Agreement for Professional Services
Engineering & Transportation Planning Consulting Services

This Agreement ("Agreement") is made and entered into this _____ day of _____, 2016 by and between the Tuolumne County Transportation Council ("TCTC"), a California joint powers authority, and Wood Rodgers, Inc., a California corporation, ("Consultant").

1. Agreement Documents

1.01 The total agreement between the parties consists of this Agreement and the following additional documents, copies of which are attached hereto and incorporated herein by this reference:

A. Request for Qualifications (RFQ), issued May 27, 2016, including Exhibits and Addenda, if any.

B. Standard Insurance Requirements, attached hereto as Exhibit A.

C. Consultant's Statement of Qualifications and Rate Schedule, as accepted by the TCTC, attached hereto as Exhibit B.

D. Work Orders issued pursuant to Section 3.01.

In the event of a conflict or ambiguity arising between such documents or any term therein, the document issued or executed later in time shall prevail over the document issued or executed earlier in time. Notwithstanding the above, in the event of a conflict or ambiguity between the Consultant's Statement of Qualifications and Rate Schedule and any other Agreement Document, the other Agreement Document will control.

2. Recitals

2.01 The TCTC desires to enter into an agreement for professional engineering, travel demand modeling and transportation planning consulting services for various projects managed by the TCTC (such services are hereinafter referred to as the "Project"); and,

2.02 The TCTC has determined the Project involves the performance of specialized professional and technical services; and,

2.03 Consultant has responded to the TCTC's Request for Qualifications soliciting professional engineering and transportation planning consulting services; and,

2.04 Consultant hereby represents that it is in the business of, and fully qualified in, the field of professional engineering and transportation planning consulting services, and is fully willing and able to perform the work orders described in the RFQ and Agreement, and with the level of service and operating quality specified herein. The TCTC awarded this Agreement in

reliance on such representations, and on Consultant's particular skills, experience and abilities as represented by Consultant in their Statement of Qualifications; and,

2.05 TCTC and Consultant intend to enter into an agreement for the furnishing of certain articles and services for the consideration hereinafter set forth.

The TCTC and Consultant, for the consideration hereinafter described, mutually agree as follows:

3. **Project Description:** This is a non-exclusive Master Agreement setting forth the terms under which Consultant will provide engineering and transportation planning consulting services. Specific project descriptions will be contained in Work Orders prepared pursuant to Section 3.01.

   3.01 The scope of work will be set forth in Work Orders that will be approved by the parties from time to time. Work Orders must be approved in writing by the Executive Director of the TCTC and an authorized representative of Consultant.

4. **Effective Date/Term:** This Agreement shall be effective from the date of execution and shall expire three (3) years after the date of execution or the completion of any Work Orders issued pursuant to Section 3.01 of this Agreement, whichever is later, unless this Agreement is extended by a written amendment pursuant to Section 4.01.

   4.01 Consultant at any time during the third year of this Agreement may request in writing an extension of the Agreement term for an additional period of one year. Upon receiving such a request, and provided the Consultant is not in default, the TCTC will consider extending the Agreement term for an additional year.

5. **Commencement/Completion of Work:** The Consultant shall commence work under each Work Order upon receipt of a written notice to proceed from the TCTC Executive Director. Consultant shall perform and complete the work described within sixty (60) calendar days from receipt of the notice to proceed or according to the instructions of the Work Order.

6. **Suspension, Delay or Interruption of Work:** The TCTC may suspend, delay or interrupt the services of the Consultant for the convenience of the TCTC. In the event of force majeure or such suspension, delay or interruption, an equitable adjustment in the Project's schedule, commitment and cost of Consultant's personnel and subcontractor, and Consultant's compensation will be made.

7. **Additional Services:** For additional services not outlined in Section 3 above, a separate scope of work describing the scope, schedule, fee and work products will be negotiated by the TCTC and the Consultant and approved as written amendments under this Agreement prior to any additional work effort being commenced upon.

8. **Professional Standards:** Consultant warrants and guarantees that the work provided under this Agreement shall be performed and completed in a professional manner. All services shall be performed in the manner and according to the professional standards observed by a competent practitioner of the profession in which Consultant and any subcontractor are engaged.

9. **Performance:** Consultant shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary for the satisfactory accomplishment of the Consultant's obligations under this Agreement. Performance of services shall comply with the schedule set forth in the Work Orders. A time extension may be granted in the event that acts or omissions by the TCTC cause delay. Neither party shall be considered in default of this Agreement to the extent performance is prevented or delayed by any cause, present or future, which is beyond the reasonable control of the party.

10. **Work Standard:** The TCTC has relied upon the professional training and ability of the Consultant to perform the services hereunder as a material inducement to enter into this Agreement. The Consultant shall, therefore, provide properly skilled professional and technical personnel to perform all services under this Agreement. All work performed by the Consultant under this Agreement shall be in accordance with applicable legal requirements and shall meet the standard of quality ordinarily to be expected of competent professionals in the Consultant's field of expertise. The Consultant shall be responsible for ensuring any approved subcontractor adheres to this same work standard.

11. **Personnel:** Consultant shall assign only competent personnel to perform services pursuant to this Agreement. Consultant shall provide all staff necessary to completion of services under this Agreement. The Consultant's Project Team identified in their Statement of Qualifications shall be the Project Team for the duration of the Agreement unless TCTC agrees to accept replacement personnel. In the event that the TCTC, at its sole discretion, at any time during the term of this Agreement, desires the removal of any person or persons assigned by Consultant to perform services pursuant to this Agreement because of their incompetence, Consultant shall remove any such person(s) immediately upon receiving notice from the TCTC of the desire of the TCTC for the removal of such person(s).

12. **Independent Contractor:** In providing the services as set forth in the Agreement Documents, Consultant shall act as an independent contractor and not as an employee of the TCTC. In accordance with that relationship, Consultant shall assume all responsibility for its employees for Federal and State income tax withholding, FICA, SDI and any other deductions from income that Consultant is properly required to make as an independent contractor.

13. **Administration of Agreement:** Consultant's compliance with this Agreement shall be supervised and administered by the TCTC through the office of the Executive Director. This paragraph shall not relieve Consultant of any obligation or liability undertaken by virtue of this Agreement.

14. **Written Notification:** Any notice, demand, request, consent, approval or communication that either party desires or is required to give to the other party shall be in writing and either served personally or sent prepaid, first class United States mail. Any such notice, demand, request, consent, approval or communication shall be addressed to the other party at the address set forth herein below. Either party may change its address by notifying the other party of the change of address. Notice shall be deemed communicated within 72 hours from the time of depositing in the United States mail box if mailed as provided in this section.

If to TCTC:
Tuolumne County Transportation Council
Darin Grossi, Executive Director
2 South Green Street
Sonora, CA 95370
209.533.5603
dgrossi@co.tuolumne.ca.us

If to Consultant:
Wood Rodgers, Incorporated
Mark Rayback, PE, Vice President
3301 C Street, Building 100-B
Sacramento, CA 95816
916.440.8131
mrayback@woodrodgers.com

15. Consents and Agreements: Any and all consents and agreements provided for or permitted by this Agreement shall be in writing, and a signed copy thereof shall be filed and kept with the books of this Agreement.

16. Signature Authority

16.01 The Executive Director or his designee shall have authority on behalf of the TCTC to sign Agreement amendments and other documents related to this Agreement.

16.02 Consultant certifies that the following person(s) have authority to sign Agreement amendments and other documents related to this Agreement on behalf of Consultant. Written certification of the signatory authority of the following person(s) shall be provided by the Consultant to the TCTC prior to execution of this Agreement.

Mark Rayback, PE, QSD/QSP	***Vice President***
Name	Title

17. Insurance Requirements: Consultant and any subcontractor shall provide a Certificate of Insurance as proof of a policy of insurance satisfactory to the TCTC evidencing that Consultant and any subcontractor maintains insurance that meets the requirements included in Exhibit A, "Standard Insurance Requirements," of this Agreement.

18. Workers Compensation

18.01 Consultant shall comply with the provisions of the Workers' Compensation and Insurance Law of the State of California.

18.02 The TCTC shall not be responsible for providing Workers' Compensation insurance or any other protective insurance coverage for the Consultant that is based upon the relationship of employer and employee.

19. Method of Payment: The TCTC will pay Consultant on a time and reimbursable expense basis at the rates set forth in the Rate Schedule included in Exhibit B of this Agreement. In no event shall payments and retention exceed the total set forth in the specified Work Order. In the event payments and retention for a specific Work Order equal the total budget for that Work Order, Consultant shall complete all services for that Work Order without further payment. Progress payments will be made no

more frequently than at monthly intervals. Payment will be made only on submitted claims describing work completed and approved by the Executive Director of the TCTC. Progress payments will be limited to ninety percent (90%) of the budget for the task(s) completed. The ten percent (10%) retention will be released within thirty (30) days of completion and approval of each Work Order.

20. **Reporting Requirements:** The Consultant will provide to the TCTC Executive Director a monthly written progress report detailing status of the work schedule and outputs, the percentage of work completed by task and any other relevant factors to completion of all work in a timely manner. The Consultant will notify the TCTC Executive Director of any potential or existing problem areas as soon as possible.

21. **Maintenance of Records/Audit Rights:** Consultant shall maintain books, records, documents and other evidence directly pertinent to work under this Agreement in accordance with generally accepted accounting principles and practices. Consultant shall also maintain for a period of at least three (3) years from the expiration date of this Agreement the financial information and data used by Consultant to determine charges and costs related to work performed under this Agreement. The TCTC, and any Federal or State authorized representatives, shall have the right to inspect and audit Consultant's accounting books, records and documents during normal business hours. Such records shall be turned over to the TCTC upon request.

22. **Work Product Property of the TCTC:** All plans, specifications, reports, computer files and other work products prepared by Consultant pursuant to this Agreement shall become the property of the TCTC. The TCTC's use of documents produced under this Agreement and/or supporting information or calculations other than as intended hereunder shall be at the TCTC's sole risk.

23. **Release of Documents and Information:** Services provided within the scope of this Agreement are for the exclusive use of the TCTC. The TCTC and Consultant agree that all data, plans, specifications, reports, computer files and other work products will not be released to third parties by Consultant without the prior written consent of the TCTC.

24. **Covenant Against Contingent Fees:** The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee or subcontractor working for the Consultant, as provided for in the Consultant's Statement of Qualifications (as accepted by TCTC), to solicit or secure this Agreement, and that he/she has not paid or agreed to pay any company or person other than a bona fide employee, a fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon, resulting from the award or making this Agreement. For breach or violation of this warranty, the TCTC shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

25. **Covenant Against Gratuities:** Consultant covenants that it has not offered or given gratuities in the form of entertainment, gifts or otherwise to any member, officer or employee of the TCTC with a view toward securing favorable treatment in the award, modification or performance evaluation of this Agreement. For breach or violation of this covenant, the TCTC shall have the right to cancel this Agreement without any liability to Consultant.

26. **Restrictions on Lobbying:** Consultant shall not pay any person or organization to influence or attempt to influence an officer or employee of any federal, state or county agency in connection with awarding this Agreement or any other Federal award from which funding for this Project is originally derived, consistent with 31 U.S.C. section 1352.

27. **Transfer of Agreement:** This Agreement is made in reliance by TCTC upon the qualifications and responsibility of Consultant. The performance by Consultant of this Agreement may not be assigned, sublet, transferred or in any way subcontracted, except upon the prior written approval of the TCTC.

28. **Solicitations for Subcontracts, Including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by Consultant for work to be performed under subcontract, including procurement of material or leases of equipment, each potential sub-consultant or supplier shall be notified by Consultant of Consultant's obligations under this Agreement relative to civil rights requirements. Consultant shall provide the TCTC documentation of such notifications.

    Consultant agrees to refrain from awarding any third party subcontract without prior written approval by TCTC. Payment for such services shall be the responsibility of the Consultant.

29. **Third Party Obligations:** Consultant shall be solely liable to third parties with whom it enters into contracts to effectuate the purpose of this Agreement. Consultant shall pay directly such parties for all amounts due under said arrangement. Consultant shall indemnify, defend and hold the TCTC harmless from any and all claims and liabilities arising from any third party contracts. Consultant shall exert its best efforts to prevent any loss to the TCTC from the failure of proper performance of any third party.

30. **Conflicts of Interest:** Consultant shall not enter into any agreement, subcontract or arrangement in connection with the Project or any property included or planned to be included in the Project, in which any member, officer or employee of Consultant or the TCTC, during the Project term and for one year thereafter, has any direct or indirect interest. If any such present or former member, officer or employee involuntarily acquires or had acquired prior to the beginning of the Project term any such interest, and if such interest is immediately disclosed to Consultant and such disclosure is entered upon the minutes of Consultant's written report to the TCTC of such interest, Consultant, with the prior written approval of the TCTC, may waive the prohibition contained in this subsection; provided that any such present member, officer or employee shall not participate in any action by Consultant or the TCTC relating to such agreement, subcontract or arrangement.

31. **Debarment and Suspension Certification:** Consultant agrees to refrain from entering into any sub-agreement to this Agreement of any amount with a party included in the "U.S. General Services Administration's (U.S. GSA) List of Parties Excluded from Federal Procurement or Non-Procurement Program," implementing Executive Order Nos. 12549 and 12689, "Debarment and Suspension" and 49 CFR Part 29. The List also includes the names of parties debarred, suspended or otherwise excluded by agencies, and consultants declared ineligible for Agreement award under statutory or regulatory authority other than Executive Order Nos. 12549 and 12689. Consultant shall provide the TCTC debarment and suspension certification containing information about the debarment and suspension status and other specific information of Consultant and its "principals", as defined in 49 CFR 29, prior to entering into any sub-agreement to this Agreement.

Consultant agrees to refrain from awarding any third party sub-contract of any amount (at any tier) to a debarred or suspended subcontractor, and to obtain similar certification from any third party subcontractor (at any tier) seeking a contract exceeding $100,000.

32. Civil Rights Requirements: During the performance of this Agreement, the Consultant, for itself, its assignees and successors in interest (collectively, "Consultant") agree as follows:

A. Compliance with Regulations: The Consultant shall comply with regulations relative to Title VI (nondiscrimination in Federally-assisted programs of the Department of Transportation – Title 49 Code of Federal Regulations Part 21 – Effectuation of Title VI of the 1964 Civil Rights Act) ("Title VI" or "Regulations"). Title VI provides that the recipients of Federal assistance will implement and maintain a policy of nondiscrimination in which no person in the State of California shall, on the basis of race, color, national origin, religion, sex, age or disability, be excluded from participation in, denied the benefits of or subjected to discrimination under any program or activity by the recipients of Federal assistance or their assignees and successors in interest.

B. Nondiscrimination: The Consultant, with regard to the work performed by it during the Agreement term shall act in accordance with Title VI. Specifically, the Consultant shall not discriminate on the basis of race, color, national origin, religion, sex, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT's regulations, including employment practices when the Agreement covers a program whose goal is employment.

C. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation by the Consultant for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant of the Consultant's obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color or national origin. Consultant shall provide the TCTC documentation of such notifications.

D. Information and Reports: The Consultant shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined the TCTC, State or Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish this information, the Consultant shall so certify to the TCTC, State or FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this Agreement, the TCTC and/or State shall impose such

Agreement sanctions as they or the FHWA may determine to be appropriate, including, but not limited to:

1) Withholding of payments due to the Consultant under this Agreement until the Consultant complies, and/or

2) Cancellation, termination or suspension of this Agreement, in whole or in part.

F. Incorporation of Provisions: The Consultant shall include the provisions of these paragraphs (A) through (F) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Consultant will take such action with respect to any subcontractor or procurement as the TCTC, State or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event a Consultant becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Consultant may request the TCTC and/or State to enter into such litigation to protect the interest of the TCTC and/or State, and, in addition, the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

33. Health, Safety, Fire and Environmental Protection: The Consultant and any subcontractor or agent shall comply with Federal, State and local requirements pertaining to safety, health, fire and environmental protection.

The Consultant shall comply with all applicable provisions of the California Occupational Safety and Health Act of 1973, including any amendments thereto, and the rules, standards, orders and regulations prescribed by the Occupational Safety and Health Standards Board and the Division of Industrial Safety in the California Department of Industrial Relations. Consultant shall further comply with all other applicable safety laws, ordinances and regulations.

In the event standards conflict, the standard providing the highest degree of protection and not in violation of any other applicable standard or law shall prevail.

34. Federal, State and Local Laws: Consultant warrants and covenants that it shall fully and completely comply with all applicable Federal, State and local laws and ordinances, and all lawful orders, rules and regulations issued by any authority with jurisdiction in all aspects of its performance of this Agreement.

35. Governing Law: The laws of the State of California shall govern the rights, obligations, duties and liabilities of the parties to this Agreement and shall also govern the interpretation of this Agreement.

36. Indemnification: To the extent permitted by law, Consultant does hereby assume liability for, and agrees to defend, indemnify, protect, save and keep harmless the TCTC and its elected and appointed officials, officers, employees, agents and volunteers and its successors and assigns (collectively, TCTC) from and against any and all liabilities, obligations, losses, damages, penalties, fines, claims, actions, suits, costs and expenses and disbursements (including legal fees and expenses) of any kind and nature imposed, asserted against, incurred or suffered by the TCTC by reason of damage, loss or injury

(including death) of any kind or nature whatsoever to persons or property caused by or in any way relating to or arising out of:

A. Any negligent or intentional act or action, or any neglect, omission or failure to act when under a duty to act on the part of Consultant or any of its officers, agents, servants, employees, subcontractors or subcontractors of any tier in its or their performance hereunder, except to the extent caused by the negligence or willful wrongful act of the TCTC; and,

B. any claim of patent or copyright infringement or publication of defamatory material, including the TCTC's failure to request removal of such material in connection with the services performed and/or work products provided under this Agreement by Consultant or any of its officers, agents, servants, employees, subcontractors or subcontractors of any tier; and,

C. a release by Consultant of any of its officers, agents, servants, employees, subcontractors or subcontractors of any tier in its or their performance hereunder of any substance or material defined or designated as a hazardous or toxic substance, material or waste by any Federal, State or local law or environmental statute, regulation or ordinance presently in effect, or as amended or promulgated in the future, but only to the extent that such release is not proximately contributed to or caused by the TCTC.

The parties shall establish procedures to notify the other party where appropriate of any claims, administrative actions or legal actions with respect to any of the matters described in this indemnification provision. The parties shall cooperate in the defense of such actions brought by others with respect to the matters covered in this indemnity. Nothing set forth in this Agreement shall establish a standard of care for, or create any legal rights in, any person not a party to this Agreement.

If such indemnification becomes necessary, the legal counsel for the TCTC shall have the absolute right and discretion to approve or disapprove of any and all counsel employed to defend the TCTC. This indemnification clause shall survive the termination or expiration of this Agreement.

37. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the provisions of this Agreement, the TCTC shall impose such Agreement sanctions as it may determine to be appropriate, including, but not limited to:

A. Withholding of payments due to the Consultant under this Agreement until the Consultant complies to the TCTC's satisfaction, and/or

B. Cancellation, termination or suspension of this Agreement, in whole or in part.

38. Termination of Agreement

38.01 Acts Constituting Termination: This Agreement shall commence on the date of its execution and shall continue until:

A. Voluntary or involuntary transfer or assignment by either party hereto without the prior written consent of the other party of any of the rights, titles or obligations set forth in this Agreement;

B. Mutual agreement of the parties hereto to terminate this Agreement;

C. Any default or breach of this Agreement by either party hereto which has not been cured within thirty (30) days after notice of such default by the other party, or such later time as is reasonably necessary if the default cannot be reasonably cured within such thirty (30) day period;

D. Written notice is delivered by either party to the other party ninety (90) days prior to the effective date of termination.

E. The TCTC may terminate this Agreement for convenience upon thirty (30) days' written notice to Consultant.

38.02 Consultant shall be paid for all work performed through the date of termination at the rates set forth in the Rate Schedule in Exhibit B, and subject to the proportion of work completed and approved by the Executive Director.

Upon termination of this Agreement, all affairs undertaken or conducted pursuant to this Agreement shall be wound up and debts paid.

39. Breach: If Consultant materially breaches the terms of this Agreement, the TCTC shall have the following remedies:

A. Immediately terminate the Agreement with Consultant;

B. Complete the unfinished work under any Work Orders with a different consultant;

C. Charge Consultant with the difference between the cost of completion of the unfinished work pursuant to any Work Orders and the amount that would otherwise be due Consultant, had Consultant completed the work; and/or

D. Allow the Consultant five (5) business days to diligently complete the correction.

40. Waiver: A waiver by the TCTC of a breach or failure to perform hereunder shall not constitute a waiver of any subsequent breach or failure. No failure on the part of the TCTC to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder.

41. Disputes: It is agreed by the parties hereto that unless otherwise expressly waived by them, any action brought to enforce any of the provisions hereof or for declaratory relief hereunder shall be filed and remain in a court of competent jurisdiction in the County of Tuolumne, State of California. The

prevailing party shall be entitled to its reasonable attorneys' fees in any legal action to enforce the terms of this Agreement.

42. **Amendments:** This Agreement may be amended or modified in any way by an instrument in writing, stating the amendment or modifications, signed by the parties hereto.

43. **Survivorship:** Any responsibility of Consultant for warranties, insurance or indemnity with respect to this Agreement shall not be invalidated due to the expiration, termination or cancellation of this Agreement.

44. **Severability:** If any term, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in effect.

45. **Successors and Assigns:** This Agreement is binding upon the TCTC and the Consultant and their successors. Except as otherwise provided herein, neither the TCTC nor the Consultant shall assign, sublet or transfer its respective interest in this Agreement or any part thereof without the prior written consent of the other.

46. **Succession:** This Agreement shall be binding on and inure to the benefit of heirs, executors, administrators and assigns of the parties hereto.

47. **Third Party Beneficiary:** Nothing in this Agreement is intended to, nor shall anything in this Agreement be construed to, benefit any third party.

48. **Ambiguities:** The parties have each carefully reviewed this Agreement and have agreed to each term of this Agreement. Both parties have had the opportunity to engage counsel and negotiated the term of the Agreement. No ambiguity shall be presumed to be construed against either party.

49. **Integration:** The Agreement Documents embody the entire agreement of the parties in relation to the scope of services herein described, and no other understanding whether verbal, written or otherwise exists between the parties.

50. **Relationship Between the Parties:** Nothing in these Agreement Documents is intended to create, and nothing herein shall be considered as creating, any partnership, joint venture or agency relationship between the TCTC and Consultant.

51. **Modification:** No waiver, alteration, modification or termination of this Agreement shall be valid unless made in writing and signed by the authorized parties hereof.

52. **Headings and Subtitles**: Headings and subtitles to the sections of this Agreement have been used for convenience only and do not constitute matter to be considered as interpreting this Agreement.

53. **Sole and Only Agreement**: This instrument contains the sole and only agreement of the parties and correctly sets forth the rights, duties and obligations of each party to the other as of this date. Any

prior agreements, policies, negotiations and/or representations are expressly set forth in this Agreement.

54. Acceptance of Agreement: The undersigned, having read the foregoing, accept and agree to the terms set forth therein. No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the administrators for the parties hereto and no oral understanding or agreement not incorporated herein shall be binding on any of the parties thereto.

In witness hereof, the parties have caused their authorized representatives to execute this Agreement as of the date first written above.

For the Consultant:

Wood Rodgers, Incorporated
Legal Name of Firm

3301 C Street, Building 100-B
Street Address

Sacramento, CA 95816
City, State, Zip Code

_____
Signature

Mark Rayback
Name (typed)

Vice President
Title

For the TCTC:

Tuolumne County Transportation Council

_____
Chair of the TCTC

Date: _____

Approval Recommended:

_____
Executive Director

Approved as to Legal Form:
TCTC Legal Counsel

By: _____

Date: _____

Exhibit A

Standard Insurance Requirements

Consultant at its own expense, shall procure, and maintain for the duration of the Agreement, the following insurance policies and endorsements with insurers licensed in the State of California possessing a Best's rating of no less than A:VII. The Consultant shall provide notice to the TCTA Executive Director by registered mail, return receipt requested, thirty (30) days prior to cancellation or material change for all of the following stated insurance policies:

A. Workers' Compensation Coverage - Worker's Compensation Insurance and Employer's Liability Insurance for employees in accordance with the laws of the State of California (including requiring any authorized subcontractor to obtain such insurance for its employees).

B. General Liability Coverage - Commercial general liability insurance with a minimum liability limit per occurrence of one million dollars ($1,000,000) for bodily injury and one hundred thousand dollars ($100,000) for property damage. If a commercial general liability insurance form or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. Coverage shall be included for premises, operations and broad form contractual.

C. Automobile Liability Coverage - Automobile liability insurance with a minimum liability limit per occurrence of one million dollars ($1,000,000) for bodily injury and one hundred thousand dollars ($100,000) for property damage, and including coverage for owned, hired and non-owned vehicles.

D. Professional Liability Coverage - Professional errors and omissions liability for protection against claims alleging negligent acts, errors or omissions which may arise from Consultant's operations under this Agreement, whether such operations be by Consultant or by its employees, subcontractors or sub-consultants. The amount of this insurance shall not be less than one million dollars ($1,000,000) per claim with an aggregate limit of two million dollars ($2,000,000).

E. Policy Endorsements: Each general liability and automobile liability insurance policy shall be endorsed with the following specific provisions:

1) The TCTC, its elected or appointed officers, officials, employees, agents and volunteers are to be covered as additional insureds ("TCTC additional insureds").

2) This policy shall be considered, and include a provision it is, primary as respects the TCTC additional insureds, and shall not include any special limitations to coverage provided to the TCTC additional insureds. Any insurance maintained by the TCTC, including any self-insured retention the TCTC may have, shall be considered excess insurance only and shall not contribute with it.

