issues. Oral discussion or written communication should be conducted with proposing team, to the extent necessary, to resolve uncertainties relating to the technical and nontechnical issues. Basic questions should be resolved when they arise and not be left for later agreement during subsequent proceedings. Award should be made to the responsible consultant team whose proposal will be most advantageous to TAMC based on the evaluation factors listed in the solicitation.

Negotiator Role

The Project Manager will normally take the lead in contract negotiations. If an Evaluation Committee member prepared the *Independent Cost Proposal*, he/she should not take the lead in negotiations but may assist in preparing the negotiation strategy. The level of negotiations shall correspond to the complexity and expected cost of the work.

Notice of Intent to Award

After one or more bidders are selected for contract negotiations, they should be sent a *Notice of Intent to Award*. This notice is not a commitment by TAMC to award a contract; it is just notice that TAMC intends to negotiate. At this stage any necessary certificates of insurance should be requested from bidders with whom TAMC will negotiate.

Notice of Intent to Enter Into Negotiations

Proposers who are not selected for negotiation should be sent a *Notice of Intent to Enter into Negotiations* with another consultant in order to trigger their protest period. A contract should not be finalized until a sufficient number of days have passed from the time the notice of intent to enter negotiations with another proposer is sent to the unsuccessful proposers for the protest period to have expired.

Formal Procurements

All requisitions resulting in the formal procurement process of an invitation for bids, request for qualifications, or request for proposals should document the award to a responsive and responsible

contractor through use of checklists, reference checks, recommendation memo, or other contract file documentation and, at a minimum, should include the following applicable items:

Responsibility Consideration

Before selecting a contractor for award, TAMC must consider such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

Reference Check - Consultant Services

The Project Manager will perform a reference check of an adequate number of references and complete the Reference Check Forms for all contracts above the small purchase thresholds.

Record of Negotiations

All negotiated procurements over $5,000 must have a documented Record of Negotiations that establishes that staff made the effort to obtain the best price for TAMC for the goods or services with price, quality, level of effort, and other relevant factors taken into consideration. A template exists for documenting the Record of Negotiations. The project manager should take the lead on preparing the Record of Negotiations.

Confidentiality of Negotiations

Large portions of proposals are typically public records. They should not, however, be released to the public during the procurement or contract negotiation process without the approval of the Executive Director in consultation with Legal Counsel. Before, during, and after contract award, staff should take care to avoid disclosing bidders' proprietary data if it is labeled as such.

Procurement of Goods

Lowest, Responsive, Responsible Bidder

If the procurement is successful, the contract will be awarded to the responsive and responsible bidder submitting the lowest bid determined on the basis of the specifications set forth in the Invitation for Bids. The Project Manager will evaluate the bids or prices and recommend the supplier that is determined to be the low responsive and responsible bidder. Responsive and responsible means: meeting the terms, conditions, and specifications of the solicitation; taking into account the possible range of competing product and materials available, fitness of purpose, manufacturer's warranty; and considering other similar factors, in addition to price.

Reasonableness of Price

Before awarding the contract, Project Manager, with the assistance of technical staff or consultants, should determine that prospective contractor is responsible and that the prices offered are reasonable.

Procurement of Services: Non-Architectural and Engineering Contracts

Best Value-based Selection

For non-Architectural and Engineering contracts (audits, planning, etc.) proposals will be evaluated, negotiated, selected and any award made to the proposer whose proposal found to be the best value to TAMC, within a competitive range, when price and other factors considered.

The cost proposals from the firm(s) in the competitive range should be used as a basis for negotiation. Negotiations will be conducted by the Project Manager in consultation with his/her supervisor and can include factors in addition to cost, such as staffing levels, project schedule, etc. If negotiations are conducted with more than one firm in the competitive range, then staff attempt to obtain the most favorable terms by negotiating with all of the firms.

Exceptions to this requirement are: procurements in which rates or prices are fixed by law or regulation; and procurements in which it can be clearly demonstrated (from the existence of adequate competition or accurate prior cost experience with the product or service) that acceptance of the most favorable initial proposal without discussion would result in a fair and reasonable price. In such procurements the RFPs must contain a notice that award may be made without discussion of proposals received and that proposals should be submitted initially on the most favorable terms possible from a price and technical standpoint.

In competitive negotiations, bidders should not be given any indication of a "target" price that must be met to ensure further consideration for contract award. Such practice constitutes an auction technique that may violate the integrity of the procurement process and must be avoided.

Procurement of Services: Architectural and Engineering Contracts

Qualification-based Selection

Architectural and Engineering contracts (project-based work) must be awarded under a qualifications-based selection process. Per the Caltrans Local Assistance Procedures Manual:

> After ranking, cost negotiations may begin with the most qualified consultant and only their cost proposal will be opened. Should negotiations fail or result in a price the local agency does not consider to be fair and reasonable, negotiations must be formally terminated and the local agency must then undertake negotiations with the second most qualified consultant. If the negotiations with the second most qualified firm are not successful, negotiations must be formally terminated and the local agency must then undertake negotiations with the third most qualified consultant, and so on, until the price is determined to be fair and reasonable by the local agency.

In the case of procurements for Architectural and Engineering consultants, TAMC can begin, but not conclude, cost negotiations with the best qualified firm until a conformance letter is received from Caltrans Audits. The separately submitted cost proposal should be used as a basis for negotiation. Negotiations will be conducted by the Executive Director or his/her designee and can include factors other than cost, such as staffing levels, project schedule, etc.

During the negotiation process, the bidder(s) will be given reasonable opportunity (with a common cutoff date) to support, clarify, correct, improve, or revise its/their proposal(s).

Should negotiations fail, the Executive Director, or his/her designee, will enter into negotiations with the next ranked firm. Only the cost proposal of the firm(s) in negotiations should be opened. At the end of the process, all unopened cost proposals should be disposed of unopened or returned to the bidder.

Audits: Architectural and Engineering Contracts

For Architectural and Engineering contracts, Caltrans Division of Audits and Investigations requires agencies to submit certain documents prior to executing negotiated contracts, as discussed below. TAMC has customized to assist in this submittal. Such submittals should be coordinated with Caltrans District 5 Local Assistance Engineer and the Caltrans Division of Audits and Investigations. Refer to the Caltrans Local Assistance Procedures Manual for more information.

For all A&E contracts, the following certifications are required to be submitted to Caltrans:

- *Audit Request Letter and Checklist (Exhibit 10-A)*; and,
- *Consultant Certification of Contract Costs and Financial Management System* (Exhibit 10-K).

A&E Small Purchases, less than $150,000

No additional documentation is required to be submitted to Caltrans, but the compliance rules are the same. The TAMC contract template requires consultants to comply with the cost principles of FAR Title 48, CFR, Part 31, and the standards of financial reporting, accounting records, internal and budget controls in FAR, Title 49 CFR, Part 18.20. TAMC is responsible for verifying compliance with these requirements.

A&E Procurements between $150,000 and $1,000,000

For contracts in this cost range, the selected consultant must prepare the following certifications and the TAMC Project Manager is responsible for submitting them to Caltrans Audits and Investigations for approval, utilizing the *Consultant Certification of Contract Costs and Financial Management System* (Exhibit 10-K) for the prime and all subconsultants:

- Certification of the firm's indirect cost rate and confirmation that it is in compliance with the cost principles of FAR Title 48, CFR, Part 31 and contains no unallowable costs;
- Certification that the firm's financial management system meets the standards of financial reporting, accounting records, internal and budget controls in compliance with FAR, Title 49 CFR, Part 18.20;
- Certifications that the direct costs identified in the cost proposal are reasonable, allowable and allocable in accordance with the cost principles of FAR 48, CFR, Part 31;

- The dollar amount of all Architectural and Engineering contracts awarded by Caltrans or California local agencies to the firm, within the last three years and the number of states with which the firm conducts business;
- Proposed contract amount for the prime consultant and all subconsultants; and,
- A list of all sub-consultants and proposed subcontract dollar amounts.

A&E Procurements between $1 Million and $3.5 Million

In addition to the above submittals, the following documentation shall be provided by the consultant to the TAMC Project Manager and submitted to Caltrans Audits and Investigations:

- The proposed contract;
- Cost proposals for the prime and all subconsultant contractors;
- Consultant-generated Indirect Cost Rate schedule prepared in accordance with applicable CFRs;
- A completed Internal Control Questionnaire; and
- One of the following:
  - A copy of the prior fiscal year and most recently completed fiscal year approved indirect cost rate approved by Caltrans; or,
  - A copy of the prior fiscal year and most recently completed Indirect Cost Rate Schedule and audit report by an independent CPA; or,
    - A copy of the prior and most recently completed fiscal year Indirect Cost Rate evaluation or audit report on a prior Caltrans or local agency contract, and any other governmental agencies report, review or attestation.

A&E Procurements over $3.5 Million

In addition to the above information required for procurements between $1 million and $3.5 million, the consultant shall prepare and the TAMC Project Manager shall submit to Caltrans Audits and Investigations the following:

- Indirect Cost Rates audited by a CPA and copy of the consultant's approved State DOT Cognizant Indirect Cost Rate Schedule and Report and the Caltrans Cognizant Concurrent letter (if issued); OR
- A CPA-Audited Indirect Cost Rate Audit Report and copy of the CPA audited financial statements.

Based on the information gathered through the above steps, Caltrans Audits will perform risk analyses to determine which contracts/firms Caltrans will audit.

Application of Indirect Cost Rates

After a firm's indirect cost rates are established and accepted by Caltrans, or TAMC, as applicable, those rates will apply for purposes of contract estimation, negotiation, administration, reporting, and payments, not limited by administrative or de facto ceilings.

Pre-notification – Confidentiality of Data

Before requesting or using cost or rate data, TAMC will notify the affected firm(s) that their data will be kept confidential and may not be accessible by or provided by the group of agencies that share cost data, except by written permission of the audited firm. If prohibited by law, that cost and rate data may not be disclosed under any circumstances. California's Public Records Act may make it difficult to maintain confidential cost or rate data. As a result, before requesting or using cost or rate data, TAMC should notify the affected firm that its cost or rate data may be subject to disclosure and should try to obtain permission to provide that data from the firm if TAMC receives a public records request for these records under applicable California law.

Best and Final Offer

Should negotiations fail, the Executive Director may issue a Best and Final Offer to the qualified firm(s).

Certifications Prior to Contract Award

Debarment Check

Prior to doing business with a firm, the Contracts Officer or Project Manager must verify that the firm has not been debarred by TAMC or any of the agencies funding the procurement and add a documentation of the debarment check to the contract file. TAMC will treat any proposer listed on the debarment and suspension list as nonresponsible and ineligible for award.

The TAMC Project Manager will review the federal and state debarred/suspended contractor listings as follows:

- Federal Debarred/Suspended Contractor List: http://sam.gov/portal/public/SAM
- State Debarred/Suspended Contractor List: http://www.dir.ca.gov/DLSE/Debar.html

Insurance Requirements

It is the policy of TAMC to require that third-party contractors or consultants maintain insurance coverage to meet insurance standards contained in specific contract boilerplate. Proof of insurance coverage shall be requested by the Project Manager and documented by the TAMC Financial Officer prior to awarding contract.

Record of Negotiations

Upon conclusion of negotiations, the Project Manager will prepare a *Record of Negotiations* that establishes that he/she made the effort to obtain the best price for TAMC for the goods or services with quality, level of effort, and other relevant factors taken into consideration.

CONTRACT AWARD

TAMC will make awards only to responsible bidders who submit responsive proposals/bids and who can demonstrate they possess the ability to perform successfully under the terms and conditions of a proposed procurement.

For non-Architectural and Engineering contracts, awards will be made to the responsible firm whose proposal is most advantageous to TAMC with price and other factors considered, which is sometimes referred to as best value.

For Architectural and Engineering contracts, award will be made to the top-ranked firm or team with whom successful cost negotiations have been concluded.

Award to Other Than Lowest Bidder

TAMC may award a contract to other than the lowest bidder. TAMC may include a statement in the solicitation reserving the right to award the contract to other than the low bidder.

Recent Deficient Contract Performance

A prospective bidder that is or recently has been seriously deficient in contract performance is presumed to be nonresponsible unless TAMC determines that the circumstances were beyond the bidder's control or unless the bidder has taken appropriate corrective action. Past failure to apply sufficient tenacity, perseverance, and effort to perform acceptably is strong evidence of nonresponsibility. Failure to meet the quality requirements of a contract is a significant factor to consider in determining satisfactory performance. TAMC may consider the number of the bidder's contracts involved and the extent of deficient performance in each contract when making the responsibility determination.

Responsibility Consideration

TAMC will award only to "responsive and responsible" contractors that it believes possess the ability, willingness, and integrity to perform successfully under the terms and conditions of the contract. TAMC determines responsiveness and responsibility after receiving bids or proposals and before making contract award. A bidder must demonstrate affirmatively to TAMC that it qualifies as "responsible" and that its proposed subcontractors also qualify as "responsible." Before selecting a contractor for award, TAMC will consider such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

Right to Reject All Bids/Proposals

TAMC maintains the right to reject all bids or proposals submitted in response to invitation for bids or request for proposals.

CONTRACT PREPARATION

Once negotiations are complete, a contract incorporating the negotiated terms and conditions will be prepared for the approval of the Executive Director or his/her designee.

Contract Templates and Provisions

A TAMC contract template should be used to assure that all required contract provisions are included. The selection of the template is based on the method of payment and contract type (i.e. on-call contract or standard contract).

TAMC has four standard contract templates (as well as a standard contract amendment format):

- Actual Cost plus Fixed Fee
- Lump Sum
- Rates of Compensation/Cost per Unit of Work
- On-Call

These templates include contractual provisions or conditions that allow for:

- Administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, including sanctions and penalties as may be appropriate, for all contracts in excess of the small purchase threshold;
- Termination for cause and for convenience, including the manner by which it will be affected and the basis for settlement;
- Requirement for disclosure of any state or federal debarments;
- Any changes requested by Caltrans Audits and Investigations in their Conformance Letter; and,
- An expiration date.

Contract Expiration Date

The contract expiration date, or period of performance, generally should not exceed the time necessary to accomplish the purpose of the contract.

TAMC staff should consider competition, pricing, fairness, and public perception when making decisions regarding the term of a contract. Particular attention should be paid when the procurement provides for on-call services on a wide range of services for more than three years. Such procurements limit the firms eligible for award to a specific list of on-call firms and may lead to missed opportunities for better pricing and/or experience from other firms that have been established

or have gained the necessary experience to be eligible for award if a new procurement was issued at a sooner interval. TAMC staff will document its rationale for determining the performance period designated for each contract.

Coincide with Calendar or Fiscal Year

It is recommended that all contracts choose a June 30 or December 31 expiration date to assist in contract tracking and monitoring.

5-Year Contract Time Limit – Recommended

Generally, TAMC's standard maximum contract length will not exceed five (5) years, inclusive of options, unless the reason for a longer term is documented in the contract folder. TAMC staff will use sound business judgment and be judicious in establishing, extending, and documenting a contract's period of performance.

Contracts may be awarded with periods of performance in excess of five years if prior concurrence by the Executive Director in consultation with Legal Counsel is documented. This requirement applies to the initial contract as well as contract extensions or renewals beyond a five-year term, or for the exercise of an option which will extend the contract's period of performance beyond five years.

5-Year Contract Time Limit – Required

Procurement of rolling stock and replacement part contracts are limited on federally-funded procurements to five (5) years.

On-Call Contracts – 3-Year Time Limit

TAMC will limit the term of on-call services contracts to three years.

Contracts in Excess of 5 Years

Contracts may be awarded with periods of performance in excess of five years if prior concurrence by the Executive Director in consultation with Legal Counsel is documented. This requirement applies to the initial contract and contract extensions or renewals beyond a five-year term. The same process also is required for the exercise of an option which will extend the contract's period of performance beyond five years.

Disadvantaged Business Enterprises

The required Disadvantaged Business Enterprise clauses will be included in any and all federally-financed agreements executed by TAMC. The *Consultant Post-Award DBE Commitment* (Exhibit 10-O2 or its equivalent), is required as an exhibit to the successful proposer's contract with TAMC.

Disclosure of Financial Interests for Consultant Project Managers

If a procurement's scope of work will include delegation of Project Manager types of responsibilities, or the preparation of an independent cost estimate, Record of Negotiation or negotiate contract terms on behalf of TAMC to a consultant or subconsultant, or any responsibilities that will call for a consultant's or subconsultant's staff to, the persons on the consultant's staff who will perform these responsibilities will need to fill out a disclosure of financial interests (FPPC Form 700) and be free of any conflicts of interest. If the scope of work will include such responsibilities, the Project Manager should inform Legal Counsel so that an attorney can provide appropriate terms and conditions to protect TAMC interests for insertion in the contract.

Execution of a Contract

Legal Counsel Review

Prior to requesting execution of the contract, the Project Manager will circulate the draft contract to the TAMC Legal Counsel for review. The contract circulated to Legal Counsel shall include the required exhibits: negotiated Scope of Work, Schedule and Budget.

Circulation of Contract for Signatures

After Legal Counsel review, the Project Manager will print out two originals of the agreement. It is recommended that contract signatures be obtained in the following order:

- TAMC Legal Counsel
- Consultant authorized representative, and legal counsel
- TAMC Executive Director

Signature by Legal Counsel and the Consultant should occur prior to Board approval so that the contract can be executed promptly by the Executive Director.

Authorization for Execution

Executive Director Authorization

For contracts less than $10,000, the Executive Director may execute the contract if the amount is included in the Agency's budget.

TAMC Board Authorization

For contracts equal to or greater than $10,000 or amounts not included in the adopted budget, the TAMC Board of Directors must authorize the Executive Director to execute a contract. The Project Manager will prepare a report to the TAMC Board of Directors and include the negotiated Scope of Work, Schedule and Budget as attachments to the report. The rationale for the selection of the recommended consultant will be included in the staff report. Any deviations from the standard contract template will also be discussed in the staff report.

Post-Award Notice

Once the contract terms have been negotiated, a *Post-Award Notice* should be sent to those bidders who were not selected for the award.

Notice to Proceed

After the contract execution, the Project Manager will prepare a *Notice to Proceed* for the Executive Director to sign and send to the successful proposer/bidder following execution of a contract.

CHECKLIST – CONTRACT NEGOTIATION AND AWARD

During the contract negotiation and process the Project Manager will copy the following documentation to the contract file:

- ☐ *Reference Check Forms*
- ☐ *Notice of Intent to Award*
- ☐ *Notices of Intent to Enter into Negotiations*
- ☐ Documentation of Debarment Check
- ☐ For Architectural and Engineering Contracts:
  - *Audit Request Letter and Checklist* (Exhibit 10-A)
  - Consultant Contract Reviewer's Checklist (Exhibit 10-C)
  - Consultant Certification of Contract Costs and Financial Management System (Exhibit 10-K)
- ☐ For Federally-Funded contracts:
  - *Consultant Post-Award DBE Commitment*, Exhibit 10-O2
- ☐ *Record of Negotiations*
- ☐ TAMC Board staff report, with Scope, Schedule and Budget (contracts over $10,000)
- ☐ TAMC Board Approval Record – minutes or resolution (if required)
- ☐ Signed Contract
- ☐ *Post-Award Notice to Unsuccessful Proposers*
- ☐ *Notice to Proceed*

CHAPTER 4: CONTRACT MANAGEMENT POLICIES

PROJECT MANAGEMENT

The TAMC Project Manager is responsible for assuring that the goods or services are delivered according to the contract, according to the specified scope, cost and schedule. In order to do so, the Project Manager will maintain a line of communications with the consultant and confirm work performed, review deliverables prior to public release and track progress in meeting schedule milestones. The Project Manager will also facilitate technical reviews and quality control/assurance activities and strive to resolve disputes. If issues, disputes or performance issues arise, the Project Manager is responsible for alerting his/her supervisor as soon as possible to develop a course of action. Best project management practices include:

- Weekly check-in calls with the consultant and TAMC Project Manager
- Appointment of a project team, including relevant outside stakeholders
- Monthly project team meetings, with agendas and a record of action items
- Periodic updates to TAMC management, Committees and the Board of Directors
- Public outreach strategy, such as use of the TAMC website, news releases and public meetings

INVOICE REVIEW

The TAMC Project Manager will assure that monthly invoices and progress payments/reports are beings submitted by the consultant in a timely manner. Payment shall be made on a reimbursement basis. The Project Manager will review the invoices, ensure that there is adequate documentation to support the costs billed, confirm that the work was performed, assure that the costs that are invoiced are eligible under the contract provisions and confirm that the consultant has complied with state and federal regulations. If prevailing wages are required, the Project Manager will assure that the prevailing wage documentation and payment requirements are met. The Project Manager will reconcile the billing with contract specifications, verify the percentage of work completed and compare it with the amount billed to assure that adequate funds remain for completion of the contract.

After review of the invoice, the Project Manager will indicate his/her approval to pay by initialing the invoice and delivering it to the Finance Officer. The Project Manager will assure that the correct TAMC grant is billed by the Finance Officer.

After review of costs and the invoice details, the Financial Officer will review the invoice for mathematical accuracy, initial the invoice as approved to pay, prepare the check, and submit it to two signatories for approval. The eligible signatories, according to TAMC policy, are: the Executive Director, the Deputy Executive Director, and the Director of Finance and Administration.

CONTRACT CHANGES AND MODIFICATIONS

TAMC is responsible for issuing, evaluating, and making necessary decisions involving any change to its contracts, amendments, any change orders, or modifications. TAMC will evaluate and make the necessary decisions involving any claim of a constructive change to a contract.

Contract Amendments

All contract amendments shall be executed prior to the contract term end date, and require all parties to sign and date the amendments.

TAMC staff should take care that amendments to a contract, including time extensions are within the original scope of work and are not so excessive as to be considered a "cardinal contract change". Such contract changes are considered sole source procurements and require a sole source justification.

A cardinal contract change is a significant change in contract work (goods or services) that causes a major deviation from the original purpose of the work or the intended method of achievement or causes a revision of contract work so extensive, significant, or cumulative that, in effect, the contractor is required to perform very different work from that described in the original contract.

A change within the scope of the contract (sometimes referred to as an "in-scope" change) is not a cardinal change. Legal Counsel should be consulted to make a final determination regarding whether a particular contract change or amendment will constitute a cardinal change.

Change Orders

TAMC will have cost justifications supporting each change order it may issue and approve any proposed change order before it is issued. The cost of the change, modification, change order, or constructive change must be allowable, allocable, within the scope of any applicable grant, cooperative agreement, or other funding restriction and must be reasonable for the completion of project scope.

Independent Cost Estimate for Amendments

An independent cost estimate will be prepared for each contract amendment or change order. The Project Manager will document negotiations of prices, costs and/or profit mark-up.

Sole Source Evaluation

Changes, amendments or other contract modifications will be evaluated to ensure that if they constitute a sole source, the applicable sole source documentation will be prepared.

DISADVANTAGED BUSINESS ENTERPRISE MONITORING

TAMC will monitor contracts on an ongoing basis to assure compliance with the applicable DBE program(s). TAMC will also monitor DBE payments to assure that the contracted share of funds is paid to the named DBE firms.

DISPUTES AND COMPLAINTS

All disputes by contractors or consultants must be made in writing. Adequate documentation must be submitted by the contractor/consultant documenting the facts, events, negotiations, and/or applicable laws establishing the grounds for the dispute.

FTA Procurements

TAMC will notify the FTA about disputes on FTA-assisted procurements that have a value exceeding $100,000 if FTA funding could be used to resolve the dispute.

Upon request from the FTA, TAMC will provide a brief description of the dispute; basis of disagreement, and; if open, how far the dispute has proceeded, or; if resolved, the agreement or decision reached, and; whether an appeal has been taken or is likely to be taken. This information will be provided to the FTA as applicable in TAMC's next quarterly milestone progress report and in the next project management oversight review, if any.

DBE Complaints Process

TAMC includes in this manual *DBE Complaints Process – Staff Instructions* and has shared that information with its contract implementation staff. Consultants, proposers, subconsultants or subcontractors may file a complaint under the process listed in the *DBE Complaint Instructions for Consultants* document.

CLOSEOUT OF CONTRACTS

At the conclusion of the work assigned to a contractor in a contract or task order, the Project Manager is responsible for notifying the TAMC Finance Officer that the contract or task order is being closed out.

Close Out Meeting

Prior to final payment, the Project Manager will hold a contract close out meeting with the consultant prior to review the list of deliverables and assure that all work has been completed and delivered to TAMC.

Remaining Funds Determination

When a contract or task order is being closed out, the Project Manager also must notify the Finance Officer that the remaining funds in the contract or task order can be liquidated and unencumbered.

Filing of Deliverables

The Project Manager will catalog the list of completed work products in contract file, and save a copy of each deliverable in the contract file. Extra copies can be saved in the TAMC Library. A final version of deliverables should be considered for posting on the TAMC webpage. The shared electronic (P:/drive) should be cleaned up with all working documents and interim drafts deleted, and the final documents preserved.

Consultant Notice and Final Payment

Upon approval of the Executive Director, the Project Manager will send a notice of contract completion to consultant, and request the Finance Officer pay the final retention. A copy of the *Notice of Contract Completion* should be made to the contract file.

Evaluation of Consultant Performance

The Project Manager should prepare an *Evaluation of Consultant Performance* to assist with future procurements. A copy of this evaluation should be filed in the project contract file.

Federally-Funded Contracts - DBE Final Report

The TAMC Project manager will file the required *Final Report – Utilization of DBE and Small Business, First-Tier Subconsulants* form (Exhibit 17F in the Caltrans Local Assistance Procedures Manual) prior to certification of the contract as completed.

CHECKLIST – CONTRACT MANAGEMENT

The following documentation should be prepared and saved to the project contract file:

- ☐ Contract Amendments, with Executive Director or TAMC Board Approval record
- ☐ *Notice of Contract Completion*
- ☐ Final Deliverables – also save to the TAMC Library, P:/drive, TAMC Webpage
- ☐ *Evaluation of Consultant Performance*
- ☐ *Final Report – Utilization of DBE and Small Business, First-Tier Subconsulants* (Local Assistance Procedures Manual – Exhibit 17F: http://www.dot.ca.gov/hq/LocalPrograms/lam/forms/chapter17/17f.pdf)

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Virginia Murillo, Assistant Transportation Planner

Meeting Date: April 27, 2016

Subject: **Triennial Transit Performance Audits**

RECOMMENDED ACTION:

1. **APPROVE** Request for Proposals for consultant assistance, to complete a Triennial Transit Performance Audit for the three-year period ending June 30, 2016; and
2. **DIRECT** staff to release the Request for Proposals to potential consultants.

SUMMARY:

The Transportation Agency must prepare a Triennial Transit Performance Audit of transit operators receiving Transportation Development Act funds. The audit evaluates the efficiency and effectiveness of the county's transit operators based on Caltrans guidance and determines compliance with Transportation Development Act requirements. The audit also evaluates administrative functions undertaken by the Transportation Agency.

FINANCIAL IMPACT:

The audits are funded with Local Transportation Funds apportioned to the Transportation Agency for administration. The Agency has included $35,000 in its draft adopted budget to complete the audits in the 2016-17 fiscal year.

DISCUSSION:

The Transportation Agency contracts with an independent auditor to complete and submit transit performance audits to Caltrans every three years in its role as the administrator for Transportation Development Act (TDA) funds in Monterey County. The performance audits evaluate the efficiency and effectiveness of transit operators receiving TDA funds based on guidance in the latest performance audit guidebook published by Caltrans. The audit also evaluates the administrative functions undertaken by the Transportation Agency. Generally, the audits review financial and operating reports to determine compliance with minimum state operating requirements (farebox recovery thresholds, explanation of operating cost increases) and administrative requirements (including timely submittal of required financial documentation, and documentation that the Agency annually identified and evaluated unmet

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www.tamcmonterey.org

transit needs). Any recommendations to correct findings identified in the audits must be implemented in the next three-year audit period.

The last Triennial Transit Performance Audit was accepted by the TAMC in January 2015 for the three year period ending June 30, 2013. That audit found that MST fully complied with eight out of nine applicable requirements. MST was in partial compliance with regard to the timely submittal of its Fiscal Year 2012 Transit Operator Financial Transactions Reports. This was an unusual one-time finding that has not been made in past audits. TAMC complied with applicable state legislative mandates for regional transportation planning agencies. The auditors recommended that the Transportation Agency recommence the TDA claims process for MST, and formally adopt rules and regulations establishing the farebox recovery ratio for MST to improve administration and management related to TDA. TAMC adopted TDA Guidelines in April 2015 that outline the claims process and establish a required farebox ratio to respond to this audit recommendation.

The next performance audit must now be completed for the three year period ending June 30, 2016. A Request for Proposals for consultant assistance to complete the audit is included as a **Web Attachment**. The schedule for securing a consultant contract and completing the audit is as follows:

Date/ Timeframe	Task
April 27, 2016	Distribute RFP
May 16, 2016, 12:00 p.m. PST	Deadline for questions, requests for clarification or exceptions
June 2, 2016, 12:00 p.m. PST	**Proposals due**
June 6-10, 2016	Review and rank proposals
June 13-17, 2016	Interviews (if necessary)
June 20-24, 2016	Select top ranked consultant, negotiate contract
August 24, 2016	Present consultant contract to TAMC Board for approval
December 9, 2016	Draft Performance Audit Reports Due to TAMC
February 26, 2017	Final Performance Audit Reports Due to TAMC
March 22, 2017	Final Performance Audit Reports Approved by TAMC Board
June 30, 2017	State Deadline for Performance Audit Reports

Approved by: _____ Date signed: April 12, 2016
Debra L. Hale, Executive Director

Consent Agenda

Counsel Approval: Yes
Finance Approval: Yes

Web Attachment: Triennial Transit Performance Audit Request for Proposals

REQUEST FOR PROPOSALS

TAMC
TRANSPORTATION AGENCY
FOR MONTEREY COUNTY

THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY (TAMC)
INVITES CONSULTANTS TO SUBMIT THEIR PROPOSALS FOR THE:

Transportation Development Act Triennial Transit Performance Audit

You are invited to submit your Proposal and a sealed cost Proposal for the services to complete the above project. Submissions are due by **12:00 P.M., Pacific Standard Time on Thursday, June 2, 2016** to:

Executive Director of the Transportation Agency for Monterey County
Attn: Virginia Murillo
55 B Plaza Circle
Salinas, CA 93901-2902

Copies of the RFP and the detailed information regarding the submission of the PROPOSAL and the sealed cost Proposal are available at the TAMC offices and may be obtained upon request. This RFP is available at the TAMC website (www.tamcmonterey.org) in PDF format. You may call Virginia Murillo, Assistant Transportation Planner, at (831) 775-0903 to obtain a copy and for further information.

The Transportation Agency is an Equal Opportunity Employer.

TAMC
Transportation Agency for Monterey County
55-B Plaza Circle, Salinas, CA. 93901-2902

DATE: **April 27, 2016**

TO: **Interested Consultants**

FROM: **Debra L. Hale, Executive Director**

SUBJECT: **Request for Proposals for a Transportation Development Act Triennial Transit Performance Audit**

INVITATION

You are invited to submit a Proposal for the referenced services, including an hourly rate schedule, and an estimate of hours per task by named individual to complete the project. Please include your estimate of other direct costs to be charged to this project. Please submit three (3) paper copies and one (1) digital copy of your Proposal.

Your proposal and sealed project cost information are due in the office of the Transportation Agency for Monterey County (TAMC) by **12:00 P.M. Pacific Standard Time on Thursday, June 2, 2016**. Proposals received after the date and time specified above will not be considered.

Inquiries relating to this Request for Proposals shall be submitted no later than **noon May 16** and proposals shall be submitted no later than **noon on June 2** to:

Virginia Murillo, Assistant Transportation Planner
Transportation Agency for Monterey County
55 B Plaza Circle, Salinas, CA 93901-2901
831-775-0903 ~ virginia@tamcmonterey.org

Email inquiries relating to this Request for Proposals should include "TDA Triennial Audit RFP" in the subject header.

The Transportation Agency is an equal opportunity employer.

BACKGROUND

The Transportation Agency for Monterey County is a state-designated public agency with regional transportation planning responsibilities that cross city-county boundaries. The Transportation Agency is committed to planning, funding and delivering transportation projects for the region. The Agency is also committed to providing information to the public about its projects, plans and activities, ensuring public participation and fostering public understanding of its functions.