Exhibit A
Standard Insurance Requirements (continued)

3) This insurance shall act for each insured and additional insured as though a separate policy had been written for each, except with respect to the limits of liability of the insuring company.

4) The insurer waives all rights of subrogation against the TCTC additional insureds.

5) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the TCTC additional insureds.

F. Self-Insured Retentions: Any self-insured retentions must be declared to and approved by the Executive Director. At the TCTC's option, Consultant shall demonstrate financial capability for payment of such self-insured retentions.

G. Evidence of Insurance: Consultant shall provide policies and certificates of insurance with original endorsements or other evidence of insurance coverage as required by the Executive Director. Required evidence of insurance shall be filed with the Executive Director on or before commencement of performance of this Agreement. Current evidence of insurance shall be kept on file with the Executive Director at all times during the term of this Agreement.

H. Unsatisfactory Policies: If at any time any of the policies or endorsements be unsatisfactory as to form or substance, of if an issuing company shall be unsatisfactory, to the Executive Director, a new policy or endorsement shall be promptly obtained and evidence submitted to the Executive Director for approval.

I. Failure to Comply: Upon failure to comply with any of these insurance requirements, this Agreement may be forthwith declared suspended or terminated. Failure to obtain and/or maintain any required insurance shall not relieve any liability under this Agreement, nor shall the insurance requirements be construed to conflict with or otherwise limit the indemnification obligations.

Exhibit B

Statement of Qualifications for

Professional Engineering and Transportation Planning Consulting Services

July 22, 2016

WOOD RODGERS

DEVELOPING INNOVATIVE DESIGN SOLUTIONS

WOOD RODGERS

July 22, 2016

Tuolumne County Transportation Council (TCTC)
Mr. Darin Grossi, Executive Director
48 West Yaney Avenue
Sonora, California 95370

RE: Statement of Qualifications for Professional Engineering and Transportation Planning Consulting Services

Dear Darin:

Wood Rodgers, Inc. is pleased to submit our attached comprehensive Statement of Qualifications package in response to TCTC's Request for Qualifications (RFQ) for a three-year "on-call" consultant services contract.

As a consultant firm serving TCTC from your current on-call consultants list, Wood Rodgers is well aware that it takes more than an "ordinary" engineering firm to meet the diverse needs of the County. To that end, we have carefully reviewed your RFQ, and have submitted this Statement of Qualifications (SOQ) to not only address the needs related to Transportation Planning and Engineering projects administered through TCTC.

The Wood Rodgers Transportation Department specializes in infrastructure improvement projects and delivery processes for public agencies, including comprehensive assistance with Caltrans processes and federal agency approvals. We are also well versed in developing and obtaining funding for projects including Federal Lands Access Program (FLAP) and Active Transportation Program (ATP). We have successfully delivered interchange, roadway, intersection, and roundabout planning, development, design and construction (including design-build) projects for a number of local agency clients throughout California. Over the period of our previous on-call services contracts with TCTC and the County, the Wood Rodgers Transportation Planning group has successfully assisted on the following key projects:

- Tuolumne County Regional Travel Demand Model Recalibration & Update (2010)
- Tuolumne County Regional Blueprint-based Alternative Growth Scenarios Evaluation (2011)
- Yosemite Grand National Golf and Wetland Preserve EIR Transportation Impact Study (2008-2011)
- Yosemite Gateway Commercial Center EIR Transportation Impact Study (2010-11)
- Tuolumne County Regional Traffic Demand Model Update (2015)
- Tuolumne County General Plan and RTP EIR Report Update (2015-16)
- Oakview Estates Travel Demand Modeling/Forecasting Analysis Support Services (2014-15)
- Parrot's Ferry Road between SR 49 and Sawmill Flat Road Intersection Improvements (ongoing)
- Phoenix Lake Road (ongoing)
- Tuolumne Road (ongoing)

We are familiar with typical transportation and related issues and challenges that rural regional planning jurisdictions encounter when experiencing significant external tourist traffic, such as those that TCTC are faced with. We have delivered planning studies to that effect, most notably the Bay to Basin Study for El Dorado County Transportation Commission. In your immediate region, our public projects' staff maintains active working relationships with Caltrans District 10 and is involved in ongoing projects throughout the District. We regard no size project as too large or too small for our firm, and we take equal pride in delivering projects of all types and complexities. As a small project example, Wood Rodgers recently assisted the City of Sacramento with the Kroy Pathway Improvements project, which won the American Public Works Association (APWA) *Project of the Year* Award, in the pedestrian trail projects category. We specialize in "green" projects as well, having designed a number of "Complete Streets" and assisted regional planning jurisdictions with impact fee discount methodologies to encourage smart-growth infill development projects.

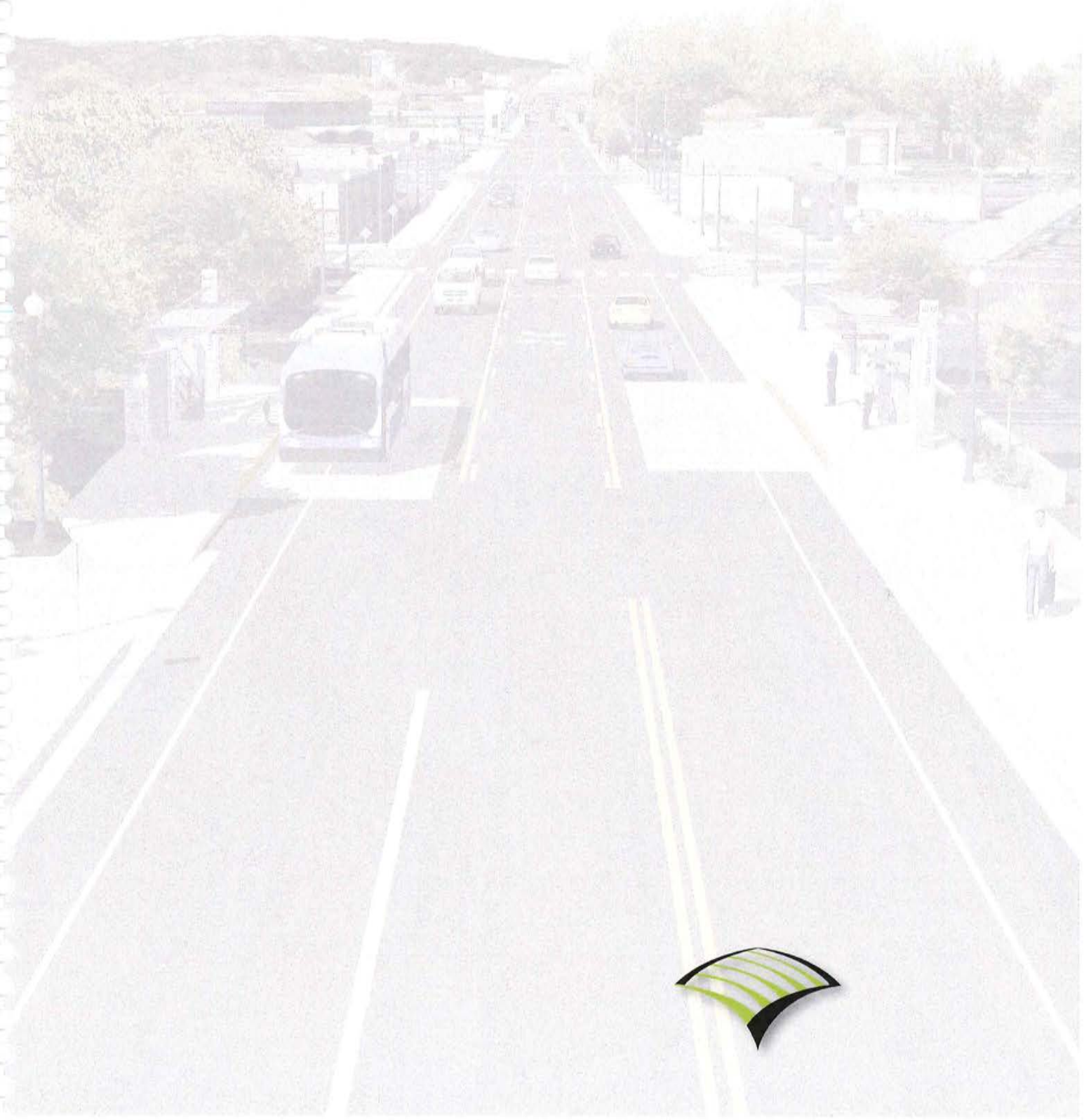
In order to ensure the best customer service and ultimate client satisfaction, we have included a Staffing Plan with this SOQ. I, **Mark Rayback, PE, QSD/QSP,** am a Vice-President with Wood Rodgers and will serve as the Principal-in-Charge and Overall Contact Manager for this on-call contract. With over 25 years of public projects experience leading multi-disciplinary engineering teams, I have the executive authority to allocate additional resources as necessary to successfully deliver your individual task orders. I also formerly served as the Chief of Staff to the Caltrans Director at Headquarters and will provide Caltrans and Federal Liaison services throughout this on-call contract. **Nawid Nessar, PE, TE,** is an Associate with the firm who leads our Transportation Planning Division who has over 12 years of transportation planning and traffic modeling experience, and will serve as our Project Manager on your Transportation Planning task orders. **Jerry Fitch, PE, TE**, our Chief Traffic Design Engineer, brings over 28 years of experience with Traffic Engineering (Signals and Roundabouts) projects, and will serve as the Project Manager for your Traffic Engineering needs. We have also teamed with **Augustine Planning Associates,** a City of Sonora-based environmental consultant firm to assist our team with environmental documentation as necessary on specific engineering task orders. We have also included on our team **All Traffic Data,** a transit and GIS/GPS data collection data collection firm to provide any necessary traffic counts. Note that as necessary, Wood Rodgers will offer full-service Mapping and Surveying services, Hydrology and Groundwater evaluation, as well as Community Outreach services through our other "in-house" departments. We will retain DBE-qualified subconsultant services as necessary for Right-of-Way Certification and Geotechnical Services.

Wood Rodgers has enjoyed working with TCTC on past projects and are looking forward to continuing and expanding our working relationships with Tuolumne County and TCTC in fulfilling all your Traffic Engineering and Transportation Planning needs. Should you have any questions or need additional information at this time, please feel free to contact me directly at (916) 440-8131 or by email at mrayback@woodrodgers.com.

Sincerely,

Mark Rayback, PE
Vice-President

Project Understanding



PROJECT UNDERSTANDING

DISCUSSION OF SCOPE OF WORK

This section presents a brief discussion of the technical work approach that the Wood Rodgers team will undertake for each of the project task orders listed in the RFQ. **At this stage, the technical work approach description provided herein is a conceptual, qualitative outline discussion only and this does not constitute a formal Scope of Work.** Upon award of contract, and at the time individual task order requests are formally issued by TCTC, Wood Rodgers will develop and submit a detailed work plan specific to the task order and submit the task order scope, budget and schedule for formal TCTC authorization.

Functional Assistance

We have identified the following broad "functional" areas where TCTC staff may seek assistance from Wood Rodgers. We envision serving as an **"extension" of TCTC staff** in assisting you in these general service areas:

Transportation Engineering Studies

- We will assist TCTC (and/or Tuolumne County Public Works) staff in the preparation of engineering reports regarding requests for traffic control device installations such as traffic signals, stop signs, parking regulations, speed zones, channelization, crosswalks and pedestrian and bicycle facilities. The scope for such assistance may involve preparation of documents ranging from simple letter memorandums to comprehensive engineering reports, schematic plans, or conceptual geometric drawings (30% design), etc.
- We will assist TCTC (and/or Tuolumne County Public Works) staff in the preparation of engineering studies and Plans, Specifications and Estimates (100% PS&E packages), and provide construction contract administration and construction observations for traffic safety projects, including geometric and channelization improvements, traffic signal installations and modifications, street safety lighting installations and modifications, traffic signing, striping and pavement marking improvements.
- We will assist TCTC with "Complete Streets" and multimodal transportation policy and design. Wood Rodgers, in close coordination with County Staff, Caltrans, community and partners will prepare a State Route 49 (SR 49) complete streets corridor (specifically along Washington Street and Stockton Street) transportation planning study. We foresee this study to be a working document that will be used to assist with SR 49 improvement opportunities, design, funding and implementation.
- We will assist TCTC staff with multimodal "Roundabout" analysis, design, exhibit, simulation and rendering plans that includes features in compliant with Americans with Disabilities Act (ADA), pedestrian, and bicycles crossings, as well as bus/heavy vehicle and Emergency Vehicle crossings.

Transportation Planning Studies Preparation, Review & Support

- We will complete Transportation Impact Study (TIS) reports in support of environmental documents prepared for Land Development Projects/Proposals that are submitted by project proponents for processing through the County Planning Department. The associated scope of the TIS in itself will be developed commensurate with the level of California Environmental Quality Act (CEQA) documentation (Environmental Impact Report Negative Declaration), County and Caltrans' traffic scoping requirements deemed necessary for the project.
- On behalf of TCTC staff, we will offer professional "peer review" services in reviewing and commenting on Transportation Impact Study (TIS) reports that are prepared by outside/private entities for development projects in the County.

- We will offer "on-call" assistance with maintenance, testing and update of the Tuolumne County Regional Travel Demand Model (as described in a subsequent section).

General Consulting Support on Engineering Issues and Funding Requests

- We will advise, support and assist TCTC staff on engineering related issues on an as needed basis.
- We will attend meetings with TCTC staff pertaining to traffic related issues and projects as needed. As necessary, we will be able to assist TCTC staff with graphical presentation materials and staff report preparation for presentation at County/TCTC Board of Supervisors meetings.
- Wood Rodgers staff will assist TCTC staff in the preparation and drafting of grant applications for funding requests from federal, state and regional agencies for traffic safety studies and improvements as needed. As necessary as part of grant acquisition, we can provide lobbyist services through a subconsultant.

Task Order Assistance

As stated in the RFQ, Wood Rodgers understands that there are specific task orders that the County has identified, that may be initiated over the term of this three-year on-call services contract. This section presents a general scoping outline of key work tasks that we will undertake in order to deliver each of those task orders.

Task Order #1 – Vehicle Miles Traveled (VMT) Study Report

Understanding – Highway Capacity Manual (HCM) Intersection and roadway Level of Service (LOS) calculation methodologies are primarily an automobile oriented measure, thus evaluation of other performance measures that yield analysis and information related to other modes of travel is important. Other performance measures analysis could provide useful information related to a project's traffic impacts and potential for mitigation measures to reduce Vehicle Miles Traveled (VMT) and green-house gas (GHG) emissions and to promote other modes of travel, such as walk, bike, and public transportation. Traffic mitigation measures that show reductions in VMT and GHG may not show a quantifiable change/improvement in a LOS performance measure. In such cases, description of the proposed improvements anticipated to improve air quality could be included in traffic studies. To assist with overall intersection Multi-Modal performance measure evaluation, pedestrian, bicycle and bus traffic counts can be collected and evaluation included. Note: Rural counties typically generate more VMT per capita than developed urban counties and cities due to longer production and attraction trip lengths. Thus, VMT significance criteria for rural counties may be lenient than urban counties and cities.

The following scoping outline/options are presented for assisting TCTC prepare a VMT Study Report.

Task 1.1 – Prepare VMT Guidelines/Criteria Wood Rodgers will work closely with County staff to prepare a VMT study report consistent with the Senate Bill 743 (SB 743) *Revised on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, most current dated January 20, 2016, Transportation Metric established by the California Office of Planning and Research. SB 743 establishes new criteria for identifying impacts of land use projects within a "Transit Zone" (area within a half mile of major transit stops or high quality transit corridor) on VMT, induced vehicle trips and local safety (additional SB 743 changes could occur).

Wood Rodgers will work closely with County staff to develop new average regional VMT thresholds for Tuolumne County, Calaveras County, and Amador County as well as develop specific community based VMT thresholds utilizing local agency regional travel demand models. CEQA metric thresholds of significance could be one of or a combination of the below hypothetical measures (to be fine-tuned at a later point):

- Average VMT in the County per service population (population + jobs) (i.e. VMT per Capita)

- Average vehicle trips (VT) in the County per service population (population + jobs) (i.e. VT per Capita)

If VMT per capita were selected as a CEQA metric threshold of significance, a project's incremental VMT per capita would be compared to the adopted CEQA threshold to determine significant impact. Typically, the project's incremental VMT per capita is determined by dividing the change in countywide VMT (with and without project) by the change in countywide service population (with and without project) using County's travel demand model (TDM).

If VT per capita were selected as a CEQA metric threshold of significance, as project's incremental vehicle trips per capita is compared to the adopted CEQA threshold to determine significant impact. The project's incremental VT per capita is typically determined by dividing the change in countywide vehicle trips (with and without project) by the change in countywide service population (with and without the project) using County's TDM. Note: The above hypothetical thresholds are similar to City of Pasadena Department of Transportation significance criteria.

A proposed project's CEQA impacts, based on the above thresholds, could be decreased by proximity to and quality of bicycle, transit and pedestrian facilities.

Other CEQA metric thresholds of significance that could be explored:

- If a project generates more VMT than accounted for in the General Plan (GP), then the project may have potential significant impact on each modal transportation network (consistent with Sacramento Joint Powers Authority)

The GP contains future year VMT forecasts which can be used to compare without and with proposed project conditions.

Task 1.2 – Prepare VMT Guidelines/Criteria Estimation Method Wood Rodgers can recommend methods for estimating project VMT. Small or quick-response VMT estimation tools are not sensitive to regional production/ attraction imbalances and therefore may not be the best tools for large projects. However, quick-response VMT estimation tools could be appropriate on smaller projects (consistent with City of San Luis Obispo). Hypothetical project VMT estimation guidelines could be similar to those shown below:

- Project with 100-200 peak hour trips – Use Quick-response VMT estimation tools such as VMT+ (by Fehr and Peers
- Projects with more than 200 peak hour trips – Use County TDM

These guidelines/criteria estimation methods would be developed through a collaborative process with County staff.

Task 1.3 – Prepare VMT Guidelines/Criteria Special Cases Sonora is the only incorporated city in the county but there are multiple census-designated places and unincorporated communities spread throughout the county. For these census-designated places and unincorporated communities, alternate or revised VMT guidelines/criteria and estimation methods could be defined. These communities could be subjected to less strict guidelines due to their rural and isolated nature and longer than typical average daily commute.

Task Order #2 – Technical Assistance with Tuolumne County Regional Travel Demand Model

Background – In 2009, TCTC retained Wood Rodgers to develop a comprehensive update of the Tuolumne County Travel Demand Forecasting Model (TC-TDFM) ahead of the Regional Transportation Plan (RTP) Update process. The updated model included a newly created mode-choice model subcomponent and future year

scenarios based on latest county land use forecasts. The 2010 TC-TDFM model update was formally approved and adopted by TCTC by mid-2011. As part of the model review process, a meeting between representatives of TCTC, Caltrans District 10, and Wood Rodgers was held in August 2010 that discussed next steps associated with further use of the model. Those steps included (but were not limited to) – RTP Update, Regional Transportation Plan Improvement Fee Program Update, City of Sonora sub-area/local transportation impact fee program update, CEQA Traffic Impact Studies for development projects throughout county, etc. Subsequently, Wood Rodgers was retained by TCTC to provide "on-call" traffic modeling support and necessary services.

In 2014 TCTC retained Wood Rodgers to assist TCTC with the update and recalibration of the TC-TDFM as part of the 2015/16 RTP update. The model update undertaken by Wood Rodgers involved creation of milestone models for years 2030 and 2040 that were based on future land use projections developed by the County Planning and Geographic Information Systems (GIS) division using the *UPlan* land use forecasting tool. The updated model was utilized to develop Vehicle Miles Traveled (VMT) estimates for evaluation of the County's Regional Blueprint Planning alternatives. As part of the *Tuolumne Tomorrow* Regional Blueprint planning initiative, County staff developed a base case alternative ("Recent Trends (Existing)") as well as three alternative growth scenarios referred to as "Recent Trends (Proposed)", "Public Facilities (Proposed)" and "Distinctive Communities (Proposed)" that were evaluated by Wood Rodgers for VMT, average trip lengths and system-wide intersection and roadway Level of Service (LOS) using the updated travel demand model. Wood Rodgers prepared the *Tuolumne County Regional Travel Demand Model Update Model Development Report* as well as the *Tuolumne County General Plan and Regional Transportation Plan Update EIR Traffic Study* in August 2015. Current effort is to prepare an addendum to the EIR Traffic Study based on the updated financially constrained expenditure plan.

Scoping Outline:
To assist TCTC maintain and update the TC-TDFM, provide traffic model runs for use in local development and improvement project traffic studies, etc., the following scoping outline is presented.

Task 2.1 – Model Use for Local Development and Improvement Projects – Wood Rodgers will TC-TDFM use procedures and update if necessary. Some of the TC-TDFM usage may include (but not limited to):

- Model use/application for relatively small-sized development projects (including development consistent with zoning, County General Plan and RTP-based future land use assumptions) and minor infrastructure improvement projects (such as intersection control improvements, roadway operational improvements, etc.).
- Model use/application for relatively large-sized development projects (involving Rezone or County General Plan Amendments, Specific Plans, or major deviations from RTP-based future land use assumptions) or for major infrastructure improvement projects (such as interchange/corridor improvements or major new roadway connections) that may involve multiple project alternatives.

Task 2.2 – Update County Traffic Impact Study (TIS) Guidelines Document and Use in TIS – The County TIS Guidelines document will be updated (if necessary), primarily to include well-defined VMT and LOS "thresholds of significance" to explain how the significance of development project impacts should be determined in project-specific Traffic Impact Studies. Given that practically all major highway/arterial segments in the County are State Highways falling under Caltrans jurisdiction, separate LOS significance thresholds may be developed for Caltrans and County-maintained facilities. Adoption of benefit area/community-specific criteria may also be considered. If desired by TCTC staff, other specific changes to the TIS Guidelines could be considered that include the following items:

- Further define/refine criteria for identifying study facilities that should be evaluated in a TIS (e.g., project-caused traffic increase on existing facilities by more than 5-percent or 50 peak hour trips).
- Expand on acceptable forms of trip generation rate sources approved for use in TIS reports (e.g., incorporating mixed-use/smart-growth trip generation methodology, allowing trip discounts for infill development, etc.).
- Define a minimum list of analysis scenarios that need to be evaluated in a TIS, especially related to CEQA required baseline and project related scenarios (e.g., "Existing Plus Project" analysis).
- Expanding the "non-motorized" component of TIS reports to include specifics related to carpooling, public transit, bicycle, and pedestrian modes that are recommended by SB 743.
- Expanding on appropriate TIS analysis time periods such as annual average versus seasonal peak months, weekday versus weekend peak hour periods, etc.
- Expanding on acceptable analysis methodologies/software for traffic operations analysis, including the need for micro-simulation analysis tools.

Task 2.3 – Model Data Extraction – From the TC-TDFM, we will extract and quantify Countywide Vehicle Miles Traveled (VMT) estimates, as well as VMT by Speed Bin for Regional Blueprint and related Air Quality (AQ) Conformity evaluation purposes. The VMT results will be compared to the latest High Performance Monitoring System (HPMS) information from Caltrans, using criteria applicable for rural counties. Using model predicted traffic volumes, we will also quantify the number of miles of LOS E/F segments under annual average peak hour conditions under existing and forecasted 2030 and 2040 conditions.

Task 2.4 – On-call TC-TDF Modeling Support – We will provide general model-related technical support, including TCTC staff training with model application, and telephone/e-mail support to TCTC staff on technical items related to the maintenance and upkeep of the TC-TDFM model. When requested, we will assist TCTC staff and other consultants with specific model applications such as select-zone and select-link analysis, scenarios/alternatives testing, high-end plotting and graphics, etc.

Task 2.5 – Meetings – The need for multiple meetings with TCTC staff and with other public stakeholders including Caltrans District 10 and City of Sonora is envisioned. In addition to formal in-person meetings, we will be available to attend tele-conferences/Skype meeting as necessary towards review and finalization of the necessary documents.

Task Order #3 – Update Regional Traffic Mitigation Fee Program Nexus Study, Develop Sub Area Fee Programs, Cost Estimates, Development Cost per Dwelling/Trips, etc.

The County has a single incorporated City (the City of Sonora) that is also its most densely populated area. The County RTP based transportation improvement projects in areas within the immediate and southern vicinity of the City of Sonora currently have relatively higher funding priorities than other areas of the County. However, smaller communities may also be facing substantial local improvement needs. Unincorporated communities in the County are dispersed over multiple State highway corridors (Twaine Harte and Tuolumne City along the SR 108 corridor and the Groveland-Big Oak Flat communities along the SR 120 corridor) that make a single Countywide impact fee structure an inefficient prioritization tool. To that end, it is Wood Rodgers' understanding that TCTC is considering creation of a geographically "tiered" Transportation Impact Fee structure for implementation by "Benefit Zones" throughout the County.

Task orders related to preparing updated regional mitigation fee program nexus study, sub area fee program, cost estimates, cost per dwelling/trips would involve the following general steps.

Task 3.1 – Base Data Collection including (but not limited to) – Develop identification and definition of Benefit Areas, review County General Plan, Regional Transportation Plan (RTP) and specific development proposals impacting the benefit area. Review County's RTP based regional travel demand model projections, Draft RTP financially constrained expenditure plan, existing traffic volume counts, benefit area traffic studies containing future traffic volume projections, current fee schedules and programs, and any additional data necessary for creating a tiered fee program.

Task 3.2 – Traffic Analysis – Analyze existing and future conditions both with and without proposed development projects to help study nexus as defined by *AB-1600*. Complete Tuolumne County traffic model runs using "select zone" and "select link" methodologies to help establish nexus between proposed new development and necessary transportation improvements as well as determine proportional fair-share of improvements attributable to different "Zones of Benefit". Prepare technical memorandum/report containing analysis results, findings, and recommendations.