TAMC's Board of Directors includes twenty-three members who consist of local officials from each of its twelve incorporated cities and five county supervisorial districts, and ex-officio members from six public agencies.

The mission of the Transportation Agency for Monterey County is to proactively fund and plan a transportation system that enhances mobility, safety, access, environmental quality and economic activities by investing in regional transportation projects for Monterey County residents, businesses and visitors.

PROJECT DESCRIPTION

It will be the responsibility of the consultant or consultant team to conduct performance audits of the Transportation Agency for Monterey County and of Monterey-Salinas Transit in Monterey County. The Transportation Agency is statutorily required by Section 99246 of the California Public Utilities Code to designate entities other than itself to make a performance audit of its activities and the activities of each operator to whom it allocates funds. The intent of this Request for Proposals (RFP) is to procure performance audits of the following entities for the fiscal three-year period ending June 30, 2016:

1. **MONTEREY-SALINAS TRANSIT DISTRICT (MST)**
   During the three year audit period, MST was an independent political subdivision of the State of California. It was originally formed by a joint-powers agreement in 1972, which was revised in 1981 to include the Salinas Transit System. As of July 1, 2010, the MST Joint Powers Agency was replaced by the Monterey-Salinas Transit District, which was created through legislation (AB 644 Caballero) passed by the California Legislature and signed into law by Governor Arnold Schwarzenegger.

   MST is a special purpose district governed by a thirteen-member Board of Directors. The county Board of Supervisors selects one of its own members to serve on the MST Board. The mayors of each of the twelve cities in the county appoint one elected city official, bringing membership to thirteen. Directors meet once a month to determine overall policy for MST. A fifteen seat Mobility Advisory Committee, representing seniors, persons with disabilities, veterans and social services providers, provides nonbinding input to the Board.

   The borders of the MST District are contiguous with those of the County of Monterey. The County of Monterey is located along the Central Coast of California, bordered on the south by San Luis Obispo County, the west by the Pacific Ocean, the east by San Benito County,

and the north by the counties of Santa Clara and Santa Cruz. MST provides bus transit services throughout the County and north into downtown Watsonville, Aptos, and Santa Cruz in Santa Cruz County and Gilroy, Morgan Hill and San Jose in Santa Clara County, as well as south to San Miguel and Paso Robles in northern San Luis Obispo County.

With an annual fixed-route capital and operating budget of approximately $37 million dollars and 241 direct employees; MST provided about 4.2 million passenger trips in Fiscal Year 2015. The MST fixed-route bus system consisted of sixty routes: thirty-four operated by MST personnel, and twenty-six routes operated by MV Transportation, Incorporated. Select trips on one of the sixty routes was subcontracted to and operated by San Luis Obispo Regional Transit. In fiscal year 2015, 108 vehicles on these routes system-wide traveled approximately 4,280,830 miles and carried 4,221,235 passengers. RIDES, MST's paratransit service, transported approximately 113,759 mobility impaired patrons on 32 specially equipped minibuses, minivans and sedans.

For more information about MST, visit the MST website: www.mst.org

2. **TRANSPORTATION AGENCY FOR MONTEREY COUNTY (TAMC)**

TAMC serves as the Regional Transportation Planning Agency, the Congestion Management Agency, the Local Transportation Commission, and the Service Authority for Freeways and Expressways in Monterey County. The Agency is governed by a Board of Directors including voting members representing the 5 County Supervisorial Districts and 12 incorporated cities. Non-voting ex-officio members include the Association of Monterey Bay Area Governments, Caltrans, the Monterey Bay Air Resources District, MST, and the Monterey Regional Airport District.

TAMC staff includes an executive director, a deputy executive director, an administrative services manager, a finance officer/analyst, two administrative assistants, a clerical accounting assistant, six transportation planners, a community outreach coordinator and one transportation planning engineer. The Agency maintains and staffs the following advisory committees: Technical Advisory Committee, Bicycle and Pedestrian Facilities Advisory Committee, and a Rail Policy Committee. The MST Mobility Advisory Committee serves as the Agency's Social Services Transportation Advisory Council.

The Agency budget separates expenditures into two types: operating and direct program. The Fiscal Year 2015/16 operating budget is **$2,422,299**, which includes staff salaries and benefits, materials and supplies, and equipment purchases. The current direct program expenditure budget is **$16,809,235**, which includes expenditures on outside consultants, contracts, and specific work program tasks such as the rail program, highway projects, corridor studies, the bicycle and pedestrian program and outreach for special projects.

For further information on the agency's operations, visit the TAMC website: http://www.tamcmonterey.org/

It will be the responsibility of the consultant or consultant team to complete the Triennial Transit Performance Audit in accordance with the proposed Scope of Work (**Attachment A**). A final Scope of Work will be made a part of the professional services agreement between the

Transportation Agency and the consultant. A copy of TAMC's current standard agreement is included in **Attachment B**. The standard agreement may be subject to some revision, based on State or Federal requirements. Any exceptions or objections to the terms of the agreement must be stated in the response to the RFP.

It is important that the consultant have the capability to work closely with the Transportation Agency staff. The consultant or consultant team must be prepared to undertake whatever liaison and meetings are required to satisfy this requirement.

SELECTION PROCESS

The Transportation Agency for Monterey County will establish a committee to review the Proposals. This review may be followed by an oral interview between the review committee and the firm that responds best to the RFP. Based on the recommendations of the review committee, Transportation Agency staff will meet with the most qualified consultant or consultant team and will attempt to negotiate a final Scope of Work and a Fee schedule for the project. The final Scopes of Work will include a full description of each task, a description of deliverable products, and a schedule of the due dates for the deliverable products and other important milestones. Upon completion of negotiations to the satisfaction of Transportation Agency staff, the consultants or consultant teams will be recommended to the TAMC Board for final selection and contract approval.

Should the most qualified consultant or consultant team and TAMC fail to successfully negotiate a final scope of work and a mutually agreed upon Fee Schedule for these consulting services, then TAMC reserves the right to enter negotiations with the next most qualified candidate for performance of the work.

Further, the Agency may, or may not, also negotiate contract terms with selected proposers prior to award, and expressly reserves the right to negotiate with several proposers simultaneously and, thereafter, to award a contract to the proposer offering the most favorable terms to the Agency. Proposals submitted, therefore, should contain the proposers' most favorable terms and conditions, because the selection and award may be made without further discussion with any proposer. The Agency will submit the proposal considered to be the most responsive and competitive to the Board of Directors for consideration and selection. The Agency reserves the right to accept or reject any and all submitted proposals, to waive minor irregularities, and to request additional information or revisions to offers, and to negotiate with any or all proposers at any stage of the evaluation.

Factors to be considered in selecting the consultant(s) are indicated below:

1.	Staff experience in the preparation of and knowledge of the requirements for Transportation Development Act Triennial Performance Audits	40 points
2.	Proposed Work Plan Approach	30 points
3.	Cost	20 points
4.	References from past clients	10 points

QUESTIONS & ANSWERS, REQUESTS FOR CLARIFICATION OR EXCEPTIONS, ADDENDA

This Request for Proposals and any addenda will be posted on the Transportation Agency's website (www.tamcmonterey.org). Questions and answers regarding the request for proposals will also be posted on the website. All potential bidders are responsible for checking the website for any addenda to the bid documents. To receive email notifications of addendums to this Request for Proposals, prospective proposers must submit an email request to the Project Manager.

Any requests for clarification or exceptions to requirements in this Request for Proposals must be received by the Agency no later than **12 noon, Pacific Standard Time, on Monday, May 16**, to guarantee response or consideration. Responses to questions concerning this Request for Proposals posed before this deadline will be posted on the Agency's website: www.tamcmonterey.org

SUBMITTAL REQUIREMENTS

All interested firms are required to submit three (3) hard copies and and one (1) electronic copy of their Proposal to perform the requested consulting services. The Proposal must include an organizational chart with the names and qualifications of all personnel to be employed on the project. The Proposal should provide a short description of the firm's experience with projects that relate to this Scope of Work (**Attachment A**). A list of relevant past clients should be included.

1. Cover Letter: A cover letter signed by an official authorized to solicit business and enter into contracts for the firm. The letter should refer to this RFP by title and date, and should include the name and telephone number of a contact person and a statement that the proposal is a firm offer to enter into a contract with the Transportation Agency according to the terms of this Request for Proposals for ninety (90) days following its submission.

2. Firm Qualifications: A company profile and summary of the firm's qualifications in relation to this project, addressing each of the qualifications listed above and other desirable experience and expertise. The company profile should specify the firm size and number of staff available to work on this project.

3. Project Team: The Proposal shall clearly identify the Project Manager and include the names and qualifications of all personnel of the proposed team to be assigned to the contract and a chart representing the proposed organizational structure of the team. The Proposal shall demonstrate that the key personnel have the time available to work on the project. The Proposal shall include the estimated number of hours that the key personnel will dedicate to the project.

4. Demonstrated Knowledge: The Proposal shall include the assigned project team's demonstrated knowledge of, expertise and experience with providing similar services and completing similar types of contracts.

5. Work Plan: The Proposal shall include the consultant's proposed approach to refinement and implement the scope of work, broken out by tasks which demonstrate the consultant's knowledge and understanding of the project and the constraints and challenges associated with performing the tasks outlined in the scope of work.

6. Cost Proposal: The Proposal must include a cost proposal. The Board-adopted budget for the project is Thirty-Five Thousand Dollars ($35,000). The Proposal must contain an overall cost for the project as well as cost by task. An estimate of hours by task and hourly rates is also required. See **Attachment C** for requirements for contracts using State funds.

7. Proposed Schedule of Work and Deadlines: The Proposal must include availability of the Project Team to conduct work within the anticipated timeframes.

8. References: The Proposal shall include at least three (3) recent references from past clients for similar types of sign and map design projects, including samples of these past projects.

9. Additional Information: Information considered by proposers to be pertinent to this project, and which has not been specifically solicited in any of the aforementioned sections, may be placed in a separate appendix section. This appendix should be relevant and brief and a total of 2 pages maximum.

10. Exceptions and Deviations: Proposers wishing to propose alternative approaches to meeting the Agency's technical or contractual requirements, should thoroughly explain their reasoning, note as to whether they are "technical" or "contractual" exceptions and reference the relevant section(s) of the Request for Proposals.

All Proposals must be submitted to Virginia Murillo, Assistant Transportation Planner, Transportation Agency for Monterey County, 55-B Plaza Circle, Salinas, California 93901-2901 by **12:00 P.M. Pacific Standard Time on Thursday, June 2, 2016.**

PROPOSED SCHEDULE

Date/ Timeframe	Task
April 27, 2016	Distribute RFP
May 16, 2016, 12:00 p.m. PST	Deadline for questions, requests for clarification or exceptions
June 2, 2016, 12:00 p.m. PST	**Proposals due**
June 6-10, 2016	Review and rank proposals
June 13-17, 2016	Interviews (if necessary)
June 20-24, 2016	Select top ranked consultant, negotiate contract
August 24, 2016	Present consultant contract to TAMC Board for approval

MISCELLANEOUS

A. Modification or Withdrawal of Submittals

Any Proposals received prior to the date and time specified above for receipt may be withdrawn or modified by written request of the proposer. To be considered, however, the modified Proposal must be received by the time and date specified above.

B. Property Rights

Any Proposals received within the prescribed deadline become the property of TAMC and all rights to the contents therein become those of TAMC.

C. Confidentiality

Before award of the contract, all Proposals will be designated confidential to the extent permitted by the California Public Records Act. After award of the contract (or if not awarded, after rejection of all Proposal), all responses will be regarded as public records and will be subjected to review by the public. Any language purporting to render all or portions of the Proposal confidential will be regarded as non-effective and will be disregarded.

D. Amendments to Request for Proposals

TAMC reserves the right to amend the Request for Proposals by addendum before the final Proposal submittal date.

E. Non-Commitment of TAMC

This Request for Proposals does not commit TAMC to award a contract, to pay any costs incurred in the preparation of a Proposal for this request, or to procure or contract for services.

All products used or developed in the execution of any contract resulting from this Request for Proposals will remain in the public domain at the completion of the contract.

F. Conflict of Interest

The prospective consultant shall disclose any financial, business or other relationship with TAMC that may have an impact upon the outcome of this contract. The prospective consultant shall also list current clients who may have a financial interest in the outcome of this contract or TAMC projects that will follow from work performed in the Scope of Work. In particular, the prospective consultant shall disclose any financial interest or relationship with any printing or sign manufacturing companies that might submit a bid on TAMC projects.

G. Nondiscrimination

The prospective consultant must certify compliance with nondiscrimination requirements of TAMC pertaining to the development, implementation and maintenance of a nondiscrimination program. The prospective consultant's signature affixed to and dated on the cover letters shall constitute a certification under penalty of perjury under the laws

of the State of California that the proposer has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

H. Final Selection and Protests

The RFP process is considered concluded when a letter is sent to all participating consultants indicating which consultant will be recommended for Board approval. The firm recommended is not a final selection and no contract is certain until approved by TAMC Board of Directors.

Protestants shall submit a detailed written statement of protest to:

Transportation Agency for Monterey County
Attn: Virginia Murillo
55-B Plaza Circle
Salinas, CA 93901

no later than five (5) days prior to the Board meeting to enable proper consideration by the Board.

QUESTIONS

If you need assistance or have any questions, please contract Virginia Murillo, Assistant Transportation Planner, at virginia@tamcmonterey.org or (831) 775-0903.

Attachments:

A Scope of Work
B Sample TAMC Standard Agreement
C Requirements for Contracts using State Funds

ATTACHMENT A
Scope of Work

The audit shall be conducted in accord with relevant sections of the Transportation Development Act. For further guidance, the auditor may wish to consult the Performance Audit Guidebook for Transit Operators and Regional Transportation Planning Entities issued by the California Department of Transportation. A copy of the Guidebook may be obtained online at: **http://www.dot.ca.gov/hq/MassTrans/State-TDA.html**

The Scope-of-Work consists of the eight tasks and project deliverables described below:

Task 1. Project Management

The Consultant will manage the Transportation Development Act Triennial Performance Audit. The Consultant will coordinate with TAMC staff throughout the Project to ensure that project goals are being met. The Consultant will be responsible for preparing all materials that support the purpose and intent of the kick-off, check-in and final meetings. The selected Consultant will produce professional-level final products delivered on schedule. The selected Consultant will also provide on-going, and as needed support related to project management, oversight and development. The Consultant will develop a detailed project schedule including all tasks and expected project coordination meetings to meet the target project completion date of February 26, 2017.

Deliverables:

- Ongoing communication with TAMC staff
- Meeting agenda and minutes for meetings; presentation materials
- Detailed project schedule

Task 2. Interviews and Site Visits

Prior to conducting on-site interviews, the consultant will coordinate with TAMC staff to obtain relevant background data and review TAMC's Transportation Development Act Guidelines. The consultant will review relevant background information for TAMC and MST prior to conducting on-site interviews. TAMC staff will coordinate a kick off meeting with the consultant and at least one representative from Monterey-Salinas Transit.

Deliverables:

- Data request memo
- Meeting agenda and minutes for on-site interviews; presentation materials

Task 3. Compliance with Regulatory Requirements

The consultant will review and determine each agency's compliance with the Transportation Development Act (TDA) and applicable sections of the California Code of Regulations. The consultant will also take into account any more recent provisions from the updated TDA manual issued by the California Department of Transportation. Should the consultant identify areas of noncompliance, a finding regarding the non-compliance should be made explicitly for each year of noncompliance.

Deliverables:

- Summary table of relevant compliance sections to be analyzed

Task 4. Status of Prior Performance Recommendations

The consultant will review the most recent performance audits under the TDA for TAMC and MST, and assess each agency's implementation of the prior audit recommendations. The most recent audits are available on the www.tamcmonterey.org website. The consultant will determine whether the prior recommendations were fully or partly implemented. The consultant will also review those recommendations, which have not yet been implemented, and for each one determine whether they are:

- No longer applicable due to changes that took place since the last audit;
- Infeasible; or
- Still valid, and worthy of implementation.

If a prior recommendation has not been implemented but still has merit, the consultant should include the prior recommendation(s) or a modified version in the current audit report. The consultant will also identify recommendations already implemented or in progress. For those, the consultant should assess the benefits already achieved by follow up to the prior recommendations. Significant accomplishments and/or failures in implementing prior recommendations should be recognized and appropriate corrective actions identified in this Task. Such findings and relevant recommendations for corrective actions will be summarized in the audit report with a near-term implementation schedule.

Deliverables:

- Summary table of prior performance recommendations

Task 5. Required Performance Indicators

This task is divided into two subtasks:

5(a) Data Collection and Reporting

The consultant will review and validate the collection of operating and financial data needed for deriving the five TDA-required performance indicators. Those indicators are respectively:

- Operating cost per vehicle service hour
- Operating cost per rider
- Riders per vehicle service hour
- Riders per vehicle service mile and
- Hours per employee.

In addition the consultant will review the methods used to collect the farebox revenues and account for other supplemental revenues used in the derivation of annual farebox recovery ratios. This in-depth review will be done for each mode and each service part of the systems being audited. The consultant will assess whether any changes in data collection or related actions by the MST or their contractors that are needed to ensure TDA compliance. This

subtask will assess the operator's ability to accurately calculate the five TDA indicators (plus the farebox recovery ratio) and to monitor their year-to-year trends.

5(b) Quantitative Trends
The consultant will analyze performance indicators and present quantitative trends with detailed tables and supporting charts. Those will be accompanied by a short synopsis on the interpretation of those trends for early review by Monterey-Salinas Transit. The consultant will analyze recent trends (three audit years) and compare those with the previous three years (data from prior triennial performance audits); as applicable the consultant will identify potential issues or concerns in need of further interpretation with the functional review.

The consultant will also quantify and review the trends in the annual farebox recovery ratio and address compliance with the applicable TDA-required minimum. In the case of non-compliance, the consultant will develop near-term recommendations for increasing the farebox recovery ratio and integrate those recommendations into the final audit reports. As relevant to service areas, riders' groups or service components of all operators being audited, the consultant might define, calculate and analyze other indicators (besides the 5 TDA-required ones) financial or operating data appropriate to better interpret local or program-specific performance trends. Such data should help the agencies and the region understand the root of potential problem areas and identify needed improvements. Other elements should also be considered to identify specific factors impacting the overall trends such as fare changes, operating contract terms, and administrative transfers.

Deliverables:
- Summary of data collection findings

Task 6. Functional Reviews
The consultant will review each operator's function. The functional review will include interviews with each operator's management, staff, and governing board, plus TAMC staff as well as other administrators involved in the transit or paratransit programs. Aspects of the system performance will be examined based on:

- Operator and TAMC interviews dealing with operators' functions (such as administration, operations, dispatch, maintenance, customer relations, public involvement, planning, grants, marketing);
- Review and analysis of major changes in the audit period;
- Significant achievements in the audit period or to date;
- Roles of advisory committee(s) and methods used for local public participation;
- Reports, such as prior audits, users' surveys, Short-Range Transit Plans, staff reports and City Council/Board agendas;
- Prior or recent findings on TDA indicators and actions taken to address performance issues;
- Review of fare structure, collection methods and reporting of subsidies;
- Derivation of farebox recovery ratios and adequacy of operating cost exemptions;
- Compliance with state and Federal regulations on discount fares and on the use of eligible matching funds;

- Follow up actions to prior audit recommendations as reported to TAMC and verified by the auditor;
- Review of operators' compliance with other statutory and regulatory requirements tied to grant sources;
- Consideration of proposed near-term changes per the ongoing transit efficiencies reviews done by staff and policy-makers at the sub-regional level; and
- Other areas relevant to the auditor's review.

Insight into inefficient or ineffective performance should lead to further investigation by the consultant. This may include collecting additional data from the operators, computing or reviewing supplemental performance indicators. The final report should offer any recommendations on how to remedy areas of inefficient or ineffective performance and give the supporting rationale for each recommendation. In all areas the consultant should make clear and concise recommendations with a specific timeline for implementation (by year and quarter) and identify who will be responsible for the follow up actions.

Task 7. Draft Audit Findings and Recommendations with Draft Reports

The consultant will prepare separate draft audit reports for Monterey-Salinas Transit and the Transportation Agency. One key objective of the triennial performance audit is to help management, the administrators, and their contractors to improve operations, increase efficiency and cost-effectiveness. Thus, the performance audit should strive to present audit findings, conclusions and recommendations in a positive and easy-to-understand manner. Listed below are the recommended elements of the performance audit report:

1. **Table of Contents** – Listing of the chapter headings and major sections in the performance audit report, tables and figures with associated page numbers;
2. **Executive Summary** – A synopsis of key findings and recommendations (i.e. to be used as a standalone product for wider distribution, Power Point slides and web posting);
3. **Introduction** – Background information useful in understanding the entity being audited and how each audit was conducted. This part might include:
    - Information about the transit operator's recent history, organization, budget, staffing, and nature of the services provided;
    - Overview of regulatory requirements relevant to the audit;
    - Description of the approach and methods used in conducting the audit; and
    - Limitations regarding how the audit was performed, or caveats in the data supplied by the operator with any assumptions made by the consultant in presenting such data.

4. **Audit Findings** – This part of the audit report should present findings for each major area of the performance review such as:

    - Results of the compliance review (Task 3);
    - Status of prior audit report recommendations (Task 4);
    - Verification and interpretation of performance audit indicators (Tasks 5-a and 5-b);
    - Results of the functional review of each operator and organization (Task 6); and

- Other pertinent information such as changes during the audit period that impacted services and performance: fare structure; service coverage; route frequency or days of service; service mix; operating rules; funding sources; managerial and contract terms; state or Federal reporting requirements.

5. **Conclusions and Recommendations** – A summary of the major findings and recommendations. The consultant will develop and recommend specific strategies and present concrete ways to address any performance issues. The consultant will summarize proposed follow up actions with a schedule and identify the party or parties responsible to take such actions with a specific timeline for implementation.

   Deliverables:
   - Draft reports for TAMC and MST submitted electronically by December 9, 2016

Task 8. Final Draft Report

Monterey-Salinas Transit and Transportation Agency staff will review the draft report prepared under Task 7 to ensure accuracy of the factual information and quantitative data. The consultant will make adjustments as needed, and will integrate comments into the preparation of the final draft report.

Deliverables:
- Final draft reports for TAMC and MST submitted electronically by January 27, 2017

Task 9. Final Report

Monterey-Salinas Transit and Transportation Agency staff will review the final draft report prepared under Task 8 and will provide final comments to the consultant. The consultant will incorporate any final comments and will prepare the final report. The consultant will be available to answer questions on the final audit findings and available when the final audit reports are considered by the Transportation Agency Board.

Deliverables:
- Final reports for TAMC and MST submitted electronically along with 3 sets of hardcopies for submission to TAMC, MST and Caltrans by February 26, 2017.

Based on the scope, the proposal should give a budget allocation among the nine tasks. The budget should also itemize other direct costs for material expenses and travel to sites in Monterey County by the designated personnel. Anticipated trips are summarized as follows:

- **Task 2**- Kick-off meeting, including initial interviews of the Transportation Agency and MST.
- **Task 5**-Follow up meetings re-functional reviews (via teleconference if possible).

The final deadline for completion of all work identified above is **February 26, 2017** at which time it is anticipated that the Final Report will be presented to the TAMC Board of Directors at the March 2017 meeting.

ATTACHMENT B
SAMPLE TAMC STANDARD AGREEMENT

TRANSPORTATION AGENCY FOR MONTEREY COUNTY
AND
AGREEMENT FOR PROFESSIONAL SERVICES
APPROVED BY THE TAMC BOARD ON:
[Lump Sum]

This is an agreement between the Transportation Agency for Monterey County, hereinafter called "TAMC," and [Consultant's Name], a [indicate legal status of entity, e.g., a California corporation, an individual dba . . ., a California partnership], [Consultant's address], hereinafter called "Consultant."

The parties agree as follows:

1. Employment of Consultant. TAMC hereby engages Consultant and Consultant hereby agrees to perform the services set forth in Exhibit A, in conformity with the terms of this Agreement. Consultant will complete all work in accordance with the work schedule set forth in Exhibit A.

   (a) The work is generally described as follows:

   Transportation Development Act Triennial Performance Audit

   (b) Consultant represents that Consultant and its agents, subcontractors and employees performing work hereunder are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required by this Agreement.

   (c) Consultant, its agents, subcontractors, and employees, shall perform all work in a safe, skillful, and professional manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements. Consultant shall ensure for itself and for any subcontractors under this Agreement that the applicable requirements of Labor Code section 1725.5, concerning the registration of contractors for public works, shall be in force and maintained for the term of this Agreement.

   (d) Consultant shall furnish, at its own expense, all materials and equipment necessary to carry out the terms of this Agreement, except as otherwise provided herein. Consultant shall not use TAMC premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations hereunder.

(e) Consultant's project manager shall be the person specified in Exhibit A. If Consultant desires to change the project manager, Consultant shall get written approval from TAMC of the new project manager.

(f) Consultant shall submit progress reports at least once a month. The report should be sufficiently detailed for the Contract Administrator to determine, if Consultant is performing to expectations, or is on schedule; to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.

(g) Consultant's Project Manager shall meet with TAMC's Contract Administrator, as needed, to discuss progress on the contract.

2. Term of Agreement. The term of this Agreement shall begin upon [DATE], contingent upon approval by the TAMC Board, and Consultant shall commence work only after a Notice to Proceed has been issued by TAMC's Project Manager specified in Paragraph 34. Unless earlier terminated as provided herein, this Agreement shall remain in force until [DATE]. Consultant acknowledges that this Agreement is not binding until it is fully executed and approved by TAMC.

3. Payments to Consultant; maximum liability. Subject to the limitations set forth herein, TAMC shall pay to Consultant the amounts provided in Exhibit B: Budget, upon receipt and acceptance of deliverables listed therein. Each payment by TAMC shall be for a specific deliverable outlined in Exhibit A: Scope of Work and Schedule. The maximum amount payable to the Consultant under this Agreement is set forth in Exhibit B: Budget and shall not exceed the amount of _____ Dollars ($XXXX). If there is any conflict between the terms of this Agreement and the terms of either Exhibit A (Scope of Work) or Exhibit B (Budget), the terms of this Agreement shall prevail. TAMC does not guarantee any minimum amount of dollars to be spent under this Agreement.

4. Method of Payment/Allowable Costs and Payment. The method of payment for this Agreement will be based on lump sum.

(a) The total lump sum price paid to Consultant will include compensation for all work and deliverables, including any travel and equipment described in Paragraph 1a and Exhibit A: Scope of Work for this Agreement. No additional compensation will be paid to Consultant unless there is a change in the scope of the work or the scope of the project. In the instance of a change in the scope of work or scope of project, any adjustment to the total lump sum compensation will be negotiated between Consultant and TAMC. Adjustment in the total lump sum compensation will not be effective until authorized by a written amendment to this Agreement, approved by TAMC.

(b) Progress payments may be made monthly, in arrears, based on the percentage of work completed by Consultant. If Consultant fails to submit the required

deliverable items according to the schedule set forth in Exhibit A, TAMC shall have the right to delay payment or terminate this Agreement in accordance with Paragraph 6 (Termination).

(c) Consultant shall not commence performance of work or services until this Agreement has been approved by TAMC, and notification to proceed has been issued by TAMC's Contract Administrator. No payment will be made prior to approval, or for any work performed prior to approval of this Agreement.

(d) Consultant will be reimbursed, as promptly as fiscal procedures will permit, upon receipt by TAMC's Contract Administrator of itemized invoices in triplicate. Separate invoices itemizing all costs are required for all work performed under each Task Order. Invoices shall be submitted no later than 45 calendar days after the performance of work for which Consultant is billing, or upon completion of the Task Order. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference this Agreement number and project title and Task Order number. Credits due TAMC that include any equipment purchased under the provisions of Paragraph 27 (Equipment, Supplies or Consultant Services Purchases) must be reimbursed by Consultant prior to the expiration or termination of this Agreement.

(e) The total amount payable by TAMC resulting from this Agreement shall not exceed the amount of _____ ($XXXXX).

(f) All subcontracts under this Agreement in excess of $25,000 shall contain the above provisions.

5. Retention of Funds.

(a) Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this section.

(b) No retainage will be withheld by TAMC from progress payments due the prime Consultant. Retainage by the prime consultant or subconsultants is prohibited, and no retainage will be held by the prime consultant from progress due subconsultants. Any violation of this provision shall subject the violating prime consultant or subconsultants to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the prime consultant or subconsultant in the event of a dispute involving late payment or nonpayment by the prime consultant or deficient subconsultant performance, or noncompliance by a subconsultant. This provision applies to both DBE and non-DBE prime consultants and subconsultants.

6. Termination.

(a) TAMC reserves the right to terminate this Agreement upon thirty (30) calendar days' written notice to Consultant with the reasons for termination stated in the notice.

(b) TAMC may also terminate this Agreement at any time for good cause effective immediately upon written notice to Consultant. "Good cause" includes, without limitation, the failure of Consultant to perform the required services at the time and in the manner provided herein, as well as failure to comply with the provisions of Paragraphs 13 and 14, relating to audits, below. Notwithstanding TAMC's right to terminate for good cause effective immediately upon written notice thereof, TAMC shall provide prior notice to Consultant of any ground for termination then being considered, and also provide Consultant with a good faith opportunity to avoid termination, as reasonably determined by TAMC in its absolute discretion. If TAMC terminates this Agreement for good cause, TAMC may be relieved of the payment of any consideration to Consultant, and TAMC may proceed with the work in any manner, which it deems proper. Costs incurred by TAMC thereby shall be deducted from any sum otherwise due Consultant.

(c) The maximum amount for which TAMC shall be liable if this Agreement is terminated is zero (0) dollars.

(d) It is also mutually understood between TAMC and Consultant that this Agreement may have been written before ascertaining the availability of funds, or appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made. This Agreement is valid and enforceable only if sufficient funds are made available to TAMC for the purpose of this Agreement. It is mutually agreed that if sufficient funds are not appropriated, this Agreement may be amended to reflect any reduction in funds. TAMC retains the right to direct Consultant immediately to stop work and to terminate this Agreement for convenience, pursuant to Paragraph 6(a) above, in order to address any reduction of funds.

(e) Termination of this Agreement shall not terminate Consultant's duty to defend, indemnify and hold harmless TAMC, as provided in Paragraphs 8 and 20.

7. Cost Principles and Administrative Requirements.

(a) Consultant agrees that the contract Cost Principles and Procedures, 48 Code of Federal Regulations (CFR), Chapter 1, Part 31.000 *et seq.*, Federal Acquisition Regulations System, shall be used to determine the cost allowability of individual items.

(b) Consultant also agrees to comply with federal procedures in accordance with 2 CFR, Part 200, Uniform Administrative Requirements, Costs Principles and Audit Requirements.

(c) Any costs for which payment has been made to Consultant under this Agreement that are determined by subsequent audit to be unallowable under 2 CFR Part 200 and 48 CFR Part 31, are subject to repayment by Consultant to TAMC.

(d) Consultants and subconsultants shall maintain accounting systems related to the work to be performed pursuant to this Agreement that conform to Generally Accepted Accounting Principles (GAAP).

(e) All subcontracts in excess of $25,000 shall contain the above provisions.

8. Indemnification. To the fullest extent permitted by law, including California Civil Code sections 2782 and 2782.6, Consultant shall defend (with legal counsel reasonably acceptable to TAMC), indemnify and hold harmless TAMC, its officers, agents, and employees, from and against any and all claims, losses, costs, damages, injuries (including injury to or death of an employee of Consultant or its subcontractors), expenses and liabilities of every kind, nature and description (including incidental and consequential damages, court costs, attorneys' fees, litigation expenses and fees of expert consultants or expert witnesses incurred in connection therewith and costs of investigation) that arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Consultant, any subcontractor, anyone directly or indirectly employed by them, or anyone that they control (collectively "Liabilities"). Such obligations to defend, hold harmless and indemnify TAMC, its officers, agents, and employees, shall not apply to the extent that such Liabilities are caused in part by the sole negligence, active negligence, or willful misconduct of TAMC, its officers, agents, and employees. To the extent there is an obligation to indemnify under this Paragraph, Consultant shall be responsible for incidental and consequential damages resulting directly or indirectly, in whole or in part, from Consultant's negligence, recklessness, or willful misconduct. Notwithstanding any other provision of this Agreement, Consultant's obligation to defend, indemnify and hold harmless TAMC shall survive the termination or expiration of the Agreement for a term to include the applicable statute of limitations related to the Consultant's performance pursuant to the Agreement.