Task 3.3 – Develop Updated Fee Program, Cost Estimates, and Cost per Dwelling/Trips – Prepare and share necessary inputs with TCTC (or County's economic or financial consultants) to update the County's impact fee programs and rate schedules. These would include (but not be limited to) – prepare planning and/or engineering level improvement cost estimates, development fair-share estimates, proportion of traffic volumes attributable to regional and local growth, impact fee rate schedules, conversion of land uses to Equivalent Dwelling Units (EDU), computation of "fee per trip," "fee per EDU," etc.

Task Order #4 – State Route 49 Complete Street Corridor Transportation Planning Study

"Complete Streets" is a transportation policy and design approach that veers away from an automobile focused design approach to a context-sensitive and multi-modal design that is integrated with a community's vision to provide safe travel options, promote public health and create stronger community. Complete or multi-modal streets are designed and operated to enable safe and desirable access for all users, regardless of age or ability, traveling by foot, bicycle, vehicles and/or buses. Each complete street is unique and designed to accommodate and fit its community environment. Some features may include, but not limited to, sidewalks, bike lanes, special bus lanes, bus stops, bus shelters, safe crossings, median islands, pedestrian signals, raised pedestrian crossing, curb bulb-outs, narrow travel lanes, parklets, roundabouts, etc., providing people of all ages and abilities more travel options. By providing more safe, convenient and attractive travel options, people will not rely solely on vehicles, thus reducing vehicular demand and increasing the existing roadway capacity and efficiency.

Wood Rodgers, in close coordination with County Staff, Caltrans, community and partners will prepare a State Route 49 (SR 49) complete streets corridor (specifically along Washington Street and Stockton Street) transportation planning study. We foresee this study to be a working document that will be used to assist with SR 49 improvement opportunities, design, funding and implementation. The study will be consistent with and supplement the proposed Vision Sonora study and support Sonora's vitality. The SR 49 plan will be prepared to revitalize the downtown corridor for visitors to come and spend time and enjoy themselves and all the amenities Sonora has to offer. The plan is envisioned to support and showcase Sonora's distinctive authenticity, architectural buildings and history as well as enhance the existing and support new amenities.

Scoping Outline:
To prepare the SR 49 complete streets corridor transportation planning study, the following scoping outline is presented.

Task 4.1 – Workshops, meetings and outreach – Community, agency and partners are envisioned to drive the SR 49 complete street plan and implementation. Wood Rodgers will hold early workshops, meetings, and outreach with the community, project team and businesses. These workshops and meetings will further enhance our understanding of the community's vision of the corridor.

Task 4.2 –Survey – Wood Rodgers will survey existing vehicles, pedestrians, bicycles, buses, parking, walk/bike pathways, intersections, and roadway segments. There is existing parking within close proximity of the downtown core and the study segment of SR 49. Parking spaces that are easily accessible may experience higher demand than those that are more difficult to navigate to. Some visitors are currently circulating the roadway network seeking parking space. Wood Rodgers will use signage and other resources to assist drivers in finding parking more efficiently, thereby reducing the number of circulating vehicles looking for parking.

Existing walk, bike, and trail-way will be surveyed. We will enhance existing pathways and seek feasibility of additional safe and desirable pathways connecting multiple destination locations to reduce vehicular demand and promote walk and bicycle demand.

Existing intersections and roadway network will be surveyed to identify potential improvement opportunities such as, but not limited to, constructing bulb-outs at roadway crossings, raised pedestrian crossings, pedestrian signal crossings (HAWK), pathways connecting existing and planned amenities, roundabouts (at SR 49 intersections with Snell Street/Elkin Street and N Washington Street/Columbia Way), etc.

Task 4.3 – Alternatives Analysis – Wood Rodgers will prepare several multimodal complete streets alternatives that will include features such as, but not limited to, parklets, bulb-out, roundabouts, traffic calming, signage, landscaping, architectural features, and cross sections. Simulation and rendering of the alternatives will be shared with the community, agency and partners to assist with the preferred alternative selection.

Task 4.4 – Implementation and Funding – Funding and construction of the preferred alternative would be done by coordinating with community, agency staff and partners. Wood Rodgers will assist with the cooperation, funding and construction efforts. Below are some steps that will assist with the implementation, funding and construction of the Plan:

- Prepare grant fund applications and seek funds from Capital Improvement Projects, Caltrans, sales tax measures, etc.
- Seek GHG and VMT reduction, safety, park improvement, Caltrans Active Transportation Program, CAP and trade, and other grant funds.
- Assist with the preferred alternative design and prepare aesthetically pleasing simulation and rendering plans to assist with community involvement and support.
- Include the Plan into future general plan update, financially constrained expenditure plan, vision Sonora, etc.

Task Order #5 – Prepare Safety, Roadway Operational Improvement Studies and ADA Improvement Needs Assessment

Wood Rodgers will assist TCTC in preparing safety and operations studies as well as ADA improvements throughout the County. Feasible improvement opportunities and alternatives will be identified and analyzed.

Scoping Outline:

To prepare safety, roadway/transportation studies and ADA improvements, the following draft scoping outline is presented.

Task 5.1 – Prepare Safety and Roadway/Transportation Safety Studies – Wood Rodgers will survey the study facility, obtain and review accident and crash data from Caltrans TASAS, CHP, Sharif, etc. to identify contributing factors such as vertical/horizontal curves, sight distance, visibility, etc. and how to improve them. We will utilize Interactive Highway Safety Design Module (IHSDM) software as well as crash modification factors to illustrate crash reductions associated with improvement opportunities. We will prepare technical study reports that will include, but not limited to, survey data, pedestrian/bicycle/vehicle/bus count data, crash data, operations, graphics, tables, text and improvement recommendations.

- **Base Data Collection** including (but not limited to) – aerial photographs, existing traffic volume counts, current/historical accident data including TASAS/TSAR accident data records from Caltrans (if study facility is on State right-of-way), Statewide Integrated Traffic Records System (SWITRS) accident data records (if study facility is located on County right-of-way), traffic studies containing future traffic volume projections, etc.
- **Traffic Safety Analysis** – Review and evaluate current accident data for "significance" of current accident rates based on Caltrans criteria (are actual rates higher than statewide average rates?) and/or County criteria (County General Plan Circulation Element or County Regional Transportation Plan based safety policies). Complete *California Manual on Uniform Traffic Control Devices* (CA-MUTCD 2010) based "Crash Experience Warrant" analysis. Based on these analyses, identify if current safety record is a sufficient criteria to warrant safety improvements.
- **Identify Improvements** – Based on the nature and significance of current safety characteristics, identify appropriate improvement strategies to alleviate safety concerns (such as traffic signalization, advance warning signs, curve corrections, circulation or capacity improvements, etc.), prepare a technical memorandum containing traffic analysis results, findings and recommendations, and if necessary, establish contact with Caltrans to discuss if SHOPP funds are available to implement safety improvements, and initiate or assist appropriate Caltrans process to construct improvements within State right-of-way.

Task 5.2 – ADA Improvements – Meeting ADA requirements can be challenging in rolling and mountainous terrain such as that found in Tuolumne County. Wood Rodgers is prepared to assist the County in determining ADA improvement needs, opportunities, and design. Wood Rodgers has a Certified Access Specialist on staff that will identify locations best suited for ADA improvements with the goal of improving safety and bringing facilities up to ADA standards while also focusing on which locations would have the greatest benefit to the public.

Task Order #6 – Bus Stop Shelters and Turnout Facilities

Wood Rodgers is prepared to assist TCTC with the addition of bus turnouts to existing roadways, incorporate them into new facilities, and/or develop and revise standards for bus turnouts. We can also assist in these same capacities for the placement of bus shelters in transit priority areas. Bus turnouts and shelters often require additional right-of-way and include aesthetic, structural, and electrical design elements. Our in-house capability

in these design disciplines give us the ability to deliver a bus turnout and shelter facility that is functional, safe, aesthetically pleasing, economical, and easily maintained. We have experience developing "Standard Plans" for bus shelter facilities so that TCTC can create a consistent theme throughout the County.

Our work steps could include:

- Location Identification
- Base Data Collection
- Design Layouts
- Plan Deliverables
- Meetings

Task Order #7 – Preparation of Project Study Reports and/or other Caltrans Process Documents
Wood Rodgers has extensive experience preparing Project Study Reports and Process Documents for both Caltrans and local agencies. We recognize that projects on or within a Caltrans facility or right of way with an anticipated construction cost of over $3 million would likely begin with a conventional Caltrans **Project Study Report** (PSR) or equivalent process. However, Caltrans *Project Development Procedures Manual* (PDPM) Guidelines, indicate that a streamlined, relatively simpler **Project Study Report (Project Development Support) – PSR (PDS)** process is often the Caltrans preferred Project Initiation Document (PID), and Wood Rodgers is familiar with the PSR (PDS) guidelines. If a project is anticipated to cost between $1 million and $3 million, the much simpler and less time consuming **Permit Engineering Evaluation Report (PEER)** can be used.

As part of the PID, Wood Rodgers would prepare a preliminary design and cost estimate, which, depending on the project, could include traffic analysis, preparation of geometric layout, typical cross-sections and right-of-way needed for the preferred ultimate alignment and section. Depending on environmental issues and impacts to adjacent properties, a Caltrans PSR (PDS) level effort may become necessary. The Wood Rodgers Transportation Team includes staff who are very familiar with Caltrans' standards and procedures and who specializes in Caltrans PSR projects. A draft outline of the PSR work tasks is presented as follows:

Task 1 – Project Groundwork

Task 1.1 - Background Data Collection & Compilation

Task 1.2 - Base Map Preparation

Task 1.3 - Geotechnical Data (Optional)

Task 1.4 - Utility Coordination

Task 2 – Traffic Circulation Analysis

Task 2.1 - Comprehensive Field Review

Task 2.2 - Traffic Data Collection

Task 2.3 - Existing Conditions' Traffic Circulation Analysis

Task 2.4 - Traffic Safety Analysis

Task 2.5 - "Background Transportation Conditions" Memorandum

Task 2.6 - Short-term Future ("Project Opening Day") Traffic Analysis

Task 2.7 - Cumulative Future Conditions Analysis (under different alternatives)

Task 3 – Project Alternatives Layout

Task 3.1 – Preliminary Concept Development

Task 3.2 – Alternatives Formulation, Evaluation & Refinement

Task 4 – Preliminary Environmental Assessment

Task 4.1 – Environmental Analysis Scoping

Task 4.1.1 - Assemble Technical Data

Task 4.1.2 - Constraints Memorandum/Matrix Evaluation

Task 4.1.3 - Summary Findings

Task 4.1.4 - Technical Analyses of Corridor Improvement Alternatives.

Task 4.2 - Hazardous Materials Initial Site Assessment (Optional)

Task 4.3 - Prepare PEAR

Task 5 – PSR (PDS) Development

Task 5.1 – Geometric Concept Drawings

Task 5.2 – Prepare Bridge Advance Planning Studies

Task 5.3 – Prepare Right-of-Way Data Sheets

Task 5.4 – Storm Water Data Report (if in State right-of-way)

Task 5.5 – Preliminary Estimates of Project Cost

Task 5.6 – Design Exception Fact Sheets (Mandatory and/or Advisory Design Standards)

Task 5.7 – Public Involvement

Task 5.7.1 Exhibit Preparation

Task 5.7.2 Attendance at Public Workshop/Open House

Task 5.8 – Prepare Draft PSR (PDS)

Task 5.9 – Prepare Final PSR (PDS)

Wood Rodgers understands that a project not on or within a Caltrans facility or right of way would not necessarily be required to conform to the Caltrans PDPM or follow a Caltrans PSR (PDS) level of effort or detail. However, based on our experience with other local agencies, we anticipate that a PSR prepared for TCTC with no Caltrans involvement would follow a similar process as the one outlined above, minus a few Caltrans specific items such as a Storm Water Data Report and Design Exception Fact Sheets.

Task Order #8 – Design Bicycle and Pedestrian Facilities

Wood Rodgers is prepared to assist TCTC with the design of bicycle and pedestrian facilities on existing roadways or as completely new facilities. These facilities could include Class 1, Class 2, Class 3, or Class 4 bike facilities, or pedestrian facilities such as sidewalks, ADA ramps, roadway crossings, or signals. These often require additional right-of-way and include aesthetic, structural, and electrical design elements. Our in-house capability in these design disciplines give us the ability to design bicycle and pedestrian facilities that are functional, safe, aesthetically pleasing, economical, and easily maintained.

Our work steps could include:

- Location Identification

- Base Data Collection
- Design Layouts
- Plan Deliverables
- Meetings

Wood Rodgers' proven process for delivering successful projects will be applied to this task order in the following outline of task steps:

Task 1 - Project Management

Task 2 - Field Visit & Background Research

Task 3 - Feasibility Evaluation

Task 3.1 – Initial Traffic Analysis

Task 3.2 – Conceptual Alternatives Evaluation & Selection

Task 4 - Surveys & Base Mapping

Task 4.1 – Control Survey

Task 4.2 – Topographic Survey

Task 4.3 – Right of Way Determination

Task 5 – Conceptual Geometric Drawing (30% plans)

Task 5.1 – CGD Preparation

Task 5.2 – Revise & Submit CGD to TCTC & CT

Task 5.3 – Caltrans Review CGD

Task 5.4 – Revise to CGD Acceptance

Task 6 - Environmental Documentation

Task 6.1 – Research & Data Collection

Task 6.2 – Biological Report

Task 6.3 – Cultural Resources Report

Task 6.4 – Prepare Admin. Draft IS/MND (or CE)

Task 6.5 – Publish Public Review Draft IS/MND (or CE)

Task 6.6 – Prepare Responses & MMRP

Task 6.7 – Prepare CEQA Notices & Distribute Documents

Task 7 - Geotechnical Analysis

Task 8 - Hydraulics Analysis

Task 9 - Storm Water Data Report

Task 10 - Traffic Operations Analysis

Task 10.2 – Existing Conditions Analysis

Task 10.2 – Accident Data Analysis

Task 10.3 – Opening Day & Design Year Operations

Task 10.4 – Operations Memo

Task 11 - Utility Coordination

Task 11.1 – "A" Utility Verification Letters

Task 11.2 – "B" Utility Conflict ID Letters

Task 11.3 – "C" Notice to Relocate

Task 12 - Plans, Specifications & Estimates

Task 12.1 – Prepare 60% Plans & Estimates

Task 12.2 – 90% PS&E

Task 12.3 – 100% PS&E

Task 13 - CT Encroachment Permit

Task 13.1 – PEER Preparation

Task 13.2 – Encroachment Permit Application

Task 13.3 – Final PS&E Submittal

Task 14 - Bidding & Construction Assistance

Optional Task Orders A – Identify and Develop Park and Ride Facilities

Wood Rodgers has the capability to assist TCTC in selecting locations for park and ride facilities using criteria such as trip sources and destinations, potential for congestion relief, right-of-way availability, safety, public transportation facilities, community values and acceptance, and access characteristics. Design criteria may include projected number of spaces, internal circulation, surfacing material, lighting and landscaping, and signage. Caltrans design practices and standards may be applied, as appropriate. Our work items could include:

- Base Data Collection
- Location Identification
- Design Layouts
- Plan Deliverables
- Meetings

Optional Task Order B – Traffic Signal Timing Optimization and Synchronization

Task orders related to Traffic Signal Timing Optimization and Synchronization would involve the following basic steps.

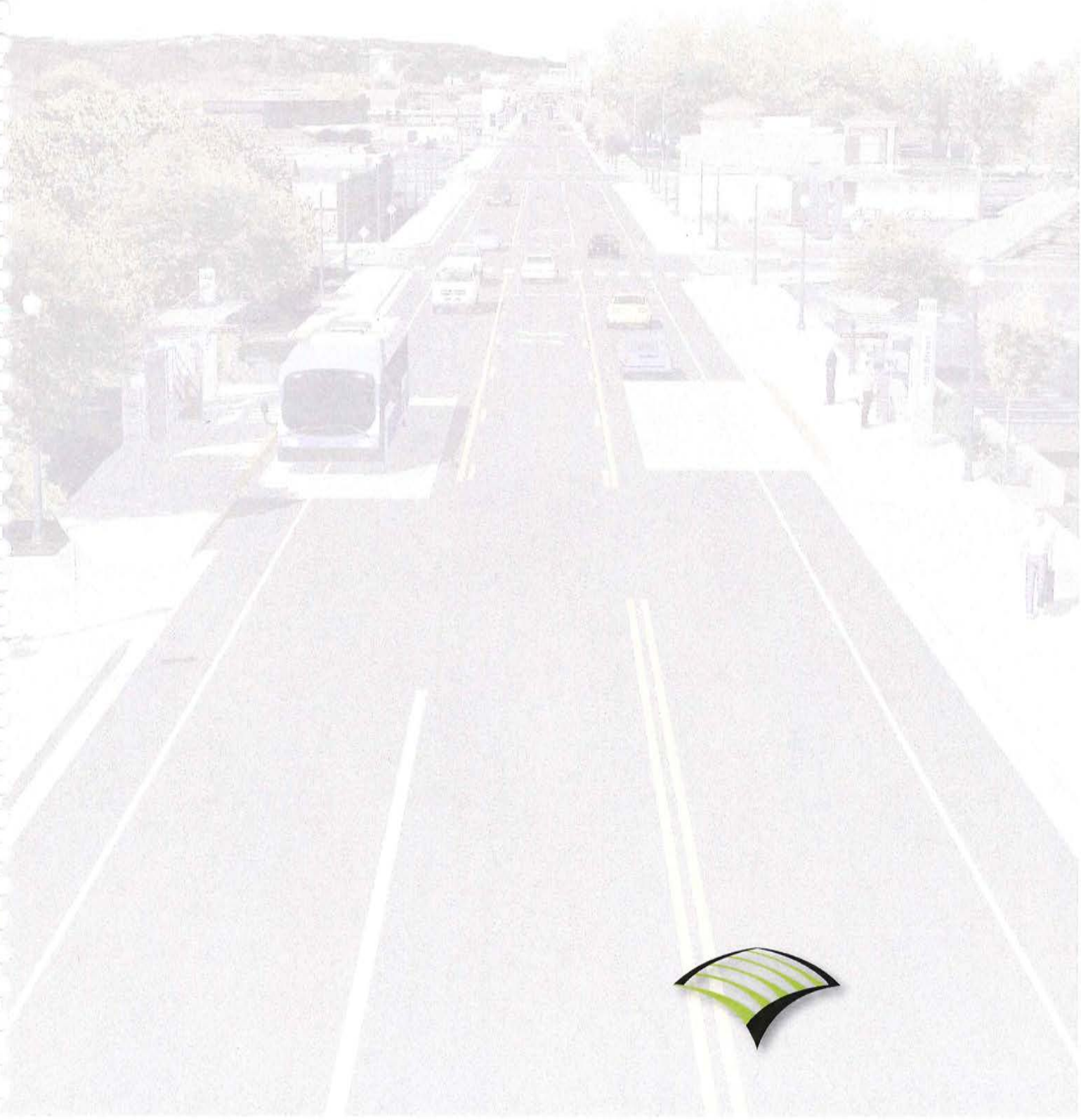
- **Base Data Collection** Including (but not limited to) – as-built plans, aerial photographs, signing and striping plans for proposed improvements, existing/proposed signal phasing plans and timing data, existing traffic volume counts, traffic studies containing future design traffic volume projections, and obtaining any additional relevant data that is necessary for the specified project area.
- **Traffic Operations Analysis** – Analyze existing and future conditions both with and without proposed improvements using integrated traffic operations analysis software such as *Synchro/SimTraffic*, develop coordinated signal timing plans (splits and offsets) using *Synchro* model and/or use of other programs such as *Transyt-7F*, develop time-space diagrams, discuss traffic progression characteristics, prepare technical memorandum containing analysis results, recommendations and recommended timing plans.
- **Programming Controller Inputs** – As necessary, we can also assist with translating basic operational analysis outputs (such as splits and offsets) in terms of signal controller parameters depending on the proprietary signal system/hardware that is used.

Task Order #6 – Safety Studies for High Accident Rate Locations

Task orders related to Traffic Safety studies would involve the following basic tasks.

- **Base Data Collection** Including (but not limited to) – aerial photographs, existing traffic volume counts, current/historical accident data including TASAS/TSAR accident data records from Caltrans (if study facility is on State right-of-way), SWITRS accident data records (if study facility is located on County right-of-way), traffic studies containing future traffic volume projections, etc.
- **Traffic Safety Analysis** – Review and evaluate current accident data for "significance" of current accident rates based on Caltrans criteria (are actual rates higher than statewide average rates?) and/or County criteria (County General Plan Circulation Element or County Regional Transportation Plan based safety policies), complete *California Manual on Uniform Traffic Control Devices* (CA-MUTCD 2010) based "Crash Experience Warrant" analysis, based on these analyses identify if current safety record is a sufficient criteria to warrant safety improvements.
- **Identify Improvements** – Based on the nature and significance of current safety characteristics, identify appropriate improvement strategies to alleviate safety concerns (such as traffic signalization, advance warning signs, curve corrections, circulation or capacity improvements, etc.), prepare a technical memorandum containing traffic analysis results, findings and recommendations, and if necessary, establish contact with Caltrans to discuss if SHOPP funds are available to implement safety improvements, and initiate or assist appropriate Caltrans process to construct improvements within State right-of-way.

Firm Qualifications



FIRM QUALIFICATIONS

Founded in 1997, Wood Rodgers, Inc.'s mission is to **provide our clients with exceptional service, provide our employees with a great work environment, and provide lasting value to society as a whole in the work we do**. Wood Rodgers, Inc. (Wood Rodgers) began with two engineers who were determined to create an energetic and innovative engineering firm that focused on the needs of their clients and a dynamic workplace where staff were encouraged to grow. As a result, the firm has grown into a unique company incorporating innovation and quality to each project, while adhering to schedules, budgets, and environmental constraints.

Wood Rodgers is a California corporation with a diversified staff of over 200 to support and deliver projects throughout California and Nevada. Our staff includes: professionally registered civil; transportation; traffic; structural; hydrogeologic and geotechnical engineers; project management professionals; transportation and land planners; qualified SWPPP developers and practitioners; professional land surveyors; certified floodplain managers; professional hydrologist; landscape architects; LEED accredited professional staff; and geographic information specialists (GIS) who have had extensive experience with successfully completing both public and private projects. Our versatile and reliable team works seamlessly with other designers, engineers, public agencies, and private clients to provide quality engineering services, while meeting the economic challenges and desired aesthetics for each project.

Wood Rodgers is headquartered in Sacramento, with additional offices located in Oakland, Pleasanton, and West Covina California; as well as Reno and Las Vegas, Nevada. Our firm-wide capabilities include:

- Transportation Planning
- Caltrans Processes
- Design for Bicycle and Pedestrian Facilities
- Planning and Design of Structures
- Transportation Infrastructure Design
- Transportation Modeling/Travel Forecasting
- Civil Engineering
- GIS Applications
- Landscape Architecture
- Structural Engineering
- Mapping/Surveying
- Water Resources
- Land Planning
- Electrical Engineering
- Construction Management
- Geotechnical Engineering
- Environmental Services

For this particular contract, **all work will be performed from our Sacramento, California office.** Our range of professional services includes civil engineering, land planning, landscape architecture, surveying, mapping, water resources, hydrogeology, transportation planning and engineering, environmental services, geotechnical engineering, and structural engineering. Our staff is composed of individuals who have a wide range of private and public sector experience. Wood Rodgers is knowledgeable of regional marketplaces and is responsive to the distinct needs of local municipalities, regional joint powers agencies, and state and federal agencies from a client service as well as jurisdictional, approval and oversight authority.

Transportation & Traffic Engineering

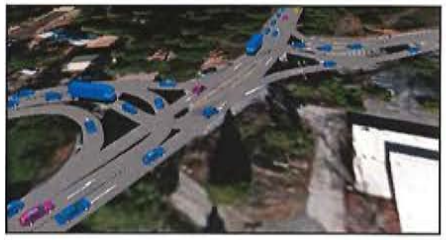
Wood Rodgers provides comprehensive engineering services for transportation projects from inception to completion including local roads, freeways, highways, interchanges, intersections, roundabouts, bridges, grade separations, and bicycle and pedestrian facilities. Our approach to any transportation project, large or small, begins with forming a strong understanding of client needs, schedule and budget parameters, and community impacts. Our transportation engineers possess extensive experience and expertise in the design of a safe, attractive, easy-to-navigate and efficient infrastructure and understand transportation's role in improving a community's quality of life. The team has successfully completed numerous design projects for new roadways and the expansion of existing facilities in both urban and rural locations.

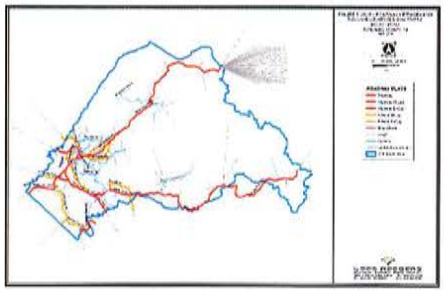
Transportation Planning

Wood Rodgers provides extensive transportation services performed by a talented and experienced group of motivated engineers and planning professionals. Our staff provides comprehensive "in-house" transportation impact evaluations, travel demand model development, and transportation engineering analysis in addition to our wide range of land development and roadway engineering services.

Travel Modeling Services

The Wood Rodgers Transportation Planning Division specializes in creation/development, maintenance and update of all scales of travel/traffic demand forecasting models (TDM) – from small-scale communitywide (Specific Plan, Master Plan) models, to medium-scale citywide models, to large-scale regional/sub-regional models. Our staff is proficient in the use of a variety of transportation planning software including TP+/Viper, CUBE/Voyager, MINUTP, and TransCAD. As necessary, we also utilize small-area traffic impact study software such as Traffix, Vistro, and Synchro. Wood Rodgers staff has experience and expertise in developing (from "scratch"), managing, and updating, as well as comprehensively documenting travel demand models. We are also experienced in developing traffic impact fee programs. Wood Rodgers has extensive experience using TDM to calculate Vehicle Miles Traveled (VMT) that is used to calculate GHG emissions.





Transportation Study Services

Wood Rodgers is experienced in meeting local agency and Caltrans Guidelines for comprehensive transportation impact studies. Our transportation analysis methods are CEQA, NEPA and AB-1600 compliant, and include period, scenario, and modal analyses using the latest state-of-the-practice analysis tools and procedures (including latest HCM methods). Our studies integrate modern transportation planning solution recommendations including smart growth, traffic calming treatments, Intersection Control Evaluation, and roundabout design concepts. Our

transportation planning specializes in performing traffic signal warrant, timing and synchronization. Our traffic studies provide reasonable, realistic, and implementable recommendations for improvements and mitigation measures. Wood Rodgers prides ourselves on delivering reasonable and cost-competitive traffic study budgets, and traffic study schedules that are sensitive to agency review time as well as development interests. We have prepared and designed multi-modal corridors, traffic calming, pedestrian and bicycle paths/improvements, as well as safe-routes-to-schools. We use state of the art video, Bluetooth, GPS, radar as well as manual data collection. Wood Rodgers has extensive knowledge using small scale models (like VMT+ tool, traffic volumes and ADT, change in VMT vs. change in lane miles, VMT by speed bins, etc.) to estimate VMT and GHG emissions.

SUBCONSUTLANTS

Augustine Planning Associates (Environmental)

Augustine Planning Associates, Inc. (APA), is a small woman-owned business established in 1994 in the City of Sonora, Tuolumne County, CA. President Amy Augustine, AICP brings with her 27 years of planning experience including work as a former senior planner for Tuolumne County and Planning Director for Angels Camp. APA authored the Sonora General Plan, Angels Camp General Plan, Tuolumne Community Plan and portions of the Tuolumne County General Plan. APA currently contracts with the City of Sonora and City of Oakdale to provide on-call planning services.

APA specializes in preparing, negotiating, presenting, and completing all levels of environmental documentation at the local, state and federal level. APA brings a unique perspective to projects that have "stalled" in the past and employs "thinking outside the box" to complete complex and/or controversial projects with multiple stakeholders. This approach led to the unanimous approval of the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* by seven City Councils, the San Joaquin County Board of Supervisors, and San Joaquin County Council of Governments--with buy-in from the local Building Council, Industry Council, Audubon Society, Sierra Club, U.S. Fish and Wildlife Service and California Department of Fish and Game. The plan recently celebrated its eleventh year of implementation.

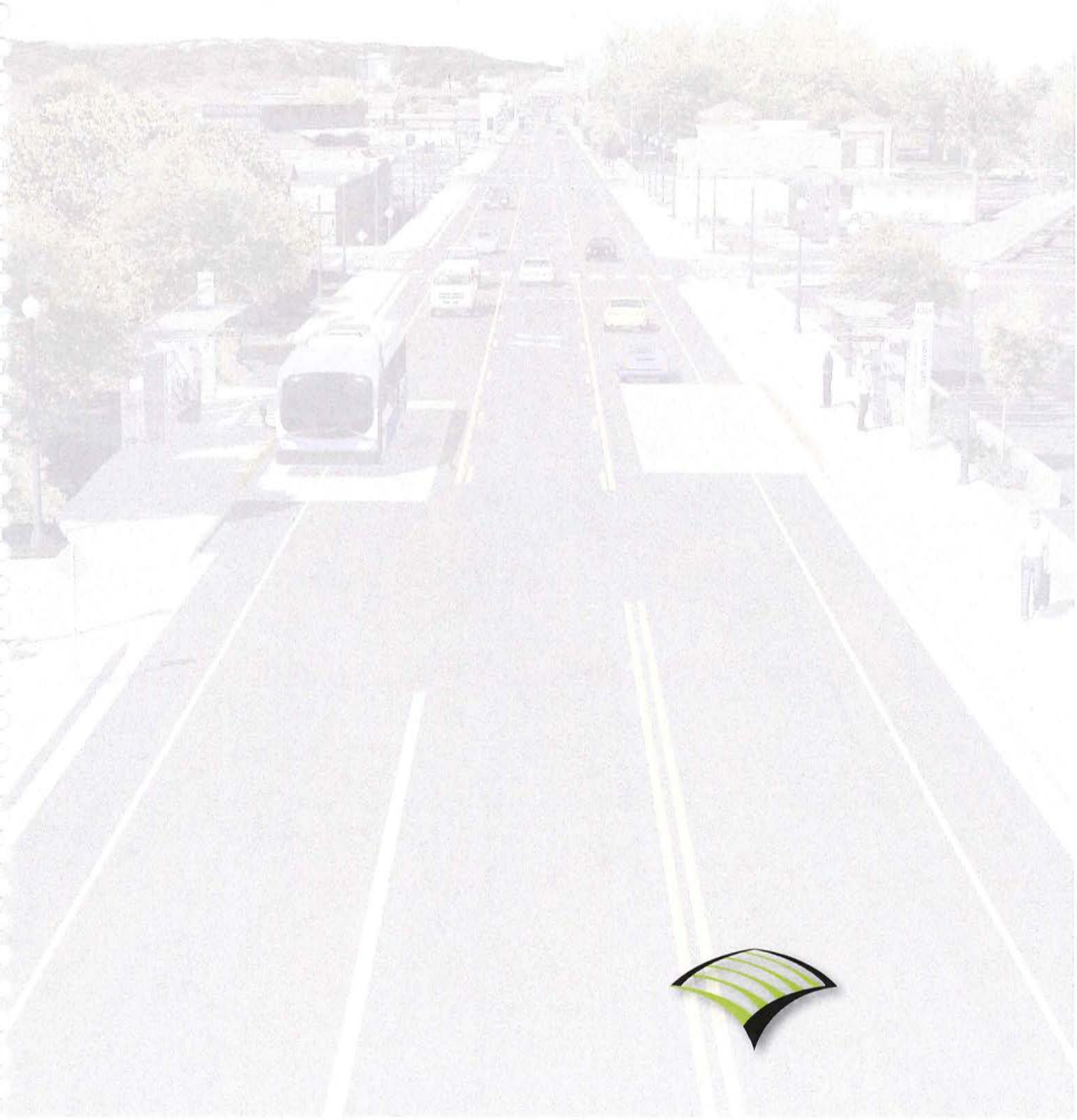
The APA Team's experience working together in Northern California enables each of us to successfully coordinate with staff, advisory agencies, applicants, adjoining property owners, planning commissions, boards of supervisors, city councils, technical committees, interested members of the public, developers, and stakeholder agencies as necessary to bring projects to a successful conclusion – on time and within budget. The APA Team is also noted for its ability to organize and facilitate public hearings and productive open-house workshops.

NDS/ATD

Founded in 1989, All Traffic Data (ATD) was established to deliver accurate and professional solutions to our client's traffic, transit and GIS/GPS data collection. ATD has over 25 years of successful operations that have established us as the largest, full service, traffic and transit data collection company on the West Coast.

ATD has an outstanding team of 60 professional **full time** employees that will ensure the successful coordination and completion of your project. With local field crews in 10 major cities, including Sacramento, we can respond quickly to your project's needs. Many of our staff have received additional professional training in radar studies and OSHA training. We can leverage our experience and expertise to deliver accurate and timely data in a most professional manner. We are certified as an Emerging and Small Business Enterprise from the City of Sacramento and a Small Business Enterprise from the State of California.

Management Plan



MANAGEMENT PLAN

Project management is a continuous activity that commences with the receipt of the Notice to Proceed and continues through submittal of the final project deliverables. Key elements of Wood Rodgers' project management program include regular progress reports, work progress monitoring and cost control, coordination, and communication. Our project management processes and tools generally follow principles and guidelines described in the publication entitled *Project Management Body of Knowledge* (PMBOK, 4th Edition, Project Management Institute). All coordination will be with the TCTC's Project Manager. The Wood Rodgers Project Manager assigned to the specific Task Order will monitor and direct work activities in accordance with the contracted work scope, schedule, and budget. Our project management philosophy includes scope control, schedule control, cost control, communication control, quality control and risk control procedures and processes as outlined in the following work tasks.

Kick-off Meeting and PDT Meetings

A project "kick-off" meeting will be scheduled after Notice-to-Proceed. This meeting will include representatives of TCTC, Wood Rodgers, and other stakeholders as invited by TCTC. The agencies that are invited to this meeting will generally constitute the Project Development Team (PDT). This meeting will be used to establish lines of communication, project deliverables protocol, review the project scope of work, finalize the schedule, and identify key project goals and issues. This kick-off meeting could be held in conjunction with the required field review with TCTC/County staff. During the project development process, PDT meetings will be held as needed to discuss project issues, work progress, budget status, and project tasks.

- **Scope Control** – A PDT meeting will be held on a regular basis to review actual performed scope status versus the contracted scope baseline. We will obtain TCTC input, make decisions, and discuss tasks/issues that have the potential to affect the project's overall scope, budget or schedule. The Wood Rodgers Project Manager will proactively identify and discuss scope variations and potential extra-work services with City staff before formal change order authorization requests are submitted.
- **Cost Control** – The Wood Rodgers' Project Manager will be responsible for the controls necessary to ensure that assignments are completed within budget from project initiation phase through development and design (PS&E) phases. Our weekly employee timesheet databases and monthly invoices and progress billings will be used as monitoring tools to gauge the expended cost (budget) versus earned value from the project as the project progresses from initiation through development and design.
- **Communication Control** – The Wood Rodgers Project Manager will prepare the meeting agendas in consultation with TCTC, distribute the agenda prior to the meeting, arrange for appropriate participants to attend, and distribute meeting minutes to the participants within five days after the meeting. As needed, project communications will be maintained through telephone conferences, and e-mail communication as well. We will sustain weekly communication with TCTC Project Manager via telephone.

The Project Manager will be the "single point of contact" for correspondence and other communications. The Project Team members will be available to meet with TCTC or other agency personnel to discuss technical or administrative issues to keep the project on track. Once project protocol is defined, communication will be maintained between the Project Manager, TCTC, and the Project Team. The Project Manager will act as the principal liaison between TCTC and the consultant team. Key team members will be involved in development of the project schedule in order to assure proper coordination of all the required tasks.

Project Schedule

Wood Rodgers will develop and maintain a comprehensive Critical Path Method (CPM) schedule throughout the project development process. A global CPM schedule will be prepared for all tasks necessary to take the project through to construction. This schedule will be updated once a month, or as necessary. The schedule will be in Gantt Chart format.

Schedule Control – The Wood Rodgers Project Manager will prepare and update the Project Schedule on a monthly basis with input from key PDT members. The schedule will show each activity, when that activity will begin, how long it will continue, and identify activities that are independent. The schedule will clearly differentiate between those functions carried out by the Consultant team, TCTC, and other involved parties.

Oversight, Progress Reporting, etc.

Wood Rodgers' Project Management Program includes regular progress reports, work progress monitoring and cost control, coordination, and communication. The Wood Rodgers' Project Manager will be responsible for providing oversight and the controls necessary to ensure that assignments are completed within the budget and schedule for development of the PS&E for this project. Once project protocol is defined, the Wood Rodgers Project Manager will maintain close contact with the TCTC's Project Manager and the members of the Wood Rodgers Project Team. The Project Manager will act as the principal liaison between TCTC and the Project Team.

Written progress reports will be submitted monthly to TCTC with monthly invoices. These progress reports will present work progress by project activity/task. This report will include a discussion of issues requiring action/decisions which may impact project deliverables, schedule and budget, and anticipated work for the following month.

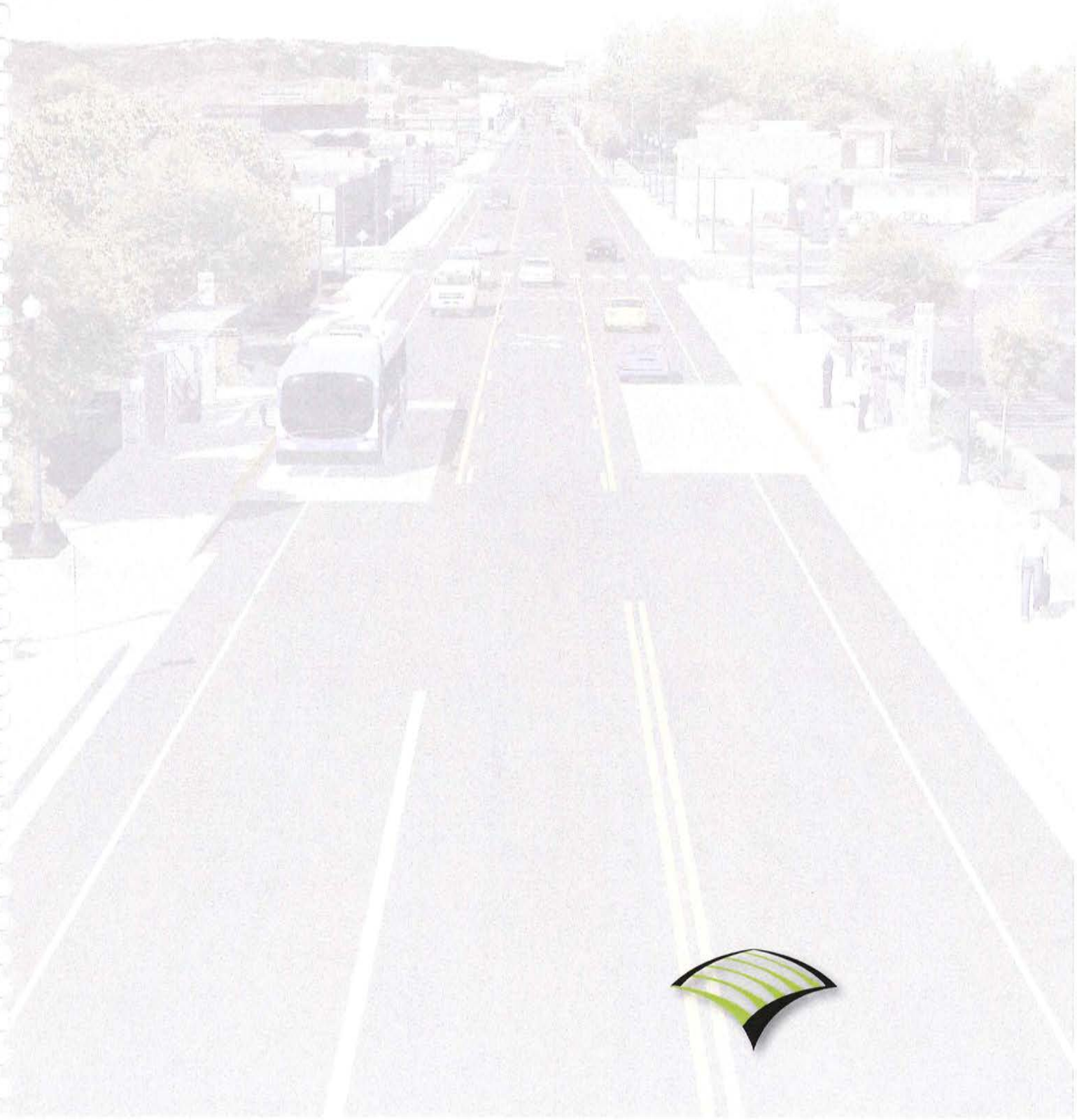
Quality Assurance/Quality Control

Quality Assurance (QA) at Wood Rodgers is a project-wide approach that establishes and oversees policies, procedures, methodologies, standards and guidelines aimed at producing the target level of quality commensurate with the contracted scope of the project. Quality Control (QC) consists of task-specific activities that apply the QA policies at each level to ensure that the task deliverables produced through our application of sound project management meet or exceed the industry standard of care. The Project Manager is responsible for ensuring that all elements of the QA/QC are adhered to, as well as ensuring that adequate resources are available to perform quality work. Each and every team member is responsible for ensuring quality as an integral part of his/her project responsibility, and a senior level staff person will review all deliverables prior to submittal to the City.

Quality Control/Quality Assurance – The Wood Rodgers Project Team will employ quality assurance procedures that will assure that the work products will be complete and correct for the purposes of this project. These procedures include informal peer review as well as formal review by a senior engineer to assure that all deliverables (plans, exhibits, reports, documents, etc.) comply with accepted standards, are grammatically correct, and will result in a constructible project.

Risk Control – The Wood Rodgers Project Manager will strive to identify potential savings, risks and uncertainties related to development of this project. If at any time during the contract we identify any alternative design that could result in significant saving to TCTC or any circumstances that could pose potential risk related to design or construction of this project, TCTC will be notified of such issues immediately. Any alternative design recommended will be documented in writing to TCTC's Project Manager.

Project Personnel



PROJECT PERSONNEL

ORGANIZATIONAL CHART

Wood Rodgers Team
- Wood Rodgers, Inc.
- Augustine Planning Associates
- NDS/ATD

Principal-in-Charge & Caltrans Coordination
- Mark Rayback, PE, QSD/QSP

Transportation Planning
- Nawid Nessar, PE, TE
- Mario Tambellini, PE
- Nicole Scappaticci, EIT

Transportation Design & Utility Coordination
- Steven Robinson, PE, TE
- Luke Fuson, PE

Drainage/Hydraulics
- Michael Nowlan, PE, CFM

Environmental
- Amy Augustine, AICP

Traffic Engineering Design
- Jerry Fitch, PE, TE
- Steven Leung, PE, TE

Caltrans Document Preparation
- Sandy Wong, PE, QSD/QSP

Storm Water /SWPPP
- Allan Laca, PE, QSD/QSP

Data Collection
- Bill Nichols

MARK RAYBACK, PE, QSD/QSP – PRINCIPAL-IN-CHARGE & CALTRANS COORDINATION

Education: BS, Civil Engineering, California State University, Sacramento, 1991

Registrations: Registered Professional Engineer, California No. 52723
Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

Mr. Rayback joined Wood Rodgers in 2005 and has over 25 years of experience working on projects associated with transportation, developing transportation related policy and project management. Prior to joining Wood Rodgers, Mr. Rayback served as the Chief of Staff for the California Department of Transportation (Caltrans). Mr. Rayback has demonstrated his ability to initiate and lead programs in a large, diverse organization and is a dynamic leader and project/program manager. His direct project experience has involved serving as the Project

Manager for high-profile public transportation works projects utilizing his unique combination of skills and experience in Transportation Engineering and Planning, Environmental Compliance, Information Technology, and Management. Mr. Rayback has managed the preparation of Project Study Reports, Project Reports, and the development of plans, specifications and estimates packages for a variety of transportation projects, including: interchange modifications, route realignments, ramp modification projects, signal projects, green streets and streetscape projects, pavement rehabilitation, roundabouts, safety improvement projects, road widening, new connections, etc. Mr. Rayback has also managed the completion of various multi-modal transportation planning projects to develop bike path, transit facilities and pedestrian improvements. Mr. Rayback is also well versed in the requirements of the Caltrans project delivery process under full oversight and through the local assistance program.

Nawid Nessar, PE, TE, QSD/QSP – Transportation Planning Services Manager

Education: BS, Civil and Environmental Engineering, University of California, Davis, 2004

Registrations: Registered Professional Engineer, California No. 75589
Registered Professional Traffic Engineer, California No. 2616
Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

Mr. Nessar has over 12 years of collective experience in the realm of Transportation Planning/Engineering specializing in Travel Demand Modeling, Microsimulation Modeling, Corridor Studies, Traffic Impact Studies, Project Study Report (PSR) and Traffic Operations Analyses reports. Mr. Nessar is a "true" transportation modeler who has created travel demand models from "scratch" for several communities in the Central Coast and Central Valley regions of California. Mr. Nessar brings extensive experience and expertise in completing all phases of small- to large-scale multi-modal Transportation Impact studies, prepared in support of environmental (CEQA) documents for a variety of land development and transportation infrastructure planning/design projects. Mr. Nessar has prepared several City/Community General Plan Circulation Updates, Regional Transportation Plan Updates, Specific Plan/Master Plan Traffic Circulation Studies, and Transportation Impact Fee Program Updates. Mr. Nessar brings extensive Traffic Engineering experience with preparation of comprehensive Traffic Operations Analyses in support of Caltrans' oversight process reports, operational evaluation of interchanges, intersections and roundabouts, as well as the use of variety of traffic operational analysis software including micro-simulation applications. He has evaluated, designed and performed traffic signal timing, traffic signal operation, traffic signal video detection, accident investigations, striping, speed surveys and traffic counts. Mr. Nessar also has consulting experience assisting with land development projects, cost estimates, and grading projects.

Mario Tambellini, PE – Transportation Planning Support

Education: BS, Civil Engineering, University of California, Davis, 2010

Registrations: Registered Professional Engineer, California No. 85534

Mr. Tambellini a transportation engineer specializing in Transportation Planning, Travel Demand Modeling, and Microsimulation Modeling. He has experience in the preparation of Traffic Impact Studies, Travel Demand Forecast Modeling Reports, and Traffic Operations Analysis Reports. Mr. Tambellini has worked with several regional travel demand models (TDMs), including the Sacramento Area Council of Government's SACSIM model, the Butte County Council of Governments' Regional TDM, and the City of Paso Robles TDM. Mr. Tambellini has evaluated stop controlled intersections, signal controlled intersections, roundabouts, and freeway interchanges

for development and roadway improvement projects throughout central and northern California. Mr. Tambellini also has background training and experience in transportation system design, pavement engineering, and cost estimates.

Nicole Scappaticci, EIT – Transportation Planning Support

Education: BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 2014

Registrations: Registered Engineer-in-Training, California No. 149210

Ms. Scappaticci is a civil engineer with experience in Geometric Highway Design, Traffic Engineering, Traffic Modeling & Simulation, Public Transportation, Groundwater Hydraulics and Hydrology, Geological Engineering, Reinforced Concrete Design, Structural Steel Design, Surveying, and Technical Writing. She is competent in the use of AutoCAD Civil 3D, VISSIM, Microsoft Excel, Word, and PowerPoint.

Steven Robinson, PE, TE – Transportation Design & Utility Coordination

Education: BS, Civil Engineering, University of California, Davis, 2005

Registrations: Registered Professional Engineer, California No. 73207
Registered Professional Traffic Engineer, California No. 2621

Mr. Robinson is a Transportation Design Engineer and Transportation Planner specializing in Roadway Improvements and Roadway Design, with additional expertise in the preparation of Project Study Reports, Traffic Impact Studies, and Traffic Operations Analyses Reports. Mr. Robinson has evaluated and designed intersection, interchange, and roadway improvements, roadway geometrics and profiles, storm drainage facilities, signing and striping, stage construction/traffic handling, and has prepared construction plans, specifications, and cost estimates for several roadway widening and improvement projects throughout Central and Northern California. Mr. Robinson has work experience with Caltrans, the Tahoe Transportation District, Tahoe Regional Planning Agency, Central Federal Lands Highway Division, the counties of Monterey, Napa, Placer, Sacramento, and Stanislaus, and the cities of Elk Grove, Fairfield, Greenfield, Modesto, Rancho Cordova, Roseville, Sacramento, Salinas, Sebastopol, West Sacramento, and Yuba City.

Luke Fuson, PE – Transportation Design & Utility Coordination

Education: MS, Civil Engineering, California State University, Sacramento, 2013
BS, Civil Engineering, University of California, Davis, 2005

Registrations: Registered Professional Civil Engineer, California No. 73946

Mr. Fuson is a Transportation Engineer with 11 years of experience. He specializes in Roadway Design with additional expertise in the preparation of Drainage Reports, Project Study Reports, and Project Reports. Mr. Fuson has evaluated and designed interchanges, intersections, roadway improvements, roundabouts, bicycle and pedestrian paths, prepared cost estimates, project specifications, project Drainage Reports, Project Reports, and Project Study Reports. Mr. Fuson has work experience with Caltrans, the Transportation Agency for Monterey County, the counties of Sacramento, Monterey, and Nevada and the Cities of Sacramento, Modesto, Elk Grove, Rancho Cordova, Salinas, Greenfield, Modesto, Yuba City, Arroyo Grande, Lincoln, Roseville, and San Luis Obispo.

MICHAEL NOWLAN, PE, CFM – DRAINAGE AND HYDRAULICS

Education: BS, Civil Engineering, Worcester Polytechnic Institute, Worcester, 1989

Registrations: Registered Professional Civil Engineer, California No. 55954
Certified Floodplain Manager, US-08-03529

Mr. Nowlan is a licensed civil engineer with 27 years of experience in the planning and detailed study of complex drainage and flooding systems dealing with urban pipe networks and drainage infrastructure, regional flood control levees and large river systems, statistical and empirical analysis of stream flow hydrology, design frequency rainfall, dam break analysis, and floodplain mapping. Mr. Nowlan is an expert in applied hydrology and hydraulics using and directing others in numerical simulation programs such as HEC-HMS, SacCalc, HEC-RAS, XP-SWMM, EPA-SWMM, InfoWorks ICM, FLO-2D, MIKE 11/21 and MIKE FLOOD, as well as legacy programs such as HEC-1, HEC-2 and UNET. Mr. Nowlan regularly utilizes GIS to assist in developing and reviewing simulation results, and authoring report documentation. In addition to work duties Mr. Nowlan currently serves on the Board of Directors for the Floodplain Management Association.