9. Insurance.

(a) Without limiting Consultant's duty to indemnify as set forth in this Agreement, Consultant shall maintain, at no additional cost to TAMC, throughout the term of this Agreement a policy or policies of insurance with the following coverage and minimum limits of liability (check if applicable):

☐ Commercial general liability insurance, including but not limited to premises, personal injury, products, and completed operations, with a combined single limit of One Million Dollars ($1,000,000) per occurrence.

☐ Professional liability insurance in the amount of not less than One Million Dollars ($1,000,000) per claim and Three Million Dollars ($3,000,000) in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a

"claims made" basis rather than an "occurrence" basis, Consultant shall, upon the expiration or termination of this Agreement, obtain extended reporting coverage ("tail coverage") with the same liability limits. Any such tail coverage shall continue for at least three years following the surviving term of Consultant's obligation to defend, indemnify and hold harmless TAMC as set for in Paragraph 8.

- Comprehensive automobile insurance covering all motor vehicles, including owned, leased, hired and non-owned vehicles used in providing services under this Agreement, with a combined single limit of not less than One Million Dollars ($1,000,000) per occurrence.

(b) All insurance required under this Agreement shall be with a company acceptable to TAMC and authorized by law to transact insurance business in the State of California. Unless otherwise provided in this Agreement, all such insurance shall be written on an occurrence basis; or, if any policy cannot be written on an occurrence basis, such policy shall continue in effect for a period of two years following the date of Consultant's completion of performance hereunder.

(c) Each policy of insurance required under this Agreement shall provide that TAMC shall be given written notice at least thirty days in advance of any change, cancellation or non-renewal thereof. Each policy shall provide identical coverage for each subcontractor performing work under this Agreement, or be accompanied by a certificate of insurance for each subcontractor showing identical insurance coverage.

(d) Commercial general liability and automobile liability policies shall provide an endorsement naming TAMC, its officers, agents, and employees, as additional insureds and shall further provide that such insurance is primary to any insurance or self-insurance maintained by TAMC, and that no insurance of any additional insured shall be called upon to contribute to a loss covered by Consultant's insurance.

(e) TAMC shall not be responsible for any premiums or assessments on the policy.

10. Workers' Compensation Insurance. If during the performance of this Agreement, Consultant employs one or more employees, then Consultant shall maintain a workers' compensation plan covering all of its employees as required by Labor Code Sec. 3700, either (a) through workers' compensation insurance issued by an insurance company, with coverage meeting the statutory limits and with a minimum of One Million Dollars ($1,000,000) per occurrence for employer's liability, or (b) through a plan of self-insurance certified by the State Director of Industrial Relations, with equivalent coverage. If Consultant elects to be self-insured, the certificate of insurance otherwise required by this Agreement shall be replaced with consent to self-insure issued by the State Director of Industrial Relations. The provisions of this paragraph apply to any subcontractor employing one or more employees, and Consultant shall be responsible for all subcontractors' compliance herewith.

11. Safety Provisions.

(a) Consultant shall comply with Division of Occupational Safety and Health (CAL-OSHA) regulations applicable to Consultant regarding necessary safety equipment or procedures. Consultant shall comply with safety instructions issued by TAMC Safety Officer and other TAMC representatives. Consultant personnel shall wear hard hats and safety vests at all times while working on a construction project site.

(b) If applicable to work to be performed by Consultant identified in the Scope of Work (Exhibit A), and pursuant to the authority contained in Section 591 of the Vehicle Code, TAMC has determined that such areas are within the limits of the project and are open to public traffic. Consultant shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. Consultant shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.

(c) Any subcontract entered into as a result of this Agreement, shall contain all of the provisions of this Section.

(d) Consultant must have a CAL-OSHA permit(s), as outlined in California Labor Code Sections 6500 and 6705, prior to the initiation of any practices, work, method, operation, or process related to the construction or excavation of trenches which are five feet or deeper.

12. Certificate of Insurance and Taxpayer Identification. Prior to the execution of this Agreement by TAMC, Consultant shall submit a completed federal W-9 form, Request for Taxpayer Identification Number and Certification, and file certificates of insurance with TAMC's contract administrator evidencing that Consultant has in effect the insurance required by this Agreement. Consultant shall file a new or amended certificate promptly after any change is made in any insurance policy, which would alter the information on the certificate then on file. Acceptance or approval of insurance shall in no way modify any indemnification provision of this Agreement.

13. Retention of Records/Audit. For the purpose of determining compliance with Public Contract Code 10115, et seq. and Title 21, California Code of Regulations, Chapter 21, Section 2500 et seq., when applicable and other matters connected with the performance of the Agreement pursuant to Government Code 8546.7, Consultant, subconsultants, and TAMC shall maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of the Agreement, including but not limited to, the costs of administering the Agreement. All parties shall make such materials available at their respective offices at all reasonable times during the Agreement period and for three years from the date of final payment under the Agreement. The state, State Auditor, TAMC, FHWA, or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of Consultant and its certified public accountants (CPA) work papers that are pertinent to the Agreement and indirect cost rates (ICR) for audit, examinations, excerpts, and transactions, and copies

thereof shall be furnished if requested. Subcontracts in excess of $25,000 shall contain this provision.

14. Audit Review Procedures.

a) Any dispute concerning a question of fact arising under an interim or post audit of this Agreement that is not disposed of by agreement, shall be reviewed by TAMC'S Chief Financial Officer.

b) Not later than 30 days after issuance of the final audit report, Consultant may request a review by TAMC'S Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

c) Neither the pendency of a dispute nor its consideration by TAMC will excuse Consultant from full and timely performance, in accordance with the terms of this Agreement.

15. Inspection of Work. Consultant and any subconsultant shall permit TAMC, the State, and the FHWA (if federal participating funds are used in this Agreement) to review and inspect the project activities and files at all reasonable times during the performance period of this Agreement including review and inspection on a daily basis.

16. Confidentiality; Return of Records. Consultant and its officers, employees, agents, and subcontractors shall comply with all federal, State and local laws providing for the confidentiality of records and other information. Consultant shall not disclose any confidential information received from TAMC or prepared in connection with the performance of this Agreement without the express permission of TAMC. Consultant shall promptly transmit to TAMC all requests for disclosure of any such confidential information. Consultant shall not use any confidential information gained through the performance of this Agreement except for the purpose of carrying out Consultant's obligations hereunder. When this Agreement expires or terminates, Consultant shall return to TAMC all records, which Consultant utilized or received from TAMC to perform services under this Agreement.

17. Amendments and Modifications. No modification or amendment of this Agreement shall be valid unless it is set forth in writing and executed by the parties hereto.

18. Statement of Compliance/Non-Discrimination.

a) Consultant's signature affixed herein, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that Consultant has, unless exempt, complied with, the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Administrative Code, Section 8103.

b) During the performance of this Agreement, Consultant and its subconsultants shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g.,

cancer), age (over 40), marital status, and denial of family care leave. Consultant and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Consultant and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Consultant and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

19. Harassment. TAMC maintains a strict policy prohibiting unlawful harassment, including sexual harassment, in any form, including verbal, physical and visual harassment by any employee, supervisor, manager, officer or Board member, or agent of the employer. Vendors, contractors, and consultants shall not engage in conduct that has an effect of unreasonably interfering with a TAMC employee's work performance or creates an intimidating, hostile or offensive work environment.

20. Independent Contractor. In its performance under this Agreement, Consultant is at all times acting and performing as an independent contractor and not as an employee of TAMC or any of its member jurisdictions. No offer or obligation of employment is intended in any manner, and Consultant shall not become entitled by virtue of this Agreement to receive any form of benefits accorded to employees including without limitation leave time, health insurance, workers' compensation coverage, disability benefits, and retirement contributions. Consultant shall be solely liable for and obligated to pay directly all applicable taxes, including without limitation federal and State income taxes and social security arising out of Consultant's performance of this Agreement. In connection therewith, Consultant shall defend, indemnify, and hold harmless TAMC from any and all liability, which TAMC may incur because of Consultant's failure to make such payments.

21. Delegation of Duties; Subcontracting.

    a) Nothing contained in this Agreement or otherwise, shall create any contractual relation between TAMC and any subconsultant(s), and no subcontract shall relieve Consultant of its responsibilities and obligations hereunder. Consultant agrees to be as fully responsible to TAMC for the acts and omissions of its subconsultant(s) and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Consultant. Consultant's obligation to pay its subconsultant(s) is an independent obligation from TAMC'S obligation to make payments to the Consultant.

    b) Consultant shall perform the work contemplated with resources available within its own organization and no portion of the work pertinent to this Agreement shall be subcontracted without written authorization by TAMC's Contract Administrator, except that, which is expressly identified in the approved Budget/Cost Proposal.

c) Consultant shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to Consultant by TAMC.

d) Any subcontract in excess of $25,000 entered into as a result of this Agreement shall contain all the provisions stipulated in this Agreement to be applicable to subconsultants.

e) Any substitution of subconsultant(s) must be approved in writing by TAMC's Contract Administrator prior to the start of work by the subconsultant(s).

22. Ownership of Data.

a) Upon completion of all work under this Agreement, ownership and title to all reports, documents, plans, specifications, and estimates produce as part of this Agreement will automatically be vested in TAMC; and no further agreement will be necessary to transfer ownership to TAMC. Consultant shall furnish TAMC all necessary copies of data needed to complete the review and approval process.

b) It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine-readable form, are intended for one-time use in the connection with the project for which this Agreement has been entered into.

c) Consultant is not liable for claims, liabilities, or losses arising out of, or connected with the modification, or misuse by TAMC of the machine-readable information and data provided by Consultant under this Agreement; further, Consultant is not liable for claims, liabilities, or losses arising out of, or connected with any use by TAMC of the project documentation on other projects for additions to this project, or for the completion of this project by others, except only such use as many be authorized in writing by Consultant.

d) Applicable patent rights provisions regarding rights to inventions shall be included in the Agreements as appropriate (48 CFR 27, Subpart 27.3 - Patent Rights under Government Contracts for federal-aid contracts).

e) TAMC may permit copywriting reports or other agreement products. If copyrights are permitted, FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish or otherwise use the data, and may authorize others to use the work for government purposes.

f) Any subcontract in excess of $25,000 entered into as a result of this Agreement, shall contain all of the provisions of this Article.

23. Confidentiality of Data.

a) All financial, statistical, personal, technical, or other data and information relative to TAMC's operations, which are designated confidential by TAMC and made available to

Consultant in order to carry out this Agreement, shall be protected by Consultant from unauthorized use and disclosure.

b) Permission to disclose information on one occasion, or public hearing held by TAMC relating to the Agreement, shall not authorize Consultant to further disclose such information, or disseminate the same on any other occasion.

c) Consultant shall not comment publicly to the press or any other media regarding the Agreement or TAMC's actions on the same, except to TAMC's staff, Consultant's own personnel involved in the performance of this Agreement, at public hearings or in response to questions from a Legislative committee.

d) Consultant shall not issue any news release or public relations item of any nature, whatsoever, regarding work performed or to be performed under this Agreement without prior review of the contents thereof by TAMC, and receipt of TAMC'S written permission.

e) Any subcontract entered into as a result of this Agreement shall contain all of the provisions of this Article.

24. Compliance with Terms of Federal or State Grant. If any part of this Agreement has been or will be funded pursuant to a grant from the federal or State government in which TAMC is the grantee, Consultant shall comply with all provisions of such grant applicable to Consultant's work hereunder, and said provisions shall be deemed a part of this Agreement as though fully set forth herein.

25. Use of United States –flag Vessels. If this Agreement relates to a federally-funded construction contract, the Consultant agrees:

a) To utilize privately owned United State-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Agreement, to the extent such vessels are available at fair and reasonable rates for Unites States-flag commercial vessels.

b) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the TAMC Project Manager (through the prime contractor in the case of subcontractor bills-of lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

c) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Agreement.

26. Prevailing Wages.

a) Consultant shall comply with the all prevailing wage requirements, including California Labor Code section 1770, et seq., and any Federal or local laws or ordinances, that may be applicable to the work to be performed pursuant to this Agreement.

b) Any subcontract entered into as a result of this Agreement, if for more than $25,000 for public works, shall contain all the provisions of this Paragraph 26.

c) When prevailing wages may apply to the services described in the Scope of Work, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination found on the DIR website.

27. Equipment, Supplies or Consultant Services Purchases.

(a) Prior authorization in writing by TAMC's Contract Administrator shall be required before Consultant enters into any unbudgeted purchase order, or subcontract exceeding Five Thousand Dollars ($5,000) for supplies, equipment, or unbudgeted Consultant services. Consultant shall provide an evaluation of desirability of incurring such costs.

(b) For purchase of any items, service or consulting work not covered in Consultant's Cost Proposal and exceeding Five Thousand Dollars ($5,000), prior authorization is required by TAMC's Contract Administrator; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

(c) Any equipment purchased as a result of this Agreement is subject to the following:

i. Consultant shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of Five Thousand Dollars ($5,000) or more. If the purchased equipment needs replacement and is sold or traded in, TAMC shall receive a proper refund or credit for such equipment at the conclusion of the Agreement, or if the Agreement is terminated, Consultant may either keep the equipment and credit TAMC in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established TAMC procedures for such sales and then credit TAMC in an amount equal to that sales price. If Consultant elects to keep the equipment, fair market value shall be determined at Consultant's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from and appraiser mutually acceptable to TAMC and Consultant; if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by TAMC.

ii. Consultant acknowledges that, if federal funds are used in this Agreement, 49 CFR, Part 1201 requires a credit to Federal funds when participating equipment with a fair market value greater than Five Thousand Dollars ($5,000) is credited to the project for which this Agreement was entered into.

(d) Consultant shall include these provisions into any subcontract in excess of Twenty-Five Thousand Dollars ($25,000).

28. Conflict of Interest.

(a) Consultant shall disclose any financial, business, or other relationship with TAMC that may have an impact upon the outcome of this Agreement, or any ensuing TAMC construction project. Consultant shall also list current clients who may have a financial interest in the outcome of this Agreement, or any ensuing TAMC construction project, which will follow.

(b) Consultant hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this Agreement.

(c) Any subcontract in excess of $25,000 entered into as a result of this Agreement, shall contain all of the provisions of this Article.

29. Governing Laws. This Agreement shall be construed and enforced according to the laws of the State of California, and the parties hereby agree that the County of Monterey shall be the proper venue for any dispute arising hereunder.

30. Construction of Agreement. The parties agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any exhibit or amendment. To that end, it is understood and agreed that this Agreement has been arrived at through negotiation, and that neither party is to be deemed the party which prepared this Agreement within the meaning of Civil Code Section 1654. Section and paragraph headings appearing herein are for convenience only and shall not be sued to interpret the terms of this Agreement.

31. Waiver. Any waiver of any term or condition hereof must be in writing. No such waiver shall be construed as a waiver of any other term or condition herein.

32. Successors and Assigns. This Agreement and all rights, privileges, duties and obligations hereunder, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns and heirs.

33. Time is of the Essence. The parties mutually acknowledge and agree that time is of the essence with respect to every provision hereof in which time is an element. No extension of

time for performance of any obligation or act shall be deemed an extension of time for performance of any other obligation or act, nor shall any such extension create a precedent for any further or future extension.

34. Contract Administrators. Consultant's designated principal responsible for administering Consultant's work under this Agreement shall be [NAME], Project Manager; TAMC's designated administrator of this Agreement shall be Debra L. Hale, Executive Director. TAMC's Project Manager under this Agreement shall be [NAME].

35. Notices. Notices required under this Agreement shall be delivered personally or by electronic facsimile, or by first class or certified mail with postage prepaid. Notice shall be deemed effective upon personal delivery or facsimile transmission, or on the third day after deposit with the U.S. Postal Service. Consultant shall give TAMC prompt notice of any change of address. Unless otherwise changed according to these notice provisions, notices shall be addressed as follows:

To TAMC:	Debra L. Hale	To Consultant:
	Executive Director	
	55-B Plaza Circle	
	Salinas, CA 93901	
Tel:	831-775-0903	Tel:
Fax:	831-775-0897	Fax:
Email:	debbie@tamcmonterey.org	Email:

36. Non-exclusive Agreement. This Agreement is non-exclusive and both parties reserve the right to contract with other entities for the same or similar services.

37. Execution of Agreement. Any individual executing this Agreement on behalf of an entity represents and warrants that he or she has the requisite authority to enter into this Agreement on behalf of such entity and to bind the entity to the terms and conditions hereof. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

38. Debarment and Suspension Certification.

(a) Consultant's signature affixed below shall constitute a certification under penalty of perjury under the laws of the State of California that the Consultant has complied with Title 2 CFR, Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (nonprocurement)," which certifies that Consultant or any person associated with Consultant in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by an federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction

in any matter involving fraud or official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to the TAMC.

(b) Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining Consultant responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.

(c) Exceptions to the Federal Government Excluded Parties List System maintained by the General Services Administration are to be determined by the Federal Highway Administration.

39. Rebates, Kickbacks or Other Unlawful Consideration Prohibited. Consultant warrants that this Agreement was not obtained or secured through rebates, kickbacks or other unlawful consideration, either promised or paid to any TAMC employee. TAMC shall have the right, in its sole and absolute discretion to do any of the following for breach or violation of this warranty: to terminate the Agreement without liability; to pay for the value of the work actually performed; or to deduct from the compensation to be paid under this Agreement (or otherwise recover) the full amount of any such rebate, kickback or unlawful consideration.

40. Prohibition of Expending Local Agency, State or Federal Funds for Lobbying.

(a) Consultant certifies to the best of his, her or its knowledge and belief that:

i. No State, Federal or local agency appropriated funds have been paid, or will be paid, by or on behalf of Consultant to any person for influencing or attempting to influence an officer or employee of any state or federal agency; a member of the State Legislature or United States Congress; an officer or employee of the State Legislature or United States Congress; or any employee of a Member of the Legislature or Congress, in connection with the awarding of any State or Federal contract; in connection with the making of any State or Federal grant; in connection with the making of any State or Federal loan; in connection with the entering into of any cooperative agreement, and in connection with the extension, continuation, renewal, amendment, or modification of any State or Federal contract, grant, loan or cooperative agreement.

ii. If any funds other than Federal appropriated funds have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress; or an employee of a Member of Congress, in connection with this contract, grant, loan or cooperative agreement, then Consultant shall complete and submit a Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(b) This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352,

Title 31, U.S. Code. Consultant acknowledges that any person who fails to file the required certification shall be subject to a civil penalty of not less than Ten Thousand Dollars ($10,000) and not more than One Hundred Thousand Dollars ($100,000) for such failure.

(c) By signing this Agreement, Consultant also agrees that Consultant will require that the language of this certification will be included in all lower-tier subcontracts which exceed One Hundred Thousand Dollars ($100,000), and that all recipients of such subcontracts shall certify and disclose accordingly.

41. Exhibits. The following Exhibits are attached hereto and incorporated by reference:
Exhibit A – Scope of Work and Work Schedule
Exhibit B – Budget/Approved Consultant's Cost Proposal

42. Entire Agreement. This document, including all exhibits hereto, constitutes the entire agreement between the parties, and supersedes any and all prior written or oral negotiations and representations between the parties concerning all matters relating to the subject of this Agreement.

IN WITNESS WHEREOF, TAMC and Consultant execute this agreement as follows:

TAMC	[CONSULTANT]
By: _____	By: _____
Debra L. Hale Executive Director	Name: Title:
Dated: _____	Dated: _____
	By: _____
	Name: Title:
	Dated: _____

INSTRUCTIONS: If Consultant is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If Consultant is a partnership, the name of the partnership shall be set forth together with the signature of a partner with authority to execute this Agreement on behalf of the partnership. If Consultant is contracting in an individual capacity, the individual shall set forth the name of his or her business, if any, and shall personally sign the Agreement.

* *

Approved as to form:

_____
TAMC Counsel

Dated: _____

For TAMC internal use:

Work Element number to be used for the contract:_____

Attachment C
Requirements for Contracts using State Funds

Some or all of the following provisions shall be included in all TAMC contracts utilizing State funding:

1. All work shall be accomplished in accordance with the applicable provisions of the Public Utilities Code, the Streets and Highways Code, the Government Code and other applicable statutes and regulations.

2. Project related travel and subsistence and travel expense shall not exceed rates authorized to be paid STATE employees under current State Department of Personnel Administration (DPA) rules.

3. Contractors and subcontractors shall establish and maintain an accounting system and records that properly accumulate and segregate incurred Project costs and matching funds by line item for the Project. Contractors and subcontractors accounting systems shall conform to General Accepted accounting Principles (GAAP), enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices. All accounting records and other supporting papers of contractors and subcontractors shall be maintained for a minimum of three years from the date of final payment to TAMCRA and shall be held open to inspection and audit by representatives of STATE**,** the California State Auditor and auditors of the Federal Government. Copies thereof will be furnished by contractors and subcontractors upon receipt of any request made by the STATE or its agents.

4. Contractors and subcontractors shall agree that - (a) the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition System, Chapter 1, Part 3 1, et seq., shall be used to determine the allowability of individual Project cost items and (b) they shall comply with Federal administrative procedures in accordance with 49CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

5. For the purpose of determining compliance with Title 21, California Code of Regulations, Section 2500, et seq., when applicable, and other matters connected with the performance of TAMC's contracts with third parties pursuant to Government Code Section 8546.7, contractors and subcontractors and shall each maintain all books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including but not limited to, the costs of administering the various contracts. All of the above referenced parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment to TAMC.

6. In the performance of work under these provisions, contractor(s) and all subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin,

physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, or family care leave. Contractor(s) and all subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor(s) and all subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full. Contractors and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreements. TAMC shall include the non-discrimination and compliance provisions of this clause in all contracts and subcontracts to perform work under this RFP.

7. Contractor(s) and subcontractors will permit access to all records of employment, employment advertisements, application forms, and other pertinent data and records by the State Fair Employment Practices and Housing Commission, or any other agency of the State of California designated by STATE, for the purpose of investigation to ascertain compliance with any applicable fund transfer agreement (FTA).

8. Clauses to effect the California Labor Code requirements that all workers employed on public works projects (as defined in California Labor Code § 1720-1815) will be paid not less than the general prevailing wage rates predetermined by the Department of Industrial Relations.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Christina Watson, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **State Legislative Update**

RECOMMENDED ACTION

RECEIVE state legislative update and **ADOPT** positions on bills of interest to the Agency.

SUMMARY

The state legislature is deliberating on three transportation proposals. All three proposals would raise new funds for transportation at different levels. More than 2,000 bills were introduced in February. The Executive Committee received a report on the updated bill list on April 6 and recommends Board adoption of the positions as indicated in the attached bill list.

FINANCIAL IMPACT

Transportation funding proposals could help to fill the estimated $7-8 billion annual statewide road and highway maintenance need. Deferring maintenance escalates the cost to repair roads, as the pavement deteriorates at an accelerated rate after it starts to decline. There is concern in the transportation field that half-measures would be worse than no measures, as any small amount of funding could look like a victory while actually deferring a real solution with a higher price tag.

DISCUSSION

Agency staff attended the Central Coast Coalition legislative day in Sacramento on March 9, 2016. **Web Attachment 1** is the handout on the Coalition legislative priorities, and **Web Attachment 2** is a summary of the day. A meeting-packed day, the discussion revolved principally around the three main transportation funding proposals and the state of transportation funding more generally.

- **Governor's Budget Proposal** (January 2016): **$3.6 billion** in new transportation funding based on indexing the gas excise tax to inflation, a $0.11 diesel excise tax increase, and a $65 road access fee. This proposal would also increase cap and trade funds going to transportation.

- **SBX1-1 (Beall): Transportation funding: $6 billion** in new transportation funding based on a $0.12 gas excise tax increase, a $0.22 diesel excise tax increase, a $35 vehicle registration fee, a $35 road access fee, and a $100 zero-emission vehicle fee.

- **AB 1591 (Frazier): Transportation funding: $7.8 billion** in new transportation funding based on a $0.225 gas excise tax increase, a $0.30 diesel excise tax increase, a $38 vehicle registration fee, and a $165 zero-emission vehicle fee. This bill would also increase the percentage of cap and trade funds going to transportation programs, and return the truck weight fees to the highway fund (currently those funds pay off transportation bonds via the general fund).

The discussion of these three proposals generated much discussion with the legislators and staffers we met, including a few memorable quotes:

- "**Fix it first, or pay more later**": The "fix it first" philosophy, oft repeated, is controversial, as it is focused on maintenance, with little or nothing for new projects. Everyone seems to agree that the system need to be fixed, and that fixing it is better than no action at all. This new take on that phrase emphasizes the exponentially increasing cost of inaction.

- "**You can't put out half the fire**": Assembly member Frazier: the need is dire and we need to fix it all; half a solution is no solution at all.

Attachment 1 is the updated bill list as of April 6; changes are marked by cross-out and underline.
Web Attachment 3 is the Agency's adopted 2016 legislative program.

Approved by: _____ Date signed: April 12, 2016
Debra L. Hale, Executive Director

Regular Agenda Counsel Approval: N/A
Finance Approval: N/A

Attachments:
1. TAMC Bill List as of April 6, 2016

Web Attachments:
1. Central Coast Coalition legislative priorities
2. 2016 Central Coast Coalition Lobby Day Summary
3. Final TAMC State Legislative Program, adopted January 27, 2016

TAMC Bill List
April 6, 2016

Assembly bills

AB 1364 (Linder) California Transportation Commission
Introduced: 2/27/2015
Status: 2/4/2016-Referred to Transportation & Housing and Governmental Organization
Summary: Removes the California Transportation Commission (CTC) from the California Transportation Agency (CalSTA) and re-establishes the CTC as an independent entity within state government.
Priority: N/A - CTC
Position: SUPPORT (Letter sent 3/28/16)

AB 1505 (Hernandez): Statute of limitations: public contracts
Introduced: 3/4/15
Last Amended: 7/13/15
Status: 1/28/16: Referred to Public Safety
Summary: Increases the Statute of Limitations from 1 to 3 years for a violation of the Public Contract Code, regarding breaking up contracts into smaller pieces to avoid bidding.
Priority: N/A
Position: Watch

AB 1550 (Gomez) Greenhouse gases: investment plan: disadvantaged communities
Introduced: 1/4/2016
Last Amended: 3/28/2016
Status: 4/4/2016- From Natural Resources, pass as amended, to Appropriations.
Summary: The California Global Warming Solutions Act of 2006 provides that the allocation of a minimum of 10% Greenhouse Gas Reduction Fund moneys go to projects located in disadvantaged communities and a minimum of 25% to projects that provide benefits to disadvantaged communities. This bill instead requires the investment plan to allocate a minimum of 25% to projects located within disadvantaged communities and a separate and additional 25% to projects that benefit low-income households, with a fair share of those moneys targeting households with incomes at or below 200% of the federal poverty level.
Priority: 7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.
Position: Watch

AB 1555 (Gomez) Greenhouse Gas Reduction Fund
Introduced: 1/4/2016
Last Amended: 3/28/2016
Status: 3/29/2016-Referred to Natural Resources.
Summary: ~~States the intent of the Legislature to enact future legislation that would~~ Appropriates ~~$1.7 billion~~ $800 million from the Greenhouse Gas Reduction Fund for the ~~2015–16~~ 2016–17 fiscal year ~~that would be allocated to different entities~~ to various state agencies in specified amounts ~~to be determined in the future legislation~~ for various purposes including low carbon transportation and

infrastructure, clean energy communities, ~~and community climate improvements~~, wetland and watershed restoration, and carbon sequestration.
Priority: N/A: Cap and Trade funding allocation
Position: Watch

AB 1569 (Steinorth) California Environmental Quality Act: exemption: existing transportation infrastructure
Introduced: 1/4/2016
Last Amended: 3/28/2016
Status: 4/4/2016-In committee: Set, second hearing. Failed passage. Reconsideration granted.
Summary: Exempts from the provisions of CEQA a project, or the issuance of a permit for a project, that consists of the inspection, maintenance, repair, rehabilitation, replacement, or removal of, or the addition of an auxiliary lane or bikeway to, existing transportation infrastructure that meets certain requirements.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: Watch

AB 1591 (Frazier) Transportation funding
Introduced: 1/6/2016
Status: 2/1/2016-Referred to Transportation and Revenue & Taxation
Summary: Establishes the Road Maintenance and Rehabilitation program at $4.57 billion annually, repays outstanding transportation loans at $879 million (one-time payment), increases funding to Trade Corridors Improvement Fund (TCIF) at $1.24 billion annually, increases funding to transit and Intercity Rail Capital program at $200 million annually, revises the calculation of variable gas tax, and prohibits weight fees from being used for bond debt service or General Fund loans.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 3/28/16)

AB 1746 (Stone, Mark) Transit buses
Introduced: 2/2/2016
Last Amended: 3/30/2016
Status: 3/31/2016-Referred to Appropriations
Summary: This bill extends to ~~6~~7 additional transit operators the authority to operate transit buses on state highway shoulders.
Priority: 13S: transit bus on shoulder
Position: SUPPORT (NEW POSITION RECOMMENDATION)

AB 1815 (Alejo) California Global Warming Solutions Act of 2006: disadvantaged communities
Introduced: 2/8/2016
Last Amended: 3/28/2016
Status: 4/4/2016- From Natural Resources: pass as amended, to Appropriations
Summary: Requires the Greenhouse Gas Reduction Fund (GGRF) Investment Plan to allocate technical assistance funds to the California Environmental Protection Agency (CalEPA) to assist

disadvantaged and low-income communities in developing GHG reduction project funding proposals. ~~Requires CalEPA to report on all projects funded to benefit disadvantaged communities.~~
Priority: 7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.
Position: Watch

AB 1818 (Melendez) Transportation funds
Introduced: 2/8/2016
Status: 2/9/2016-From printer. May be heard in committee March 10.
Summary: Existing law establishes a policy for expenditure of certain state and federal funds available to the state for transportation purposes. Under this policy, Caltrans and the CTC are required to develop a fund estimate of available funds for purposes of adopting the state transportation improvement program, which is a listing of capital improvement projects. (Spot bill.)
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

AB 1833 (Linder) Transportation projects: environmental mitigation
Introduced: 2/9/2016
Last Amended: 3/16/2016
Status: 4/5/2016 - refer to Natural Resources
Summary: Creates the Advanced Mitigation Program in Caltrans to implement environmental mitigation measures in advance of future transportation projects to accelerate project delivery.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: Watch

AB 1886 (McCarty) California Environmental Quality Act: transit priority projects
Introduced: 2/11/2016
Status: 3/28/2016- Hearing canceled at the request of author
Summary: CEQA exempts from its requirements transit priority projects meeting certain requirements, including the requirement that the project be within 1/2 mile of a major transit stop or high-quality transit corridor included in a regional transportation plan. CEQA specifies that a project is considered to be within 1/2 mile of a major transit stop or high-quality transit corridor if, among other things, all parcels within the project have no more than 25% of their area farther than 1/2 mile from the stop or corridor. This bill increases that percentage to 50%.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: Watch

AB 1910 (Harper) Transportation: advisory question: election
Introduced: 2/11/2016
Status: 3/31/2016-Transportation hearing canceled at the request of author
Summary: Calls a special election to be consolidated with the November 8, 2016, statewide general election. Requires the Secretary of State to submit to the voters at the November 8, 2016,

consolidated election an advisory question asking whether the Legislature should "disproportionately target low-income and middle class families with a regressive tax increase on gasoline and annual vehicle registrations to fund road maintenance and rehabilitation, rather than ending the diversion of existing transportation tax revenues for nontransportation purposes, investing surplus state revenue in transportation infrastructure, repaying funds borrowed from transportation accounts, prioritizing roads over high-speed rail, and eliminating waste at the Department of Transportation."
Priority: 6S. Support efforts to develop alternative funding sources to offset the reduction in gas tax revenues and ensure that any pay-by-the-mile funding is equitably assessed and distributed.
Position: Watch