JERRY FITCH, PE, TE – TRAFFIC ENGINEERING DESIGN

Education: BS, Civil Engineering, California State University, Sacramento, 1987

Registrations: Registered Professional Civil Engineer, California No. 34633
Registered Professional Traffic Engineer, California No. 1514

Mr. Fitch has 34 years of engineering experience in roadway improvement project design of all types, including signalized intersections, multi-lane arterials, projects on California state highways, and local neighborhoods. With the Sacramento County Department of Transportation, his experience also included traffic operations and maintenance. At the County, he introduced such innovations as the triple left-turn lane and count-down pedestrian heads to the Sacramento area. As the City Engineer for the City of Citrus Heights, Mr. Fitch was responsible for all phases of City's transportation capital program, including planning, funding, project design and development, and construction management. As Project Manager, he is also involved in all phases of the project process, from conceptual layout stages, to refinement of alternatives, traffic analysis, environmental process, right-of-way acquisition, electrical and conduit design, power source development, hardware placement, and utility coordination. Mr. Fitch's breadth of experience, from financing, planning, and design of new facilities, through maintenance and operation of those facilities, provides a "wide-angle" perspective view of roadway systems that include sustainability, economy, and user-friendliness as core values.

STEVEN LEUNG, PE, TE – TRAFFIC ENGINEERING DESIGN

Education: BS, Civil Engineering, University California, Davis, 1994

Registrations: Registered Professional Civil Engineer, California No. 70004
Registered Professional Traffic Engineer, California No. 2457

Mr. Leung is a registered Civil and Traffic Engineer with 22 years of experience in transportation engineering with an emphasis in preparing PS&E for roadway and electrical design primarily in traffic signal, roadway lighting, interconnect, traffic monitoring system design. He has been responsible for the electrical design includes field visiting, utility coordination, preparation of conceptual layouts, reports, and calculations. He also prepares detail design of traffic signal hardware placement, underground conduit and conductor system, and

signal phase operating sequences. Mr. Leung has also worked extensively with utility companies, general contractors, and government agencies for project coordination and construction support services. He also has extensive experience in roundabout and roadway geometric, signing and striping, traffic handling design, and traffic modeling. Mr. Leung is highly competent in the use of AutoCAD, Microstation, AutoTurn, and AGI (area lighting analysis software), Synchro 8, and Vissim.

Sandy Wong, PE, QSD/QSP – Caltrans Document Preparation

Education: BS, Engineering and Construction Management, University of Pacific, Stockton, 1998
BS, Civil Engineering, University of Pacific, Stockton, 1996

Registrations: Registered Professional Civil Engineer, California No. 66784
Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

Mr. Wong has 20 years of civil engineering experience in the transportation field. He is knowledgeable and experienced in writing project initiation documents (PIDs) and Project Approval and Environmental Documents (PA&EDs) and developing Plans, Specifications, and Estimates (PS&E) for state transportation projects. He is well versed in the Highway Design Manual (HDM), Project Development Procedure Manual (PDPM), Work Breakdown Structure (WBS), and the importance of developing and leading the project development team (PDT) in delivering PID and PA&ED reports and completing PS&E sets. He is capable of sequencing and supervising work under tight schedules and is able to monitor, update, and successfully meet project schedules.

Allan Laca, PE, QSD/QSP – Storm Water/SWPPP

Education: BS, Civil Engineering, California State University, Sacramento, 2006

Registrations: Registered Professional Civil Engineer, California No. 74868
Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

Mr. Laca is a Design Engineer and a certified Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP) specializing in the preparation of Storm Water Pollution Prevention Plans (SWPPPs) and post-construction storm water quality plans, drainage design, and floodplain analysis. Mr. Laca has completed numerous SWPPPs and has served as a SWPPP Inspector on multiple projects throughout Central and Northern California. Mr. Laca has transportation design experience and is familiar with Caltrans design standards and processes. Mr. Laca has prepared geometric layouts, typical section, construction details, drainage designs, construction staging, and striping plans as well as cost estimates and project reports. Mr. Laca has proficient knowledge of hydraulic modeling and floodplain mapping. Mr. Laca has recently completed and calibrated a 500+ mile hydraulic HEC-RAS model for DWR for the Lower Sacramento River system. Mr. Laca has excellent experience with engineering programs such as Microstation, Geopak, AutoCAD, Autoturn, HEC-RAS, HEC-GeoRAS, ArcMap, Global Mapper, and FLO-2D as well as Microsoft Word, Excel, and Powerpoint.

Amy Augustine, AICP – Environmental

Education: BA, Biology, California State University, Sacramento, 1984

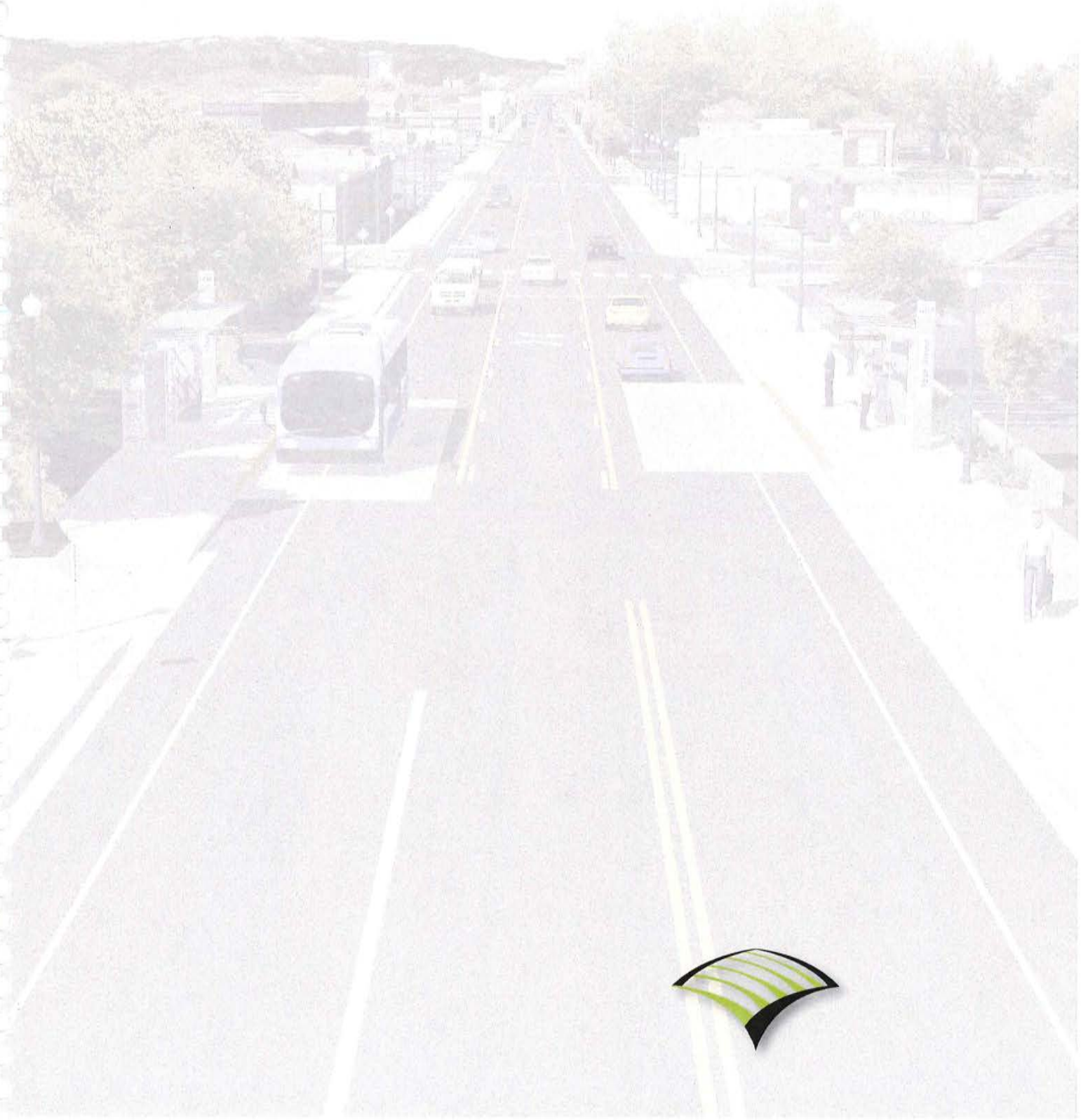
Amy Augustine, AICP, is president of Augustine Planning Associates, Inc. (APA) and has 28 years of CEQA and NEPA experience coupled with 22 years working with regional transportation planning agencies. She served as a Tuolumne County senior planner for 6 years and has worked with the San Joaquin Council of Governments since opening APA in 1994 in Sonora, CA. Amy has prepared non-motorized transportation plans, circulation elements

for multiple general plans, hundreds of environmental documents in support of public works projects, and has secured millions of dollars in funding in support of public works projects. Amy holds a B.A. in biological sciences and is a member of the American Institute of Certified Planners (AICP).

Bill Nichols – Data Collection (NDS/ATD)

Mr. Nichols, founder of the Northern California Division, is actively involved with scheduling and planning data collection, designing forms, using specialized software to generate reports and training new employees in all phases of data collection. He has the unique ability to understand both sides of data collection, field operations and administrative expertise.

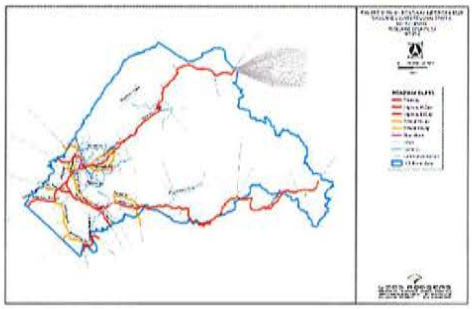
Experience of Firm



EXPERIENCE OF FIRM

TRANSPORTATION PLANNING EXPERIENCE

Tuolumne County Regional Travel Demand Model Update – Tuolumne County, California



Wood Rodgers is assisted Tuolumne County with the update and recalibration of the TransCAD-based Regional Travel Demand Forecast model, as part of their on-going 2015 Regional Transportation Plan (RTP) and General Plan (GP) Update. The model update undertaken by Wood Rodgers involved creation of milestone models for years 2030 and 2040 that are based on future land use projections developed by the County Planning and Geographic Information Systems (GIS) division using the *UPlan* land use forecasting tool. The model included a newly created mode-choice model subcomponent, and the updated model will be utilized to develop Vehicle Miles Traveled (VMT) estimates for evaluation of performance measures associated the County's Regional Blueprint Planning alternatives. As part of the *Tuolumne Tomorrow* Regional Blueprint planning initiative, County staff developed a base case alternative ("Recent Trends (Existing)") as well as three alternative growth scenarios referred to as "Recent Trends (Proposed)", "Public Facilities (Proposed)" and "Distinctive Communities (Proposed)" that were evaluated by Wood Rodgers for VMT, average trip lengths and system-wide intersection and roadway Level of Service (LOS) using the updated travel demand model.

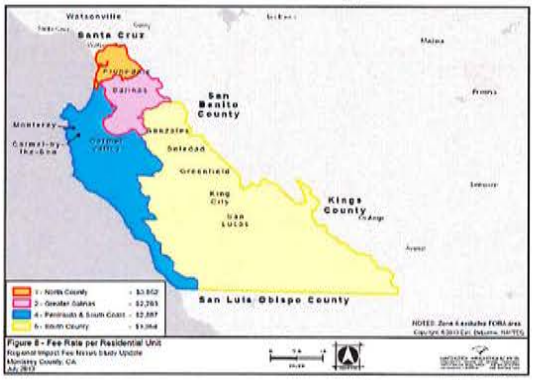
Reference: Mr. Darin Grossi, Executive Director, TCTC; (209) 533-5601; dgrossi@co.tuolumne.ca.us

Yosemite Grand National Golf and Wetland Preserve Traffic Study – Yosemite, California

Wood Rodgers provided comprehensive transportation impact study services in support of the Environmental Impact Report (EIR) for this unique vacation resort development and wetland preserve project in the Sierra foothills region. The project entails development of an approximate 520-acre vacant site with a 300-unit vacation ownership (timeshare) use, a 120-room hotel, 50 single-family residential lots, an 18-hole golf course, a 35-unit apartment complex and a visitors' center. As part of this project, Wood Rodgers evaluated the entire SR 108 corridor segment from Yosemite Junction (SR 120/SR 108) thru South Sonora. Our study involved a complex circulation evaluation involving up to three access alternatives for the project site and improvements to the SR 108/SR 120 intersection.

Reference: Mr. Darin Grossi, Executive Director, TCTC; (209) 533-5601; dgrossi@co.tuolumne.ca.us

TAMC Regional Development Impact Fee (RDIF) Implementation Guidelines – Monterey, California



Wood Rodgers assisted the Transportation Agency for Monterey County (TAMC) in the drafting and finalization of a Regional Development Impact Fee (RDIF) Implementation Guidelines document. The fee implementation guidelines handbook developed through this process is being used as an impact fee calculation reference document by thirteen participating local jurisdictions (incorporated Cities, County, etc.) in the TAMC regional traffic impact fee program. Wood Rodgers used the Association of Monterey Bay Area Governments' (AMBAG) Regional Travel Demand Model (RTDM) to project traffic forecasts

and transportation deficiencies. The AMBAG RTDM forecasted substantial future traffic volume growth, resulting in capacity improvement needs on several transportation corridors throughout Monterey County above and beyond existing deficiencies in the system. In order to mitigate for those system deficiencies, the RDIF program proposes approximately $820 million of transportation capital improvement projects, spread over seventeen (17) identified projects, and an additional $10 million in transit capital improvements. The nexus analysis completed as part of this Update proportionately allocated cost shares of each of the seventeen (17) improvement projects to planned new development in each of the four (4) benefit zones, using RTDM based percentage splits, select link, and select zone analysis. The RDIF program itself seeks to raise over $130 million (in 2013 dollars) to compensate for future development's impact on Monterey County roadway system and fund the fair-share portion of the $820 million worth of capital improvements.

Reference: Mike Zeller, Senior Planner, Transportation Agency of Monterey County; (831) 775-4416; mike@tamcmonterey.org

Caltrans District 3 - US 50 High Occupancy Vehicle Lanes - Travel Demand Modeling and Traffic Microsimulation – California

As part of an on-call contract, Caltrans District 3 retained Wood Rodgers to complete comprehensive Travel Demand Modeling and Traffic Microsimulation Analysis for the US Highway 50 (US 50) High-Occupancy Vehicle (HOV) Lane Addition project in the Sacramento region. The project proposes to extend existing HOV lanes on US 50 from Interstate 5 to Watt Avenue in each direction within the project limits. The study will form the technical traffic engineering basis for subsequent phases of project development for this critical transportation operational capacity improvement project that intends to provide increased people/vehicle movement capacity on US 50 corridor through the urban core of the City of Sacramento. The study involves two major technical modeling task components, 1) Travel Demand Model (TDM) forecasts development for the study corridor, and 2) creation and calibration/validation of high-end traffic operational microsimulation models of the study corridor as well as four project alternatives.

Reference: Cynthia Smith, Caltrans District 3; (530) 634-7614; Cynthia.d.smith@dot.ca.gov

San Miguel Community Plan Update, Transportation Impact Study and Transportation Impact Fee Update – San Miguel, California

Wood Rodgers assisted San Miguel Community with their proposed 2013 San Miguel CP Update. The year 2035 CP area included development of approximately 1,154 residential dwelling units (737 existing units and 417 new units) and 210,000 square feet of non-residential use (70,000 square feet existing and 140,000 square feet new) by year 2035.

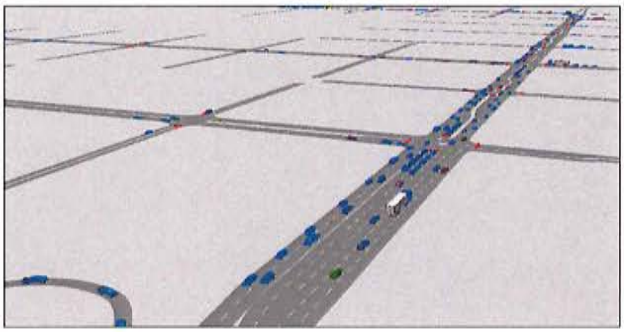
Wood Rodgers developed a "nested" model for San Miguel Community by updating the SLOCOG year 2035 RTM land use and roadway network within the boundaries and immediate vicinity of the CP consistent with the current and proposed CP alternatives. This model run was regarded as "Cumulative (year 2035) plus Project" and these model results were used to develop study intersection turn volume forecasts and roadway segment

traffic volume forecasts for the cumulative "with Project" scenario. The intersection and roadway LOS analysis as well as mitigation measures for Cumulative "No Project" and "Plus Project" scenarios were discussed in detail.

Furthermore, as part of an EIR consultant team, Wood Rodgers, Inc. (WR) was retained by San Luis Obispo County to complete Transportation Impact Fee (TIF) update in support of the proposed *San Miguel Community Plan Update Transportation Impact Study*, (Wood Rodgers, dated December 2013). The current TIF program was based on the *2013 Update of the San Miguel Road Improvement Fee Report.* A memorandum was prepared by Wood Rodgers to outline the TIF fair-share cost of transportation facility improvements for existing as well as new trips generated by cumulative development projects, within the San Miguel Community Urban Reserve Line (URL).

Reference: Jay Johnson, San Luis Obispo County; (805) 781-4573; jgjohnson@co.slo.ca.us

SR 70 Feather River Expressway Corridor Travel Demand Modeling and Traffic Microsimulation – Marysville, California



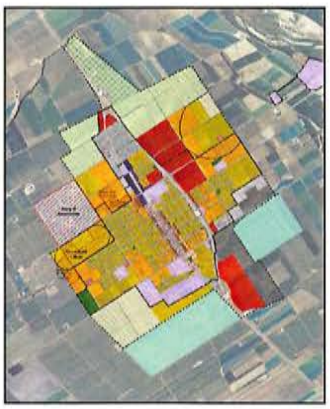
As part of an on-call contract, Caltrans District 3 retained Wood Rodgers to complete comprehensive Travel Demand Modeling and Traffic Microsimulation Analysis for the SR 70 Feather River Expressway ("Marysville Bypass") Corridor project in the Sutter-Yuba region. The study will form the technical traffic engineering basis for subsequent phases of project development for this critical transportation improvement project that intends to alleviate traffic congestion within and through the City of Marysville. The study involves two major technical modeling task components, 1) creation and calibration/validation of a focused sub-area Travel Demand Model (TDM) for the study area, and 2) creation and calibration/validation of high-end traffic operational microsimulation models of the study area as well as proposed project phases/alternatives.

The Cube/Voyager software based TDM creation/update process involves use/application of Sacramento Area Council of Governments' (SACOG) state-of-the-practice "Activity-Based Model" (ABM) system, SacSIM, and Butte County Council of Governments' regional TDM, to create a Tri-County sub-area TDM for the Sutter-Yuba-Butte region covering the project area. The Traffic Microsimulation modeling involves creation of high-end traffic operational micro-simulation evaluation of the project area and alternatives using the VISSIM and Vistro modeling software systems.

The TDM validation as well as the Traffic Microsimulation model validation processes both utilize comprehensive field traffic count data. The data collection effort was led and coordinated by Wood Rodgers to accomplish the task in a schedule-critical manner over a period of three weeks in May 2013, prior to planned long-term roadway closures in the study area for the SR 70 Rehabilitation project. The collected data included Bluetooth-technology based Origin-Destination trip data for up to 7 gateway pairs, speed/travel-time tachographs for up to 6 routes, peak hour intersection count data for up to 32 intersections (including axle-classifications at up to 9 locations), daily roadway count data at up to 31 segments, as well as high-definition digital photo/videography data of queuing characteristics at up to 16 locations from throughout the study region.

Reference: Cynthia Smith, Caltrans District 3; (530) 654-2630; cyndy_smith@dot.ca.gov

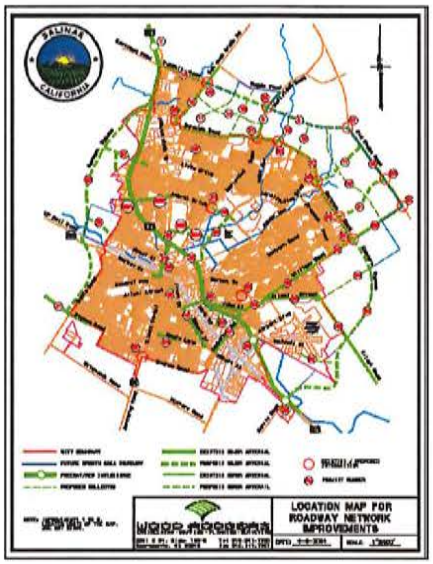
City of Greenfield Travel Demand Model Update – Greenfield, California



The City of Greenfield retained Wood Rodgers to complete a comprehensive Citywide Travel Demand Update. The new Citywide Travel Demand Model was created "from scratch" as a "gravity" model, using the Cube/Voyager Transportation Planning software. The updated Citywide Traffic Model is being used by the City as the basis for a number of different projects, including development of updated design traffic forecasts for the US 101/Walnut Avenue interchange modifications project as well as the ongoing comprehensive update to the City's Traffic Improvement Fee program.

Reference: Ron Sissem (former City Planner), EMC Planning; (831) 649-1799 ext. 207; sissem@emcplanning.com

Traffic Fee Ordinance (TFO) Update – City of Salinas, California



Wood Rodgers was retained to update the City of Salinas Traffic Fee Ordinance (TFO) Program to reflect recent changes to the City's General Plan. As part of this study, Wood Rodgers prepared an AB-1600 Nexus evaluation statement relating future land development to the cost of future roadway improvements, developing over 67 individual Cost Opinions for various roadway improvement projects. Wood Rodgers revised the City's current funding methodology relating developer's infrastructure obligations with TFO responsibilities, and developed traffic fee schedules and methodologies for infill development, downtown incentive zones, and future outer-ring developments. Wood Rodgers also gave public presentations of the TFO program to concerned jurisdictions and stakeholders. Wood Rodgers completed another update to the TFO most recently in 2010.

References: Rob Russell, Public Works Director, City of Salinas; (831) 758-7241; robr@ci.salinas.ca.us

The City of Oakland Island Project – Oakland, California

Wood Rodgers worked on the Oakland Island Projects as part of "on-call" transportation services with the City of Oakland. Wood Rodgers developed conceptual design alternatives with the City staff and local residents through neighborhood meetings to determine the appropriate traffic calming measure for each site that balances traffic, parking needs of local residents with the need to slow the traffic. Traffic calming measures that were used included median islands, bulb-outs, and traffic circles to slow or direct the traffic. Landscape/hardscape was integrated in the median islands, bulb-outs, and traffic circles to enhance the aesthetics of the community. Wood Rodgers also provided design support during construction.

Wood Rodgers is also currently assisting the City of Oakland in Speed Survey studies for the Fontaine Avenue and Grand Avenue study segments, both approximately one-mile long. The Speed study involves traffic speed data collection using radar gun surveys at four locations ("speed zones") within the two study roadway segments, supplemented with additional peak hour and average daily traffic (ADT) data collection. Services include field review of existing roadway characteristics, speed zone survey charts preparation consistent with Caltrans standards/requirements, accident data investigation, speed limit recommendation, and report preparation.

Reference: Mr. Peter Chun, Transportation Engineer, City of Oakland; (510) 238-7774; pchun@oaklandnet.com

Transportation & Traffic Engineering Experience

Bus Shelters – South Lake Tahoe, California & Nevada

Wood Rodgers prepared plans, specifications, and estimates (PS&E), secured encroachment permits from the City of South Lake Tahoe, NDOT, and Caltrans, performed environmental permitting, and construction management services for the installation of 14 bus shelters in the Lake Tahoe region. Ten of the shelters involved constructing prefabricated aluminum shelters on new concrete foundations and slabs designed to local building codes. The other four shelters were custom redwood shelters designed and engineered by Wood Rodgers. Two different sized redwood shelters were designed in order to allow installation of the redwood shelters under various site conditions. Site plans for each shelter were designed to be ADA compliant and included bus rider amenities such as bicycle racks and trash containers.

Reference: Carl Hasty, District Manager, Tahoe Transportation District; (775) 589-5500; chasty@tahoetransportation.org

Monterey County On-Call Traffic Engineer – Monterey County, California

Wood Rodgers has an on-call services contract in place with Monterey County. When the County's traffic engineer retired unexpectedly in 2012, the County used the on-call contract to secure interim traffic engineering services. Wood Rodgers was able to place a qualified staff member on County premises two to three days per week, and available for consultation at all times. With the provided services, the County was able to maintain ongoing traffic engineering services, successfully secure HSIP/H3 federal funding for two projects, coordinate with Caltrans District 5 during a protracted series of construction project along US 101 within the County, and finish design of several traffic signals. Ongoing operational services included:

- Traffic accident data collection, processing, and response to problem areas
- Investigation and resolution of traffic engineering problems (speeding, schools, signage, etc.)
- Traffic signal plan review, timing, and maintenance
- Striping and signing plan preparation and review
- Encroachment permit review

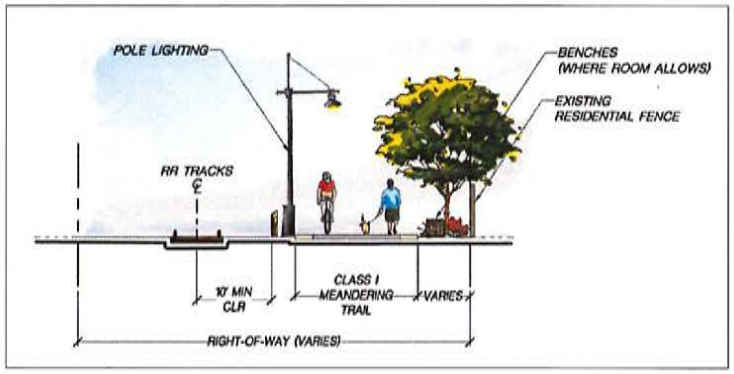
- Check County and private development plans for striping, signing, signals, and traffic handling
- Attend regional citizens' committee meetings

The services were provided for a six month period pending the selection and arrival of a full-time, regular employee to fill the Traffic Engineer position. The photo above shows a typical task—lengthening of an acceleration lane following the resurfacing of Carmel Valley Road.

References: Enrique Saavedra, Monterey County Public Works Dept.; (831) 755-8970; saavedraem@co.monterey.ca.us

Mather Rails to Trails – Rancho Cordova, California

Wood Rodgers assisted the City of Rancho Cordova with preparation of an Active Transportation Program (ATP) Grant application for the Mather Rails to Trails project. The grant was awarded and the City secured $2.2 million for the design and construction of 8,400 linear feet of Class 1 pedestrian and bicycle trail. Wood Rodgers is currently providing public outreach efforts and will be preparing the PS&E for the project.



The project would convert an unused rail corridor to an ADA compliant Class 1 trail that will provide connectivity between a primary transit station and civil amenities such as the Veterans Administration Hospital, North Mather Business Complex, the Mather Field Airport, and many other commercial, institutional, and residential destinations.

The project includes landscaping, striping and signage, trail lighting, a pedestrian traffic signal, ADA curb ramps, an existing traffic signal modification, and utility coordination and modifications. The project includes coordination with the California Public Utilities Commission (CPUC) and requires five separate General Order 88-B forms to be completed for modifications to existing at-grade rail crossings. A portion of the path will be carried over the US-50 freeway via the existing Mather Spur Underpass. Wood Rodgers developed alternatives to construct the trail without removing the tracks from the underpass and is preparing final construction documents for the preferred solution, which will also include upgraded pedestrian fencing, storm-water drainage conveyance, and trail lighting on the structure. The modifications to the Mather Spur Underpass will be constructed under a Caltrans Encroachment Permit. The estimated construction cost is approximately $1.7 million and it is scheduled for construction in 2017.

The City of Rancho Cordova has contracted with Wood Rodgers to actively participate in the public outreach and meetings for the Mather Rails-To-Trails project. We are currently preparing conceptual exhibits to help aid in the public outreach efforts. In collaboration with the City, our Landscape Architecture staff is working towards identifying enhancement opportunities that can help define the character of the trail corridor. Features such as landscaping, lighting, special signage, architectural features, and site furnishings will be highlighted to show the City's dedication to the trail's enhancement and site character. The exhibits will be printed in color and placed on poster board so the public can readily observe the proposed features and provide input.

Reference: Chris Boyer, City of Rancho Cordova, 2729 Prospect Park Drive, Rancho Cordova, CA 95670; (916) 851-8907; cboyer@cityofranchocordova.org

4th Street / Prater Way BRT Project: Evans Ave to Pyramid Way, Sparks/Reno, Nevada

Following a successful corridor study and community engagement effort, Wood Rodgers is currently assisting the RTC in developing final design for this transportation improvement and community revitalization project. Due to the location of this project, in one of the oldest parts of town, the final design is extremely complicated. The design replaces most of the existing sidewalk as well as adjusting the street section to accommodate a new Bus Rapid Transit route as well as increase mobility through the corridor via pedestrian, bicycle and other modes of transportation. The complication of this design comes as we replace the existing sidewalk that is immediately adjacent to congested business front entrances and parking facilities. We have worked with the business owners to accommodate business access as well as work to accommodate parking through the corridor.

Beyond business access is the need to relocate utilities within the corridor. A large amount of overhead utility lines exist in the area and are planned to be relocated underground due to the improvements associated with the project. A number of easement acquisitions and permissions to construct affecting nearly 190 parcels along the corridor are anticipated. This work requires right-of-way engineering, extensive boundary surveying and extensive utility coordination. Another key aspect of the project is the architecture of the proposed transit stations. The transit stations include architecture that reflects the historic nature of the corridor, bringing the history of the area back into the lives of area travelers.

Reference: Warren Call, Washoe County Regional Transportation Commission; (775)335-1881; wcall@rtcwashoe.com

Freeport Boulevard/21st Street Two-Way Conversion – Sacramento, California

APWA Transportation Project of the Year Award

Wood Rodgers was retained by the City to design the 21st/Freeport Two-way Conversion, and secure permits necessary for project construction. The stated project goals were to have this segment of Freeport Boulevard and 21st Street serve as "complete streets" for the adjacent neighborhoods. The streets were to accommodate vehicles, bicycles, and pedestrians, and provide safe access across the existing railroad tracks to serve the adjacent light rail station. The project was a highly publicized and visible project where the City Council was committed to expediting the project. Together, Wood Rodgers and the City project staff determined that a proactive approach to the

community, stakeholders, and regulatory agencies would be the key to the success of this project.

The project's final design was completed, carefully examined, and evaluated with all stakeholders. The design incorporated a variety of complete streets and crossing safety appurtenances. Raised medians were designed as a safety measure to prevent traffic from any attempts to avoid the crossing gates. Truncated domes were added to all sidewalk crossings providing a surface area that had a distinguishable surface from the regular sidewalk pavement making it discernible through the use of a cane for the visually impaired, as well as providing high-color contrast that provides an indication that a transition from the sidewalk to the street is forthcoming. These design elements reduces vehicular and pedestrian conflicts as well as greatly reducing vehicle speeds while providing a larger space between pedestrians and vehicles when vehicles encroach too closely to the corners while attempting to turn onto a cross street. ADA improvements were implemented and landscaped island areas were added to provide an aesthetically pleasing refuge for pedestrians. Class 2 and 3 bicycle lanes were added to accommodate bicycle traffic to continue connectivity, which was previously not being served. All Class 2 and Class 3 paths were signed and striped consistent with MUTCD and city bike/pedestrian Master Plan standards. More importantly, the conversion from one-way traffic to two-way traffic provided residents with a more convenient travel route and easy access to and from their homes. All the improvements for this project provided for more "livable" streets, improved bicycle/pedestrian facilities and amenities, more convenient travel routes for residents, and safety features that slowed traffic, and eliminated cut through traffic, as well as providing safer parking for residents while adding aesthetically pleasing landscaping.

Reference: Nader Kamal, City of Sacramento Department of Public Works; (916) 808-7035; nkamal@cityofsacramento.org

State Route 68 / Corral de Tierra Road Intersection Improvements PSR – Monterey County, California
Wood Rodgers completed a Project Study Report for construction of operational improvements to a signalized intersection on Route 68 approximately 13 miles east of Monterey. This PSR was prepared as a basis to program construction funding from the State Transportation Improvement Program for a project to improve operations to Level of Service "C" for the near term by adding turn lanes. The PSR was approved by Caltrans District 5 in 2006. The estimated capital cost of the improvements scoped by the PSR was $1.6 million.

Reference: Arturo Adlawan, Monterey County; (831) 755-4823; adlawanaa@co.monterey.ca.us

Elverta Road/State Route 99 Interchange – Sacramento, California

Wood Rodgers provided professional engineering and surveying services for the preparation of the Project Report and PS&E for the construction of a new partial-cloverleaf interchange to replace an existing signalized intersection on a four-lane expressway section of State Route 99/70. The approved design accommodates the conversion of SR-99 to ultimate eight-lane freeway section with provisions for HOV lanes in the median and substantial widening of Elverta Road. The capital cost of the project was estimated at $26 million. Key project issues included traffic forecasting, relocation of major irrigation/drainage channels on both sides of the highway, landscaping, signalization, right-of-way acquisition, traffic handling plan during construction, relocation of electric transmission and distribution lines, relocation of major fiber optic telephone lines and mitigation of potential impacts to giant garter snake, a federal threatened species. The Project Report was approved in July of 2009, and PS&E was approved by Caltrans in April 2011. The project's construction was completed in 2013.

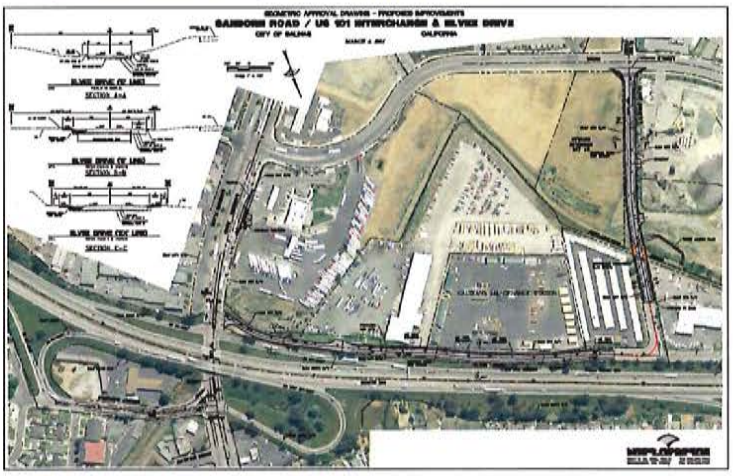
Reference: Mr. John Holder, Caltrans District 3; (916) 274-0666; john_holder@dot.ca.gov
Mr. Scott Werth, Sacramento County Dept. of Transportation; (916) 874-5259; werths@SacCounty.net

McHenry Avenue / Ladd-Patterson Road / State Route 108 Intersection Improvements – Stanislaus County, California

Wood Rodgers provided comprehensive transportation design services for intersection modifications/improvements for this key intersection located in the growing northern region of Stanislaus County. The existing all-way-stop-controlled intersection currently experiences high accident rates as well as unacceptable operating conditions. This rural intersection is bypassed by the adjacent "diagonal connector" that is part of the SR 108 highway corridor, which includes McHenry Avenue south of the project intersection and Patterson Road east of the project intersection. The close proximity of the Caltrans-controlled connector intersections to the County's project intersection results in a special set of considerations. Our design staff developed improved intersection geometric features and control improvements to address current operational deficiencies and provide reasonable near-term future intersection capacities, within the constraints represented by impacts to State right-of-way and adjacent properties. Our transportation planning staff developed traffic forecasts and comprehensive traffic operational analyses for several scenarios/alternatives for the proposed project. Our staff is working in close coordination with County and Caltrans staff in pursing a combined Caltrans Project Study Report/Project Report (PSR/PR) process to identify a set of collaborative improvements that would address County goals as well as Caltrans' liability concerns. The project was constructed in 2009.

Reference: Dinah Bortner, Caltrans District 10; (209) 948-7883; dinah.n.botner@dot.ca.gov

US 101 Interchange/Sanborn Road/Elvee Drive Improvements Project – Salinas, California



Wood Rodgers has completed the PS&E package for a City-sponsored construction project primarily on Elvee Drive in the City of Salinas. On Elvee Drive the project includes approximately 500 feet of pavement rehabilitation 1,700 feet of roadway reconstruction and will extend Elvee Drive from its existing terminus southward to Work Street with approximately 900 feet of new roadway and bridge over a reclamation ditch. The project will also construct improvements on Sanborn Road, including a traffic signal and ADA compliant pedestrian modifications at Fairview Avenue, a traffic signal modification at the Elvee Drive/SB US 101 ramps intersection, and a right-turn pocket extension and driveway modifications at the SB Sanborn Road approach to Work Street. The project includes improvements within Caltrans right of way which will be constructed under an encroachment permit. The project includes storm water drainage facilities and meets hydromodification requirements pursuant to City standards. The project requires utility relocation of underground and overhead facilities. The PS&E package was completed in September 2014. The construction contract cost is $3.8 million and is expected to start in August of 2015. Wood Rodgers team member Parikh Consultants provided the geotechnical services.

Reference: Eda Herrera, Associate Engineer, City of Salinas; (831) 758-7438; eda@ci.salinas.ca.us

Tahoe Transportation District U.S. Highway 50/PSR and South Shore Revitalization Project – Lake Tahoe, California

Wood Rodgers was retained by the Tahoe Transportation District (TTD) to complete the Project Report for US Highway 50/Stateline project. The study area of this project stretches approximately two miles along US 50 at the California/Nevada stateline area within the City of South Lake Tahoe. The project is to evaluate the potential to realign US 50 around the commercial core area at stateline in order to promote redevelopment and multi-modal opportunities in the area.

There are currently four alternatives being considered; three of which proposes the installation of roundabouts at the eastern end of the project. All alternatives include significant right-of-way and community impacts, and require significant outreach efforts by Wood Rodgers.

Additionally, because the project crosses multiple jurisdictions, and includes the ultimate adoption of a US Highway, substantial coordination is necessary to ensure project success. Wood Rodgers has been coordinating approvals from; Caltrans, NDOT, FHWA, El Dorado County, Douglas County, the City of South Lake Tahoe, and TRPA. Additionally, Wood Rodgers has worked with

the affected agencies and stakeholders, including casino and development interests, to develop a comprehensive funding scheme to help secure the necessary project funds.

The PSR for this project was completed in April 2010, and Wood Rodgers is currently working on the PA/ED for this project.

Reference: Carl Hasty, District Manager, Tahoe Transportation District; (775) 589-5500; chasty@tahoetransportation.org

SR 89 Fanny Bridge Community Revitalization Project – Lake Tahoe, California

Wood Rodgers was retained by Tahoe Transportation District (TTD) to manage and deliver the PSR and PA/ED phase of this very complex project. This $650,000 project includes six different alternatives that would ultimately re-align SR 89 and construct a new structure over the Truckee River to replace the iconic Fanny Bridge. Alternatives include installation of roundabouts and realignment of SR 89 through State Parks property to provide a connection to the new Placer County Transportation Center. The project has a robust public outreach effort led by Wood Rodgers. Additionally, due to the unique environment, the Tahoe Transportation District has established an advisory committee consisting of TTD, Placer County, USFS, Caltrans, and citizen representatives, to which the Wood Rodgers project lead will report.

Wood Rodgers has been responsible for the development of technical documents including geometric approval drawings, traffic analysis, drainage report, Advance Planning Studies, Storm Water Data Report, and design exception fact sheets. In addition, Wood Rodgers has managed other consultants preparing technical environmental studies and the draft environmental document.

The project is currently ahead of schedule and was awarded a Federal Land Access Program (FLAP) funding in the amount of $25 million to design and construct the preferred alternatives. Wood Rodgers was instrumental in securing the funding for this project.

Reference: Carl Hasty, District Manager, Tahoe Transportation District; (775) 589-5500; chasty@tahoetransportation.org

Augustine Planning Associates Relevant Experience

Sugar Pine Railroad Grade Trail Tuolumne County Phases I and II – Tuolumne County, California

The first phase of this highly publicized and long-planned project was located through the most densely populated portion of the planned trail (abandoned railroad grade) adjacent to several long-established neighborhoods and through existing elementary school grounds. The trail is located on a National Register eligible section of the Sugar Pine Railroad Grade with a railroad (trail) trestle crossing over an arterial roadway and over several segments of historic mining ditches still used for water conveyance. Planned trail use (bikes, horses, pedestrians), trail clean-up (the site included an illegal dump site), at-grade road crossings, maintenance, noise, protection of private property rights and privacy were just a few of the public concerns that had to be addressed by the environmental team and incorporated into project design. The historic status of the structure

also was of prime concern with issues ranging from appropriate surfacing and the appearance of safety railings and signage along the trail. APA participated in multiple public hearings with neighbors and identified solutions to minimize or eliminate property owner concerns, prepared a Natural Environment Study (NES) for the project, prepared a joint Environmental Assessment and Mitigated Negative Declaration (EA/MND) for the project, attended approval hearings, oversaw preparation of a Visual Impact Assessment (including photo-simulations) for the proposed trestle crossing and participated in processing the necessary documents for design changes occurring post-project approval. Multiple cultural resource reports (ASR, HRER and a Finding of No Adverse Effect) also were included completed for the project in addition to wetlands assessments and delineations. APA continued to assist Tuolumne County through the 2010 preparation of the bid packet for construction.

Reference: Bev Shane, Tuolumne County Community Resource Agency; (209) 533-5633

Keyes/Geer Road Intersection Improvement Project– Stanislaus County, California

APA (in coordination with Associated Engineering Inc.) prepared and distributed all agency notifications and adjoining landowner notices and prepared a CEQA Exemption for this project involving acquisition of right-of-way on land under Williamson Act (California Land Conservation Contract). Ms. Augustine prepared and coordinated with the Natural Resources Conservation Service (USDA NRCS), to complete Form AD 1006 (ag determination) and prepared all required documentation and reports for the California Department of Conservation (DOC) Division of Land Resource Protection to secure approvals for acquisition of land under conservation contract pursuant to California Government Code Section 51291(b) and 51292.

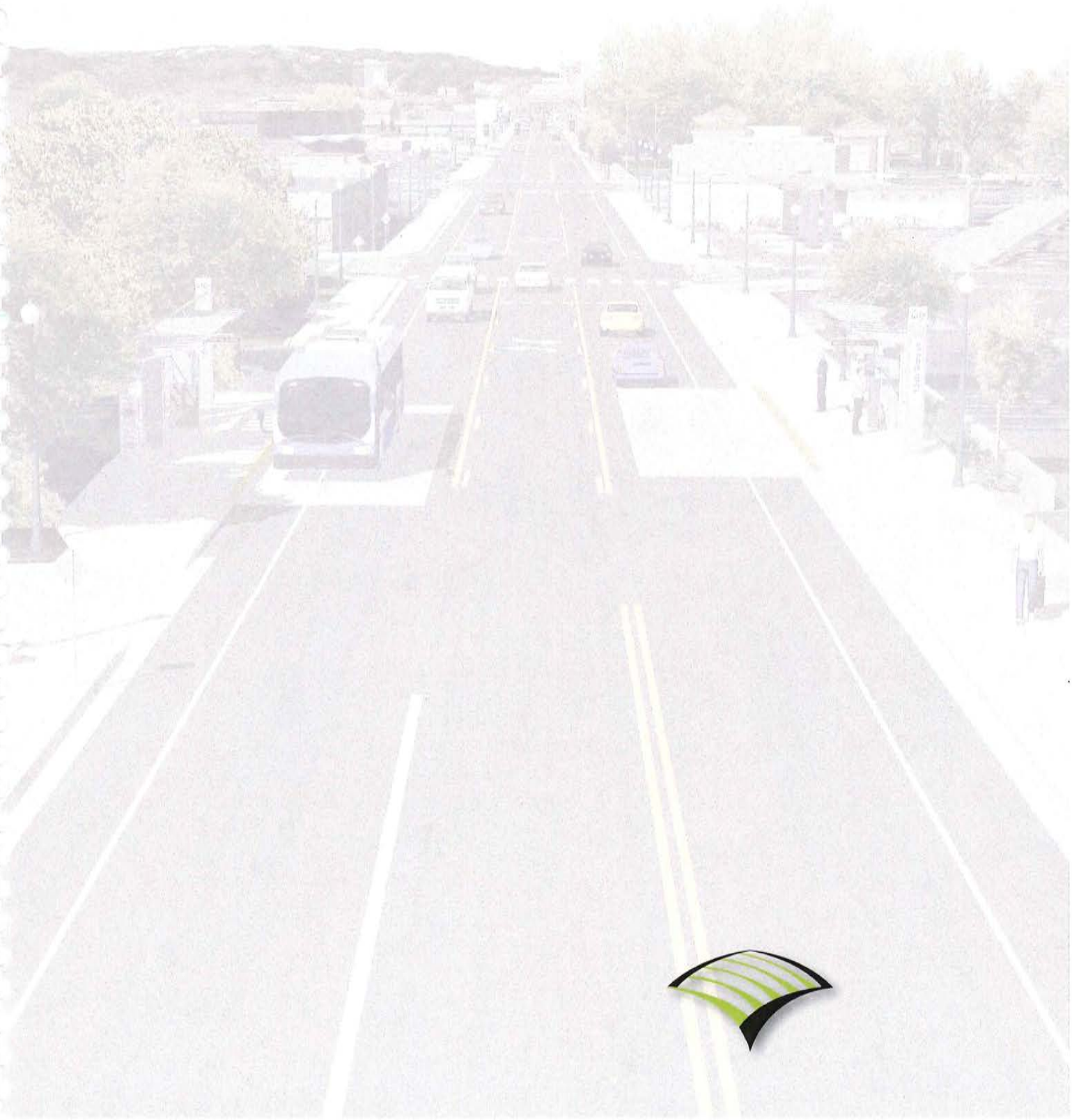
Reference: Mr. Michael McElhiney, Natural Resources Conservation Service; (209) 491-9320
Mr. Bob Blanford, California Department of Conservation, (916) 327-2145

Valley View River Access Trail – City of Oakdale, California

Conducted environmental review, prepared environmental documents for, assisted with project design, conducted public outreach citywide and with surrounding homeowners, secured funding for construction for the City of Oakdale's only public river access trail. Currently identifying potential funding sources for hazardous materials clean-up.

Reference: Bryan Whitemeyer, City Manager, City of Oakdale; (209) 845-3571;
bwhitemyer@ci.oakdale.ca.us

Public Sector Clients



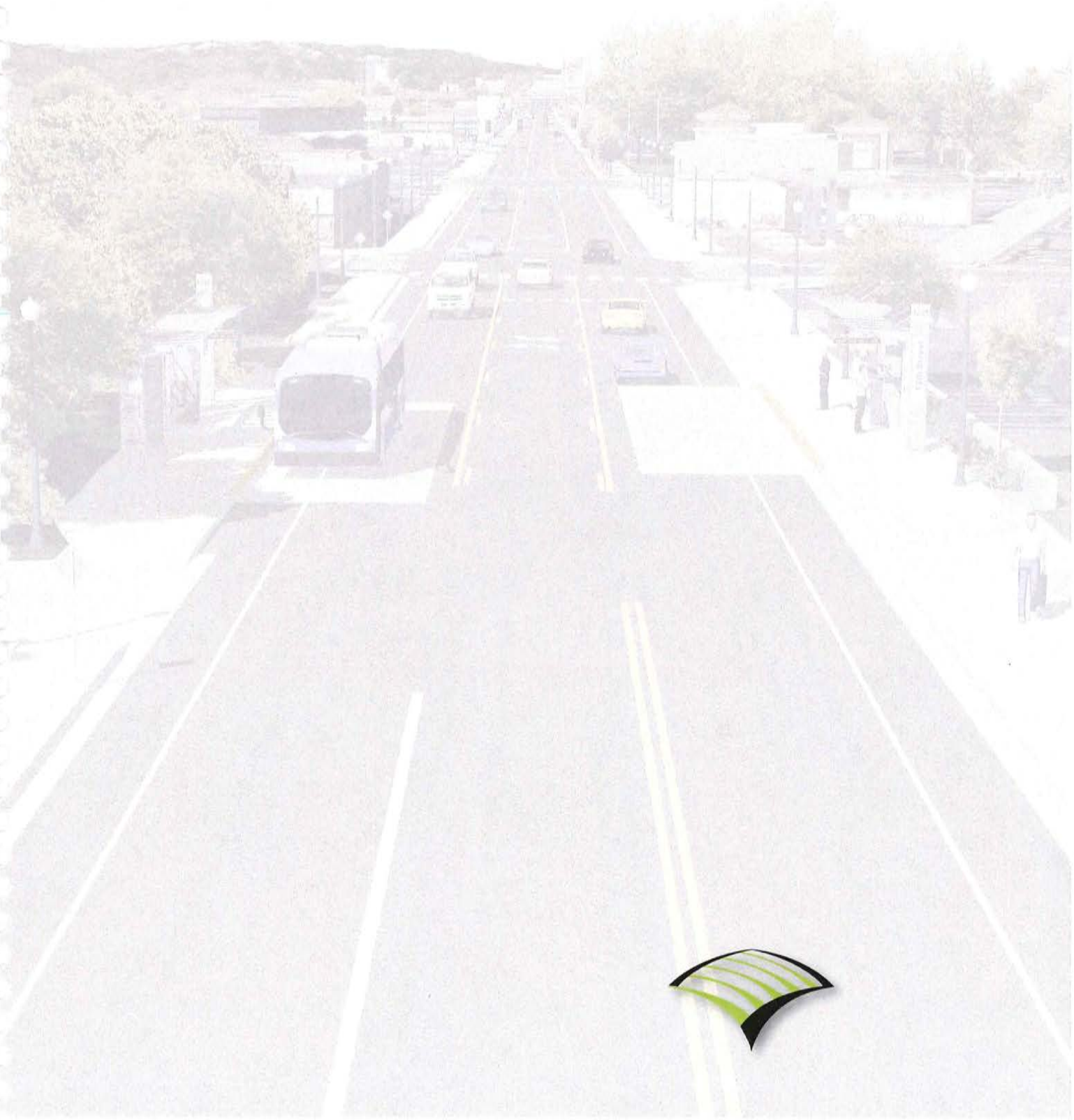
PUBLIC SECTOR CLIENTS

The following is a list of public agencies that Wood Rodgers staff has served over the past several years.