AB 1919 (Quirk) Local transportation authorities: bonds
Introduced: 2/11/2016
Last Amended: 4/4/2016
Status: 4/5/2016-Referred to Transportation
Summary: The Local Transportation Authority and Improvement Act provides for the creation in any county of a local transportation authority and authorizes the imposition of a retail transactions and use tax by ordinance, subject to approval of the ordinance by 2/3 of the voters. Current law requires the bond proceeds to be placed in the treasury of the local transportation authority and to be used for allowable transportation purposes, except that accrued interest and premiums received on the sale of the bonds are required to be placed in a fund to be used for the payment of bond debt service. This bill instead ~~provides for accrued interest and~~requires the premiums received on the sale of the bonds to be placed in the treasury of the local transportation authority to be used for allowable transportation purposes.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

AB 2014 (Melendez) Freeway Service Patrol ~~Act: workload study~~Program Assessment
Introduced: 2/16/2016
Last Amended: 4/5/2016
Status: 4/5/2016- Amend and refer to Transportation
Summary: ~~Requires CHP, in coordination with Caltrans and in consultation with regional and local entities, to complete a workload study to assess resource needs to supervise existing and expanded freeway service patrols identified by regional and local entities.~~ This bill would, by June 20, 2018, and every 5 years thereafter, require Caltrans to publish and submit to the Legislature and the DOF a statewide FSP Program Assessment that would identify, quantify, and analyze existing FSPs, identify opportunities to increase or expand service levels, and analyze and provide recommendations regarding the current and anticipated future financial condition of the program. Requires the state budget to include a line item identifying the amount of local assistance moneys and state operations moneys that were provided in support of FSPs.
Priority: N/A – Freeway Service Patrol (FSP)
Position: SUPPORT (NEW POSITION RECOMMENDATION)

AB 2090 (Alejo) Low Carbon Transit Operations Program
Introduced: 2/17/2016
Status: 2/29/2016-Referred to Transportation
Summary: Current law continuously appropriates specified portions of the annual proceeds in the Greenhouse Gas Reduction Fund to various programs, including 5% for the Low Carbon Transit Operations Program (LCTOP), which provides operating and capital assistance for transit agencies to reduce greenhouse gas emissions and improve mobility, with a priority on serving disadvantaged communities. This bill authorizes moneys appropriated to the program to be expended to support the operation of existing bus or rail service if the governing board of the requesting transit agency declares a fiscal emergency and other criteria are met, thereby expanding the scope of an existing continuous appropriation.
Priority: 2S. Encourage the state to increase investments in passenger rail and bus transit projects and seek funding for Monterey County projects.
Position: SUPPORT (NEW POSITION RECOMMENDATION)

AB 2293 (Garcia, Cristina) Greenhouse Gas Reduction Fund: ~~3-year investment plan: technical assistance program~~ Green Assistance Program
Introduced: 2/18/2016
Last Amended: 3/29/2016
Status: 4/4/2016- From Natural Resources: pass as amended, to Appropriations
Summary: ~~Requires the ARB to~~ Establishes the Green Assistance Program, ~~a technical assistance program, upon an appropriation of moneys from the Greenhouse Gas Reduction Fund~~ to be administered by the Secretary for Environmental Protection, to assist small ~~disadvantaged communities~~ businesses and small nonprofit organizations~~and small cities~~ in applying for moneys from programs using moneys from the fund. ~~Requires Caltrans to include in the 3-year investment plan an allocation to the ARB for that technical assistance program~~
Priority: 7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.
Position: Watch

AB 2332 (Garcia, Eduardo) Transportation funding: complete streets
Introduced: 2/18/2016
Last Amended: 4/5/2016
Status: 4/5/2016 - Amend and refer to Transportation
Summary: ~~Requires the CTC to establish a process whereby Caltrans and local agencies receiving funding for highway capital improvements from the SHOPP or the STIP prioritize projects that provide meaningful benefits to the mobility and safety needs of disadvantaged community residents.~~ Requires Caltrans to increase the annual number of complete street projects undertaken by the department by 20% over the 2016 baseline by the year 2020 and increase accessibility for low-income and disadvantaged communities by increasing multimodal transportation proximity to employment, jobs, housing, and recreation areas. Establishes department goals to reduce by 10% based on the 2016 baseline the number of transit, pedestrian, and bicyclist fatalities, and reduce by 15% statewide per capita the vehicle miles traveled by the year 2020, and to increase travel by nonautomobile modes of travel. Requires the CTC, no later than July 1, 2017, to adopt targets and performance measures that reflect state transportation goals and objectives that improve mobility, access, and safety for nonmotorized users in disadvantaged communities by requiring not less than

35% of state highway operation and protection program projects be located in urban and rural disadvantaged communities.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

AB 2343 (Garcia, Cristina) Greenhouse Gas Reduction Fund: 3-year investment plan: disadvantaged communities
Introduced: 2/18/2016
Status: 3/28/2016-In Natural Resources committee: Hearing canceled at the request of author
Summary: Current law requires the CalEPA to identify disadvantaged communities and requires the DOF, in consultation with the ARB and any other relevant state agency, to develop a 3-year investment plan for the moneys deposited in the Greenhouse Gas Reduction Fund. Current law requires the 3-year investment plan to allocate a minimum of 10% of the available moneys in the fund to projects located within disadvantaged communities. This bill requires a minimum of 10% of the moneys in fund to be allocated to projects located in a city of an unspecified population within a disadvantaged community.
Priority: 7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.
Position: Watch

AB 2355 (Dababneh) Intercity rail services: mitigation
Introduced: 2/18/2016
Status: 3/3/2016-Referred to Transportation
Summary: Requires Caltrans to develop a program for the reasonable mitigation of noise and vibration levels in residential neighborhoods along railroad lines where Caltrans contracts for state-funded intercity rail passenger service. Requires Caltrans to determine what constitutes a reasonable level of mitigation. Provides that funding for the mitigation program shall be made available from funds appropriated by the Legislature for this purpose.
Priority: N/A – intercity rail
Position: Watch

AB 2360 (Alejo) School buses: passing violations: automated video enforcement
Introduced: 2/18/2016
Status: 3/29/2016-In Transportation committee: Hearing canceled at the request of author.
Summary: Authorizes a school district to install and operate an automated schoolbus video enforcement system, for the purpose of enforcing the law which requires a vehicle to a stop immediately before passing the schoolbus and to not proceed past the schoolbus until the flashing red light signal and stop signal arm cease operation.
Priority: N/A – school transportation
Position: Watch

AB 2374 (Chiu) Construction Manager/General Contractor method: regional transportation agencies: ramps
Introduced: 2/18/2016
Status: 4/6/2016 - Assembly third reading
Summary: Current law authorizes regional transportation agencies to use the Construction Manager/ General Contractor (CM/GC) project delivery method to design and construct certain expressways that are not on the state highway system if: (1) the expressways are developed in accordance with an expenditure plan approved by voters, (2) there is an evaluation of the traditional design-bid-build method of construction and of the CM/GC method, and (3) the board of the regional transportation agency adopts the method in a public meeting. This bill authorizes regional transportation agencies to use this authority on ramps not on the state highway system.
Priority: 5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.
Position: SUPPORT (NEW POSITION RECOMMENDATION)

AB 2398 (Chau) Transportation: ~~private funding~~ state highways
Introduced: 2/18/2016
Last Amended: 3/18/2016
Status: 3/28/2016-Referred to Transportation
Summary: ~~Spot bill relating to private funding for transportation projects.~~ Requires the CTC, every 5 years, to report to the Speaker of the Assembly, the President pro Tempore of the Senate, and the chairs of specified committees the number of selections, adoptions, and location determinations for state highways undertaken and the amount of moneys allocated for the construction, improvement, or maintenance of the highways.
Priority: 5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.
Position: Watch

AB 2411 (Frazier) Transportation revenues
Introduced: 2/19/2016
Status: 4/5/2016 - refer to Appropriations
Summary: Deletes the transfer of miscellaneous revenues to the Transportation Debt Service Fund, thereby eliminating the offsetting transfer to the General Fund for debt service on general obligation transportation bonds issued pursuant to Proposition 116 of 1990.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

AB 2452 (Quirk) California Environmental Quality Act: judicial remedies: emissions of greenhouse gases
Introduced: 2/19/2016
Status: 3/8/2016-Referred to Natural Resources and Judiciary
Summary: CEQA authorizes a court, in an action or proceeding brought challenging the decision of a public agency on the ground of noncompliance with CEQA, to enter an order to suspend any

specific project activity if the court finds that the activity will prejudice the consideration and implementation of particular mitigation measures or alternatives to the project. This bill, in an action or proceeding under CEQA, prohibits a court from staying or enjoining transportation infrastructure projects based solely on the project's potential emissions of greenhouse gases.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: Watch

AB 2509 (Ting) Operation of bicycles: speed
Introduced: 2/19/2016
Status: 3/31/2016-In Transportation committee: Hearing postponed by committee.
Summary: Current law requires a person operating a bicycle upon a roadway at a speed less than the normal speed of traffic moving in the same direction at that time to ride as close as practicable to the right-hand curb or edge of the roadway except in specified situations. This bill requires a person operating a bicycle to ride as close as is either safe or practicable to the curb or roadway edge. The bill expands the exceptions to riding as close as safe or practicable to the right-hand curb or roadway edge to include, among others, when riding in class I, class II, or class IV bikeways.
Priority: 3S. Support legislation that promotes transit-oriented development, complete streets, and active transportation projects.
Position: Watch

AB 2542 (Gatto) ~~City~~ Streets and highways: reversible lanes
Introduced: 2/19/2016
Last Amended: 3/15/2016
Status: 3/16/2016-Referred to Transportation
Summary: Requires Caltrans or a regional transportation planning agency, when submitting a capacity-increasing project or a major street or highway lane realignment project to the CTC for approval, to demonstrate that reversible lanes were considered for the project. ~~Current law authorizes the legislative body of a city to do any and all things necessary to lay out, acquire, and construct any section or portion of any street or highway within its jurisdiction as a freeway and to make any current street or highway a freeway. (Spot bill)~~
Priority: N/A pending more information
Position: Watch

AB 2693 (Dababneh) ~~Transportation funds~~ Contractual assessments: financing requirements: property improvements (deleted: as amended, no longer relates to transportation)

AB 2708 (Daly) Department of Transportation: ~~construction inspection services~~ Lean 6-SIGMA program
Introduced: 2/19/2016
Last Amended: 3/18/2016
Status: 3/28/2016-Referred to Transportation
Summary: ~~Current law, until January 1, 2024, requires Caltrans to perform construction inspection services for certain design-build projects on or interfacing with the state highway system and to retain the authority to stop the contractor's operation wholly or in part and take appropriate action when public safety and convenience are jeopardized on those projects. (Spot bill)~~ Requires Caltrans to conduct a study to assess the implementation of the Lean 6-SIGMA program, as provided through the Governor's Office of Business and Economic Development and the Government

Operations Agency, to determine the effectiveness of streamlining the application process for private architectural and engineering firms seeking to provide professional and technical project development services to the department.
Priority: 5S. ~~Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.~~ **N/A**
Position: Watch

AB 2730 (Alejo) Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties.
Introduced: 2/19/2016
Status: SET FOR HEARING – Assem. Transportation 4/18/16
Summary: Classifies certain properties acquired by Caltrans for a replacement alignment for US 101 in the County of Monterey, known as the former Prunedale Bypass, and no longer required by Caltrans for the alternative improvements undertaken by it in place of the bypass, known as the Prunedale Improvement Project, as excess property, and requires Caltrans to expeditiously dispose of those excess properties. Requires the net proceeds from the sale of the excess properties to be reserved in the State Highway Account for programming and allocation by the CTC, with the concurrence of TAMC, to other transportation projects in that county. Exempts these funds from the distribution formulas otherwise applicable to transportation capital improvement funds.
Priority: 9S. Support legislation to transfer funding derived from the sale of excess rights-of-way purchased for the Prunedale Bypass project to priority projects in the region.
Position: SPONSOR (Letter sent 3/1/16)

AB 2742 (Nazarian) Transportation projects: comprehensive development lease agreements
Introduced: 2/19/2016
Status: 3/10/2016-Referred to Transportation
Summary: Extends public-private partnership authority to January 1, 2030.
Priority: 5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.
Position: SUPPORT (Letter sent 3/28/16)

AB 2783 (Garcia, Eduardo) Affordable Housing and Sustainable Communities Program
Introduced: 2/19/2016
Last Amended: 3/28/2016
Status: Set for hearing 4/20 Housing and Community Development
Summary: Current law requires the Strategic Growth Council (SGC) to develop guidelines and selection criteria for the Affordable Housing and Sustainable Communities Program. This bill requires the SGC to revise the guidelines and selection criteria with respect to ~~density requirements, and to include factors, including energy efficiency, in its greenhouse gas quantification methodology~~ affordable housing projects that qualify under the program's rural innovation project area.
Priority: 7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.
Position: Watch

AB 2796 (~~Low~~Bloom) Active Transportation Program
Introduced: 2/19/2016
Last Amended: 4/4/2016
Status: 4/5/2016-Referred to Transportation
Summary: Current law creates the Active Transportation Program (ATP) in Caltrans for the purpose of encouraging increased use of active modes of transportation. Current law requires the CTC to award 50% and 10% of available funds to projects statewide and to projects in small urban and rural regions, respectively, with the remaining 40% of available funds to be awarded to projects by metropolitan planning organizations (MPOs), with the funds available for distribution by each MPO based on its relative population. This bill requires a minimum of 5% of available funds in each of the 3 distribution categories to be awarded for planning and community engagement for active transportation in disadvantaged communities.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

Assembly bills in the special session

ABX1-1 (Alejo): Transportation funding
Introduced: 6/23/15
Status: 6/24/15-From printer
Summary: Current law provides for loans of revenues from various transportation funds and accounts to the General Fund, with various repayment dates specified. This bill, with respect to any loans made to the General Fund from specified transportation funds and accounts with a repayment date of January 1, 2019, or later, requires the loans to be repaid by December 31, 2018.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 6/25/15)

ABX1-2 (Perea): Transportation projects: comprehensive development lease agreements
Introduced: 6/25/15
Status: 6/26/15 – From printer
Summary: Extends Caltrans authorization to enter into Public-Private Partnerships indefinitely and includes within the definition of "regional transportation agency" the Santa Clara Valley Transportation Authority, thereby authorizing the authority to enter into public-private partnerships under these provisions.
Priority: 5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.
Position: SUPPORT (Letter sent 7/17/15)

ABX1-3 (Frazier): Transportation funding
Introduced: 7/9/15
Last Amended: 9/3/15
Status: 9/24/2015-Senators Beall (Co-Chair), Allen, Leyva, Cannella, and Gaines appointed to Conference Committee.
Summary: Declares the intent of the Legislature to enact legislation to establish permanent, sustainable sources of transportation funding to maintain and repair highways, local roads, bridges, and other critical infrastructure
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch (spot bill)

ABX1-4 (Frazier): Transportation funding
Introduced: 7/9/15
Status: 9/3/15-Referred to Rules
Summary: Declares the intent of the Legislature to enact legislation to establish permanent, sustainable sources of transportation funding to improve the state's key trade corridors and support efforts by local governments to repair and improve local transportation infrastructure.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch (spot bill)

ABX1-6 (Hernández, Roger) Affordable Housing and Sustainable Communities Program
Introduced: 7/16/15
Status: 7/17/15-From printer.
Summary: Requires 20% of moneys available for allocation under the Affordable Housing and Sustainable Communities Cap and Trade Program to be allocated to eligible projects in rural areas.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 9/9/15)

ABX1-7 (Nazarian) Public transit: funding
Introduced: 7/16/15
Status: 7/17/15-From printer.
Summary: Appropriates 20% of Greenhouse Gas Reduction Fund (Cap and Trade) annual proceeds to the Transit and Intercity Rail Capital Program (TIRCP), and 10% of those annual proceeds to the LCTOP.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 9/9/15)

ABX1 8 (Chiu) Diesel sales and use tax
Introduced: 7/16/15
Status: 7/17/15-From printer.
Summary: Increases the sales and use tax on diesel fuel from 1.75% to 5.25% and allocates the money by formula to public transit agencies, such as Monterey-Salinas Transit.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 9/9/15)

ABX1-19 (Linder) California Transportation Commission
Introduced: 9/1/15
Status: From printer
Summary: This bill excludes the CTC from CalSTA and establishes it as an entity in the state government.
Priority: NA – CTC
Position: Watch

Senate bills

SB 247 (Lara): Charter bus transportation: safety improvements
Introduced: 2/18/2015
Last Amended: 1/26/2016
Status: 1/27/2016-In Assembly. Read first time. Held at Desk**.**
Summary: Requires a charter-party carrier of passengers engaged in charter bus transportation to ensure that the driver of a charter bus provides oral and written instructions to all passengers on the safety equipment and emergency exits on the vehicle prior to the beginning of any trip and that the charter bus is equipped with specified safety equipment. Requires those vehicles manufactured after July 1, 2017, to be equipped with a secondary door for use as an additional emergency exit. Requires Caltrans to adopt, no later than July 1, 2017, standards and criteria for the implementation of these equipment and safety requirements.
Priority: N/A – concern that, as written, would apply to intercity buses
Position: Watch

SB 321 (Beall) Motor vehicle fuel taxes: rates: adjustments
Introduced: 2/23/15
Last Amended: 8/18/15
Status: 4/5/16: Sen inactive file - Senate bills
Summary: Modifies the method by which the State Board of Equalization (BOE) annually adjusts the motor vehicle "fuel tax swap" rate to take into account a five-year average of fuel prices, thereby smoothing perceived revenue volatility.
Priority: 1S
Position: SUPPORT (Letter sent 4/17/15)

SB 824 (Beall) Low Carbon Transit Operations Program
Introduced: 1/7/2016
Last Amended: 3/15/2016
Status: 3/15/2016-amended and referred to Transportation & Housing
Summary: Authorizes the ARB to allow a transit agency that does not submit a project for funding under the LCTOP program in a particular fiscal year to retain its funding share for expenditure in a subsequent fiscal year. Allows a transit agency to loan or transfer its funding share in any particular fiscal year to another transit agency within the same region, to pool its funding share with those of other transit agencies, or to apply to Caltrans to reassign, to other eligible expenditures under the program, any savings of surplus moneys from an approved and completed expenditure under the program or from an approved expenditure that is no longer a priority. Allows a recipient transit agency to apply to Caltrans for a letter of no prejudice for a capital project or component of a capital project for which Caltrans has authorized a disbursement of funds, and if granted, would allow the transit agency to expend its own moneys and to be eligible for future reimbursement.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

SB 885 (Wolk) Construction contracts: indemnity
Introduced: 1/19/2016
Status: 1/28/2016: Referred to Judiciary
Summary: Specifies for construction contracts that a design professional only has the duty to defend claims that arise out of negligence, recklessness, or willful misconduct of the design professional. Prohibits waiver of these provisions and provides that any clause in a contract that requires a design professional to defend claims against other persons or entities is void and unenforceable.
Priority: N/A - Contracting
Position: Watch

SB 901 (Bates) Transportation projects: Advanced Mitigation Program
Introduced: 1/21/2016
Status: 3/23/2016-April 5 hearing postponed by committee.
Summary: Creates the Advanced Mitigation Program in Caltrans to implement environmental mitigation measures in advance of future transportation projects. Requires Caltrans to set aside certain amounts of future appropriations for this purpose.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: Watch

SB 902 (Cannella) Department of Transportation: environmental review process: federal program
Introduced: 1/21/2016
Status: 2/4/2016-Referred to Transportation & Housing
Summary: Existing federal law delegates certain responsibilities for environmental review and clearance of transportation projects that would otherwise be the responsibility of the federal

government to Caltrans until January 1, 2017. The bill deletes the January 1, 2017, repeal date and thereby extend these provisions indefinitely.
Priority: N/A – NEPA delegation authority
Position: SUPPORT (Letter sent 3/28/16)

SB 903 (Nguyen) Transportation funds: loan repayment
Introduced: 1/21/2016
Status: 2/4/2016-Referred to Transportation & Housing
Summary: Acknowledges, as of June 30, 2015, $879,000,000 in outstanding loans of certain transportation revenues, and requires this amount to be repaid by June 30, 2016, to the Traffic Congestion Relief Fund for allocation to the Traffic Congestion Relief Program, the Trade Corridors Improvement Fund, the Public Transportation Account, and the State Highway Account.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 3/28/16)

SB 1066 (Beall) Transportation funds: fund estimates
Introduced: 2/16/2016
Status: 3/24/2016-Set for hearing April 12.
Summary: Current law requires Caltrans to submit to the CTC an estimate of state and federal funds expected to be available for future programming over the 5-year period in each state transportation improvement program, and requires the CTC to adopt a fund estimate in that regard. This bill requires the fund estimates prepared by Caltrans and the CTC to identify and include federal funds derived under the Fixing America's Surface Transportation Act of 2015.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

SB 1141 (Moorlach) State highways: transfer to local agencies: pilot program
Introduced: 2/18/2016
Last Amended: 4/5/2016
Status: 4/5/2016-From committee with author's amendments. Referred to Transportation & Housing
Summary: Requires Caltrans to participate in a pilot program over a 5-year period under which 2 counties, one in northern California and one in southern California, are selected to operate, maintain, and make improvements to all state highways, including freeways, in the affected county. Requires Caltrans, with respect to those counties, for the duration of the pilot program, to convey all of its authority and responsibility over state highways in the county to the county or to a regional transportation agency that has jurisdiction in the county.
Priority: N/A - Caltrans
Position: Watch

SB 1170 (Wiechowski): Public contracts: water pollution prevention plans: delegation
Introduced: 2/18/16
Last Amended: 4/6/2016
Status: 4/6/2016- Read second time and amended. Referred to Environmental Quality.
Summary: Prohibits public agencies from requiring a contractor to prepare or assume responsibility for certain plans that prevent stormwater runoff from construction sites.
Priority: 11S
Position: OPPOSE (NEW POSITION RECOMMENDATION)

SB 1197 (Cannella) Intercity rail corridors: extensions
Introduced: 2/18/2016
Status: SET FOR HEARING Senate Transportation & Housing 4/19/16
Summary: Existing law defines the boundaries of 3 state-supported intercity rail corridors, and requires the preparation of an annual business plan for the corridor by each participating joint powers board. This bill authorizes the extension of the affected rail corridor to provide intercity rail service beyond the defined boundaries of the corridor. The bill requires a proposed extension to first be recommended and justified in the business plan adopted by the joint powers board, and then requires the approval of the Secretary of Transportation.
Priority: 10S: Support legislation to expand the Capitol Corridor Joint Powers Authority to Salinas, and to expand the Los Angeles-San Diego Rail Corridor Agency (LOSSAN) to San Francisco.
Position: SPONSOR (Letter sent 3/3/16)

SB 1320 (Runner) California Transportation Commission
Introduced: 2/19/2016
Status: 3/28/2016-April 19 hearing postponed by committee.
Summary: Excludes the CTC from CalSTA, establish it as an entity in state government, and require it to act in an independent oversight role.
Priority: N/A - CTC
Position: SUPPORT (Letter sent 3/28/16)

SB 1383 (Lara): Short-lived climate pollutants
Introduced: 2/19/16
Status: 3/15/16: Set for hearing April 6, Sen Environmental Quality
Summary: Would require the CARB to approve and implement a comprehensive strategy to reduce emission of short-lived climate pollutants to achieve a reduction in methane by 40%, hydrofluorocarbon gases by 40% and anthropogenic black carbon by 50% by 2030.
Priority: N/A
Position: Watch

Senate bills in the special session

SBX1-1 (Beall): Transportation funding
Introduced: 6/22/15
Last Amended: 9/1/15
Status: 9/1/15- Read second time and amended. Referred to Appropriations
Summary: Creates the Road Maintenance and Rehabilitation Program, which increases several taxes and fees to raise roughly $4.3 billion in new transportation revenues annually, with the funding used

to address deferred maintenance on the state highways and local streets and roads and to improve the state's trade corridors. Requires the CTC to adopt performance criteria to ensure efficient use of the funds available for the program. Includes a 5% set-aside for counties that approve a transactions and use tax on or after July 1, 2015. Eliminates the current requirement of the State Board of Equalization to annually modify the gas and diesel taxes, instead requiring the Board to recompute the tax rates based on the California Consumer Price Index.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 6/29/15)

SBX1-2 (Huff): Greenhouse Gas Reduction Fund
Introduced: 6/30/15
Status: 9/1/15 - refer to Appropriations.
Summary: Excludes from Greenhouse Gas Reduction Fund allocation the annual proceeds of the fund generated from the transportation fuels sector. Provides instead that those annual proceeds shall be appropriated by the Legislature for transportation infrastructure, including public streets and highways, but excluding high-speed rail.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch

SBX1-3 (Vidak): Transportation bonds: highway, street, and road projects
Introduced: 7/1/15
Last Amended: 8/17/15
Status: 9/14/15-Returned to Secretary of Senate
Summary: This bill redirects high-speed rail bond proceeds to state freeways and highways, and local streets and roads, upon voter approval.
Priority: N/A: California High-Speed Rail project
Position: Watch

SBX1-4 (Beall): Transportation funding
Introduced: 7/7/15
Last Amended: 9/4/15
Status: 9/24/2015-Senators Beall (Co-Chair), Allen, Leyva, Cannella and Gaines appointed to Conference Committee.
Summary: Declares the intent of the Legislature to enact legislation to establish permanent, sustainable sources of transportation funding to maintain and repair the state's highways, local roads, bridges, and other critical transportation infrastructure.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch (spot bill)

SBX1-5 (Beall): Transportation funding
Introduced: 7/7/15
Status: 9/1/15-In Assembly. Read first time. Held at Desk.
Summary: Declares the intent of the Legislature to enact legislation to establish permanent, sustainable sources of transportation funding to improve the state's key trade corridors and support efforts by local governments to repair and improve local transportation infrastructure.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: Watch (spot bill)

SBX1 7 (**Allen**) **Diesel sales and use tax.**
Introduced: 7/16/15
Last Amended: 9/3/15
Status: 9/3/15- Referred to Appropriations
Summary: Increases the sales and use tax on diesel fuel from 1.75% to 5.25% and allocates the money by formula to public transit agencies, such as Monterey-Salinas Transit. Restricts expenditures of revenues from the July 1, 2016, increase in the sales and use tax on diesel fuel to transit capital purposes and certain transit services. Requires an existing required audit of transit operator finances to verify that these new revenues have been expended in conformance with these specific restrictions and all other generally applicable requirements and Provides that the increase in the additional sales and use tax on diesel fuel imposed by the bill shall not be considered by the board in its annual modification of the diesel excise tax rate.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 9/9/15)

SBX1 8 (**Hill**) **Public transit: funding.**
Introduced: 7/16/15
Status: 9/2/15- Referred to Appropriations
Summary: Appropriates 20% of Greenhouse Gas Reduction Fund (Cap and Trade) annual proceeds to the TIRCP, and 10% of those annual proceeds to the LCTOP. This represents a doubling of the current funding level for bus and rail transit from current levels, and comes from the currently "unallocated" share.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 9/9/15)

SBX1 11 (**Berryhill**) **Environmental quality: transportation infrastructure.**
Introduced: 7/16/15
Last Amended: 9/4/15
Status: 9/4/15- Read second time and amended. Referred to Transportation and Infrastructure Development
Summary: CEQA requires a lead agency, as defined, to prepare, or cause to be prepared, and certify the completion of, an environmental impact report (EIR) on a project that it proposes to carry out or approve that may have a significant effect on the environment or to adopt a negative declaration

if it finds that the project will not have that effect. CEQA establishes a procedure by which a person may seek judicial review of the decision of the lead agency made pursuant to CEQA.
Priority: 4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.
Position: SUPPORT (Letter sent 9/9/15)

SBX1 12 (**Runner**) **California Transportation Commission.**
Introduced: 7/16/15
Last Amended: 8/20/15
Status: 8/20/15-Read second time and amended. Referred to Appropriations
Summary: Removes the CTC from CalSTA, reestablishes it as an independent entity in state government, and allows it to again act in an independent oversight role.
Priority: NA – CTC
Position: SUPPORT (Letter sent 9/9/15)

SBX1 14 (**Cannella**) **Transportation projects: comprehensive development lease agreements.**
Introduced: 7/16/15
Status: 8/17/15-August 19 set for first hearing canceled at the request of author.
Summary: Extends Caltrans' authorization to enter into Public-Private Partnerships by removing the January, 2017 expiration date.
Priority: 5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.
Position: SUPPORT (Letter sent 9/9/15)

SCAX 1-1 (Huff): Motor vehicle fees and taxes: restriction on expenditures
Introduced: 6/19/15
Status: 9/9/15 - refer to Appropriations
Summary: Prohibits the Legislature from borrowing revenues from fees and taxes imposed by the state on vehicles and water-borne vessels or their use or operation, and from using those revenues other than as specifically permitted by Article XIX. Provides that none of those revenues may be pledged or used for the payment of principal and interest on bonds or other indebtedness.
Priority: 1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.
Position: SUPPORT (Letter sent 6/29/15)

Central Coast Coalition
2016 State Legislative Platform

1 Increase State Funding for Transportation

- The existing gas tax is inadequate.
- State needs to be a partner to improve infrastructure.
- Opportunities exist: restore the price based excise tax to 18 cents/gallon and eliminate BOE adjustments; index gas tax revenues to inflation and increase rate; restore funding for STIP to 2014 levels; restore the $1 billion in truck weight fees; pay back transportation loans to General Fund; increase Cap and Trade funding dedicated for transportation purposes; constitutionally protect transportation revenues to prevent diversions.

2 Increase Regional Control and Flexibility

- Expand role of Regional Transportation Planning Agencies in selection of projects.
- Protect existing funding

3 Ensure Fair Distribution of Cap and Trade Funding

- Increase percentage of Cap and Trade revenues for transportation purposes. (Support dedication of remaining 40% of non-specified funding to transportation).
- Increase funding for commuter and intercity rail in the state budget.
- Broaden Disadvantaged Communities Definition.

4 Support Transportation Reforms (Consistent with CTC Annual Report)

- Expedite Project Delivery; Ensure Transparency and Accountability; and Protect Existing and Future Transportation Revenues.

For more information on the Central Coast Coalition, please visit www.centralcoastcoalition.com.

March 21, 2016

TO: Central Coast Coalition
FROM: Gus Khouri, Principal
Khouri Consulting

RE: 2016 CENTRAL COAST COALITION DAY SUMMARY

On March 9, members of the Central Coast Coalition convened in Sacramento to participate in the sixth annual Legislative Day. Meetings were held with California State Transportation Agency Secretary Brian Kelly and with staff to the Senate and Assembly Transportation Committees (Randy Chinn and Janet Dawson, respectively), before Coalition members fanned out to meet with their respective legislative delegation members. The main purpose of the trip was to discuss the prospects of securing critical state funding. Coalition members were especially focused on addressing the shortfall in the State Transportation Improvement Program (STIP), which is a flexible program that allows locals a funding stream to leverage local sales tax dollars and federal grants to address highway safety and congestion, intercity rail, bicycle and pedestrian projects, and local streets and roads improvements.

The Coalition's visit was important given that in January, the California Transportation Commission's (CTC) threat to deprogram up to $754 million worth of State Transportation Improvement Program (STIP) projects due to the continued decline in available gas tax revenues. As anticipated, the Board of Equalization took action to reduce the price-based portion of the gas tax from 12 to 10 cents (technically 9.8). The adjustment will take effect on July 1, barring a legislative solution. As a result, the STIP faces a $350 million shortfall in 2015-16, and $150 million for FY 2016-17. The Coalition prepared and distributed a letter during our meetings that details the direct impacts to all five counties.

Thankfully, a few proposals have been introduced - Governor's $3.6 billion FY 16-17 State Budget, SBx1 1 (Beall), a $6 billion plan, and AB 1591 (Frazier), a $7.8 billion plan – to provide sustainable funding to fix local streets and roads, the state highway system, invest in public transportation, and restore funding for the STIP. These items were the main topic of discussion during the course of the day. The following is a brief summary of our shared meetings:

Randy Chinn, Chief Consultant, Senate Transportation and Housing Committee
We began our morning meeting with Randy Chin, Chief Consultant to the Senate Transportation and Housing Committee, who discussed SBX1 1 (Beall). We learned that the bill is being amended further to provide more funding for the STIP than just restoration of the existing gas tax. Mr. Chinn seemed optimistic that a proposal could move through the Senate but expressed reservations about a similar outcome in the Assembly because three republican members are needed to arrive at the two-thirds vote threshold (54). The newly amended bill will maintain the incentive for aspiring counties to acquire a local sales tax measure dedicated to transportation and also include some CEQA relief and opportunities for public-private partnerships, among other things.

Janet Dawson, Chief Consultant, Assembly Transportation Committee
Our next meeting was with Janet Dawson, Chief Consultant to the Assembly Transportation Committee, who discussed AB 1591 (Frazier) the largest transportation package introduced thus far ($7.8 billion). She emphasized the need to invest in trade corridors and highlighted the $2 billion investment that AB 1591 was poised to make towards that endeavor. Unfortunately, AB 1591 does not address the STIP shortfall. Ms. Dawson mentioned that Assembly Member Frazier is committed to addressing that issue. She was reserved about her assessment of whether or not a transportation package would be approved this Session given that it is an election year and that the legislature has just voted on a managed care organization tax to fix the Medi-Cal and Calworks system, but that with a newly elected Speaker (Anthony Rendon from South Gate) that there could be an opportunity to accomplish something by the budget deadline (June 15).

Brian Kelly, Secretary, California State Transportation Agency (CalSTA)
Our last meeting was with CalSTA Secretary Brian Kelly, who discussed the Governor's $3.6 billion funding proposal. He clarified that while the Governor has prioritized maintaining our existing infrastructure for local streets and roads and the state highway system, that an accommodation is being made to restore funding for the STIP. The funds would be constitutionally protected. Secretary Kelly also discussed the competing priorities of the administration to address greenhouse gas emission reduction, while also reducing traffic congestion and improving safety in key corridors across the state. The Secretary also pointed out the commitment that the Governor is proposing to improve intercity rail service, which would help out the Central Coast. He stated that the Governor is committed to having a funding package approved this year and that the administration would be flexible in entertaining a larger package for consideration. It is possible for a majority-vote package to be considered if the two-thirds vote threshold is not obtained in either house.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

FINAL 2016 Legislative Program: State Issues

1S. Increase and preserve funding for transportation projects, support the constitutional protection of all transportation funding resources, and preserve regional discretion and priority-setting.

2S. Encourage the state to increase investments in passenger rail and bus transit projects and seek funding for Monterey County projects.

3S. Support legislation that promotes transit-oriented development, complete streets, and active transportation projects.

4S. Work with partner agencies to reach agreement on proposals for California Environmental Quality Act (CEQA) reform, while retaining environmental protections.

5S. Support efforts to extend and expand Public Private Partnership authority, public tolling authority, and design-build authority, expand mode eligibility, and allow for regional control of such projects.

6S. Support efforts to develop alternative funding sources to offset the reduction in gas tax revenues and ensure that any pay-by-the-mile funding is equitably assessed and distributed.

7S. Support redefinition of "disadvantaged communities" in the Greenhouse Gas Reduction Fund (i.e., "cap and trade") grant program guidelines to better reflect economic and rural area considerations, and seek funding from the program for regional priority projects.

8S. Support measures to allow the California Department of Fish and Wildlife to allow Caltrans to adopt appropriate avoidance and mitigation measures to protect the Santa Cruz Long-Toed Salamander from potential impacts of the Highway 156 project.

9S. Support legislation to transfer funding derived from the sale of excess rights-of-way purchased for the Prunedale Bypass project to priority projects in the region.

10S. Support legislation to expand the Capitol Corridor Joint Powers Authority to Salinas, and to expand the Los Angeles-San Diego Rail Corridor Agency (LOSSAN) to San Francisco.

11S. Support funding proposals to enable cities and counties to implement storm water runoff requirements for transportation projects.

12S. Support legislation that promotes transparency and access to information on rail transport of hazardous materials.

13S. Support member agencies' requests for state funding of regionally significant transportation projects and support partner agency legislative efforts as they interface with regional transportation priorities, when they are consistent with Transportation Agency for Monterey County priorities.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **Federal Legislative Update**

RECOMMENDED ACTION

RECEIVE federal legislative update.

SUMMARY

On December 4, 2015, the President signed the "Fixing America's Surface Transportation" (FAST) Act. This act includes $4.5 billion over five years in grants for freight projects, as well as a National Environmental Policy Act assignment pilot program. The Consolidated Appropriations Act of 2016 allows States to repurpose unspent earmarks on new projects.

FINANCIAL IMPACT

The five-year, $300 billion, authorization bill includes only a small amount of new money, but it does provide more stability and certainty for transportation funding. The discussion below summarizes the financial impacts overall and for Monterey County.

DISCUSSION

The FAST Act authorizes Highway, Transit and Railroad programs at $305 billion over 5 years, which is 15% or $2.5 billion more per year than current funding, or approximately the rate of construction inflation.

Freight Grant Program: The FAST Act created two new freight programs. The first is a formula freight program that allocates $6.3 billion over five years to the states. The second program is a competitive grant program funded at $4.5 billion over five years. This FASTLANE grant program, open to Regional Transportation Planning Agencies, provides funding to complete projects that improve safety, hold the greatest promise to eliminate freight bottlenecks, and improve critical freight movements. FASTLANE freight grants fund small and large projects, based on project size, that meet statutory requirements. Large projects can be up to $100 million or a minimum award of $25 million. Small projects, which consist of projects below $25 million, are eligible for a minimum award of $5 million. The FAST Act authorizes $800 million in funding for the FASTLANE program for fiscal year 2016, with 25 percent reserved for rural projects,

and 10 percent for smaller projects. The State Transportation Agency developed a consensus package of projects to put forward from the State. Transportation Agency staff was informed that Caltrans had submitted an application to headquarters for the Highway 156 Widening project, but Caltrans headquarters did not select the project to move forward to the final competition, likely due to other projects being further along in the project development process. Transportation Agency staff will consider proposing to apply for this funding in 2017.

NEPA Assignment: The FAST Act also establishes a new pilot program to allow up to five states to substitute their own environmental laws and regulations for the National Environmental Policy Act (NEPA) if the state's laws and regulations are at least as stringent as NEPA. To be eligible, a state must already be participating in the Surface Transportation Project Delivery Program, in which California is already enrolled. Caltrans, in essence, becomes a federal agency and assumes FHWA's environmental responsibilities.

However, Caltrans has some concerns over the potential for liability under the new program. A provision of the act gives federal district court exclusive jurisdiction over any civil action against the state challenging compliance with the state environmental laws substituting NEPA laws under the pilot. Lawsuits must be brought within two years of publication in the Federal Register of notice of a state license, permit or approval made under the state laws approved for the pilot. This legal exposure is greater than approvals made under other federal laws, which have 150 day window for filing a similar challenge. The act also provides for the possibility of a supplemental environmental review, which creates a new two year window for bringing a lawsuit.

Earmark Repurposing: Section 125 of the Department of Transportation Appropriations Act, 2016 provides the authority for a State to repurpose any earmark that was designated on or before September 30, 2005, and is less than 10 percent obligated or closed. The repurposed funds may be obligated on a new or existing project in the State within 50 miles of the earmark designation. Monterey County has funding from several projects that fall on the list, such as Airport Boulevard, US 101 Prunedale Improvements, Monterey Bay Sanctuary Scenic Trail and Highway 156 (see Attachment 1). Agency staff is working with Caltrans to review the projects and identify the total amount of funds available for repurposing. Possible uses for the new funding could be the design for the Imjin Road Widening, or final construction funding for the Monterey Bay Sanctuary Scenic Trail – Moss Landing segment. The deadline to submit requests for repurposing is September 12, 2016, and funds are available until September, 2019. Staff will return in the future with a recommended action.

Approved by: _____ Date Signed: April 12, 2016
Debra L. Hale, Executive Director

Consent Agenda Counsel Approval: N/A
Finance Approval: N/A

Attachment: Federal Earmarks Eligible for Repurposing

ALLOCATED EARMARK PROJECTS STATUS FOR FUND AVAILABLE IN FMIS

DEMO by STATE or TERRITORY MORE THAN 10% OBLIGATED, As of December 18, 2015

EARMARK PROJECTS MUST BE FINAL VOUCHERED AND CLOSED

State or Territory	Demo ID	Demo Description	Allocated Amount*	Obligated Amount	Unobligated Balance	% Obligated	Comment
CALIFORNIA	CA019	Improvement of Route 101 in the vicinity of Prunedale, Monterey County, California	$1,691,414.00	$1,547,982.00	$143,432.00	91.52%	Repurpose
CALIFORNIA	CA019	Improvement of Route 101 in the vicinity of Prunedale, Monterey County, California	$10,900,000.00	$10,899,999.51	$0.49	100.00%	Repurpose
CALIFORNIA	CA106	Undertake safety enhancements along Monterey County Railroad highway grade, Monerey Co.	$2,152,710.00	$1,970,160.39	$182,549.61	91.52%	Repurpose
CALIFORNIA	CA170	Construct Airport Blvd. interchange in Salinas	$6,150,596.00	$5,629,026.00	$521,570.00	91.52%	Repurpose
CALIFORNIA	CA447	Construct new interchange and related road improvements on U.S. 101 near Airport Blvd., Salinas.	$1,938,856.00	$1,742,205.00	$196,651.00	89.86%	Repurpose
CALIFORNIA	CA690	Airport Boulevard Interchange Improvements, Salinas and Vicinity, Monterey County.	$4,005,900.00	$3,585,250.07	$420,649.93	89.50%	Repurpose
CALIFORNIA	CA436	Complete Monterey Bay Sanctuary Scenic Trail between Monterey and Santa Cruz counties.	$5,808,555.00	$1,006,691.37	$4,801,863.63	17.33%	
CALIFORNIA	CA689	Complete Monterey Bay Sanctuary Scenic Trail between Monterey and Santa Cruz counties.	$1,001,475.00	$829,825.02	$171,649.98	82.86%	
CALIFORNIA	CA728	Widening of State Route 156 in Monterey between Castroville and U.S. 101	$5,007,375.00	$4,499,030.20	$508,344.80	89.85%	
Grand Total					$6,946,711.44		
Possible Total for Repurposing					$1,464,853.03		

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **Highway 68 Roundabout RSTP Grant Reassignment**

RECOMMENDED ACTION

APPROVE reassigning $1,329,671 in RSTP competitive grant funds awarded to the County of Monterey for the Holman Highway 68 Roundabout Project to the City of Monterey.

SUMMARY

The County of Monterey received a Regional Surface Transportation Program grant award for the Holman Highway 68 Roundabout project. Since the City of Monterey is the project sponsor, this action would designate the City of Monterey as the grant recipient to streamline claim reimbursements.

FINANCIAL IMPACT

This action will allocate $1,329,671 in funding that was programmed by the Transportation Agency Board of Directors to the Holman Highway 68 roundabout project. The total budget for the project is $10 million.

DISCUSSION

At its August 27, 2014 Board meeting, the Transportation Agency Board approved $7.04 million in competitive grants for projects of regional significance, including the Holman Highway 68 Roundabout project.

Agency staff has coordinated with the County of Monterey to identify full-funding for the Highway 68 roundabout project. County staff secured a private loan for $1.3 million, which the Transportation Agency Board approved to be repaid from the next cycle of Regional Surface Transportation Program competitive funds. This action allowed the project to be fully-funded and proceed to construction, but it also restricted the County from claiming these funds until the 2017/18 funding cycle.

Transportation Agency for Monterey County
• 55-B Plaza Circle • Salinas, California 93901-2902
(831) 775-0903 • FAX (831) 775-0897 • E-mail: mike@tamcmonterey.org
www.tamcmonterey.org

The City of Monterey has taken the lead on constructing the Holman Highway 68 Roundabout project, while the County of Monterey is contributing funds. To help streamline the claim reimbursement process, the County of Monterey submitted a letter to the Transportation Agency requesting that the funds in question by reassigned to the City of Monterey (see Attachment 1). This action will allow any claims for reimbursement to be made directly to the City, rather than requiring the City and the County to enter into a separate reimbursement agreement. This change in designation is reflected in the revised funding agreement Exhibit A's for both jurisdictions (see Attachments 2 and 3).

The following is a summary of the funding for the project, should this action be approved:

SOURCE	FUNDING
MBUAPCD (Air District AB2766)	$350,000
Monterey RSTP + Regional Development Impact Fee (TAMC 2015/16)	$2,324,329
Pebble Beach	4,000,000
Pebble Beach	$800,000
County RSTP (TAMC 2017/18)	$1,329,671
City of Monterey Gas Tax	$500,000
Pebble Beach - Contingency	$500,000
County of Monterey RSTP	$68,000
Pacific Grove RSTP	$100,000
REVENUE TOTAL	**9,972,000**

Approved by: _____ Date Signed: April 12, 2016
Debra L. Hale, Executive Director

Consent Agenda

Counsel Approval: N/A
Finance Approval: N/A

Attachment: 1) Letter from County of Monterey re: Reassigning RSTP Funds
2) County of Monterey – Exhibit A
3) City of Monterey – Exhibit A

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY

Carl P. Holm, AICP, Director
John Guertin, Acting Deputy Director
Daniel Dobrilovic, Acting Building Official
Mike Novo, AICP, Director of Planning
Benny J. Young, Interim Director of Public Works & Facilities

168 W. Alisal Street, 2nd Floor
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(831)755-4800
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March 21, 2016

DEBRA L HALE
EXECUTIVE DIRECTOR
TRANSPORTATION AGENCY OF MONTEREY COUNTY (TAMC)
55 B PLAZA CIRCLE
SALINAS CA 93901-2902

ATTN: MICHAEL ZELLER, PRINCIPAL TRANSPORTATION PLANNER

RE: Request for RSTP FY 17 Competitive Grant Allocation for Holman Highway Roundabout Project

Dear Ms. Hale:

The County of Monterey requests that TAMC assign the $1,329,671 in RSTP funds for the Holman Highway Roundabout from the County of Monterey to the City of Monterey. The funds were allocated by TAMC in resolution 2014-12 (attached).

Please let me know if you need any additional information or have any questions.

Sincerely,

Benny J. Young
Interim Director of Public Works

Before the Board of Supervisors in and for the County of Monterey, State of California

Resolution No. 14-314

a. Approve a Local Agency Funding Allocation)
Agreement between the Transportation Agency)
for Monterey County and the County of Monterey)
for the allocation of funding approved by the)
Transportation Agency for Monterey County)
Board of Directors for County projects; and)
b. Authorizing the Director of Public Works,)
or his designee, to act as the agent for the County)
to execute documents to secure these funds from)
the Transportation Agency for Monterey County…..)

WHEREAS, the Transportation Agency for Monterey County (TAMC) is the state-designated Regional Transportation Planning Agency for Monterey County; and

WHEREAS, as authorized by section 182.6(g) of the Streets and Highways Code, the TAMC has entered into a separate agreement with the State of California, through the Department of Transportation (Caltrans), to assign a defined portion of its annual Regional Surface Transportation Program (RSTP) apportionment to Caltrans in exchange for State funds for specified fiscal year(s); and

WHEREAS, TAMC is authorized to use these exchanged funds (hereinafter RSTP Exchange Funds) to assist local agencies to promote projects which otherwise qualify for RSTP funds; and

WHEREAS, as authorized by Chapter 2, Title 21, Rule 6640 of the Transportation Development Act, one of the duties of the TAMC is to administer the provisions of the Transportation Development Act in apportioning Local Transportation Funds (LTF) for the Transportation Development Act 2% (TDA 2%) program for bicycle and pedestrian projects pursuant to Article 3 of that law, and to the Cities, County, and Monterey-Salinas Transit; and

WHEREAS, as authorized by the Joint Powers Agreement for the Monterey County Regional Development Impact Fee Agency, the TAMC is designated to administer and allocate regional development impact fee revenues (RDIF) to projects identified in the approved Strategic Expenditure Plan; and

WHEREAS, the TAMC Board has approved the allocation of funds toward the projects listed in the attached **Exhibit A**; and

WHEREAS, it is contemplated by TAMC and the County that the amount of funding and the projects designated may change from time to time as set forth below; and

WHEREAS, the TAMC has requested the Monterey County Auditor-Controller to establish a separate fund for the Federal Apportionment Exchange Program and such a separate fund has been established; and

WHEREAS the TAMC agrees to allocate these State funds paid by Caltrans under the Federal Apportionment Exchange Program only for projects as authorized under sections 133(b) and 133(c) of Title 23, United States Code and Article XIX of the California State Constitution; and

WHEREAS, the County agrees to use RSTP Exchange Funds only for the RSTP Exchange eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project; and

WHEREAS, TAMC agrees to allocate LTF funds under the Transportation Development Act only for projects as authorized under the Transportation Development Act Section 99230; and

WHEREAS, The Recipient agrees to use LTF funds only for LTF eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project; and

WHEREAS, TAMC agrees to allocate TDA 2% funds under the Transportation Development Act only for projects as authorized under the Transportation Development Act Section 99234 Claims for Pedestrian and Bicycle Facilities; and

WHEREAS, the County agrees to use TDA 2% funds only for TDA 2% eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project; and

WHEREAS, TAMC agrees to allocate RDIF funds under the Joint Powers Agreement only for projects as authorized by the TAMC Board of Directors in the approved Strategic Expenditure Plan; and

WHEREAS, the County agrees to use RDIF funds only for RDIF eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project; and

WHEREAS, the projects and the amounts allocated therefore, may be amended from time to time without changing the rest of the Agreement, by means of approval by the TAMC Board of Directors.

NOW, THEREFORE, BE IT RESOLVED THAT, that the Board of Supervisors of Monterey County hereby:

1. Approves a Local Agency Funding Agreement between the Transportation Agency for Monterey County and the County of Monterey for the allocation of funding approved by the Transportation Agency for Monterey County Board of Directors for County projects; and

2. Authorizes the Director of Public Works, or his designee, to act as the agent for the County to execute documents to secure these funds from the Transportation Agency for Monterey County.

PASSED AND ADOPTED upon motion of Supervisor Salinas, seconded by Potter and carried this 4th day of November 2014, by the following vote, to wit:

AYES: Supervisors Armenta, Calcagno, Salinas, Parker and Potter
NOES: None

ABSENT: None

I, Gail T. Borkowski, Clerk of the Board of Supervisors of the County of Monterey, State of California, hereby certify that the foregoing is a true copy of an original order of said Board of Supervisors duly made and entered in the minutes thereof of Minute Book 77 for the meeting on November 4, 2014.

Dated: November 4, 2014
File Number: 14-1236

Gail T. Borkowski, Clerk of the Board of Supervisors
County of Monterey, State of California

By Denise Hancock

Transportation Agency for Monterey County

Local Agency Funding Allocation Agreement

Exhibit A

County of Monterey

Agency	Board Approval Date	Fund Expiration Date	Type	Project	Budget	Paid	Balance Outstanding
County	1/22/2014	1/22/2017	TLC	Rico Street Sidewalk Improvements Project	$ 100,000	$ -	$ 100,000
County	3/26/2014	3/26/2017	RSTP Fair Share	2014 Fair Share Reserve	$ 399,667	$ -	$ 399,667
County	8/27/2014	8/27/2017	RSTP Fair Share	Unincorporated Monterey County Roadway Striping Project	$ 930,000	$ -	$ 930,000
County	8/27/2014	8/27/2017	RSTP Competitive	SR68/Corral de Tierra Intersection Improvement Project	$ 49,417	$ -	$ 49,417
County	8/27/2014	8/27/2017	RDIF	SR68/Corral de Tierra Intersection Improvement Project	$ 312,205	$ -	$ 312,205
County	8/27/2014	6/30/2020	RSTP Competitive	Holman Highway 68 Roundabout (cannot be claimed until FY 2017/18)	$ 1,329,671	$ -	$ 1,329,671
County	9/24/2014	9/24/2017	TDA 2%	Castroville Railroad Crossing Bicycle Project	$ 953,192	$ 218,880	$ 734,312
County	9/24/2014	9/24/2017	TDA 2%	Monterey Bay Sanctuary Scenic Trail	$ 219,930	$ 167,269	$ 52,661
County	8/27/2014	8/27/2017	TDA 2%	Moss Landing segment of the Monterey Bay Sanctuary Scenic Trail	$ 57,051	$ -	$ 57,051
					$ 4,351,133	**$ 386,149**	**$ 3,964,984**

Last Revised: **9/24/2014**

Approved by: _____

Debra L. Hale, Executive Director

AGREEMENT BETWEEN THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY AND THE COUNTY OF MONTEREY FOR THE ALLOCATION OF FUNDING APPROVED BY THE TRANSPORTATION AGENCY BOARD OF DIRECTORS

This agreement is made on 11-4-14 by and between the County of Monterey, a public body, hereinafter referred to as "Recipient," and the Transportation Agency for Monterey County, hereinafter referred to as "TAMC."

WHEREAS, the TAMC is the state-designated Regional Transportation Planning Agency for Monterey County; and

WHEREAS, as authorized by section 182.6(g) of the Streets and Highways Code, the TAMC has entered into a separate agreement with the State of California, through the Department of Transportation (Caltrans), to assign a defined portion of its annual Regional Surface Transportation Program (RSTP) apportionment to Caltrans in exchange for state funds for specified fiscal year(s); and

WHEREAS, the TAMC is authorized to use these exchanged funds (hereinafter RSTP Exchange Funds) to assist local agencies to promote projects which otherwise qualify for RSTP funds; and

WHEREAS, as authorized by Chapter 2, Title 21, Rule 6640 of the Transportation Development Act, one of the duties of the TAMC is to administer the provisions of the Transportation Development Act in apportioning Local Transportation Funds (LTF) for the Transportation Development Act 2% (TDA 2%) program for bicycle and pedestrian projects pursuant to Article 3 of that law, and to the Cities, County, and Monterey-Salinas Transit;

WHEREAS, as authorized by the Joint Powers Agreement for the Monterey County Regional Development Impact Fee Agency, the TAMC is designated to administer and allocate regional development impact fee revenues (RDIF) to projects identified in the approved Strategic Expenditure Plan; and

WHEREAS, the TAMC Board has approved the allocation of funds toward the projects listed in Exhibit A; and

WHEREAS, it is contemplated by TAMC and the Recipient that the amount of funding and the projects designated in Exhibit A may change from time to time as set forth below; and

WHEREAS, the TAMC has requested the Monterey County Auditor-Controller to establish a separate fund for the Federal Apportionment Exchange Program and such a separate fund has been established.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, THE PARTIES HERETO AGREE AS FOLLOWS:

1. RULES FOR RSTP EXCHANGE FUNDS

   A. The TAMC agrees to allocate RSTP Exchange Funds paid by Caltrans under the Federal Apportionment Exchange Program only for projects as authorized under sections 133(b) and 133 (c) of Title 23, United States Code and Article XIX of the California State Constitution.

   B. The Recipient agrees to use RSTP Exchange Funds only for the RSTP Exchange eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project.

2. RULES FOR LTF

   A. The TAMC agrees to allocate LTF funds under the Transportation Development Act only for projects as authorized under the Transportation Development Act Section 99230.

   B. The Recipient agrees to use LTF funds only for LTF eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project.

3. RULES FOR TDA 2%

   A. The TAMC agrees to allocate TDA 2% funds under the Transportation Development Act only for projects as authorized under the Transportation Development Act Section 99234 Claims for Pedestrian and Bicycle Facilities.

   B. The Recipient agrees to use TDA 2% funds only for TDA 2% eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project.

4. RULES FOR RDIF

   A. The TAMC agrees to allocate RDIF funds under the Joint Powers Agreement only for projects as authorized by the TAMC Board of Directors in the approved Strategic Expenditure Plan.

   B. The Recipient agrees to use RDIF funds only for RDIF eligible project(s) described in Exhibit A, as approved by the TAMC Board of Directors, for the amounts awarded for each project.

5. ADMINISTRATIVE POLICIES

A. The projects described in Exhibit A, and the amounts allocated therefore, may be amended from time to time without changing the rest of this Master Agreement, by means of approval by the TAMC Board of Directors of a revised Exhibit A, which shall be designated by a date and number (e.g., "Exhibit A-1 (DATE)").

B. The Recipient agrees to submit an annual report to TAMC by April 30 describing the progress towards completion for all projects listed in Exhibit A.

C. The Recipient agrees to mention TAMC's role in funding the project in any press releases or media events held by the Recipient to promote a funded project.

D. The TAMC agrees to reimburse the Recipient within 30 days of receipt of a completed claim form (Exhibit B) from the Recipient.

E. The Recipient agrees to cause the completion of the project(s) within three years from the date funds were awarded by the TAMC Board of Directors, as recorded in Exhibit A. Failure to complete the project(s) in a timely basis shall allow TAMC to refuse reimbursement and to reprogram such funds for other purposes.

6. COST PRINCIPLES

A. Recipient agrees to comply with Office of Management and Budget Circular A-87, Cost Principles for State and Local Government, and 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

B. Recipient agrees to:

(a) use Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., to determine the allowability of individual project cost items; and

(b) comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

Every sub-recipient receiving funds as a contractor or sub-contractor under this AGREEMENT shall comply with Federal administrative procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

7. THIRD PARTY CONTRACTING

A. Recipient shall not award a construction contract over $10,000 or other contracts over $25,000 on the basis of a noncompetitive negotiation for work to be performed using Funds without the prior written approval of Caltrans. This provision shall not apply to professional service contracts of the type which are required to be procured in accordance with Government Code Sections 4525 (d), (e), and (f).

B. Recipient agrees that travel and per diem reimbursements and third-party contract reimbursements to subcontractors will be allowable as project costs only after those costs are incurred and paid for by the subcontractors and only if consistent with Paragraph 10, below.

C. In addition to the above, the pre-award requirements of third party contractor/ consultants with Recipient shall be consistent with Local Program Procedures as published by Caltrans.

8. ACCOUNTING SYSTEM

Recipient, its contractors and subcontractors, shall establish and maintain an accounting system and records that properly accumulate and segregate expenditures by line item. The accounting system of Recipient, its contractors and all subcontractors shall conform to Generally Accepted Accounting Principles (GAAP), enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment claims.

9. RIGHT TO AUDIT

For the purpose of verifying that funds paid hereunder are properly accounted for and proceeds are expended in accordance with the terms of this agreement, the Recipient, its contractors and subcontractors each agrees to grant State of California and/or the TAMC auditors access to the Recipient's books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including but not limited to, the costs of administering those various contracts. All documents shall be made available for inspection by authorized Caltrans or the TAMC agents at any time during project development and for a four-year period from date of completion of project or one year after the audit is completed or waived by Caltrans, whichever is later.

10. TRAVEL AND SUBSISTENCE

Payments to Recipient for travel and subsistence expenses of Recipient forces and/or its contractors or subcontractors, claimed for reimbursement or applied as local match credit, shall not exceed rates authorized to be paid exempt non-represented State employees under current State Department of Personnel Administration (DPA) rules. If the rates invoiced are in excess of those authorized DPA rates, then Recipient is responsible for the cost difference and any overpayments shall be reimbursed to the TAMC on demand.

11. PROJECT COMPLETION
Recipient agrees to provide to the TAMC a short report summarizing total project costs and milestones, including before and after photos of the project, for each project within sixty (60) days of completion.

12. GOVERNING LAWS. This Agreement shall be construed and enforced according to the laws of the State of California, and the parties hereby agree that the County of Monterey shall be the proper venue for any dispute arising hereunder.

13. CONFLICT OF INTEREST. Recipient warrants that it presently has no interest and shall not acquire any interest during the term of this Agreement, which would directly or indirectly conflict in any manner or to any degree with its full and complete performance of all services under this Agreement.

14. CONSTRUCTION OF AGREEMENT. The parties agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any exhibit or amendment. To that end, it is understood and agreed that this Agreement has been arrived at through negotiation, and that neither party is to be deemed the party which prepared this Agreement within the meaning of Civil Code Section 1654. Section and paragraph headings appearing herein are for convenience only and shall not be used to interpret the terms of this Agreement.

15. WAIVER. Any waiver of any term or condition hereof must be in writing. No such waiver shall be construed as a waiver of any other term or condition herein.

16. SUCCESSORS AND ASSIGNS. This Agreement and all rights, privileges, duties and obligations hereunder, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns and heirs.

17. TIME IS OF THE ESSENCE. The parties mutually acknowledge and agree that time is of the essence with respect to every provision hereof in which time is an element. No extension of time for performance of any obligation or act shall be deemed an extension of time for performance of any other obligation or act, nor shall any such extension create a precedent for any further or future extension.

18. EXECUTION OF AGREEMENT. Any individual executing this Agreement on behalf of an entity represents and warrants that he or she has the requisite authority to enter into this Agreement on behalf of such entity and to bind the entity to the terms and conditions hereof. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.

19. ENTIRE AGREEMENT. This document, including all exhibits hereto, constitutes the entire agreement between the parties, and supersedes any and all prior written or oral negotiations and representations between the parties concerning all matters relating to the subject of this Agreement.

20. TERMINATION DATE. This Agreement shall remain in effect for a period of three (3) years from the date of this Agreement.

IN WITNESS WHEREOF, TAMC and Recipient execute this Agreement as follows:

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

_____ _____

Debra L. Hale
Executive Director

Date

Recipient:
COUNTY OF MONTEREY

_____ _____

Name, Title

Date

Approved as to Form:

_____ _____

Kathryn Reimann
TAMC Counsel

Date

Cynthia L. Hooper 10-28-14

Deputy County Counsel
County of Monterey

Date

Transportation Agency for Monterey County
Local Agency Funding Allocation Agreement
Exhibit A

County of Monterey

Agency	Board Approval Date	Fund Expiration Date	Type	Project	Budget	Paid	Balance Outstanding
County	1/22/2014	1/22/2017	TLC	Rico Street Sidewalk Improvements Project	$ 100,000	$ -	$ 100,000
County	3/26/2014	3/26/2017	RSTP Fair Share	2014 Fair Share Reserve	$ 399,667	$ -	$ 399,667
County	8/27/2014	8/27/2017	RSTP Fair Share	Unincorporated Monterey County Roadway Striping Project	$ 930,000	$ -	$ 930,000
County	8/27/2014	8/27/2017	RSTP Competitive	SR68/Corral de Tierra Intersection Improvement Project	$ 49,417	$ -	$ 49,417
County	8/27/2014	8/27/2017	RDIF	SR68/Corral de Tierra Intersection Improvement Project	$ 312,205	$ -	$ 312,205
County	8/27/2014	6/30/2020	RSTP Competitive	Holman Highway 68 Roundabout (cannot be claimed until FY 2017/18)	$ 1,329,671	$ -	$ 1,329,671
County	9/24/2014	9/24/2017	TDA 2%	Castroville Railroad Crossing Bicycle Project	$ 953,192	$ 218,880	$ 734,312
County	9/24/2014	9/24/2017	TDA 2%	Monterey Bay Sanctuary Scenic Trail	$ 219,930	$ 167,269	$ 52,661
County	8/27/2014	8/27/2017	TDA 2%	Moss Landing segment of the Monterey Bay Sanctuary Scenic Trail	$ 57,051	$ -	$ 57,051
					$ 4,351,133	**$ 386,149**	**$ 3,964,984**

Last Revised: **9/24/2014**

Approved by: _____
Debra L. Hale, Executive Director

Transportation Agency for Monterey County

Local Agency Funding Allocation Agreement

Exhibit A

County of Monterey

Agency	Board Approval Date	Fund Expiration Date	Type	Project	Budget	Paid	Balance Outstanding
County	1/22/2014	1/22/2017	TLC	Rico Street Sidewalk Improvements Project	$ 100,000	$ 69,174.30	$ 30,826
County	3/26/2014	3/26/2017	RSTP Fair Share	2014 Fair Share Reserve	$ 331,667	$ -	$ 331,667
County	8/27/2014	8/27/2017	RSTP Fair Share	Unincorporated Monterey County Roadway Striping Project	$ 930,000	$ 736,911	$ 193,089
County	8/27/2014	8/27/2017	RSTP Competitive	SR68/Corral de Tierra Intersection Improvement Project	$ 49,417	$ -	$ 49,417
County	8/27/2014	8/27/2017	RDIF	SR68/Corral de Tierra Intersection Improvement Project	$ 312,205	$ -	$ 312,205
County	9/24/2014	9/24/2017	TDA 2%	Castroville Railroad Crossing Bicycle Project	$ 953,192	$ 396,708	$ 556,484
County	9/24/2014	9/24/2017	TDA 2%	Monterey Bay Sanctuary Scenic Trail	$ 219,930	$ 200,407	$ 19,523
County	8/27/2014	8/27/2017	TDA 2%	Moss Landing segment of the Monterey Bay Sanctuary Scenic Trail	$ 57,051	$ -	$ 57,051
County	3/23/2016	3/23/2019	RSTP Fair Share	Holman Highway 68 Roundabout	$ 68,000	$ -	$ 68,000
County	6/24/2015	6/23/2018	RSTP Reserve	Rio Road Repaving and Class II Bike Lanes	$ 55,000	$ -	$ 55,000
County	6/24/2015	6/23/2018	TAMC Undesignated Reserve	Highway 156 Vehicle Speed Signs	$ 40,000	$ -	$ 40,000
					$ 3,116,462	**$ 1,403,201**	**$ 1,713,261**

Last Revised: **4/27/2016**

Approved by: _____

Debra L. Hale, Executive Director

Transportation Agency for Monterey County

Local Agency Funding Allocation Agreement

Exhibit A

City of Monterey

Agency	Board Approval Date	Fund Expiration Date	Type	Project	Budget	Paid	Balance Outstanding
Monterey	8/27/2014	8/27/2017	RSTP Competitive	Holman Highway 68 Roundabout - Construction	$ 1,414,158	$ 60,793	$ 1,353,365
Monterey	8/27/2014	8/27/2017	RSTP Competitive	Holman Highway 68 Roundabout - Public Outreach	$ 117,675	$ -	$ 117,675
Monterey	8/27/2014	8/27/2017	RDIF	Holman Highway 68 Roundabout	$ 792,514	$ -	$ 792,514
Monterey	**8/27/2014**	**6/30/2020**	**RSTP Competitive**	**Holman Highway 68 Roundabout (cannot be claimed until FY 2017/18)**	**$ 1,329,671**	**$ -**	**$ 1,329,671**
Monterey	9/24/2014	9/24/2017	RSTP Competitive	Holman Highway 68	$ 146,991	$ 86,199	$ 60,793
Monterey	3/26/2014	3/26/2017	RSTP Fair Share	North Fremont Bicycle & Pedestrian Improvement Project	$ 367,985	$ 87,200	$ 280,785
					$ 4,168,994	**$ 234,191**	**$ 3,934,803**

Last Revised: **4/27/2016**

Approved by: _____

Debra L. Hale, Executive Director

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: TAMC Board of Directors

From: Theresa Wright, Community Outreach Coordinator, Assistant Transportation Planner

Meeting Date: April 27, 2016

Subject: **EMC Contract Amendment #1**

RECOMMENDED ACTION

1. **AUTHORIZE** the Executive Director to execute a contract amendment increasing the not to exceed amount by $15,000 for a total of $115,000 with EMC Research to conduct surveys;
2. **AUTHORIZE** the use of Agency undesignated reserve funds for this project; and
3. **AUTHORIZE** the Executive Director to make administrative changes to the contract if such changes do not increase the Agency's net cost, subject to approval by Agency counsel.