- Airport Authority Washoe County
- Alameda County Flood Control & Water Conservation District
- Alameda, City of
- Amador, City of
- Arroyo Grande, City of
- Big Bear Lake DWP, City of
- Bishop, City of
- Browns Valley Irrigation District
- California Department of General Services
- California Department of Transportation (Caltrans) Districts 3, 5, 6, 9, and 10
- California Department of Water Resources
- California Water Company
- Carson Valley Conservation District
- Carson Water Conservancy
- Carson, City of
- Casitas Municipal Water District
- Ceres, City of
- Citrus Heights, City of
- Clark County
- Clark County School District
- Colusa County
- Colusa, City of
- Contra Costa County
- Cosumnes Community Services District
- Davis, City of
- Douglas County
- El Dorado County
- Elk Grove Community Services District
- Elk Grove Water District
- Elk Grove, City of
- Escalon, City of
- Feather Water District
- Folsom, City of
- Fort Bragg Municipal Services District
- Galt, City of
- Glenn County
- Golden State Water Company
- Greenfield, City of
- Grizzly Flats Community Services District
- Hughson, City of
- Incline Village General Improvements District
- Larkspur, City of
- Las Vegas, City of
- Levee District One of Sutter County
- Lincoln, City of
- Los Rios Community College District
- Madera Water District
- Madison Community Services District
- Main Prairie Water District
- Marin County
- Merced, City of
- Modesto, City of
- Monterey County
- Moss Landing Harbor District
- Nevada County
- Nevada Department Transportation (NDOT)
- Nevada State Department of Public Works
- Novato, City of
- Oakland, City of
- Olivehurst Public Utility District
- Orangevale Water Company
- Palm Desert, City of
- Paso Robles, City of
- Placer County
- Port of Oakland

- Portola, City of
- Rancho Cordova, City of
- Reclamation District No. 108
- Reclamation District No. 2103
- Redwood City, City of
- Regional Transportation Commission
- Reno, City of
- Reno-Tahoe Airport Authority
- Roseville, City of
- Sacramento Area Flood Control Agency
- Sacramento County
- Sacramento Municipal Utilities District
- Sacramento Suburban Water District
- Sacramento, City of
- Salinas, City of
- San Francisco Housing Authority
- San Joaquin Area Flood Control
- San Juan Water District
- San Luis Obispo County
- Santa Clara Valley Water District
- Santa Cruz, City of
- Shasta Lake, City of
- Solano County Water Agency
- Soledad, City of
- South Lake Tahoe, City of
- South Sutter Water District
- Sparks, City of
- Stanislaus County
- State of California Department of Transportation (Caltrans)
- State of California Department of Water Resources (DWR)
- Sutter County Department Public Works
- Tahoe Regional Planning Agency
- Tahoe Transportation District
- Town of Truckee
- Transportation Agency of Monterey County
- Truckee Meadows Water Authority
- Tuolumne County
- U.S. Army Corps of Engineers
- University of California Davis
- University of Nevada, Reno
- Valley the Moon Water District
- Ventura County
- Washoe County
- Washoe County School District
- West Sacramento, City of
- Winters, City of
- Woodland, City of
- Yolo County
- Yolo County Flood Control and Water Conservation District
- Yuba City, City of
- Yuba Community College

Rate Schedule



RATE SCHEDULE

WOOD RODGERS

SACRAMENTO FEE SCHEDULE
Effective January 1, 2016

CLASSIFICATION	STANDARD RATE
Principal Engineer/Geologist/Surveyor/Planner/LA* II	$230
Principal Engineer/Geologist/Surveyor/Planner/LA* I	$185
Associate Engineer/Geologist/Surveyor/Planner/GIS/LA* III	$180
Associate Engineer/Geologist/Surveyor/Planner/GIS/LA* II	$170
Associate Engineer/Geologist/Surveyor/Planner/GIS/LA* I	$160
Engineer/Geologist/Surveyor/Planner/GIS/LA* III	$150
Engineer/Geologist/Surveyor/Planner/GIS/LA* II	$140
Engineer/Geologist/Surveyor/Planner/GIS/LA* I	$130
Assistant Engineer/Geologist/Surveyor/Planner/GIS/LA*	$105
CAD Technician III	$120
CAD Technician II	$110
CAD Technician I	$100
Project Coordinator	$110
Administrative Assistant	$90
1 Person Survey Crew**	$175
2 Person Survey Crew**	$255
3 Person Survey Crew**	$335
Consultants, Outside Services, Materials & Direct Charges	Cost Plus 10%
Overtime Work	Rate Plus 50%

*LA = Landscape Architect

** Survey rate subject to change March 1, 2016, pending Union contract negotiations.

Blueprints, reproductions, and outside graphic services will be charged at vendor invoice. Auto mileage will be charged at the IRS standard rate, currently 54.0 cents per mile.

Fee Schedule subject to change January 1, 2017.

Augustine Planning Associates, Inc.

2016 Rate Sheet

ITEM	HOURLY/C/ RATE
Principal Planner/Grant Writer	$95
General Biologist	$85
AWE Permitted Biologist (focused species studies)	$105
AWE Biologist III/Botanist	$95
DBC Grant Writer	$70
JBC Principal	$155
JBC Senior	$140
jbc Consultant	$120
FH – Senior archaeologist	$95
FH – Historian	$115
Computer/Design	$65
Mileage	/a/
Noise – interval logging	$75/day/meter
Noise – Frequency analysis	$115/day/meter
Central CA Information Center	$150
Other	/b/

/a/ Established state rate (or, as applicable, federal rate)
/b/ Actual cost for supplies (Client approval required for costs exceeding $1000), actual cost + 5% for equipment rental
/c/ Unless otherwise specified

AWE – Area West
FH – Francis Heritage
JBC – J.C. Brennan
DBC – Diane Bennett Consulting and Grant Services

ATD
All Traffic Data

2016 Rate Sheet

Turning Movements

2 Hour 1 Person	2 Hour 2 Person	4 Hour 1 Person	4 Hour 2 Person	6 Hour 1 Person	6 Hour 2 Person
$145	$220	$250	$375	$360	$550

Hose Counts

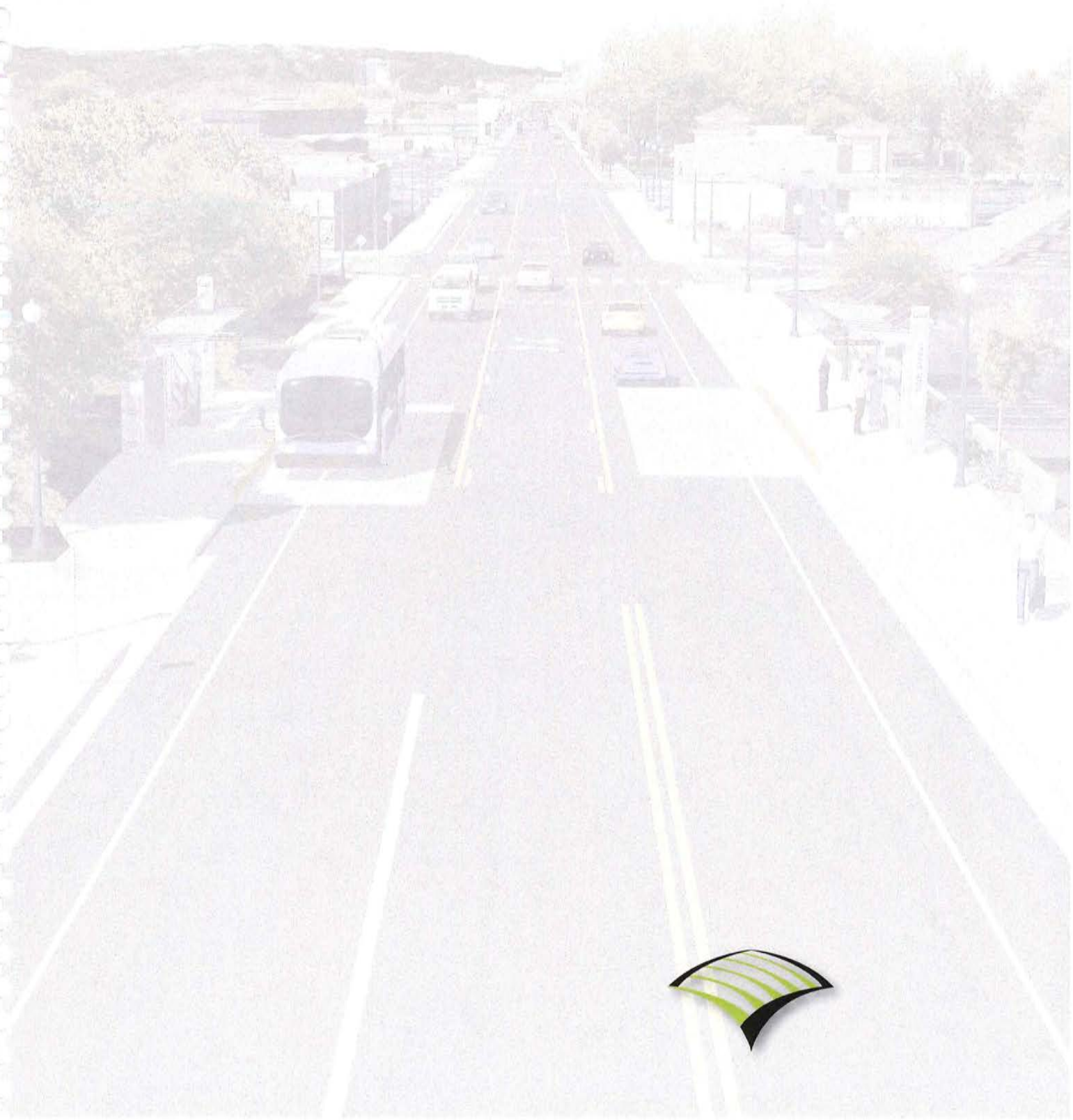
Volume	Additional Days	Speed and / or Class	Additional Days
$85	$35	$135	$45

Additional Services – prices are per hour (2 hour minimum unless accompanying other services)

Bike / Ped Counts	Parking Survey*	Travel Time	Radar
$60	$60	$120	$60

* Parking surveys less than 4 hours will be billed at a 4 hour ITM rate.

Resumes



MARK RAYBACK, PE, QSD/QSP

PROJECT ROLE

Principal-in-Charge & Caltrans Coordination

TITLE

Principal, Engineer II

EDUCATION

BS, Civil Engineering, California State University, Sacramento, 1991

Leadership Training Program, California State University, Sacramento, 2002

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Engineer, California No. 52723, 1994

Registered Professional Engineer, Nevada No. 023156, 1994

Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

PROFESSIONAL AFFILIATIONS

Sigma Alpha Epsilon National Leadership School

Project Management Institute, No. 162501

American Public Works Association

WOOD RODGERS, INC. START DATE

March 31, 2005

Mr. Rayback joined Wood Rodgers in 2005 and has over 25 years of experience working on projects associated with transportation, developing transportation related policy and project management. Prior to joining Wood Rodgers, Mr. Rayback served as the Chief of Staff for the California Department of Transportation (Caltrans). Mr. Rayback has demonstrated his ability to initiate and lead programs in a large, diverse organization and is a dynamic leader and project/program manager. His direct project experience has involved serving as the Project Manager for high-profile public transportation works projects utilizing his unique combination of skills and experience in Transportation Engineering and Planning, Environmental Compliance, Information Technology, and Management. Mr. Rayback has managed the preparation of Project Study Reports, Project Reports, and the development of plans, specifications and estimates packages for a variety of transportation projects, including: interchange modifications, route realignments, ramp modification projects, signal projects, green streets and streetscape projects, pavement rehabilitation, roundabouts, safety improvement projects, road widening, new connections, etc. Mr. Rayback has also managed the completion of various multi-modal transportation planning projects to develop bike path, transit facilities and pedestrian improvements. Mr. Rayback is also well versed in the requirements of the Caltrans project delivery process under full oversight and through the local assistance program.

EXPERIENCE

State Route 49/Parrotts Ferry Road Improvements – Tuolumne County, California. State Route 49/Parrotts Ferry Road Improvements – Tuolumne County, California. Mr. Rayback provided QA/QC and served as Caltrans Liaison the for the development of conceptual improvements for Parrotts Ferry Road between State Route 49 and Sawmill Flat Road in Tuolumne County. Parrotts Ferry Road is a rural two lane road that serves as the main route between the communities of Sonora and Columbia and Columbia College. Mr. Rayback reviewed the development of different concepts to widen Parrotts Ferry Road to four lanes, and developed intersection improvement concepts for the SR 49/Parrotts Ferry Road intersection and Sawmill Flat Road/Parrotts Ferry Road intersection, including concepts with traffic signals and roundabouts. Preliminary cost estimates were prepared for each concept. Once Tuolumne County secured construction funding, Wood Rodgers began preparing PS&E on the chosen intersection improvement alternative which consists of removing an existing free-right turn lane that has a history of accidents and replacing it with a standard right turn pocket. Sight distance improvements on Parrotts Ferry Road, along with signal modifications at the State Route 49/ Parrotts Ferry Road intersection and driveway modifications to an adjacent bed and breakfast will be included. PS&E is anticipated to be completed in 2016.

South Lake Tahoe Bus/Transit Shelters – South Lake Tahoe, California. Mr. Rayback was the Principal-in-Charge/Project Manager for the preparation of plans and cost estimates for the installation of bus stop shelters at various locations around the south shore of Lake Tahoe in both California and Nevada for the Tahoe Transportation District. Site plans were prepared for both prefabricated metal shelters and custom redwood shelters designed by Wood Rodgers. The site plans were designed to be ADA compliant and included bus rider amenities such as bicycle racks and trash containers. The shelter slabs and foundations were engineered to meet local building codes. The most recent shelters were constructed in 2013.

Feather River Expressway Corridor Sub-Area Travel Demand Model Creation/Validation, Caltrans District 3, Marysville, California – Mr. Rayback is currently as Principal-in-Charge assisting Caltrans District 3 with the creation and calibration/validation of a focused sub-area travel demand model (TDM) for the State Route 70/Feather River Expressway Corridor project study area in the Marysville region. The *Cube/Voyager*-based model creation/update involves use of Sacramento Area Council of Governments' (SACOG) state-of-the-practice activity-based model system, *SacSIM*, and Butte County Council of Governments' regional TDM, to create a Tri-County sub-area TDM for the Sutter-Yuba-Butte region covering the project area. The TDM validation process uses comprehensive field data collected using *Bluetooth*-technology based Origin-Destination data, speed/travel-time tachographs, intersection and roadway count data, as

well as extensive high-definition photo/videography data collected from throughout the study region.

Pacific Street Bike Lane and Widening Project – Rocklin, California. Mr. Rayback is the Principal-in-Charge and Project Manager for preliminary engineering and final design for construction of a Class 1 and 2 bike path and widening of Pacific Street from the Del Mar Avenue/ Dominguez Road intersection to the Loomis Town Limits in the City of Rocklin. The project will widen approximately 3,300 feet of Pacific Street from a two lane undivided road to a three lane road with a continuous dual left turn lane, rehabilitate the existing pavement, construct Class 2 bicycles on both sides of Pacific Street, construct a Class 1 bicycle path on the west side of Pacific Street, improve curb returns to meet ADA standards, and landscape the project limits. Mr. Rayback assisted in the City in completing the Right of Way certification process and E-76 using the Caltrans Local Assistance Procedure Manual.

Bay to Basin – El Dorado County, California. Mr. Rayback is the Principal-in-Charge/Project Manager for this study analyzing the impacts of, and developing funding and technical solutions for, the impacts of tourism traffic in the El Dorado, Placer, Amador and Nevada County regions. Part of the analysis includes developing potential funding and schematics, and messaging/presentation materials. The materials are intended to educate stakeholders, decision-makers, and the public of the impacts and strategies to resolve these impacts.

Rancho Cordova Fee Program Update – Rancho Cordova, California. Project Manager for updating the unit costs and cost estimates for the City of Rancho Cordova's 2013 Transportation CIP and Development Impact Fee Program Update. The Fee Program Update included cost estimates for both roadway improvements triggered by infill development within the City, and new development and new roadways in the undeveloped "greenfield" areas of the City. In order to best estimate real construction costs, unit prices were developed by comparing bid results from recent construction projects in the Sacramento area and determining an average cost for each roadway item. Ultimately, Wood Rodgers developed cost estimates for 33 different roadway sections and 56 different intersection configurations. The City adopted the 2013 Transportation CIP and Development Impact Fee Program Update in December 2013.

SR 89 Fanny Bridge PA/ED – Tahoe City, California. Mr. Rayback is Project Manager for this project to re-align SR 89 and construct a new structure over the Truckee River to replace the iconic Fanny Bridge. Alternatives include installation of roundabouts and realignment of SR 89 through State Parks property to provide a connection to the new Placer County Transportation Center. The project will have a robust public outreach effort that will be led by Wood Rodgers and facilitated by the Tahoe Transportation District (TTD). Additionally, due to the unique structure, TTD has established an advisory committee consisting of TTD, Placer County, and USFS, to which the Wood Rodgers project lead will report. The PA/ED was completed in 2012.

Tahoe Transportation District (TTD) US 50 Stateline Core/Loop Road Project - South Lake Tahoe, California/Nevada. Mr. Rayback is the Project Manager for this project to complete the Project Report for US Highway 50/Stateline project. The study area of this project stretches approximately two miles along US 50 at the California/Nevada stateline area within the City of South Lake Tahoe. The project is to evaluate the potential to realign US 50 around the commercial core area at stateline in order to promote multi-modal opportunities in the area. Project crosses multiple jurisdictions, and includes the ultimate adoption of a US Highway, substantial coordination is necessary to ensure project success. Managed the coordination for approvals from; Caltrans, NDOT, FHWA, El Dorado County, Douglas County, the City of South Lake Tahoe, and TTD. Worked with the affected agencies and stakeholders, including casino and development interests, to develop a comprehensive funding strategy which resulted in securing the necessary project funds for this project.

NAWID NESSAR, PE, TE, QSD/QSP

PROJECT ROLE

Transportation Planning Services Manager

TITLE

Engineer III

EDUCATION

BS, Civil and Environmental Engineering, University of California, Davis, 2004

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Engineer, California No. 75589

Registered Professional Traffic Engineer, California No. 2616

Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

COMPUTER SKILLS

- Travel/Traffic Demand Modeling Software: TP+/Viper, TransCAD, MINUTP
- Traffic Capacity Analysis Software: Traffix, Synchro, Rodel, HCS-2000
- Traffic Simulation / Animation Software: SimTraffic, VISSIM
- Design Software: AutoCAD, Autodesk LDD, MicroStation
- Database Software: *ArcGIS*
- Program: Minitab, FORTRAN, Macro
- Microsoft Software: Excel, Word, Access, PowerPoint

WOOD RODGERS, INC. START DATE

November 11, 2004

SACRAMENTO

Mr. Nessar has over 12 years of collective experience in the realm of Transportation Planning/Engineering specializing in Travel Demand Modeling, Microsimulation Modeling, Corridor Studies, Traffic Impact Studies, Project Study Report (PSR) and Traffic Operations Analyses reports. Mr. Nessar is a "true" transportation modeler who has created travel demand models from "scratch" for several communities in the Central Coast and Central Valley regions of California. Mr. Nessar brings extensive experience and expertise in completing all phases of small- to large-scale multi-modal Transportation Impact studies, prepared in support of environmental (CEQA) documents for a variety of land development and transportation infrastructure planning/design projects. Mr. Nessar has prepared several City/Community General Plan Circulation Updates, Regional Transportation Plan Updates, Specific Plan/Master Plan Traffic Circulation Studies, and Transportation Impact Fee Program Updates. Mr. Nessar brings extensive Traffic Engineering experience with preparation of comprehensive Traffic Operations Analyses in support of Caltrans' oversight process reports, operational evaluation of interchanges, intersections and roundabouts, as well as the use of variety of traffic operational analysis software including micro-simulation applications. He has evaluated, designed and performed traffic signal timing, traffic signal operation, traffic signal video detection, accident investigations, striping, speed surveys and traffic counts. Mr. Nessar also has consulting experience assisting with land development projects, cost estimates, and grading projects.

EXPERIENCE

TRAVEL DEMAND MODELING PROJECTS

Tuolumne County Regional Traffic Model Update – Tuolumne County, California. Mr. Nessar assisted the Transportation Planning project team with the update of their Regional Travel Demand Forecast model as part of their upcoming future Regional Transportation Plan (RTP) Update. The *TransCAD*-based model update involves incorporation of land use projections from *UPlan* land use forecasting tool for a number of future years, creation of a mode-choice model subcomponent, and update of peak hour model forecasts. Mr. Nessar is currently assisting Tuolumne County Transportation Council (TCTC) with traffic modeling for their long-range alternative land use growth scenarios.

Regional Development Impact Fee (RDIF) Implementation Guidelines, Transportation Agency for Monterey County (TAMC) – Monterey County, California. Mr. Nessar assisted TAMC staff and the RDIF Board with the preparation of a fee implementation guideline handbook intended for impact fee calculation reference purposes by thirteen participating local jurisdictions in the TAMC's regional traffic impact fee program. Mr. Nessar also assisted TAMC with development of a technical methodology to compute applicable trip generation (and impact fee) discounts for infill and redevelopment areas throughout Monterey County. Mr. Nessar is also assisting TAMC with the development of a GIS-based infill areas exhibit to pre-identify parcels throughout the County that are designated as infill parcels.

US 50 HOV Lane Project, Caltrans District 3 – Marysville, California. Mr. Nessar is helped the Transportation Planning team assisting Caltrans District 3 with the calibration/validation of the current travel demand model (TDM) for the US 50 HOV Lane project study area in the Sacramento region. Mr. Nessar developed a study area wide Microsimulation model.

Feather River Expressway Corridor Sub-Area Travel Demand Model Creation/Validation, Caltrans District 3 – Marysville, California. Mr. Nessar is currently leading the Transportation Planning team assisting Caltrans District 3 with the creation and calibration/validation of a focused sub-area travel demand model (TDM) for the State Route 70/Feather River Expressway Corridor project study area in the Marysville region. The *Cube/Voyager*-based model creation/update involves use of Sacramento Area Council of Governments' (SACOG) state-of-the-practice activity-based model system, *SacSIM*, and Butte County Council of Governments' regional TDM, to create a Tri-County sub-area TDM for the Sutter-Yuba-Butte region covering the project area. The TDM validation process uses comprehensive field data collected using *Bluetooth*-technology based Origin-Destination data, speed/travel-time tachographs,

intersection and roadway count data, as well as extensive high-definition photo/videography data collected from throughout the study region.

City of Greenfield Traffic Model Development Update – Monterey County, California. Mr. Nessar is in the process of preparing an independent traffic model for the City of Greenfield. The project involved creation of a stand-alone community-wide traffic model, preparing year 2032 intersections, roadways, ramps, and freeway mainline AM peak hour, PM peak hour and average daily traffic volume forecasts, and preparing updated, US 101/Walnut Avenue Interchange modification Project Report memorandum.

"On-call" Traffic Modeling/Engineering/Design Services – Caltrans District 3, Counties of Tuolumne and Amador, and Cities of Oakland, American Canyon, Sacramento, Paso Robles, Galt, and Turlock, California. Mr. Nessar assisted the lead transportation planner and traffic modeler for providing on-call transportation planning/modeling/design support for these agencies.

Bay-to-Tahoe-Basin Regional Rural Tourism Travel Impact Study, El Dorado County Transportation Commission, California. Mr. Nessar is assisted the lead transportation planner with the consultant team assisting the lead agency with preparation of a comprehensive multi-jurisdictional rural roadway travel impact study. The study represents a unique system-level evaluation of travel impacts within/through a four-County region spanning between the Sacramento region and the Tahoe region. The study essentially creates a planning/engineering foundational document based on a determination of impacts and benefits of required transportation improvements within the study region allocated proportionately between local resident population and external tourism. The study involved inter-regional Origin-Destination travel data collection using leading-edge *Bluetooth*-technology. The study is a large Caltrans grant-funded, program-level effort that also integrates other evaluation components such as user surveys, market evaluation and innovative funding/legislative strategies. The study is scheduled for completion in 2014.

SR 89 - Fanny Bridge PA/ED – Tahoe City, California. Mr. Nessar assisted the Project Transportation Planner for this project to re-align SR 89 and construct a new structure over the Truckee River to replace the iconic Fanny Bridge. Alternatives include installation of roundabouts and realignment of SR 89 through State Parks property to provide a connection to the new Placer County Transportation Center. The PA/ED is anticipated to be completed in 2012.

Elverta Road/SR 99 Interchange Construction Project Report – Sacramento County, California. Mr. Nessar assisted in preparation of Traffic Forecasting and Operations Analysis in support of the Caltrans Project Report for this proposed major grade-separation project. The completed tasks include traffic safety analysis, comprehensive operational evaluation of two major project alternatives.

Shandon Community Plan Traffic Model Development – San Luis Obispo County, California. Mr. Nessar prepared an independent, stand-alone traffic demand model and associated EIR traffic study for the proposed Shandon Community Plan project. The EIR included interim SR 46 East intersections with McMillan Canyon Road and SR 41 intersection conceptual improvements that Mr. Nessar prepared.

Price Canyon Master Plan Traffic Model Development – Pismo Beach, California. Mr. Nessar updated the San Luis Obispo Council of Governments (SLOCOG) regional traffic model, using *TransCAD* software, to incorporate the Price Canyon Master Plan in the City of Pismo Beach.

Delhi Community Plan Traffic Model Development, Circulation and Fee Update – Merced County, California. Mr. Nessar prepared an independent, stand-alone traffic demand model for this major Community development plan for the unincorporated community of Delhi in Merced County. The project involved creation of a community-wide traffic model nested within the larger Merced County regional traffic model.

MARIO TAMBELLINI, PE

PROJECT ROLE

Transportation Planning Support

TITLE

Engineer I

EDUCATION

BS, Civil Engineering, University of California, Davis, 2010

Coursework, Computer Aided Drafting, Sacramento City College, 2011

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Engineer, California No. 85534

COMPUTER SKILLS

- Travel/Traffic Demand Modeling Software: Cube/TP+/Viper, TransCAD
- Traffic Capacity Analysis Software: Synchro, Sidra
- Traffic Micro Simulation/ Animation Software: Vissim, SimTraffic
- Design Software: AutoCAD
- Database Software: *ArcGIS*
- Microsoft Software: Excel, Word, Access, PowerPoint

WOOD RODGERS, INC. START DATE

May 29, 2013

Mr. Tambellini is an assistant transportation engineer specializing in Transportation Planning, Travel Demand Modeling, and Microsimulation Modeling. He has experience in the preparation of Traffic Impact Studies, Travel Demand Forecast Modeling Reports, and Traffic Operations Analysis Reports. Mr. Tambellini has worked with several regional travel demand models (TDMs), including the Sacramento Area Council of Government's SACSIM model, the Butte County Council of Governments' Regional TDM, and the City of Paso Robles TDM. Mr. Tambellini has evaluated stop controlled intersections, signal controlled intersections, roundabouts, and freeway interchanges for development and roadway improvement projects throughout central and northern California. Mr. Tambellini also has background training and experience in transportation system design, pavement engineering, and cost estimates.