SUMMARY

EMC Research was awarded a three-year contract with the Agency in 2014 to conducted research on behalf of the Agency to survey the public about priorities and preferences for funding projects supporting the 2018 Regional Transportation Plan. This amendment is to fund an additional survey to focus on a potential transportation sales tax measure.

FINANCIAL IMPACT

The budget for the 2014 contract with EMC Research was set at a not-to-exceed amount of $100,000. Under this contract, EMC Research has conducted two surveys and held four focus group meetings for a total cost of $89,000, leaving a remaining balance of $11,000. The Agency would like EMC Research to conduct a survey on the potential transportation sales tax measure. The cost to do so is $26,000. This contract amendment for $15,000 from the undesignated reserve funds will supplement the remaining $11,000 of the original contract to conduct a May 2016 telephone survey of likely November 2016 voters.

DISCUSSION

In February 2104, the Transportation Agency released Requests for Qualifications for qualified consultants to survey the public in Monterey County about priorities and preferences for funding and projects in the Regional Transportation Plan. A total of four firms responded to the request and EMC Research was selected to conduct public outreach surveys. The three-year budget was set at a not-to-exceed amount of $100,000.

In August 2015, EMC Researched offered an amended approach to the planned research to be conducted concerning priorities for funding and projects being considered for a sales tax measure and associated Transportation Expenditure Plan. The original approach included three surveys and

one short track poll; one survey was conducted in May 2014, one was postponed (May 2015) and one survey and the short track poll remained for 2016.

The recommended amendment approach was to replace the postponed telephone survey poll with four focus group meetings in September 2015. Beginning the next phase of research with qualitative focus groups would help EMC Research write a better survey questionnaire by hearing how people talk about their priorities, projects, programs, and challenges. This type of qualitative research is especially valuable in hearing how people react to explanations of complicated transportation concepts.

The cost of the focus group meetings held on September 9th – September 10th, 2015 was more expensive to conduct than to conduct one telephone survey. In addition, the hard costs for this final poll were higher than anticipated in 2014, largely due to the increasing proportion of cell phones on the voter file and the associated costs with dialing them. So the remaining $11,000 in the budget is not sufficient enough to cover the expense of the short track survey scheduled for May 2016.

This final survey will be designed to help the Agency make a well-informed decision about whether or not to proceed with placing a measure on the 2016 ballot. It will also allow EMC Research to explore public awareness of the need for a measure, and where additional public information efforts may be needed.

The proposed timeline for the survey is the following:

- Begin drafting Questionnaire on April 28th
- Final Questionnaire approved by TAMC on May 5th
- Survey data collected the weeks of May 9th and May 16th
- Final survey results are provided to the TAMC Board of Directors on May 25th.

The scope of work for Amendment 1 of this contract is the short track survey of 600 randomly selected likely November 2016 voters in Monterey County focusing on the potential transportation sales tax measure for Monterey County. TAMC believes it is appropriate to make this contract amendment so that the Agency has the essential information needed to make a decision about whether or not to proceed with placing a measure on the November 2016 ballot. Attached are the contract amendment, the original scope of work, the additional scope of work and, original fee schedule and the revised fee schedule.

Approved by: _____ Date Signed: April 18, 2016
Debra L. Hale, Executive Director

Regular Agenda

Counsel Approval: Yes
Finance Approval: Yes

Attachments:
1. Draft Contract Amendment
2. Exhibit A: Scope of Work
3. Exhibit A-1:Scope of Work (Additional)
4. Exhibit B: Fee Schedule

AMENDMENT # 1 TO AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY AND EMC RESEARCH

THIS AMENDMENT NO. 1 to the agreement dated April 23, 2014, between the Transportation Agency for Monterey County, hereinafter referred to as "TAMC," and EMC Research, hereinafter referred to as "Consultant," is hereby entered into between TAMC and Consultant.

R E C I T A L S:

A. **WHEREAS**, TAMC and Consultant entered into an agreement for professional services on April 23, 2014, hereinafter referred to as "Agreement;"

B. **WHEREAS,** the Agreement relates to the 2018 Regional Transportation Plan and Sustainable Communities Strategy;

C. **WHEREAS,** a survey focused on the potential transportation sales tax measure for Monterey County that will fund and determine the priorities for the 2018 Regional Transportation Plan; and

D. **WHEREAS,** a survey to measure current support for the measure and regional priorities is critical to help the Agency make a well-informed decision about placing a measure on the November 2016 ballot; and

E. **WHEREAS,** TAMC and Consultant desire to increase the maximum amount payable as stated in the Consultant Agreement and amend the Scope of Work to conduct this work.

NOW, THEREFORE, the parties agree to amend the Agreement as follows:

1. **PAYMENTS TO CONSULTANT; MAXIMUM LIABILITY**

The maximum amount payable to the Consultant is increased by Fifteen Thousand Dollars ($15,000) to a total not to exceed the amount of One Hundred and Fifteen Thousand Dollars ($115,000) for the entire contract.

2. **SCOPE OF WORK**

The Scope of Work attached to the Agreement as Exhibit A is hereby amended and expanded to include the Scope of Services dated April 27, 2016, and attached hereto as EMC Telephone Survey Scope of Work Amendment #1 Exhibit A-1. The Scope of Services will now include Exhibit A and A-1. Exhibit B is the fee schedule for Exhibit B.

4. **REMAINDER OF TERMS UNCHANGED**

All other terms of the Agreement, remain in full effect.

An executed copy of this Amendment No. 1 shall be attached to the Agreement and shall be incorporated as if fully set forth therein.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment #1 to the Agreement with EMC Research.

TAMC:	EMC RESEARCH:
_____	_____
Debra L. Hale Executive Director	
_____	_____
(date)	(date)
Approved as to form:	
_____	_____
TAMC Counsel	(date)

Exhibit A

Scope of Work

Regional Transportation Plan - Priorities and Preferences Survey

Purpose
The surveys will be administered annually for the next three years to engage the public in evaluating scenarios for long-range transportation investments that support the Regional Transportation Plan's goals and priorities. Such surveys will be scheduled in consultation with TAMC staff, but are anticipated to occur generally in May of each year.

Surveys
Conduct telephone surveys of voters in Monterey County. The survey would probe for:

- Level of concern about community issues;
- Use of local transportation system and regional travel behavior;
- Awareness of transportation infrastructure needs;
- Transportation priorities and proposed projects for long-range transportation investment scenarios within the county;
- Themes or messages that may assist public information efforts;
- Attitudes regarding tax measures generally and funding for transportation specifically;
- Assessment of the community's receptiveness to tax measures and other methods to fund transportation improvements;

The survey shall include a statistically significant sample size within the county. A Spanish language version of the survey will be available as needed, as determined by TAMC staff.

Coordination with Team
Consultant shall review the draft and final surveys with Transportation Agency staff. Consultant shall prepare a pre-survey presentation for the Transportation Agency's Executive Committee. Consultant shall prepare a survey results report and present the report to the Transportation Agency's Board of Directors within 60 days of completion of each survey.

Deliverables
- Pre-survey and post-survey presentations
- Draft and final survey
- Survey results report and output tables

EXHIBIT A-1: SCOPE OF WORK

Additional Task 1: Research for a Local Funding of Strategic Transportation Priorities in the 2018 Regional Transportation Plan

EMC Research will conduct a telephone survey of 600 interviews among a random selection of likely November 2016 voters in Monterey County conducted in English and Spanish. The survey length will be between 10 and 12 minutes. This final short survey will be designed to help the Transportation Agency for Monterey County make a well-informed decision about whether or not to proceed with placing a measure on the November 2016 ballot. The survey will also allow EMC Research to explore public awareness of the need for the measure, and where additional public information efforts may be needed.

Deliverables:

EMC Research will:

1. Draft the survey
2. Translate the survey instrument to Spanish
3. Program for data collection
4. Supervise data collection
5. Provide a topline results document
6. Produce crosstabs and visual presentation of results and analysis
7. Present results in-person to the project team, the TAMC Executive Committee, and Board of Directors
8. Provide on-going consultation and advice for as long as the research is used.

Fee Schedule
For
Regional Transportation Plan
Priorities and Preferences Survey

EMC Research, Inc. will conduct annual telephone surveys in Monterey County for (3) years, conducted in both English & Spanish. There will also be the option to conduct a Short Track survey in the last year of this agreement. The sample would include both landlines and cell phones.

EMC will conduct the studies, including all services and deliverables outlined in our proposal, with the project specifications outlined above, for an amount not to exceed $100,000. For each survey conducted under this scope, EMC will invoice TAMC one-half of the survey fee at the commencement of work, and one-half when the survey results are presented to the TAMC Board of Directors. EMC shall follow the following fee schedule:

Item	# of Interviews	Survey Length	Fee
May 2014	600	15	$28,500
May 2015	600	15	$28,500
May 2016	600	15	$28,500
2016 Short Track	TBD	TBD	$14,500
Contract Total			$100,000

No additional fees or charges will be billed. The budget includes all deliverables, services, printing, shipping, travel to meetings, and other items involved with the project.

Total for the Regional Transportation Plan Priorities and Preferences Survey: Not to Exceed $100,000

Revised Fee Schedule
For
Regional Transportation Plan
Priorities and Preferences Survey

EMC Research will conduct a telephone survey of 600 interviews among a random selection of likely November 2016 voters in Monterey County conducted in English and Spanish. The survey length will be between 10 and 12 minutes. This final short survey will be designed to help the Transportation Agency for Monterey County make a well-informed decision about whether or not to proceed with placing a measure on the November 2016 ballot. The survey will also allow EMC Research to explore public awareness of the need for the measure, and where additional public information efforts may be needed. EMC shall follow the following fee schedule:

Item	# of Interviews	Survey Length	Fee
May 2014	600	15	$28,500
September 2015	Four Focus Groups		$32,000
December 2015-January 2016 Survey	600	15	$28,500
2016 Short Track	600	12-15	$26,000
Contract Total			$115,000

No additional fees or charges will be billed. The budget includes all deliverables, services, printing, shipping, travel to meetings, and other items involved with the project.

Total for the Regional Transportation Plan Priorities and Preferences Survey: Not to Exceed $115,000

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Todd Muck, AICP, Deputy Executive Director

Meeting Date: April 27, 2016

Subject: **CliffordMoss Contract Amendment #1/Printing Services**

RECOMMENDED ACTION

1. **AUTHORIZE** the Executive Director to execute a contract amendment with CliffordMoss not to exceed $25,000 to develop and design educational material;
2. **AUTHORIZE** the Executive Director to solicit and execute a contract(s) for printing services not to exceed $25,000;
3. **AUTHORIZE** the use of undesignated reserve funds for these contracts; and
4. **AUTHORIZE** the Executive Director to make administrative changes to the agreements if such changes do not increase the Agency's net cost, subject to approval by Agency counsel.

SUMMARY

Transportation Safety & Improvement Investment Plan is transitioning from the development phase to public outreach and education. CliffordMoss' contract needs to be amended to incorporate additional work not originally anticipated, including developing educational documents individualized for different parts of the County.

FINANCIAL IMPACT

The budget for the original public outreach consultant contract was set at a not-to-exceed amount of $131,000, funded through budgeted Agency reserve funds. This contract amendment for $25,000 would be a "de minimus" amendment (less than 20%). With Board authorization, as a separate but related item, up to $25,000 for printing expenses would be added to the Transportation Agency's budget to educate residents around the County about the Transportation Safety & Improvement Investment Plan. Agency undesignated reserve funds are available for this amendment, outside of funding currently in the Agency's FY 15/16 budget.

DISCUSSION

The Transportation Safety & Improvement Investment Plan was adopted by the Transportation Agency Board of Directors on March 23, 2016 after extensive input from community stakeholders from around the County. Through this process it has become clear that there is a need to develop customized printed material to explain the details of the Plan for different areas and populations throughout the County. The recommended contract amendment with CliffordMoss provides budget capacity to complete this work.

TAMC believes it is most appropriate to do a contract amendment with CliffordMoss to add this work to the contract for Transportation Improvement Measure Public Outreach Plan consultant

services. The contract amendment amount is less than 20% of the original contract budget. **Attached** are the contract amendment, additional scope of work, and additional budget.

Additionally, authority to solicit and execute contracts for printing these customized printed materials, not exceeding a collective amount of $25,000, is part of the recommended action. Local printing firms will be invited to bid to print the outreach and education pieces after they have been designed.

Approved by: _____ Date signed: April 18, 2016
Debra L. Hale, Executive Director

Consent Agenda

Counsel Approval: YES
Finance Approval: YES

Attachments:
1. Draft Contract Amendment
2. Revised Scope of Work and Budget

AMENDMENT # 1 TO AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY AND CiffordMoss

THIS AMENDMENT NO. 1 to the agreement dated May 27, 2015, between the Transportation Agency for Monterey County, hereinafter referred to as "TAMC," and CiffordMoss, hereinafter referred to as "Consultant," is hereby entered into between TAMC and Consultant.

R E C I T A L S:

A. **WHEREAS**, TAMC and Consultant entered into an agreement for professional services on May 27, 2015, hereinafter referred to as "Agreement;"

B. **WHEREAS,** the Agreement relates to the Transportation Safety and Investment Plan (the "Plan") public outreach efforts, which is currently in process;

C. **WHEREAS,** as during development of the Plan, the need to develop and design additional printed educational material was identified; and

D. **WHEREAS,** TAMC and Consultant desire to increase the maximum amount payable as stated in the Consultant Agreement and amend the Scope of Work to conduct this work.

NOW, THEREFORE, the parties agree to amend the Agreement as follows:

1. **PAYMENTS TO CONSULTANT; MAXIMUM LIABILITY**

The maximum amount payable to the Consultant is increased by Twenty five Thousand Dollars ($25,000) to a total not to exceed amount of One Hundred Fifty Five Thousand, Nine Hundred and Ninety Nine Dollars ($155,999).

2. **SCOPE OF WORK**

The Scope of Work attached to the Agreement as Attachment A is hereby amended and expanded to include the Scope of Services dated April 27, 2016, and attached hereto as Transportation Improvement Measure Consultant Contract Scope of Work Amendment #1 Attachment A-1, replacing the original Scope of Work Attachment.

4. **REMAINDER OF TERMS UNCHANGED**

All other terms of the Agreement, remain in full effect.

An executed copy of this Amendment No. 1 shall be attached to the Agreement and shall be incorporated as if fully set forth therein.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment #1 to the Agreement with CliffordMoss

TAMC:	CliffordMoss:
_____	_____
Debra L. Hale Executive Director	
_____	_____
(date)	(date)
Approved as to form:	
_____	_____
TAMC Counsel	(date)

Transportation Improvement Measure Public Outreach Plan Consultant

Attachment A-1

SCOPE OF WORK

The Transportation Agency for Monterey County (TAMC), Monterey County's regional transportation planning agency, is a state designated agency responsible for planning and funding transportation projects. The Transportation Agency has a responsibility to provide information on its projects, plans and activities to the public, invite participation and foster public understanding of its function.

CliffordMoss will work with TAMC staff to develop and implement a strategic public outreach plan that will increase public awareness and understanding of transportation needs and funding challenges. The outreach plan will lead to the development of a Transportation Expenditure Plan for a sales tax measure in 2016. The plan will be designed to address the diverse demographic and geographic community interests of Monterey County. Consultant will collaborate with the Agency's other project consultants as needed.

SCOPE OF SERVICES

Transportation Improvement Measure Public Outreach services cover a broad range of needs and will involve providing key transportation outreach delivery activities described below, but not limited to:

PROJECT MANAGEMENT

Project Management and Coordination, Ongoing

The Consultant's project manager, Tom Clifford, will be in contact with Transportation Agency staff on a regular basis to keep the team advised of progress made, to introduce and discuss project deliverables, and to clarify questions and gather feedback. The Consultant will maintain clear channels of communication, and will be in regular contact via phone, email, screen sharing and in person meetings, so that project partners have a full understanding of project expectations, work plan, and schedule.
Deliverables:

1. Ongoing communications with Transportation Agency staff
2. Meeting agenda; presentation materials
3. Detailed project schedule

PROJECT DEVELOPMENT-PHASE 1

TASK 1: Fast Track Launch-Phase 1. May – July 2015

Deliverables:

1. Full day project launch meeting with consultants, Tom Clifford and Bonnie Moss, as well as Moxxy Media, acting as local public outreach sub-consultant.
2. Review and discuss poll results with TAMC & EMC Research
3. Develop and present a draft of the "TAMC Political Profile" for discussion at the launch meeting.
4. Draft a preliminary Brand & Messaging Platform
5. Review TAMC's existing communications operations
6. Discuss and evaluate community organizing "assets" and "infrastructure"
7. Prepare tools that will help the Agency expedite fast-track strategic communications
8. Present a recommended schedule of launch visits activities.

TASK 2: Develop Public Outreach Plan and Messaging with Sub-consultant, June – November 2015

Deliverables:

1. Review previous polling data with any current research conducted by EMC Research
2. Refine the 30-day messaging strategy to engage stakeholders
3. Identify methods to engage stakeholders and guide staff in the process
4. Create direct mail program with a creative, customized focus on each individual region.
5. Create a media calendar to develop proactive communication
6. Develop effective, proactive media editorial board strategy
7. Develop and assist with the creation of messaging material, talking points for briefing documents, and presentations to the public and media
8. Create key messages, utilizing information gained from research
9. Prepare a crisis communications strategy should the need arise
10. Ensure tools meet message discipline criteria

TASK 3: Manage Public Outreach Plan with Sub-consultant, Ongoing

Deliverables:

1. Weekly team phone meetings
2. Monthly in-person meeting
3. Create metrics to evaluate each element of the outreach plan and track them to make sure all work is getting done and goals are being met
4. Provide ongoing strategic advice and guidance to ensure the Outreach Plan stays on schedule.

TASK 4: Support TAMC's Public Outreach Activities with Sub-consultant, Ongoing

Deliverables:

1. Provide media training for project leaders, key spokespeople, participating officials, policy makers, volunteers and others
2. Provide training on how to prepare news release & media advisories to promote project activities and fulfill the media calendar. Review materials as needed.
3. Present ongoing strategic counsel to help achieve TAMC strategic goals and deliver maximum impact
4. Present information at TAMC committee and public workshops, as necessary

TASK 5: Facilitate Consensus Building for the Creation of an Expenditure Plan with Sub-consultant, May – December 2015

Deliverables:

1. Preliminary Listening- Round 1 meeting with a small, strategic set of opinion leaders and influencers to access community dynamics and future messaging.
2. Develop Round 2 of community engagement which could include the following options : conducting stakeholder meetings, opinion leader "strategic conversations," customized direct mail to voters, establishment of an Ad Hoc Advisory Committee, activation of a Speakers Bureau, launch of a local media program, launch of early e-marketing plan, initiate resource development & communications planning for the future

TASK 6: Assist With the Development of Expenditure Plan with Sub-consultant, August – September 2015

Deliverable:

1. Coordinate with Agency staff and other consultants to draft the Transportation Expenditure Plan
2. Provide ongoing advice and guidance to ensure that the development of the Expenditure Plan stays on schedule.

TASK 7: COORDINATE MESSAGING ACROSS ALL MEDIA PLATFORMS with Sub-consultant, Ongoing

Deliverables:

1. Develop an outreach plan that can be implemented into the Agency's current web and social media platforms early in the communication phase.
2. Develop a stand-alone electronic infrastructure that can create a dynamic online presence independent of TAMC's traditional website.
3. Craft content for TAMC website
4. Provide ongoing strategic counsel to optimize online messaging, engage on-line community and help gather community input.
5. Develop education materials, suitable for printing, designed to inform residents across the county about the Transportation Safety and Investment Plan and its potential impact on various communities within the county

PROJECT DEVELOPMENT-PHASE 2

TASK 1: Public Information & Ballot Measure Preparation with Sub-consultant
January –August 2016

Deliverables:

1. Present draft expenditure plan to the public
2. Define core ballot measure package
3. Review Results of 2016 poll by EMC Research
4. Prepare final Transportation Expenditure Plan and Ballot Measure Documents
5. Assistant Agency with efforts to place measure on the ballot as needed

Attachment B-1 Budget

Project Development Phase 1	Hours	Rate	Rate	Cost
Task 1: Fast Track Launch	50	$187.50 / hour		$9,375.00
Task 2: Develop Public Outreach Plan and Messaging	100	$187.50 / hour		$18,750.00
Task 3: Manage Public Outreach Plan	210	$187.50 / hour		$39,375.00
Task 3: Manage Public Outreach Plan	80		$48.61/hour	$3,888.88
Task 4: Support TAMC's Public Outreach Activities	60	$187.50 / hour		$11,250.00
Task 4: Support TAMC's Public Outreach Activities	640		$48.61/hour	$31,110.40
Task 5: Facilitate Consensus Building for the Expenditure Plan	30	$187.50 / hour		$5,625.00
Project Development Phase 2	**Hours**	**Rate**	**Rate**	**Cost**
Task 1: Prepare Public Information & Ballot Measure Documents Messaging	~~30~~163	$187.50 / hour		$~~5~~30,625.00
Other Expenses				
Business Expenses & Data Services				$6,000
Total	~~1232~~ 1,365			**$~~130~~155,999.28**

Consultant will provide monthly invoice to TAMC upon completion of work of each task listed above in an amount not-to-exceed the budgeted cost for the given task. A progress report of work completed to date must be included with the invoice.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Christina Watson, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **HDR Contract Amendment #1**

RECOMMENDED ACTION

1. **AUTHORIZE** the Executive Director to execute a contract amendment not to exceed $320,000 with HDR Engineering, Inc. for an updated Traffic Study, Surveying and a Project Report for improvements to Highway 183 near the Salinas train station;
2. **AUTHORIZE** the use of state funds budgeted to this project;
3. **AUTHORIZE** the Executive Director to make administrative changes to the agreement if such changes do not increase the Agency's net cost, subject to approval by Agency counsel; and
4. **APPROVE** sole source finding.

SUMMARY

The Salinas Rail Extension Project is in the final design phase. The contract needs to be amended to incorporate additional required work not anticipated, including an updated traffic study and surveying. A Project Report that Caltrans may require for the improvements to Highway 183 associated with the rail station project is included as an optional task. Staff recommends a sole source finding based on the related nature of the tasks and the efficiencies involved.

FINANCIAL IMPACT

The budget for the original final design contract was set at a not-to-exceed amount of $2,191,997, funded through Traffic Congestion Relief Program (TCRP) funds. For the original contract, TAMC commissioned an independent cost estimate from URS, Inc. URS estimated the final design work would cost $2.5-3 million. This contract amendment for $320,000 would be a "de minimus" amendment (less than 20%) and still within the amount of the original independent cost estimate. Of this amendment total, the cost of the optional Project Report task is $110,200; that task will only be needed if Caltrans determines it is required.

DISCUSSION

The Salinas Rail Extension Project is currently in the final design phase. The project includes several highway improvements along State Route 183: pedestrian improvements at the intersection with Salinas Road/ Main Street and a proposed extension of Lincoln Avenue, which currently terminates at Market Street from the south. The proposed improvements include changing the intersection at Lincoln Avenue to a 4-way intersection with the associated changes to the signals and crosswalks, as well as some lane configuration changes. These improvements have been designed to the 60% plan stage with input from Caltrans over the years.

Transportation Agency for Monterey County
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www.tamcmonterey.org

The current cost estimate for the improvements within the Caltrans-owned right-of-way is approximately $1.3 million, to be funded with state funding. As this cost estimate is over $1 million, Caltrans had indicated that a full Project Report would be required, beyond the encroachment permit that had been anticipated. A Project Report was not anticipated when TAMC published the Request for Proposals for the final design of this project, therefore it was not included in the contract Scope of Work or budget. Meanwhile, however, the Market Street design work is inextricably connected to the final design for the station area, as the Lincoln Avenue extension is required to provide signalized access to the train station. Caltrans has indicated that a scaled-back improvement project with a cost of $1 million or less, limited to the Lincoln Avenue/Market Street intersection, would not require a Project Report. This contract amendment includes the Project Report as an optional task, pending a conclusive resolution of this question.

In addition to the Project Report, the contract amendment also covers work not assumed in the original contract but discovered to be necessary during the preparation of 75% plans:

- Topographic Surveys – during surveys at the Salinas station, the original survey data was discovered to be incorrect, so the team is not confident in using the original survey data for the Salinas station or the Caltrain stations.
- Cost Estimates – the cost estimates need to be updated based on a different Caltrans Specification System than was originally assumed.
- Technical Specifications and Bidding Documents – these documents need to be thoroughly updated pursuant to new Caltrans standards including preparation of the General Provisions.
- Traffic Analysis – the traffic analysis done in 2006 is considered by Caltrans to be outdated and Caltrans is requiring it to be updated.
- Geometric Drawings – these are required by Caltrans to justify design exceptions within Caltrans right-of-way (Highway 183).
- Microstation – Caltrans requires the use of Microstation for plans, whereas the consultant was previously using AutoCAD.

TAMC believes it is most appropriate to do a contract amendment with HDR Engineering, Inc. to add this work to the contract for final design, and recommends a sole source finding. The contract amendment amount is less than 15% of the original contract budget and the total contract amount is still within the original contract independent cost estimate. In addition, staff prepared an independent cost estimate for the work in this amendment, and the proposed consultant price for the work falls within 6% of that independent estimate, with variations attributable to differing assumptions regarding how many meetings will be required. Staff and consultant will strive to be as efficient as possible in meeting management and scheduling to reduce the final cost to the Agency. **Attached** are the contract amendment, additional scope of work, and additional budget.

Approved by: _____ Date signed: April 14, 2016
Debra L. Hale, Executive Director

Consent Agenda Counsel Approval: YES
Finance Approval: YES

Attachments:

1. Draft Contract Amendment
2. Exhibit A-1: Scope of Work (Additional)
3. Exhibit B: Budget

AMENDMENT # 1 TO AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN THE TRANSPORTATION AGENCY FOR MONTEREY COUNTY AND HDR ENGINEERING, INC.

THIS AMENDMENT NO. 1 to the agreement dated June 25, 2014, between the Transportation Agency for Monterey County, hereinafter referred to as "TAMC," and HDR Engineering, Inc., hereinafter referred to as "Consultant," is hereby entered into between TAMC and Consultant.

R E C I T A L S :

A. **WHEREAS**, TAMC and Consultant entered into an agreement for professional services on June 25, 2014, hereinafter referred to as "Agreement;"

B. **WHEREAS,** the Agreement relates to the Salinas Rail Extension Project (the "Project"), which is currently in the final design phase;

C. **WHEREAS,** as part of final design, Caltrans may require a Project Report and does require additional traffic analysis and other studies for the improvements to Highway 183 associated with the Project; and

D. **WHEREAS,** TAMC and Consultant desire to increase the maximum amount payable as stated in the Consultant Agreement and amend the Scope of Work to conduct this work.

NOW, THEREFORE, the parties agree to amend the Agreement as follows:

1. **PAYMENTS TO CONSULTANT; MAXIMUM LIABILITY**

The maximum amount payable to the Consultant is increased by Three Hundred Twenty Thousand Dollars ($320,000) to a total not to exceed amount of Two Million, Five Hundred Eleven Thousand, Nine Hundred and Ninety Seven Dollars ($2,511,997).

2. **SCOPE OF WORK**

The Scope of Work attached to the Agreement as Exhibit A is hereby amended and expanded to include the Scope of Services dated April 27, 2016, and attached hereto as Salinas Extension Kick-Start Design Phase Scope of Work Amendment #1 Exhibit A-1. The Scope of Services will now include Exhibit A and A-1.

4. **REMAINDER OF TERMS UNCHANGED**

All other terms of the Agreement, remain in full effect.

An executed copy of this Amendment No. 1 shall be attached to the Agreement and shall be incorporated as if fully set forth therein.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment #1 to the Agreement with HDR Engineering, Inc.

TAMC:	HDR ENGINEERING INC.:
_____	_____
Debra L. Hale Executive Director	
_____	_____
(date)	(date)
Approved as to form:	
_____	_____
TAMC Counsel	(date)

EXHIBIT A-1: SCOPE OF WORK

Task 2: Project Management

HDR will provide Project Management for completion of the Traffic Analysis and Caltrans Geometric Drawings and Fact Sheets.

1. Coordination with Caltrans.
2. Prepare for and attend two (2) Caltrans Traffic Focus Meetings via phone.
3. Prepare for and attend two (2) Caltrans Fact Sheet Focus Meetings.
4. Supervise and coordinate all design activities and conduct Quality Control according to the project's Quality Control Plan.
5. Track task schedule and costs.

Deliverables:

1. Caltrans Focus Meeting Minutes (4)

Task 3: Topographic Surveys

Through the review and verification of the previous survey data provided by Parsons for Salinas Station, it was discovered that there is a discrepancy between the benchmark elevation listed on Parsons 60% Plans and the National Geodetic Survey (NGS) published elevation. After further vertical review of the previous data, it was determined that it would not be suitable for design purposes. To develop design level survey, the HDR team will return to Salinas Station to conduct a level loop to tie into the benchmark using the NGS published elevation. The HDR team will also survey the areas along Market Street and Palmetto Street for which the design team was previously relying on the Parsons data.

It was also discovered that the Parsons did not provide any vertical information for the existing track at the Gilroy Caltrain yard and along the UPRR mainline. The HDR team will coordinate with Caltrain to obtain a right of entry permit to conduct non-intrusive survey work, and coordinate with UPRR to obtain a permit to conduct surveys on the mainline track between the Gilroy station and south of Luchessa Avenue.

Deliverables:

1. Unchanged from Original Contract

Task 8: Cost Estimates

After review of the Parsons 60% submittal for both Salinas Station and Gilroy, it was discovered that 60% Cost Estimates were no longer viable to modify and advance for the 75% submittal. Through the peer review process and development of preliminary engineering concepts with the ITC team, the project's construction scope changed significantly from the Parsons 60% plans and the original kick-start concept. The construction scope change requires the development of new quantity take-off calculations. In addition, the use a different Specification System for the project requires that HDR start

over on the development of the cost estimates such that estimate bid items are reflective of the specifications. HDR will also update the cost estimate to reflect current unit costs.

HDR will develop estimates of probable construction cost for each of the three (3) packages to accompany the 75%, 90% and 100% Plans and Specifications submittals.

Deliverables:

1. 75%, 90% and 100% Cost Estimates - Three Packages

Task 9: Technical Specifications, Front End and Other Documents for Bidding

Task 9.1 – Technical Specifications

After review of the specifications developed by Parsons for the 60% design for the Salinas Station, it was discovered that the specifications followed the 2006 Caltrans Specification System, which Caltrans has since ceased to support or update. It was originally anticipated that HDR would build off of the 60% Specifications for both the Salinas and Santa Clara packages. However, in light of these findings, HDR will develop new specifications for each of the three (3) Packages.

It was determined that the appropriate specification system to use for Package 1 (Salinas Street Side Improvements) would be the Caltrans 2015 Specifications System. Since Package 2 (Salinas Track Side Improvements) and Package 3 (Gilroy, Tamien and Morgan Hill) have significant track and architecture improvements not sufficiently covered by the Caltrans Specification System, and since Package 3 is within Caltrain right-of-way, it was decided that use of the Caltrain Specification System would be best suited for Package 2 and Package 3.

These changes have resulted in more work than originally anticipated to prepare the specifications for each package. HDR will develop specifications in the formats specified above for each of the three packages to accompany the 75%, 90% and 100% Plans submittals.

Key Assumptions:

1. The project will be bid in three packages.

Deliverables:

1. Technical bid documents – Three packages

Task 9.2 – TAMC "Front End" General Provisions

HDR will prepare a set of “Front End” General Provisions for use by TAMC. HDR will prepare modifications to Division 1, Sections 1 through 9 of the 2015 Caltrans Standard Specifications, as required to address specific requirements of TAMC. The “Front End” General Provisions to be prepared will be in the current format used by Caltrans for Special Provisions and will consist of text to Add, Replace or Delete specific clauses, as required. After TAMC review of the draft “Front End” General Provisions, HDR will make revisions and will incorporate the final “Front End” General Provisions into the TAMC Salinas Rail Extension project specifications for Packages 1, 2 and 3.

HDR will also prepare a separate Bid Book that contains specific bid process requirements for bidders.

Key Assumptions:

1. TAMC's Legal Counsel will review Division 1, Sections 1 through 9 of the 2015 Caltrans Standard Specifications and provide an opinion on any language that they feel may need to be modified.
2. TAMC's Legal Counsel will review the draft "Front End" General Provisions prepared by HDR and provide their concurrence or comments.

Deliverables:

1. Draft "Front End" General Provisions in electronic Word format, for TAMC review
2. Final "Front End" General Provisions in electronic Word format
3. Bid Book

Task 13: Traffic Analysis

This task will update the traffic analysis conducted in 2006 for the TAMC's rail service extension to Salinas. The update will be conducted to:

- Update Baseline conditions from 2002, 2003, and 2006, to 2016 conditions which will account for changing local and regional travel patterns over the past 10 years; and
- Prepare both new Background (No Project) and Project conditions analysis, from the previous horizon years of 2008 and 2013, to 2018 and 2023.

Task 13.1 – Traffic Data Collection

Obtain and Review Data

HDR will obtain, review, and compare all of the input assumptions (traffic counts, geometrics, controls/signal phasing, forecasts, software – Synchro, and peak analysis) and results of the 2002, 2003, 2006 Baseline Conditions, and 2008 and 2013 Background and Project conditions analysis for the five intersections studied. Intersections reviewed will include:

1. Lincoln Avenue @ West Market;
2. Station Place at West Market;
3. Salinas Street at West Market;
4. Monterey Street at East Market; and
5. Rossi Street at North Main Street.

In addition, HDR will:

- Obtain readily available, current 2015/2016 intersection geometrics and operations, controls, forecasts, and other assumptions for each intersection.
- Compare 2006 assumptions with current 2015/2016 data to identify differences and changes in the analysis assumptions required for use in later Tasks.
- Assess the availability, quality, and representations (morning, afternoon peak hour, daily) of the most recently collected traffic counts for each intersection and roadways encompassing the study area.

- Obtain future base and future travel forecasts from the SCVTA and AMBAG regional travel demand models and Caltrans/City of Salinas traffic trends (if available) to define background traffic growth for the intersections and roadways in the study area. The Background Conditions analysis will include the traffic demand associated with the implementation of funded/programmed transportation projects (known as existing plus committed) that impact the study area (if any).
- Use ridership and other modal (auto, transit, and walk/bike access to the station) forecasts to represent the future extension of passenger rail service to Salinas Station. This will provide projected future forecasts of ridership to Salinas Station for use in both the 2018 and 2023 Project Conditions traffic analysis.

Collect Traffic Data

It is assumed that TAMC will provide current traffic count data for both intersections and roadway segments.

Task 13.2 – Traffic Study Report

Format Traffic Data and Conduct Analysis

Once the data is collected in Task 13.1, HDR will format the data for use in the intersection and roadway traffic analysis. This will include refining and balancing the raw traffic counts to identify the Baseline 2016 turning movements and roadway volumes for the study area. The traffic counts will be balanced so that the progression of traffic volumes by approach and movement from intersection to intersection are logical for analysis. HDR will then use travel demand growth from approved travel demand modeling sources and historical traffic count data to generate future volumes for the Background scenario.

Based on the previous analysis conducted in 2006, and the need to understand the impacts of these five intersections and roadways in concert with one another, HDR recommends using Synchro intersection analysis software. Synchro is based on approved analysis methods identified in the Highway Capacity Manual and has been traditionally used in this type of analyses. HDR also recommend using Synchro as the primary analysis tool for evaluating roadway segments in the study area. The intersection turning movements collected in the data collection task will be the primary source to represent current roadway segment volumes. We will supplement this information with observed travel speeds and times for study area roadways, and intersection queuing data, also collected in the data collection task, to conduct this roadway segment analysis.

HDR will work with TAMC, Caltrans, and the City of Salinas to ensure that the analysis methods are understood and approved prior to commencing work. Once the methods are approved, we will conduct the following analysis for each of the five intersections and roadway segments:

- 2016 Baseline Conditions - Morning and afternoon peak hour intersection analysis and roadway level of service analysis;

- 2018 Background and Project Conditions - Morning and afternoon peak hour intersection analysis and roadway level of service analysis for both scenarios;
- 2023 Background and Project Conditions - Morning and afternoon peak hour intersection analysis and roadway level of service analysis for both scenarios;

The Project Conditions scenario will include the assessment of alternative intersection configurations (e.g., signal timing) designed to provide better transportation access to Salinas Station. HDR will also provide summaries of truck, bus, and other movements for the intersections and roadway segments in the study area for each scenario and year. We also will include a high level assessment of pedestrian and multimodal access to the Salinas Station and work with TAMC, Caltrans, and the city of Salinas to determine potential safety issues and concerns in the project area.

Document Traffic Impacts

HDR will prepare a detailed traffic analysis designed to document the impacts of the extension of rail service to Salinas Station. Peak hour intersection and roadway levels of services will be defined for each condition (Baseline, Background, and Project) and year (2016, 2018, and 2023) to identify and compare the traffic impact results by intersection and roadway. HDR will work with TAMC, Caltrans, and the City of Salinas to define mitigation strategies if needed to test the sensitivity of improvements required to improve the operations of the system and/or individual intersections in the study area. We will document the results of the analysis, including summaries of the analysis conducted, in a draft and final report. We will finalize the draft report based on review and comment from the TAMC, Caltrans, and the City of Salinas.

Schedule

HDR has assumed a two month schedule to complete the scope of Task 13 from receipt of notice to proceed.

Deliverables:

1. Draft and Final Traffic Study Report

Task 14: Geometric Drawings and Fact Sheets

Geometric Drawings

Through coordination with Caltrans, it was discovered that Design Exception Fact Sheets were not previously processed for the improvements within Caltrans right-of-way. Caltrans has requested that the HDR team document the design exceptions using the Caltrans Design Exception Fact Sheet process.

The HDR team will refine preliminary geometrics based on input received in previous meetings with Caltrans. The geometrics will be evaluated to qualitatively account for cost, traffic operations, safety, construction phasing, environmental impacts, and right-of-way and utility relocation requirements. The findings shall be presented on Geometric Drawings to Caltrans for review and to reach consensus on the associated design exceptions.

Design Exception Fact Sheets

The geometrics of the existing and proposed improvements facility will be evaluated for nonstandard features based on the following:

- Design Information Bulletin (DIB) 78-03 (Design Checklist for the Development of Geometric Plans),
- DIB 82-05 (Pedestrian Accessibility Guidelines for Highway Projects)
- Caltrans Highway Design Manual,
- Compliance with ADA requirements.

The HDR team will submit a list of mandatory and advisory design exceptions to Caltrans geometrician for review and comment. Geometric refinements will be investigated to assess if any nonstandard features can be eliminated and agree on the advisory and mandatory design exceptions to be requested.

For non-standard design features that are justified and acceptable to Caltrans District Design and HQ Design Coordinator, Mandatory and Advisory Fact sheets will be prepared. These exceptions will be finalized and submitted to Caltrans for review, approval and concurrence.

Based on the preliminary design to date, the HDR team has established the following non-standard features:

Mandatory-

HDM Section 302.1 – Shoulder Width – The paved shoulder width, at urban areas with posted speed limits less than 45 MPH and curbed median, shall be 2 feet for left shoulder and 8 feet for right shoulder.

HDM Section 305.1(2) – Median Width – The minimum medium width for multilane conventional highways shall be 12 feet.

Advisory-

HDM Section 105.5(2) – Guidelines for the location and design of curb ramps – Two curb ramps should be installed at each corner.

Key Assumptions:

1. It is assumed that the design exceptions in the Caltrans right of way identified above and previously discussed with Caltrans are acceptable to Caltrans.

Deliverables:

1. Geometric Drawings for one Build Alternative
2. Design Exception Fact Sheets

Task 15: As-Built Plans in Microstation

As requested by Caltrans, the HDR team will submit a digital copy of the final as-built plans in Caltrans standard Microstation file format to Caltrans.

Key Assumptions:

1. Only work within Caltrans right of way will be shown on the Microstation plans.

Deliverables:

1. As-Built Plans in Microstation format

Task 16: Caltrans Project Report - *Optional Task*

The HDR team will prepare the Project Report in general accordance with the Caltrans "Preparation Guidelines for Project Report" and our understanding of Caltrans District 5's expectations expressed in a Caltrans meeting on December 8, 2015.

Task 16.1: Project Report

The following sections will be developed as part of the Draft Project Report:

Introduction and Recommendation

the HDR team will describe the preferred alternative for the project, type of facility, present the capital outlay support, right-of-way and construction estimates, and describe the funding source and funding year.

The discussion will recommend that the Build Alternative be approved and proceed to the design phase.

Background

the HDR team will update the history of the Project presented in the Project Study Report (PSR) (Parsons 2006) and provide additional information if the project has changed from the approved PSR, such as scope or if new issues have developed since the PSR approval.

the HDR team will summarize and update the community interaction of the Project presented in the PSR and provide additional information if there have been any recent interactions with the community, including new stakeholders, special interest groups, new commitments, etc. Discussion of their needs and accommodation of their needs will be included.

the HDR team will update the description of the existing facility presented in the PSR, focusing the description, including right-of-way widths, geometrics, drainage and any other appropriate information, on the limits of this Project. Additional improvements since the approval of the PSR will be described, as well as any upcoming projects adjacent or impacting this Project will be described.

Purpose and Need

the HDR team will provide a concise discussion on the purpose and need of the Project. The data from the approved PSR will be updated to reflect the current Traffic Analysis Study. A discussion of the

deficiencies of the existing corridor and how the Project improvements will alleviate the problem will be included.

This section will also discuss how this alternative relates to State, Regional and local planning. Any pertinent State Plan, Regional transportation plan, or local planning documents will be delineated in this section. Additionally, any transit operator plans, including opportunities to enhance transit service (as well as impacts of the Project on existing and future transit services) will be fully discussed.

HDR will summarize the findings of the Traffic Analysis Report. Additionally, a summary of the collision analysis, including primary collision factors, will be presented in this section

Geometric Design Alternatives and Analysis

the HDR team will discuss the Project alternatives, including the No Build Alternative in this section. A detailed description of the preferred alternative will be developed. Proposed engineering features will be described and include general geometrics, pedestrian and bicycle features, needed roadway rehabilitation, utility involvement and any drainage improvements for the Project.

This Project proposes several nonstandard design features that will be presented in this section. Separate Fact Sheets to Mandatory/Advisory Design Standards will be submitted and approved prior to the final Project Report.

Considerations Requiring Discussion

HDR will summarize the findings of the EIR and EIR Addendum related to: Hazardous Materials, Resource Conservations, Environmental Issues and Air Quality. It is assumed that Title VI and Noise Abatement Decision Report are not applicable to the Project. the HDR team will summarize any Right-of-Way Issues as discovered during the development of the Right-of-Way Data Sheet under Task 15.2.

Other Considerations As Appropriate

HDR will summarize the Public Hearing process for the EIR and EIR Addendum. It is assumed that Title VI and Noise Abatement Decision Report are not applicable to the Project. This section will also list and discuss required permits for the Project. the HDR team will summarize the Transportation Management Plan and Stage Construction.

Risks

The HDR team will summarize the findings of the Project Risk Register as developed under Task 15.2.

Quality Control & Comment Resolution

In compliance with the project's QA/QC Program, the HDR team will conduct a final review of the Draft Project Report (DPR) prior to submitting the document to Caltrans for review and comment.

Following review and receipt of comments from Caltrans, the HDR team will organize, attend, and lead a JRT (Joint Resolution Team) meeting to discuss conflicting comments and obtain necessary clarifications. the HDR team will document the comment resolution in a comment response matrix.

The Project Report will be revised to incorporate agreed upon review comments and the Final Project Report will be submitted for Caltrans signature.

Key Assumptions:

1. Two alternatives will be presented: Build and No Build
2. Caltrans will provide latest 3 year accident data and summary tables
3. Any environmental discussion presented will summarize the discussion from the Approved Environmental Impact Report (EIR) (Parsons 2006) and IER Addendum (Parsons 2013).
4. A Value Analysis is not part of the scope.
5. Title VI and Noise Abatement Decision Report discussions do not apply to the scope of the project.
6. TAMC will provide the Project's Funding/Programming information for inclusion.
7. Caltrans will provide one (1) round of comments on the Draft Project Report.

Deliverables:

1. Draft and Final Project Report
2. Comment Response Matrix

Task 16.2: Project Report Attachments

The following attachments will be developed for the Project Report:

1. Location Map
2. Layout Sheets
3. Typical Sections
4. Cost Estimate
5. Right of Way Data Sheet
6. Utility Exhibits and Encroachment Policy Variance Request
7. Storm Water Data Report (SWDR)
8. Transportation Management Plan (TMP)
9. Risk Register

Preliminary Cost Estimate

The HDR team will prepare a cost estimate for the Project using Caltrans 6-page format. The Cost Estimate will include construction, right of way, utility and support costs for the build alternative based on items and quantities of work required for the project. Unit prices will be based on the magnitude of quantities, the HDR team's experience with similar awarded local projects, similar Caltrans projects and engineering judgment.

Right of Way Data Sheet & Encroachment Policy Variance Request

The HDR team will perform a right of way analysis based on the information gathered to date. Identification of right of way needs directly impacts the development of geometric design, and project support and capital costs.

The HDR team will evaluate the disposition of existing and proposed utilities in accordance with Caltrans "Policy on High and Low Risk Underground Facilities within Highway Rights of Way." The utility requirements of each alternative will be described to include utilities to be impacted, relocated, and any utilities requiring a Caltrans Longitudinal Encroachment Policy Exception. Associated costs for utility impacts will be developed.

The right of way and utility impacts and associated estimated costs will be summarized in the Right of Way Data Sheet.

Those utilities identified as requiring a Longitudinal Encroachment Policy Exception will be discussed with Caltrans to confirm the viability of leaving the utilities in place and will be documented in an Encroachment Policy Variance Request.

Traffic Management Plan

Stage construction plans will be developed for inclusion in the Project Report and to provide support in developing the Transportation Management Plan (TMP) checklist. The HDR team will conduct an assessment of the construction traffic impacts and potential mitigation strategies. A TMP checklist will be completed to document traffic impacts due to construction, mitigation strategies and associated costs.

Storm Water Data Report (SWDR)

A SWDR short form will be completed for this project. The SWDR will include Treatment Best Management Practices Checklists and assess if hydro-modifications are required for the build alternative. In light of the new Caltrans NPDES Permit with RWQCB dated July 1, 2013, complying with water quality during design, especially for post-construction storm water treatment requirements, is a critical project element as it could necessitate additional efforts to achieve the minimum treatment requirements, or even additional right of way or off-site mitigation. The SWDR will be prepared in accordance with current Caltrans standards to meet the current permit requirements.

Risk Register

A Qualitative Risk Register will be prepared for the Project using a Level 1 Qualitative Analysis. The resulting Risk Register will aid in the discussion of Project Risks within the Project Report. It is our understanding that a Risk Management Plan (RMP) will not be required by Caltrans.

Key Assumptions:

1. The Storm Water Data Report will utilize the Caltrans SWDR - Short Form.
2. The Project is a Risk Level 1 and will utilize the Caltrans Qualitative Risk Analysis – Level 1.
3. A Transportation Management Report is not necessary for the Project.
4. A VA Analysis is not included in this scope. Per Caltrans and FHWA guidelines, since the estimated total project cost (capital and support) for the build alternative is below $50 million, a Value Analysis study is not necessarily required, but may be requested or desired by Caltrans.
5. There is no proposed roadway widening or additional pavement on this project. It is not anticipated that Caltrans will require a Pavement Life Cycle Cost Analysis (LCCA) to determine the pavement section. A Pavement Life Cycle Cost Analysis is not included in the scope.
6. The preliminary cost estimate will be prepared per Caltrans Project Development Procedures Manual (PDPM) Cost Estimating guidelines.

Deliverables:

1. Plan Sheet Attachments
2. Cost Estimate
3. Right of Way Data Sheet
4. Utility Exhibits and Encroachment Policy Variance Request
5. Storm Water Data Report
6. TMP Data Sheet
7. Risk Register

Task 2: Project Management for PR - *Optional Task*

HDR will provide Project Management for completion of the Caltrans Project Report for a 12 month period.

1. Supervise and coordinate all design activities.
2. Track Project Report schedule and costs.
3. Prepare for and attend six (6) Caltrans PDT meeting via phone.
4. Implement design quality management plan (QMP).
5. Coordination with Caltrans.

Deliverables:

1. Caltrans Meeting Minutes (6)
2. Project QMP

		HDR			BKF			TEAM TOTAL			
HDR TEAM **Amendment #1** *Team Summary*		**Hours**	**Labor**	**ODC**	**Hours**	**Labor**	**ODC**	**Hours**	**Labor**	**ODC**	**Budget**
	TASKS										
2	**Project Management & Meetings**	60	$10,445	$259	58	$12,883	$1,090	118	$23,329	$1,349	$24,678
3	**Surveying**	0	$0	$0	324	$38,749	$2,400	324	$38,749	$2,400	$41,149
8	**Cost Estimates**	102	$17,975	0	0	0	0	102	$17,975	$0	$17,975
9	**Technical Specifications**	280	$60,568	50	0	0	0	280	$60,568	$50	$60,618
13	**Traffic Analysis**	232	$30,799	$1,480	18	$3,705	$33	250	$34,504	$1,513	$36,017
14	**Geometric Drawings and Fact Sheets**	8	$1,246	$0	112	$16,728	$147	120	$17,975	$147	$18,122
15	**As-Built Plans**	4	$623	$0	82	$10,599	$0	86	$11,222	$0	$11,222
16	**Project Report - *Optional Task***	74	$12,243	$0	332	$48,211	$422	406	$60,454	$422	$60,876
2	**Project Management & Meetings for PR - *Optional Task***	94	$17,697	$0	132	$29,942	$1,705	226	$47,639	$1,705	$49,344
	Total Amendment #1	**854**	**$151,597**	**$1,789**	**1058**	**$160,817**	**$5,797**	**1912**	**$312,414**	**$7,586**	**$320,000**

		HDR			BKF			TEAM TOTAL			
HDR TEAM **Amendment #1** *Subtask Team Summary*		**Hours**	**Labor**	**ODC**	**Hours**	**Labor**	**ODC**	**Hours**	**Labor**	**ODC**	**Budget**
TASKS											
2	**Project Management & Meetings - Additional Work**										
2.2	Meetings (Prep, Attendence and Minutes) - 4 meetings	36	$6,227	$0	36	$8,742	$1,040	72	$14,969	$1,040	$16,009
2.3	QA/QC	24	$4,218	$259	22	$4,141	$50	46	$8,359	$309	$8,668
3	**Surveying - Additional Work**										
3.7	Salinas Station	0	$0	$0	132	$15,458	$800	132	$15,458	$800	$16,258
3.8	Salinas Layover Facility	0	$0	$0	72	$8,568	$800	72	$8,568	$800	$9,368
3.9	Gilroy	0	$0	$0	120	$14,723	$800	120	$14,723	$800	$15,523
8	**Cost Estimates - Additional Work**										
8.1	Cost Estimates - Additional Work	102	$17,975	$0	0	$0	$0	102	$17,975	$0	$17,975
9	**Technical Specifications - Additional Work**										
9.1	Technical Specifications - Additional Work	180	$37,864	$0	0	$0	$0	180	$37,864	$0	$37,864
9.2	TAMC "Front End" General Provisions	100	$22,703	$50	0	$0	$0	100	$22,703	$50	$22,753
13	**Traffic Analysis**										
13.1	Traffic Data Collection	64	$8,031	$880	8	$1,434	$13	72	$9,465	$893	$10,358
13.2	Traffic Analysis	168	$22,768	$600	10	$2,271	$20	178	$25,039	$620	$25,659
14	**Geometric Drawings and Fact Sheets**										
14.1	Geometric Drawings	4	$623	$0	66	$10,022	$89	70	$10,645	$89	$10,734
14.2	Design Exception Fact Sheets	4	$623	$0	46	$6,707	$59	50	$7,330	$59	$7,388
15	**As-Built Plans**										
15.1	As-Built Plans in Microstation	4	$623	$0	82	$10,599	$0	86	$11,222	$0	$11,222
16	**Project Report - *Optional Task***										
16.1	**Project Report Attachments**										
16.1.1	Plan Sheets	4	$623	$0	56	$7,274	$64	60	$7,897	$64	$7,962
16.1.2	Cost Estimate	4	$623	$0	32	$5,295	$46	36	$5,918	$46	$5,964
16.1.3	RW Data Sheet	2	$312	$0	36	$5,014	$44	38	$5,326	$44	$5,370
16.1.4	Storm Water Data Report	4	$623	$0	20	$3,034	$26	24	$3,658	$26	$3,684
16.1.5	TMP Data Sheet	2	$312	$0	20	$3,106	$27	22	$3,418	$27	$3,445
16.1.6	Risk Register	4	$623	$0	18	$2,851	$24	22	$3,474	$24	$3,499
16.1.7	Utility Exhibit & EPVR	2	$312	$0	50	$6,612	$58	52	$6,924	$58	$6,982
16.2	**Project Report - *Optional Task***										
16.2.1	Prepare Draft Project Report	28	$4,867	$0	48	$7,005	$61	76	$11,873	$61	$11,934
16.2.2	Comment Response Matrix and Resolution	12	$1,974	$0	14	$2,388	$21	26	$4,362	$21	$4,382
16.2.3	Update and Submit Final Project Report	12	$1,974	$0	38	$5,630	$49	50	$7,604	$49	$7,653
2	**Project Management & Meetings for PR - *Optional Task***										
2.1	Management and Invoicing - 12 month period	30	$6,320	$0	50	$11,674	$104	80	$17,993	$104	$18,098
2.2	Meetings (Prep, Attendence and Minutes) - 6 meetings	36	$6,536	$0	48	$11,779	$1,545	84	$18,315	$1,545	$19,861
2.3	QA/QC	28	$4,841	$0	34	$6,489	$55	62	$11,330	$55	$11,385
	Total Amendment #1	**854**	**$151,597**	**$1,789**	**1058**	**$160,817**	**$5,797**	**1912**	**$312,414**	**$7,586**	**$320,000**

		Project Manager	Deputy PM	Project Manager	Sr. Architect	Sr. Engineer	Engineer II	Engineer I	Sr. Environmental Planner	Environmental Planner I	Admin.	Total Hours by Task	Direct Labor Cost by Task	Other Direct Costs - Expenses		
HDR																
Direct Labor Rate (2014 rates)		**Short $102.01**	**Patel $51.21**	**Decker $90.73**	**Janik $73.37**	**$74.62**	**$47.41**	**$37.00**	**LaFata $62.50**	**$31.75**	**Helmer $39.75**			**Travel**	**Printing / Other**	**Traffic Counts**
Fully Burdened Labor Rates		**$289.73**	**$145.45**	**$257.69**	**$208.39**	**$211.94**	**$134.65**	**$105.09**	**$177.51**	**$90.18**	**$112.90**					
Amendment #1 Tasks																
2	**Project Management & Meetings - Additional Work**															
2.2	Meetings (Prep, Attendence and Minutes) - 4 meetings	4	32									36	$2,047			
2.3	QA/QC	4	16								4	24	$1,386		$259	
3	**Surveying - Additional Work**															
3.7	Salinas Station											0	$0			
3.8	Salinas Layover Facility											0	$0			
3.9	Gilroy											0	$0			
8	**Cost Estimates - Additional Work**															
8.1	Cost Estimates - Additional Work		14		12	26	50					102	$5,908			
9	**Technical Specifications - Additional Work**															
9.1	Technical Specifications - Additional Work		40		40	100						180	$12,445			
9.2	TAMC "Front End" General Provisions					100						100	$7,462		$50	
13	**Traffic Analysis**															
13.1	Traffic Data Collection		4	4				56				64	$2,640	$880		$0
13.2	Traffic Analysis		6	22				140				168	$7,483		$600	
14	**Geometric Drawings and Fact Sheets**															
14.1	Geometric Drawings		4									4	$205			
14.2	Design Exception Fact Sheets		4									4	$205			
15	**As-Built Plans**															
15.1	As-Built Plans in Microstation		4									4	$205			
16	**Project Report - *Optional Task***															
16.1	**Project Report Attachments**															
16.1.1	Plan Sheets		4									4	$205			
16.1.2	Cost Estimate		4									4	$205			
16.1.3	RW Data Sheet		2									2	$102			
16.1.4	Storm Water Data Report		4									4	$205			
16.1.5	TMP Data Sheet		2									2	$102			
16.1.6	Risk Register		4									4	$205			
16.1.7	Utility Exhibit & EPVR		2									2	$102			
16.2	**Project Report - *Optional Task***															
16.2.1	Prepare Draft Project Report	2	4	4				2	8	8		28	$1,600			
16.2.2	Comment Response Matrix and Resolution		4	2				2	2	2		12	$649			
16.2.3	Update and Submit Final Project Report		4	2				2	2	2		12	$649			
2	**Project Management & Meetings for PR - *Optional Task***															
2.1	Management and Invoicing - 12 month period	12	12								6	30	$2,077			
2.2	Meetings (Prep, Attendence and Minutes) - 6 meetings	6	30									36	$2,148			
2.3	QA/QC	4	20								4	28	$1,591			
	Total Amendment #1 Hours	**32**	**220**	**34**	**52**	**226**	**50**	**202**	**12**	**12**	**14**	**854**				
	Total Amendment #1 Direct Labor Cost by Staff	**$3,264**	**$11,266**	**$3,085**	**$3,815**	**$16,864**	**$2,371**	**$7,474**	**$750**	**$381**	**$557**		**$49,827**	**$880**	**$909**	**$0**

Escalation, Overhead, Profit

Escalation Calculation	year	Direct labor subtotal	Total Hours	Proposed Escalation %	Escalated hourly rate	percent of hours	Total hours per year	Total Labor
Year 1	2014	$49,827	854	n/a	$58.35	0%	0	$0
Year 2	2015			3.50%	$60.39	0%	0	$0
Year 3	2016			3.50%	$62.50	100%	854	$53,376
Year 4	2017			3.50%	$64.69	0%	0	$0

Total Direct Labor with Escalation	$53,376
Total direct labor	$49,827
Escalation	$3,549
Subtotal	$53,376
Overhead (158.20%)	$84,440
Profit (10%)	$13,782
Direct Costs	$1,789
Total	**$153,386**

	BKF	Principal	Associate	Associate	Project Manager	Project Manager	Project Manager	Engineer/Surveyor 3	Engineer/Surveyor 3	Engineer/Surveyor 3	Engineer/Surveyor 3	Engineer/Surveyor 2	Engineer/Surveyor 2	Engineer/Surveyor 2	Engineer/Surveyor 1	CAD Tech	Party Chief	Chainman	Total Hours by Task	Direct Labor Cost by Task	Other Direct Costs - Expenses		
	Direct Labor Rate (2014 rates)	Richwood $124.59	Wang $56.00	Thresh $65.00	Cosentino $50.75	Boscacci $52.89	Cecilio $62.00	Garcia $48.50	Simmons $42.00	Chan $45.50	Onchi $43.25	Mei $35.00	Chi $37.00	Murphy $34.25	Nogi $24.50	Hernandez $37.50	Steel $37.09	Dinatale $37.09			Travel	Printing / Other	Traffic Counts
	Fully Burdened Labor Rates	$390.59	$175.56	$203.78	$159.10	$165.81	$194.37	$152.05	$131.67	$142.64	$135.59	$109.73	$116.00	$107.37	$76.81	$117.56	$116.28	$116.28					
Amendment #1 Tasks																							
2	**Project Management & Meetings - Additional Work**																						
2.2	Meetings (Prep, Attendence and Minutes) - 4 meetings	12			16								8						36	$2,603	$960	$80	
2.3	QA/QC	2			4		8						4	4					22	$1,233		$50	
3	**Surveying - Additional Work**																						
3.7	Salinas Station			4	4			16	18						58		16	16	132	$4,603	$800		
3.8	Salinas Layover Facility			4	4			6	10						32		8	8	72	$2,551	$800		
3.9	Gilroy			4	4			8	16						32		28	28	120	$4,384	$800		
8	**Cost Estimates - Additional Work**																						
8.1	Cost Estimates - Additional Work																			$0			
9	**Technical Specifications - Additional Work**																						
9.1	Technical Specifications - Additional Work																			$0			
9.2	TAMC "Front End" General Provisions																			$0			
13	**Traffic Analysis**																						
13.1	Traffic Data Collection		4		4														8	$427		$13	
13.2	Traffic Analysis	2	4		4														10	$676		$20	
14	**Geometric Drawings and Fact Sheets**																						
14.1	Geometric Drawings	2	4		8		4			12				12		24			66	$2,984		$89	
14.2	Design Exception Fact Sheets				4		8			4			18			12			46	$1,997		$59	
15	**As-Built Plans**																						
15.1	As-Built Plans in Microstation				8							10				64			82	$3,156			
16	**Project Report - *Optional Task***																						
16.1	**Project Report Attachments**																						
16.1.1	Plan Sheets				2		4							18		32			56	$2,166		$64	
16.1.2	Cost Estimate	2			4		6				2		18						32	$1,577		$46	
16.1.3	RW Data Sheet				4		4						16			12			36	$1,493		$44	
16.1.4	Storm Water Data Report					4	4						12						20	$904		$26	
16.1.5	TMP Data Sheet		4				4				4	8							20	$925		$27	
16.1.6	Risk Register				4		6							8					18	$849		$24	
16.1.7	Utility Exhibit & EPVR				4		4						10	16		16			50	$1,969		$58	
16.2	**Project Report - *Optional Task***																						
16.2.1	Prepare Draft Project Report				8		8						32						48	$2,086		$61	
16.2.2	Comment Response Matrix and Resolution		2		4		4						4						14	$711		$21	
16.2.3	Update and Submit Final Project Report		2		6		6						24						38	$1,677		$49	
2	**Project Management & Meetings for PR - *Optional Task***																						
2.1	Management and Invoicing - 12 month period	12	10		28														50	$3,476		$104	
2.2	Meetings (Prep, Attendence and Minutes) - 6 meetings	16			24								8						48	$3,507	$1,440	$105	
2.3	QA/QC	2			8		16						4	4					34	$1,932		$55	
	Total Amendment #1 Hours	**50**	**30**	**12**	**156**	**4**	**86**	**30**	**44**	**16**	**6**	**18**	**158**	**62**	**122**	**160**	**52**	**52**	**1058**				
	Total Amendment #1 Direct Labor Cost by Staff	**$6,230**	**$1,680**	**$780**	**$7,917**	**$212**	**$5,332**	**$1,455**	**$1,848**	**$728**	**$260**	**$630**	**$5,846**	**$2,124**	**$2,989**	**$6,000**	**$1,929**	**$1,929**		**$47,886**	**$4,800**	**$997**	**$0**

Escalation, Overhead, Profit

Escalation Calculation	year	Direct labor subtotal	Total Hours	Proposed Escalation %	Escalated hourly rate	percent of hours	Total hours per year	Total Labor
Year 1	2014	$47,886	1058	n/a	$45.26	0%	0	$0
Year 2	2015			3.50%	$46.85	0%	0	$0
Year 3	2016			3.50%	$48.49	100%	1058	$51,297
Year 4	2017			3.50%	$50.18	0%	0	$0

Total Direct Labor with Escalation	$51,297
Total direct labor	$47,886
Escalation	$3,411
Subtotal	$51,297
Overhead (185%)	$94,900
Profit (10%)	$14,620
Direct Costs	$5,797
Total	**$166,614**

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Memorandum

To: Board of Directors

From: Michael Zeller, Principal Transportation Planner

Meeting Date: April 27, 2016

Subject: **Salinas Rail Extension Kick-Start Relocation Benefits**

RECOMMENDED ACTION

1. **APPROVE** the budget for relocation benefits for the acquisition of parcels for the Salinas Rail Extension Kick-Start;
2. **AUTHORIZE** the Executive Director to execute payment claims not to exceed $664,000 with eligible claimants for relocation expenses; and
3. **AUTHORIZE** the use of state funds budgeted to this project.

SUMMARY

The Agency is in the process of acquiring parcels for the Salinas Rail Extension Kick-Start project. Federal and state regulations require the agency to compensate property owners and eligible tenants for certain relocation expenses. This action will allow the Agency to pay claims for relocation expeditiously.

FINANCIAL IMPACT

The Salinas Rail Extension project includes funding for right-of-way acquisition. Staff proposes to use Traffic Congestion Relief Program funds for the estimated $664,000 in relocation expenses. The total project budget is estimated at $70 million; the right-of-way phase is estimated to cost $24.1 million.

DISCUSSION

The Transportation Agency for Monterey County is proposing to extend passenger rail service from Santa Clara County south to Salinas. The Salinas Rail Extension Kick Start project, which focuses on improvements to the Salinas Rail Station, requires acquisition of thirteen parcels, and it is critical that all the acquisitions and relocations proceed according to all applicable state and federal laws. To this end, the Agency's real estate acquisition consultant, Overland, Pacific & Cutler, and special legal counsel, Meyers Nave, have prepared a planning budget of estimated relocation expenses for the affected property owners and tenants.

Transportation Agency for Monterey County
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To provide uniform and equitable treatment for persons displaced, Congress passed the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, and amended it in 1987, called the Uniform Act. The acquisition itself does not need to be federally-funded for the rules to apply. If Federal funds are used in any phase of the program or project, the rules of the Uniform Act apply. If a property owner or tenant qualifies as a displaced person, they are entitled to reimbursement of moving costs and certain related moving expenses. Displaced individuals and families may choose to be paid either on the basis of actual, reasonable moving costs and related expenses, or according to a fixed moving cost schedule. Displaced individuals may be paid for actual, reasonable moving costs by a professional mover plus related expenses, or they may move themselves. Reimbursement will be limited to a 50-mile distance in most cases. Related expenses may include:

- Packing and unpacking personal property.
- Disconnecting and reconnecting household appliances.
- Temporary storage of personal property.
- Insurance while property is in storage or transit.
- Transfer of telephone service and other similar utility reconnections.
- Other expenses considered eligible by the Agency.

For the nine Salinas Rail Extension properties identified as potentially eligible for relocation expenses, the estimated relocation expenses total $664,000, which includes an additional 20% for unexpected expenses. This estimate should be considered the upper end of the amount the agency may be responsible to pay for relocations as some of the business owners may elect not to relocate their equipment. Agency staff is working with our real estate acquisition consultant and special legal counsel to ensure that all potential relocation claims are eligible expenses prior to payment. All expenses must be considered necessary and reasonable by the Agency and supported by paid receipts or other evidence of expenses incurred.

Approved by:  Date Signed: April 18, 2016
Debra L. Hale, Executive Director

Consent Agenda Counsel Approval: Yes
Finance Approval: Yes

DRAFT MINUTES **Agenda Item: 3.7.1**

TRANSPORTATION AGENCY FOR MONTEREY COUNTY
SERVICE AUTHORITY FOR FREEWAYS EMERGENCIES AND MONTEREY COUNTY REGIONAL DEVELOPMENT IMPACT FEE JOINT POWERS AGENCY

EXECUTIVE COMMITTEE MEETING

Members are: Fernando Armenta (Chair), Alejandro Chavez (1st Vice Chair), Dave Potter (2nd Vice Chair), Kimbley Craig (Past Chair), John Phillips (County representative), Robert Huitt (City representative)

Wednesday, April 6, 2016
*** 9:00 a.m. ***
Transportation Agency Conference Room
55-B Plaza Circle, Salinas

1. **CALL TO ORDER:** Chair Armenta called the meeting to order at 9:00 a.m. Committee members present: Armenta, Chavez, Craig, Huitt and Phillips. Staff present: Goel, Hale, Muck, Rodriguez, Watson, Wright and Zeller. Others present: Agency Counsel Reimann, John Arriaga, JEA & Associates; Terry Feinberg, Moxxy Marketing and Reed Sanders, Senator Cannella's office.

2. **PUBLIC COMMENTS:** None.

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3. **CONSENT AGENDA:**
On a motion by Committee Member Craig and seconded by Committee Member Chavez the committee voted 4– 0 to approve the consent agenda. Committee member Phillips arrived after consent approval.

3.1 Approved minutes from the Executive Committee meeting of March 2, 2016.

3.2 Approved out of-state trace; for one staff Christina Watson to the WTS International Conference in Austin TX May 18-20, 2016.

END OF CONSENT

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4. On a motion by Committee Member Chavez and seconded by Committee Member Phillips the committee voted 5– 0 to receive the state legislative update and recommend that the Board adopt positions on bills of interest to the Agency.

Christina Watson, Principal Transportation Planner, reported that the state legislature is deliberating on three transportation proposals that would raise new funds for transportation at different levels. The transportation funding proposals could help to fill an estimated $7.8 billion annual statewide road and highway maintenance needs. Ms. Watson highlighted a handout of four bills added to the list in the packet.

John Arriaga, JEA & Associates, reported that at the Senate he believes they are close to coming to a deal, pending an agreement regarding CEQA streamlining. He noted that there is not much recent news from the Assembly side. June is the deadline for ballot measures to pass through the legislative process. The League of Cities has been hosting press conferences around the state on the need to get a transportation funding package together.

5. On a motion by Committee Member Craig and seconded by Committee Member Chavez the committee voted 5– 0 to receive the report on the federal legislative update.

Mike Zeller, Principal Transportation Planner, reported on the federal "Fixing America's Surface Transportation" (FAST) Act provisions of interest, including the Caltrans request for proposals to repurpose unused federal earmarks.

6. On a motion by Committee Member Craig and seconded by Committee Member Phillips the committee voted 5– 0 to receive the annual report update and authorize the Agency to 1) contract with Monterey County Weekly to produce and distribute the 2015-2016 annual report; and, 2) mail copies of the report to every household in the County.

Theresa Wright, Community Outreach Coordinator, reported that the Annual Report is a public outreach tool that the Agency has distributed since 2005. Each year the report has a theme that summarizes the Agency's accomplishments and future activities. The Monterey County Weekly has proposed to write, edit, illustrate, design, print and distribute a 16-page annual report, half English and half Spanish. In addition to distributing 36,000 copies within the newspaper, report copies can be distributed to up to 15 locations. In response to committee comments from last month, Ms. Wright proposed a hybrid approach in which in addition to the Weekly's distribution the annual report also be mailed to every household in the county.

Board member Craig commented that staff should have oversight over the content and be strategic in selecting the ancillary distribution sites of the annual report. She added a request that the cover page of the report be of a higher quality paper stock. Board member Phillips supported the recommendation, noting if the report reaches 160,000 people, the hybrid approach is worth it.

7. The Committee received an update on the State Transportation Improvement Program hearing.

Director Hale reported that due to the fall in gasoline prices, $754 million had to be cut statewide from the $2.4 billion, 5-year program. Each County was given a target amount for cutting, and Monterey County's target was $7 million. Director Hale testified before the California Transportation Commission that TAMC's key priority is delivering the construction projects on Highway 1 and Highway 68 on-time (in FY2016/17). She noted that several counties did not propose cuts to meet their target. The California Transportation Commission's staff proposal for cuts and project delays will be released by April 22, 2016. Staff will provide an update at the TAMC Board meeting.

8. The Committee received a report on the draft agenda for TAMC Board meeting of April 27, 2016:

Executive Director Hale reported that the Board would begin with a closed session regarding real estate negotiations regarding the property acquisition for the Salinas train station. The Board will hold a public hearing regarding 2014 Regional Transportation Plan Amendment. The Board will also be asked to approve the Regional Roundabout Study and receive update on the Pacific Grove Hwy 68 Corridor Study.

9. **ADJOURNMENT**

Chair Armenta adjourned the meeting at 11:24 a.m.

Elouise Rodriguez

Elouise Rodriguez, Senior Administrative Assistant

CITY OF MARINA
211 Hillcrest Avenue
Marina, CA 93933
831-884-1253; FAX 831-384-9148
www.ci.marina.ca.us

March 2, 2016

Assembly Member Luis Alejo
P.O. Box 942849
Sacramento, California 94249-0030

Via Email: Tony.Madrial@asm.ca.gov

Re: Support for AB2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: Disposition of Excess Properties

Dear Assembly Member Alejo,

On behalf of the City of Marina, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: Disposition of Excess Properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County. The City of Marina thanks you for authoring this bill.

Over many years, TAMC, the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvements projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. This bill would help TAMC and Caltrans to make much needed and long deferred highway improvements.

Thank you for your authorship of this important bill and for supporting efforts to improve transportation in California. If you have any question, please contact me by calling 831.884.1281.

Sincerely,

Bruce C. Delgado
Mayor, City of Marina

300 Forest Avenue
Pacific Grove, California, 93950

March 18, 2016
Assembly Member Luis Alejo
P.O. Box 942849
Sacramento, CA 94249-0030

Re: Support for AB 2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties

Dear Assembly Member Alejo:

On behalf of the City of Pacific Grove, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County. **The City of Pacific Grove supports this bill.**

Over many years, TAMC, the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Bill Kampe

Bill Kampe
Mayor

cc: Hon. Bill Monning, 17th Senate District
Hon. Mark Stone, 29th Assembly District
Debra L. Hale, TAMC
Tony Madrigal, California State Assembly (*tony.madrigal@asm.ca.gov)*

City of Salinas
OFFICE OF THE MAYOR • 200 Lincoln Avenue • Salinas, California 93901 • (831) 758-7201 • Fax (831) 758-7368

COPY

March 17, 2016

The Honorable Luis Alejo
Post Office Box 942849
Sacramento, CA 94249-0030
Via email to: Tony.Madrigal@asm.ca.gov

RE: Support for AB 2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: Disposition of Excess Properties

Dear Assemblymember Alejo:

On behalf of the City of Salinas, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: Disposition of Excess Properties (as introduced February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County (TAMC) for use on future transportation projects in Monterey County. **The City of Salinas supports this bill.**

Over many years, TAMC, the County of Monterey, and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund; not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC to be used for other highway improvement projects in Monterey County. Salinas particularly supports improvements on US 101 that provide transport for the valley's agriculture products to markets. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Joe Gunter
Mayor

cc: The Honorable Anthony Canella, 12th Senate District, State Capitol, Room 5082, Sacramento, CA 95814
The Honorable Bill Monning, 17th Senate District, State Capitol, Room 313, Sacramento, CA 95814
The Honorable Mark Stone, 29th Assembly District, State Capitol, Post Office Box 942849, Sacramento, CA 94249-0029
Debra L. Hale, Transportation Agency for Monterey County, 55-B Plaza Circle, Salinas, CA 93901

MONTEREY BAY CENTRAL LABOR COUNCIL, AFL-CIO
931 E. Market St, Salinas, CA 93905 ● P: 831-422-4626 x11 ● F: 831-422-4676 ● www.mbclc.org

April 15, 2016

Assemblymember Luis Alejo
P.O. Box 942849
Sacramento, CA 94249-0030

Re: Support for AB 2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties

Dear Assemblymember Alejo:

On behalf of the **MONTEREY BAY CENTRAL LABOR COUNCIL, AFL-CIO**, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County. **The Transportation Agency for Monterey County thanks you for authoring this bill.**

Over many years, the Transportation Agency for Monterey County (TAMC), the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Respectfully,

Cesar Lara, Executive Director

cc: Hon. Anthony Cannella, 12th Senate District
Hon. Bill Monning, 17th Senate District
Hon. Mark Stone, 29th Assembly District

MONTEREY COUNTY

BOARD OF SUPERVISORS

March 21, 2016

The Honorable Luis Alejo
30th Assembly District
P.O. Box 942849
Sacramento, CA 94249

Via email to: Tony.Madrigal@asm.ca.gov

Re: AB 2730 (Alejo) Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties. - SUPPORT

Dear Assembly Member Alejo:

On behalf of the County of Monterey, I am writing in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County (TAMC) for use on future transportation projects in Monterey County.

Over many years, TAMC, the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of the bypass would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2739 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you for introducing this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Jane Parker
Chair, Board of Supervisors

Clerk of the Board · 168 W. Alisal St., Salinas, California 93901 · (831) 755-5066 · cob@co.monterey.ca.us

cc: Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District
Monterey County
- Board of Supervisors
- Lew C. Bauman, CAO
- Nicholas E. Chiulos, Assistant CAO
- Carl Holm, RMA Director
- Benny Young, Interim Public Works Director
- Charles J. McKee, County Counsel
- Clerk of the Board

John E. Arriaga, JEA & Associates
Brent R. Heberlee, Nossaman LLP
Kiana Valentine, California State Association of Counties (CSAC)
Debra L. Hale, TAMC

FARM BUREAU
MONTEREY

1140 Abbott Street, Suite C, Salinas, CA 93901 • PO BOX 1449, Salinas, CA 93902
office (831) 751-3100 • www.montereycfb.com

March 16, 2016

Assembly Member Luis Alejo
P.O. Box 942849
Sacramento, CA 94249-0030

Via: Email to Tony.Madrigal@asm.ca.gov

Re: Support for AB 2730 (Alejo): Disposition of excess CalTrans properties

Dear Assembly Member Alejo:

On behalf of the Board of Directors of Monterey County Farm Bureau, this letter expresses our support of Assembly Bill (AB) 2730: *Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016).*

This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County.

Over many years, TAMC, the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US Hwy. 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US Hwy. 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: Agriculture and Tourism. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in Monterey County.

Sincerely,

Norman C. Groot
Executive Director

cc: Senator Anthony Cannella, 12th District
Senator Bill Monning, 17th District
Assemblyman Mark Stone, 29th District
Debra L. Hale, Director, Transportation Agency of Monterey County

April 13, 2016

Assembly Member Luis Alejo
P.O. Box 942849
Sacramento, CA 94249-0030

Via email to: Tony.Madrigal@asm.ca.gov

Re: Support for AB 2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties

Dear Assembly Member Alejo:

On behalf of the Monterey County Hospitality Association, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County. **The Monterey County Hospitality Association supports this bill.**

Over many years, TAMC, the County of Monterey and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation and not back to Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. This bill would help TAMC and Caltrans to make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Theodore Balestreri, Jr.
Chair

cc: Hon. Anthony Cannella, 12th Senate District
Hon. Bill Monning, 17th Senate District
Hon. Mark Stone, 29th Assembly District
Debra L. Hale, TAMC

Salinas Valley
CHAMBER OF COMMERCE

We are committed to. . .
Creating a strong local economy
Promoting the community
Providing networking opportunities
Representing the interests of business with government
Political action

April 8, 2016

Assembly Member Luis Alejo
P.O. Box 942849
Sacramento, CA 94249-0030

Via email to: Tony.Madrigal@asm.ca.gov

Re: Support for AB 2730 (Alejo): Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties

Dear Assembly Member Alejo:

On behalf of the Salinas Valley Chamber of Commerce, I write in support of Assembly Bill (AB) 2730: Department of Transportation: Prunedale Bypass: County of Monterey: disposition of excess properties (as introduced, February 19, 2016). This bill will transfer the proceeds of the sale of the former Prunedale Bypass right-of-way parcels of land to the Transportation Agency for Monterey County for use on future transportation projects in Monterey County.

Over many years, TAMC, the County of Monterey, and Caltrans assembled the transportation funds to buy 145 parcels (353 acres) of land for the US 101 Prunedale Bypass project. The project was unable to be constructed, and TAMC and Caltrans instead focused on safety improvements on US 101, known as the Prunedale Improvement Project. Caltrans has the authority to sell the unused land, and under current law, the revenues from the sale of bypass land would go into the state general fund – not back to transportation in Monterey County.

AB 2730 would require the revenues from the sale of the Prunedale Bypass parcels to come back to TAMC, to be used for other highway improvement projects in Monterey County. AB 2730 would ensure that millions of transportation dollars would come back to the local highway system for improvements that would benefit Monterey County's regional economic drivers: agriculture and tourism. This bill would help TAMC and Caltrans make much-needed and long-deferred highway improvements.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Paul J. Farmer
President and CEO

cc: Debra L. Hale, TAMC

119 E. Alisal Street • Salinas, CA 93901
(831) 751-7725 • FAX (831) 424-8639 • E-mail: info@salinaschamber.com • www.salinaschamber.com

MONTEREY COUNTY

BOARD OF SUPERVISORS

March 21, 2016

The Honorable Anthony Cannella
12th Senate District
State Capitol, Room 5082
Sacramento, CA 95814

Via email to: Tyler.Munzing@sen.ca.gov

Re: SB 1197 (Cannella): Intercity rail corridors: extensions - SUPPORT

Dear Senator Cannella:

On behalf of the County of Monterey, I am writing in support of Senate Bill (SB) 1197: Intercity rail corridors: extensions (as introduced, February 18, 2016). This bill would authorize the extension of intercity passenger rail service beyond the currently defined boundaries of the corridor, subject to inclusion in and approval of the relevant joint powers board's business plan.

SB 1197 would enable two emerging passenger rail projects planned for California's Central Coast to be operated by existing joint powers boards. The Transportation Agency for Monterey County (TAMC) has long advocated for an extension of passenger rail service from San Jose to Salinas. SB 1197 would allow the Capitol Corridor to extend south of San Jose, which will provide an alternative to the highly congested US 101 corridor to access to jobs, education, and health care in Silicon Valley and the San Francisco Bay Area.

Since 1992, the Coast Rail Coordinating Council, a coalition of coastal county transportation and planning agencies, has advocated for the Coast Daylight service as an extension of passenger rail service north of San Luis Obispo to San Jose/San Francisco. SB 1197 would allow the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor to extend north of San Luis Obispo, to close a gap in passenger rail service along the California coast.

Thank you for introducing this important bill and for your efforts to improve transportation in California.

Sincerely,

Jane Parker
Chair, Board of Supervisors

Clerk of the Board · 168 W. Alisal St., Salinas, California 93901 · (831) 755-5066 · cob@co.monterey.ca.us

cc: Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District
Monterey County
- Board of Supervisors
- Lew C. Bauman, CAO
- Nicholas E. Chiulos, Assistant CAO
- Carl Holm, RMA Director
- Benny Young, Interim Public Works Director
- Charles J. McKee, County Counsel
- Clerk of the Board

John E. Arriaga, JEA & Associates
Brent R. Heberlee, Nossaman LLP
Kiana Valentine, California State Association of Counties (CSAC)
Debra L. Hale, TAMC

Salinas Valley
CHAMBER OF COMMERCE

We are committed to. . .
Creating a strong local economy
Promoting the community
Providing networking opportunities
Representing the interests of business with government
Political action

April 8, 2016

The Honorable Anthony Cannella
12 Senate District
State Capitol, Room 5082
Sacramento, CA 95814

Via email to: Tyler.Munzing@sen.ca.gov

Re: Support for SB 1197 (Cannella): Intercity rail corridors: extensions

Dear Senator Cannella:

On behalf of the Salinas Valley Chamber of Commerce, I write in support of Senate Bill (SB) 1197: Intercity rail corridors: extensions (as introduced, February 18, 2016). This bill would authorize the extension of intercity passenger rail service beyond the currently defined boundaries of the corridor, subject to inclusion in and approval of the relevant joint powers board's business plan.

This bill would enable two emerging passenger rail projects planned for California's Central Coast to be operated by existing joint powers boards. The City of Salinas and the Transportation Agency for Monterey County (TAMC) have long advocated for an extension of passenger rail service from San Jose to Salinas. SB 1197 would allow the Capitol Corridor to extend south of San Jose, which will provide an alternative to the highly congested US 101 corridor for access to jobs, education, and health care in Silicon Valley and the San Francisco Bay Area.

Since 1992, the Coast Rail Coordinating Council, a coalition of coastal county transportation and planning agencies, has advocated for the Coast Daylight service as an extension of passenger rail service north of San Luis Obispo to San Jose/San Francisco. SB 1197 would allow the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor to extend north of San Luis Obispo, to close a gap in passenger rail service along the California coast.

Thank you very much for supporting efforts to improve transportation in California.

Sincerely,

Paul J. Farmer
President and CEO

cc: Debra L. Hale, TAMC

119 E. Alisal Street • Salinas, CA 93901
(831) 751-7725 • FAX (831) 424-8639 • E-mail: info@salinaschamber.com • www.salinaschamber.com

SLOCOG
SAN LUIS OBISPO COUNCIL OF GOVERNMENTS

CONNECTING COMMUNITIES
ARROYO GRANDE | ATASCADERO | GROVER BEACH
MORRO BAY | PASO ROBLES | PISMO BEACH
SAN LUIS OBISPO | SAN LUIS OBISPO COUNTY

April 6, 2016

The Honorable Anthony Cannella
12th Senate District
State Capitol, Room 5082
Sacramento, CA 95814

Re: Support for SB 1197 (Cannella): Intercity rail corridors: extensions

Dear Senator Cannella:

On behalf of the San Luis Obispo Council of Governments (SLOCOG), I am writing in support of Senate Bill (SB) 1197: Intercity rail corridors: extensions (as introduced, February 18, 2016). This bill would authorize the extension of intercity passenger rail service beyond the currently defined boundaries of the corridor, subject to inclusion in and approval of the relevant joint powers board's business plan. SLOCOG thanks you for authoring this bill.

This bill would enable two emerging passenger rail projects planned for California's Central Coast to be operated by existing joint powers boards. The Transportation Agency for Monterey County (TAMC) has long advocated for an extension of passenger rail service from San Jose to Salinas. SB 1197 would allow the Capitol Corridor to extend south of San Jose, which will provide an alternative to the highly congested US 101 corridor to access to jobs, education, and health care in Silicon Valley and the San Francisco Bay Area.

Since 1992, the Coast Rail Coordinating Council, a coalition of coastal county transportation and planning agencies, has advocated for the Coast Daylight service as an extension of passenger rail service north of San Luis Obispo to San Jose/San Francisco. SB 1197 would allow the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor to extend north of San Luis Obispo, to close a gap in passenger rail service along the California coast.

Thank you very much for your authorship of this important bill and for supporting efforts to improve transportation in California.

Sincerely,

Jan Marx
President

cc: Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

TAMC
TRANSPORTATION AGENCY
FOR MONTEREY COUNTY

55-B Plaza Circle, Salinas, CA 93901-2902 • Tel: (831) 775-0903 • Website: www.tamcmonterey.org

March 28, 2016

The Honorable Eric Linder
60th Assembly District
State Capitol, Room 2016
Sacramento, CA 94249-0060

Via Fax: (916) 319-2160

RE: Support for AB 1364 (Linder): California Transportation Commission

Dear Assembly Member Linder:

On behalf of the Transportation Agency for Monterey County (TAMC), I write in support of Assembly Bill (AB) 1364: California Transportation Commission (as introduced, February 27, 2015). This bill would reestablish the independent oversight role of the California Transportation Commission. **TAMC supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. This bill would remove the California Transportation Commission (CTC) from the California State Transportation Agency (CalSTA), reestablish it as an independent entity in state government, and allow it to again act in an independent oversight role. TAMC believes that it is appropriate for the CTC to be more independent from CalSTA and the Administration, as was the case prior to the establishment of CalSTA. Its independent oversight role is a useful counterpoint to the Caltrans planning division, in particular during the development of the State Transportation Improvement Program.

Thank you very much for your sponsorship of this important bill and for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at (831) 775-4406 or christina@tamcmonterey.org, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

Debra L. Hale
Executive Director

cc: Hon. Anthony Cannella, 12th Senate District
Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

TAMC
TRANSPORTATION AGENCY
FOR MONTEREY COUNTY

55-B Plaza Circle, Salinas, CA 93901-2902 • Tel: (831) 775-0903 • Website: www.tamcmonterey.org

March 28, 2016

The Honorable Jim Frazier
11th Assembly District
State Capitol
P.O. Box 942849
Sacramento, CA 94249-0011

Via Fax: (916) 319-2111

Re: Support for AB 1591 (Frazier) Transportation funding

Dear Assembly Member Frazier:

On behalf of the Transportation Agency for Monterey County (TAMC), I am writing in support of Assembly Bill (AB) 1591: Transportation funding (as introduced, January 6, 2016). This bill would establish the Road Maintenance and Rehabilitation program at $4.57 billion annually. **The Transportation Agency for Monterey County strongly supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. TAMC's top legislative priority is to encourage the State to increase and preserve funding for transportation projects. AB 1591 would establish the Road Maintenance and Rehabilitation program at $4.57 billion annually, repay outstanding transportation loans at $879 million, increase funding to the Trade Corridors Improvement Fund (TCIF) at $1.24 billion annually, increase funding to transit and Intercity Rail Capital program at $200 million annually, revise the calculation of the variable gas tax, and prohibit truck weight fees from being used for bond debt service or General Fund loans. TAMC strongly supports this measure as a means to provide sustainable funding to fix local streets and roads and the state highway system, invest in trade corridors and public transportation, and restore funding for the beleaguered State Transportation Improvement Program (STIP).

Thank you for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at christina@tamcmonterey.org or (831) 775-4406, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

thank you!

Debra L. Hale
Executive Director

cc: Hon. Bill Monning, 17th Senate District
Hon. Anthony Cannella, 12th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

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March 28, 2016

The Honorable Adrin Nazarian
Assembly District 46
State Capitol
P.O. Box 942849
Sacramento, CA 94249-0046

Via Fax: (916) 319-2146

RE: SUPPORT for AB 2742 (Nazarian): Transportation projects: comprehensive development lease agreements

Dear Assembly Member Nazarian:

On behalf of the Transportation Agency for Monterey County (TAMC), I write in support of Assembly Bill (AB) 2742: Transportation projects: comprehensive development lease agreements (as introduced, February 19, 2016). This bill extends the January 1, 2017 sunset date on the use of public-private partnerships to January 1, 2030. **TAMC supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. TAMC supports your efforts to extend and expand Public Private Partnership (P3) and design-build authority, expand mode eligibility, and allow for regional control of such projects. AB 2742 would help TAMC and Caltrans to make much-needed and long-deferred roadway improvements to State Route 156, a key gateway route to the Monterey Peninsula. This bill would increase financing options for improvements to the SR 156 corridor and allow time to address local issues prior to the expiration of the current P3 authority.

Thank you very much for your sponsorship of this important bill and for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at (831) 775-4406 or christina@tamcmonterey.org, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

Debra L. Hale
Executive Director

cc: Hon. Anthony Cannella, 12th Senate District
Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

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March 28, 2016

The Honorable Anthony Cannella
12th Senate District
State Capitol, Room 5082
Sacramento, CA 95814

Via email to: Tyler.Munzing@sen.ca.gov

Re: Support for SB 902 (Cannella) Department of Transportation: environmental review process: federal program

Dear Senator Cannella:

On behalf of the Transportation Agency for Monterey County (TAMC), I am writing in support of Senate Bill (SB) 902: Department of Transportation: environmental review process: federal program (as introduced, January 21, 2016). This bill would extend the delegation authority for federal environmental review and clearance of transportation projects to Caltrans indefinitely. **The Transportation Agency for Monterey County supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. This bill would facilitate the delivery of transportation projects by continuing to consolidate the coordination of state and federal environmental review of projects at Caltrans. Enabling Caltrans to perform both the state and federal environmental review will speed up project delivery and reduce the costs of environmental review.

Thank you for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at christina@tamcmonterey.org or (831) 775-4406, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

Debra L. Hale
Executive Director

cc: Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

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March 28, 2016

The Honorable Janet Nguyen
34th Senate District
State Capitol, Room 3048
Sacramento, CA 95814

Via Fax: 916.651.4934

Re: Support for SB 903 (Nguyen) Transportation funds: loan repayment

Dear Senator Nguyen:

On behalf of the Transportation Agency for Monterey County (TAMC), I am writing in support of Senate Bill (SB) 903: Transportation funds: loan repayment (as introduced, January 21, 2016). This bill would require the repayment of $879,000,000 in outstanding loans of certain transportation revenues by June 30, 2016. **The Transportation Agency for Monterey County supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. TAMC's top legislative priority is to encourage the State to increase and preserve funding for transportation projects. This bill would redirect loans to the General Fund back to the original transportation grant programs that generated the loans, allowing TAMC to fund critical transportation safety and congestion relief projects.

Thank you for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at christina@tamcmonterey.org or (831) 775-4406, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

Debra L. Hale
Executive Director

cc: Hon. Bill Monning, 17th Senate District
Hon. Anthony Cannella, 12th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

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March 28, 2016

The Honorable Sharon Runner
21st Senate District
State Capitol, Room 3063
Sacramento, CA 95814

Via Fax: 916.651.4921

RE: Support for SB 1320 (Runner): California Transportation Commission

Dear Senator Runner:

On behalf of the Transportation Agency for Monterey County (TAMC), I write in support of Senate Bill (SB) 1320: California Transportation Commission (as introduced, February 19, 2016). This bill would reestablish the independent oversight role of the California Transportation Commission. **TAMC supports this bill.**

The mission of TAMC is to develop and maintain a multimodal transportation system that enhances mobility, safety, access, environment quality and economic activities in Monterey County. This bill would remove the California Transportation Commission (CTC) from the California State Transportation Agency (CalSTA), reestablish it as an independent entity in state government, and allow it to again act in an independent oversight role. TAMC believes that it is appropriate for the CTC to be more independent from CalSTA and the Administration, as was the case prior to the establishment of CalSTA. Its independent oversight role is a useful counterpoint to the Caltrans planning division, in particular during the development of the State Transportation Improvement Program.

Thank you very much for your sponsorship of this important bill and for supporting efforts to improve transportation in California. If you have any questions, please feel free to contact Christina Watson of my staff at (831) 775-4406 or christina@tamcmonterey.org, or our Sacramento legislative analyst, John Arriaga, at (916) 669-1340 or jea@jeaandassociates.com.

Sincerely,

Debra L. Hale
Executive Director

cc: Hon. Anthony Cannella, 12th Senate District
Hon. Bill Monning, 17th Senate District
Hon. Luis Alejo, 30th Assembly District
Hon. Mark Stone, 29th Assembly District

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