EXPERIENCE

TRANSPORTATION MODELING PROJECTS AND REPORTS

Tuolumne County Regional Travel Demand Model Update – Tuolumne County, California. Mr. Tambellini assisted the Tuolumne County Transportation Council (TCTC) with an update of their Regional Travel Demand Forecast model as part of their upcoming Regional Transportation Plan (RTP) and General Plan (GP) updates. The *TransCAD* based model update involved modifying the base scenario to better match existing conditions land uses and roadway network geometries, incorporation of *UPlan* based land use forecasts for a number of future years and proposed alternative growth scenarios, and modeling of proposed Capital Improvement Program projects under future years. Mr. Tambellini developed balanced future year volume forecasts for the major roadways and intersections throughout the County.

SR 70 Feather River Expressway Project – Yuba and Sutter Counties, California. Study of the Feather River Expressway in Marysville, CA on Route 70, specifically focusing on the impact of the proposed SR 70 Feather River Expressway bypass. Mr. Tambellini is assisting in the development of Travel Demand Forecast Modeling memorandums and a Traffic Operational Analysis report analyzing the impact of three proposed project scenarios. The project involves the development of base and future year travel demand (TDM) models (using Cube/Voyager software, the Sacramento Area Council of Governments' SACSIM model, and the Butte County Council of Governments' regional TDM) and microsimulation models (using Vissim software) for all project alternatives. Mr. Tambellini is involved in all steps of TDM model development, including base year calibration/validation, creation of future year origin-destination trip tables, and creation of future year scenario networks. Mr. Tambellini is also involved in creation of base/future year microsimulation models, calibration of base year microsimulation models, and analysis of future year traffic operations and recommendations.

US 50 HOV Lane Project – Sacramento, California. Study of the proposed US 50 HOV Lane extension in Sacramento, CA, between I-5 and Watt Avenue. Mr. Tambellini assisted in the development of Travel Demand Forecast Modeling and Traffic Operational Analysis reports analyzing the impact of four proposed project alternatives for three proposed project options. The project involved the development of base and future year travel demand (TDM) models (using Cube/Voyager software and the Sacramento Area Council of Governments' SACSIM model) and microsimulation models (using Vissim software) for all project alternatives. Mr. Tambellini was involved in all steps of TDM model development, including base year calibration/validation, creation of future year origin-destination trip tables, and creation of future year scenario networks. Mr. Tambellini also assisted with calibration of base year microsimulation models, development of future year model scenarios, and extraction/analysis of future year traffic operations data. Mr. Tambellini also assisted with the preparation of the traffic section of the project's draft environmental document.

Golden Hill Road Hotel Project Traffic Forecasting – Paso Robles, California. Mr. Tambellini produced cumulative future year traffic forecasts for project area roads utilizing the City of Paso Robles Travel Demand Model and TransCAD software. Mr. Tambellini updated land uses in the model to reflect new proposed developments and extracted mainline daily traffic volumes and

peak period intersection turning movement volumes.

US 50 Stateline Core / Loop Road Project – South Lake Tahoe, California / Stateline, Nevada. Transportation plan for the development of a regional transportation system within the Tahoe Region, specifically considering the construction of a Loop Road near the California/Nevada border. Mr. Tambellini prepared a traffic operations analysis memorandum for four proposed loop road project alternatives. In order to create this memorandum, he forecasted traffic volumes for the project alternatives under the chosen study years, created microsimulation models of the alternatives using Synchro/SimTraffic 8 software, and analyzed planned roundabouts using *Sidra* Version 5.1 software. Additional work included obtaining and analyzing existing accident data, writing a discussion of the projected traffic operations obtained from the models, and updating the discussion of the existing and with-project conditions to reflect the current state of the project and setting.

Sanborn Road / US 101 Interchange Improvements – Salinas, California. Mr. Tambellini created microsimulation models of the project area under No-Build, Phase 1 (interim), and Phase 2 (with full project) conditions using Synchro/SimTraffic 8 software. These models were used to analyze the impact the proposed project would have on traffic operations in the study area. In addition, Mr. Tambellini calculated the benefits the project would provide in terms of reduction in accidents, increase in level of service, reduction in vehicle hours of delay, and reduction in truck hours of delay.

Transportation Impact Studies

Tuolumne County General Plan and Regional Transportation Plan Update EIR Traffic Study – Tuolumne County, California. Study of the major roadway and intersection facilities in Tuolumne County under two future years and four alternative growth scenarios. Mr. Tambellini assisted with the creation of Synchro models used to analyze major County intersections under sixteen total peak hour scenarios. Mr. Tambellini assisted the Tuolumne County Transportation Council (TCTC) with an update of their Average Daily Traffic based Roadway Level of Service lookup table using HCM methodologies. Mr. Tambellini analyzed future year traffic operations and impacts, identified deficiencies, and recommended possible mitigation measures and improvements in a traffic report in support of the upcoming environmental document. Deficiencies were provided for with and without Capital Improvement Program projects in order to assist the County in developing a financially constrained list of projects.

Granite Bay Island Subdivision Traffic Impact Study – Placer County, California. Mr. Tambellini prepared a traffic impact study for a proposed 94 unit residential subdivision located off of Sierra College Boulevard in Granite Bay, California. The study included the creation of Synchro traffic models, analysis of project area intersection operations, and calculation of California MUTCD signal warrants.

San Antonio Retail Center Phase 2 Redevelopment – Mountain View, California. Mr. Tambellini performed operational modeling analysis of on-site and off-site intersections for a proposed redevelopment of an existing commercial site in Mountain View, California. The project included modeling and analysis of planned flashing crosswalks and a "super intersection" that consisted of a signalized intersection and an adjacent/separate signalized crosswalk that needed to be synchronized.

Greenbriar Development – Sacramento, California. Mr. Tambellini analyzed the impact of two proposed northern Sacramento residential/commercial developments on the SR 99 / Elkhorn Boulevard interchange in Sacramento, California. The interchange and adjacent intersections were modeled in Synchro software under multiple buildout scenarios. The two proposed developments are located just north of the I-5 / SR 99 split in northern Sacramento.

NICOLE SCAPPATICCI, EIT

PROJECT ROLE

Transportation Planning Support

TITLE

Engineer in Training

EDUCATION

BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, 2014

REGISTRATIONS/ CERTIFICATIONS

Registered Engineer-in-Training, California No. 149210

WOOD RODGERS, INC. START DATE

March 23, 2015

Ms. Scappaticci is a Civil Engineer with experience in Geometric Highway Design, Traffic Engineering, Traffic Modeling & Simulation, Public Transportation, Groundwater Hydraulics and Hydrology, Geological Engineering, Reinforced Concrete Design, Structural Steel Design, Surveying, and Technical Writing. She is competent in the use of AutoCAD Civil 3D, VISSIM, Microsoft Excel, Word, and PowerPoint.

EXPERIENCE

SR 70 Feather River Expressway Corridor (Caltrans District 3) – Marysville, California. Ms. Scappaticci is assisting in the development of Travel Demand Forecast Modeling memorandums and a Traffic Operational Analysis report analyzing the impact of three proposed project scenarios. The project involves the development of base and future year travel demand (TDM) models (using Cube/Voyager software, the Sacramento Area Council of Governments' SACSIM model, and the Butte County Council of Governments' regional TDM) and microsimulation models (using VISSUM software) for all project alternatives. Ms. Scappaticci is involved in all steps of TDM model development, including base year calibration/validation, creation of future year origin-destination trip tables, and creation of future year scenario networks. Ms. Scappaticci is also assisting with the creation of base/future year microsimulation models, calibration of base year microsimulation models, and analysis of future year traffic operations.

US 50 HOV Lane Project (Caltrans District 3) – Marysville, California. Ms. Scappaticci assisted in the development of Travel Demand Forecast Modeling and Traffic Operational Analysis reports analyzing the impact of four proposed project alternatives. The project involved the development of base and future year travel demand (TDM) models (using Cube/Voyager software and the Sacramento Area Council of Governments' SACSIM model) and microsimulation models (using VISSUM software) for all project alternatives. Ms. Scappaticci was involved in all steps of TDM model development, including base year calibration/validation, creation of future year origin-destination trip tables, and creation of future year scenario networks. Ms. Scappaticci also assisted with calibration of base year microsimulation models and analysis of future year traffic operations.

VISSIM Simulation of Marsh Street Network — San Luis Obispo, California. Used VISSIM to create network model of Marsh St. to simulate peak hour traffic, including ten stop-controlled and actuated signalized intersections. Ms. Scappaticci also calibrated model and created O-D matrix iteratively by adjusting relative flows for static vehicle routes based on city traffic counts. She ran simulation and validated model while collecting vehicle volumes, average travel time, and queue delay.

Spot Speed Study – Hwy. 1 at Boysen Ave. — San Luis Obispo, California. Conducted a spot speed study for the southbound lanes of Highway 1 in San Luis Obispo to analyze the effectiveness of posted speed limits in the area. She determined prevailing speeds using traffic engineering measurements including radar gun use and supplemented by accident records and site analysis. Ms. Scappaticci also calculated median speed, 85th percentile speed, and vehicle pace and preformed analysis in the context of the surrounding residential and commercial facilities.

Gap Acceptance Analysis for a Two-Way Stop Controlled Intersection — San Luis Obispo, California. Ms. Scappaticci recorded data over the span of 90 minutes included headway, mainline traffic flow rate, delays of merging vehicles, and queue length. She also performed sensitivity analyses of findings in addition to comparison of measured critical gap to published findings and statistical analysis of measured headway distributions.

STEVEN ROBINSON, PE, TE

PROJECT ROLE

Transportation Design Engineer & Utility Coordination

TITLE

Associate, Engineer I

EDUCATION

BS, Civil Engineering, University of California, Davis, 2005

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 73207

Registered Professional Civil Engineer, Nevada No. 22622

Registered Professional Traffic Engineer, California No. 2621

WOOD RODGERS, INC. START DATE

August 8, 2005

ADDITIONAL TRAINING

- AutoCAD
- Civil 3D
- Microstation
- Geopak
- SignCAD
- AutoTURN
- Synchro
- Traffix
- Highway Capacity Software (HCS-2000)
- Interactive Highway Safety Design Model
- Microsoft Word, Excel, PowerPoint

Mr. Robinson is a Transportation Design Engineer and Transportation Planner specializing in Roadway Improvements and Roadway Design, with additional expertise in the preparation of Project Study Reports, Traffic Impact Studies, and Traffic Operations Analyses Reports. Mr. Robinson has evaluated and designed intersection, interchange, and roadway improvements, roadway geometrics and profiles, storm drainage facilities, signing and striping, stage construction/traffic handling, and has prepared construction plans, specifications, and cost estimates for several roadway widening and improvement projects throughout Central and Northern California. Mr. Robinson has work experience with Caltrans, the Tahoe Transportation District, Tahoe Regional Planning Agency, Central Federal Lands Highway Division, the counties of Monterey, Napa, Placer, Sacramento, and Stanislaus, and the cities of Elk Grove, Fairfield, Greenfield, Modesto, Rancho Cordova, Roseville, Sacramento, Salinas, Sebastopol, West Sacramento, and Yuba City.

EXPERIENCE

State Route 49/Parrotts Ferry Road Improvements – Tuolumne County, California. Mr. Robinson was the Project Engineer responsible for developing conceptual roadway improvements for Parrotts Ferry Road between State Route 49 and Sawmill Flat Road in Tuolumne County in 2012. Parrotts Ferry Road is a rural two lane road that serves as the main route between the communities of Sonora and Columbia and Columbia College. Mr. Robinson developed different concepts to widen Parrotts Ferry Road to four lanes, and developed intersection improvement concepts for the SR 49/Parrotts Ferry Road intersection and Sawmill Flat Road/Parrotts Ferry Road intersection, including concepts with traffic signals and roundabouts. Preliminary cost estimates were prepared for each concept, which were used by Tuolumne County to obtain grant funding for constructing improvements at the State Route 49/ Parrotts Ferry Road intersection.

Mr. Robinson is the Project Engineer responsible for preparing PS&E for improvements at the State Route 49/ Parrotts Ferry Road intersection. The intersection improvemetns consist of removing an existing free-right turn lane that has a history of accidents and replacing it with a standard right turn pocket. Sight distance improvements on Parrotts Ferry Road, along with signal modifications at the State Route 49/ Parrotts Ferry Road intersection and driveway modifications to an adjacent bed and breakfast will be included. PS&E is anticipated to be completed in 2016.

White Rock Road Widening – Rancho Cordova, California. Mr. Robinson is the Project Engineer for this City of Rancho Cordova project to widen five miles of White Rock Road from a two-lane rural road to a six-lane urban arterial for a future housing and redevelopment projects. The project will incorporate facilities for future underground utilities and will be designed so the project can be constructed in stages as the City obtains funding for construction. The project is located adjacent to the Aerojet Rocketdyne Superfund hazardous waste site and extensive dredge tailings from former gold mining operations, creating design challenges. Construction is anticipated to begin in 2016.

US 50 Stateline Community Revitalization Project PA/ED – South Lake Tahoe, California/Nevada. Mr. Robinson is the Project Engineer for this project to complete the Project Approval/Environmental Document and Project Report for the US 50 Stateline Community Revitalization Project. The study area of this project stretches approximately two miles along US 50 at the California/Nevada state line area (known as Stateline) within the City of South Lake Tahoe in California and Douglas County in Nevada. The project is to evaluate the feasibility of realigning US 50 around the commercial core area at Stateline in order to promote multi-modal opportunities in the area and meet Tahoe Regional Planning Agency environmental thresholds. The project involves coordinating approvals from nine different local, state, and federal agencies, along with working with several local stakeholders. The Project Approval/Environmental Document and Project Report are anticipated to be completed in 2015.

State Route 1 Climbing Lane – Monterey County, California. Mr. Robinson is the Project

Engineer for this Monterey County project to extend a truck climbing lane on State Route 1 in Carmel, California. The project is needed to relieve traffic congestion at the State Route 1/Rio Road intersection and improve traffic flow on State Route 1. In addition to adding the climbing lane, improvements will be made to the Rio Road traffic signal, gutter and sidewalk on Rio Road, and storm drainage facilities. PS&E is anticipated to be completed in 2016.

21st Street and Freeport Boulevard Two-Way Conversion – Sacramento, California. Mr. Robinson assisted in the geometric layout, signing and striping plans, and cost estimate to convert two existing one-way streets to two-way streets. The project also included the addition of traffic calming devices, new signals, and upgrading existing facilities to meet ADA Compliance.

State Route 99/Arch Road Interchange Improvements – Stockton, California. Mr. Robinson was the Design Engineer for this project that widened the northbound State Route 99 off-ramp to accommodate additional traffic created by the new California Health Care Facility for the California state prison system. The project included extending a right-turn lane, constructing a retaining wall along the off-ramp to avoid right-of-way acquisition, and modifying a traffic signal at the single-point urban interchange. Construction was completed in 2013.

Walnut Avenue Widening – Greenfield, California. Mr. Robinson was the Design Engineer for this City of Greenfield project which widened Walnut Avenue and Third Street from two to six lanes and signalized the Walnut Avenue/Third Street intersection. The project included constructing a new storm drainage system and retention basin. The intersection design had to be modified midway through design when the City determined they would be unable to acquire right-of-way needed at one corner. Wood Rodgers was able to reconfigure the intersection so it could be constructed in phases within the existing right-of-way. Wood Rodgers also provided construction support. Construction was completed in 2012.

El Camino Real Improvements – Greenfield, California. Mr. Robinson was the Design Engineer for this project to widen and install curb, gutter, sidewalk, and storm drain on one mile of El Camino Real through the City of Greenfield. Mr. Robinson designed the new roadway profile and storm drain system, and assisted in preparing plans and cost estimate. Because of unknown utility depths and locations prior to construction, the City asked Wood Rodgers to prepare two different storm drain systems, with the preferred being chosen once construction began and utilizes could be located. This project provided a five-lane roadway, on-street parking, and ADA compliant sidewalks and street crossings for the City's new Civic Center and planned Monterey County Courthouse. Mr. Robinson provided engineering support during bidding and construction, with construction requiring coordination with other construction projects in the area. Construction was completed in 2010.

20th Street at Union Pacific Railroad Crossing – Sacramento, California. Mr. Robinson designed railroad crossing improvements, including roadway widening and crossing gates per City of Sacramento and Union Pacific Railroad standards, for the implementation of a "Quiet Zone" for train operations for the City of Sacramento. The 20th Street crossing was the last uncontrolled railroad crossing within the City. He also prepared cost estimate and contract specifications. Construction was completed in 2010.

Caltrans Central Region On-Call Task Order 2: US 101 Intersection Modifications – Monterey County, California. Mr. Robinson was a Design Engineer for the Caltrans District 5 project that designed left-turn pockets and acceleration lanes at 12 at-grade intersections along US 101 in Monterey County. At all 12 intersections, US 101 is a divided four-lane access controlled high speed expressway. The intersection improvements were constructed to improve safety and left-turning movements off of and onto the highway. Other improvements included replacing drainage systems at the intersections, new signing and striping, and concrete barriers. Construction was completed in 2010.

LUCAS FUSON, PE

PROJECT ROLE

Transportation Design Engineer & Utility Coordination

TITLE

Engineer III

EDUCATION

MS, Civil Engineering, California State University Sacramento, 2013

BS, Civil Engineering, University of California, Davis, 2005

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 73946, 2009

WOOD RODGERS, INC. START DATE

March 20, 2006

ADDITIONAL TRAINING

AutoCAD

Civil 3D

Microstation

Geopak

AutoTURN

Land Development Desktop

Synchro

StormCAD

FlowMaster

CulvertMaster

Microsoft Word, Excel, PowerPoint

Mr. Fuson is a Transportation Engineer with 11 years of experience. He specializes in Roadway Design with additional expertise in the preparation of Drainage Reports, Project Study Reports, and Project Reports. Mr. Fuson has evaluated and designed interchanges, intersections, roadway improvements, roundabouts, bicycle and pedestrian paths, prepared cost estimates, project specifications, project Drainage Reports, Project Reports, and Project Study Reports. Mr. Fuson has work experience with Caltrans, the Transportation Agency for Monterey County, the counties of Sacramento, Monterey, and Nevada and the Cities of Sacramento, Modesto, Elk Grove, Rancho Cordova, Salinas, Greenfield, Modesto, Yuba City, Arroyo Grande, Lincoln, Roseville, and San Luis Obispo.

EXPERIENCE

Moss Landing Segment of Monterey Bay Sanctuary Scenic Trail – Monterey County, California. Mr. Fuson was the Design Engineer for preparation of an Initial Engineering Study, Environmental Documentation and Project Engineer for the PS&E. Mr. Fuson prepared the geometric layout and profile for approximately 4,200 feet of trail. Wood Rodgers was retained by the Monterey County to complete the planning and construction documents for the segment of the Monterey Bay Sanctuary Scenic Trail from Moss Landing North Harbor to Moss Landing Road. This project includes a new bridge that crosses Elkhorn Slough. The trail passes through sensitive natural environment and cultural resources, and passes through the Moss Landing Power Plant. The trail was designed to avoid impacts by incorporating retaining walls to minimize earthwork at environmentally sensitive locations and to design the trail alignment to fit into physically constrained areas. It is located to the west of State Highway 1, and much of the project is located within Caltrans right-of-way for State Route 1, so the project will be constructed under an encroachment permit from Caltrans. It also required extensive coordination with resource agencies and adjacent landowners. The project incorporates interpretive signage and public amenities such as benches and viewing nodes that provide scenic views of Elkhorn Slough and Moss Landing Harbor. The total cost of the project is approximately $5.2 million. The project is scheduled for construction in 2017.

Mather Rails to Trails Active Transportation Program (ATP) Grant Application – Rancho Cordova, California. Mr. Fuson assisted the City of Rancho Cordova with the preparation of an ATP grant application for the first cycle of program funding for the Mather Rails to Trails project. As a result, the City of Rancho Cordova was awarded with a $2.2 million dollar grant for an 8,400 linear foot Class 1 pedestrian and bicycle trail along an existing railroad corridor. The project will provide ADA compliant connectivity between a primary transit station and civil amenities such as the Veterans Administration Hospital, North Mather Business Complex, the Mather Field Airport, and many other commercial, institutional, and residential destinations.

Mather Rails to Trails Improvement Project – Rancho Cordova, California. Mr. Fuson is the Project Engineer for the plans, specifications, and engineer's estimate for 8,400 linear feet of Class 1 pedestrian and bicycle trail. The project would convert an unused rail corridor to an ADA compliant Class 1 trail and will provide connectivity between a primary transit station and civil amenities such as the Veterans Administration Hospital, North Mather Business Complex, the Mather Field Airport, and many other commercial, institutional, and residential destinations. The project includes landscaping, striping and signage, trail lighting, a pedestrian traffic signal, ADA curb ramps, an existing traffic signal modification, and utility coordination and modification. The project includes coordination with the California Public Utilities Commission (CPUC) and requires five separate General Order 88-B forms to be completed for modifications to existing at-grade rail crossings. A portion of the path will be carried over the US-50 freeway via the existing Mather Spur Underpass. Wood Rodgers developed alternatives to construct the trail without removing the tracks from the underpass and is preparing final construction documents for the preferred solution, which will also include upgraded pedestrian fencing, stormwater drainage conveyance, and trail lighting on the structure. The modifications to the Mather Spur Underpass will be constructed under a Caltrans Encroachment Permit. The estimated construction cost is approximately $1.7 million and it is scheduled for construction in 2017.

International Drive Extension, City of Rancho Cordova – Rancho Cordova, California. Mr. Fuson was the Project Engineer for the extension of a new 6-lane arterial roadway as part of a road and bridge project that connects Kilgore Road to Sunrise Boulevard, in Rancho Cordova. The project consisted of new roadway design, roadway widening, Class 1 bike path design, two new traffic signals, retaining walls, and included a bridge spanning the Folsom South Canal (Bureau of Reclamation Facility). He performed the geometric layout, profile, drainage, signing and striping plans, quantity take-off, right-of-way and utility coordination, prepared the project specifications, and provided construction support. Mr. Fuson was involved with community outreach and assisted the City in securing American Recovery and Reinvestment Act funding. Mr. Fuson prepared the PS&E for this $7.6 million project. Construction was completed in spring, 2011.

SR 99/Elverta Road Interchange – Sacramento County, California. Mr. Fuson provided design services for a new partial-cloverleaf interchange to replace an existing signalized intersection on a four-lane expressway section of State Route 99/70. Mr. Fuson was involved in various aspects of the Project Report and PS&E development including roadway design, drainage design, estimating, utility coordination, and preparation of the Drainage Report. The Project Report was approved in July 2009 and the PS&E was approved by Caltrans in April 2011. The project was constructed in 2013 at an estimated cost of $24.9 million.

Sanborn Road/Elvee Drive/US 101 Interchange Improvements – Salinas, California. Mr. Fuson was the Project Engineer for the preparation of the PS&E for 1,100 linear feet of new roadway with a bridge spanning a reclamation canal, 1,900 linear feet of roadway reconstruction, drainage basin and stormwater treatment systems, and modification of signalized intersections at the Sanborn Road/US 101 interchange in Salinas, California. Construction is anticipated to be completed in summer, 2016.

State Route 99 Rehabilitation Design-Build – Madera, California. Mr. Fuson assisted in the design, and plan preparation, including layouts, drainage, pavement delineation and construction details, for the complete rehabilitation of all freeway facilities over four miles of State Route 99 in the City of Madera. This was Caltrans' first design-build project.

Walnut Avenue/State Route 101 Interchange Improvements – Greenfield, California. Mr. Fuson assisted in the preparation of a Project Study Report and was the Design Engineer for the Project Report for improvements to the Walnut Avenue Interchange. He assisted in the design of three interchange alternatives for the Project Study Report including geometric layout, profile and superelevation calculations for the on/off ramps. He designed curb, gutter and sidewalk throughout the project and determined retaining wall locations and heights. Mr. Fuson prepared a preliminary estimate of project cost, and maps to provide a basis for estimating right-of-way and environmental impacts for the three alternatives. The PSR was approved by Caltrans in 2010. In the Project Report phase, Mr. Fuson performed design services to refine the preferred tight-diamond interchange alternative, prepared cost estimates, maps and exhibits basis for estimating right-of-way and environmental impacts, prepared the Design Exception Fact Sheets, and assisted with the preparation of the Project Report. The Project Report is scheduled for completion in late 2012.

Caltrans District 5 On-Call – Monterey County, California. Mr. Fuson provided design services for the development of PS&E to rehabilitate 12 intersections along State Route 101 in Monterey County. Work included design of the addition of left turn lanes and median acceleration lanes to conform to the requirements of the Caltrans Highway Design Manual. Challenges related to the project included intersection design to accommodate STAA trucks and poor pavement conditions.

Transportation Agency for Monterey County fee program – TAMC, California. Mr. Fuson provided planning level cost estimates for four projects along SR 101 in Monterey County. The projects consisted of new roadway and interchange, lane additions, road widening, and development of new frontage roads.

MICHAEL C. NOWLAN, PE, CFM

PROJECT ROLE

Drainage & Hydraulics

TITLE

Associate, Engineer II

EDUCATION

BS, Civil Engineering, Worcester Polytechnic Institute, Worcester, MA, 1989

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Engineer, California No. 55954

Certified Floodplain Manager, US-08-03529, 2008

WOOD RODGERS, INC. START DATE

April 1, 2002

ADDITIONAL TRAINING

Who's Afraid of Marketing, 2007

Low Impact Development Workshop, Colorado, 2006

MIKE FLOOD -DHI Training, 2006

SacCalc, Sacramento County/Ford Consulting, 2004

MIKE-SWMM, Danish Hydraulic Institute, 2002

XP-SWMM, Sacramento County, 2001

Mr. Nowlan is a licensed civil engineer with 27 years of experience in the planning and detailed study of complex drainage and flooding systems dealing with urban pipe networks and drainage infrastructure, regional flood control levees and large river systems, statistical and empirical analysis of stream flow hydrology, design frequency rainfall, dam break analysis, and floodplain mapping. Mr. Nowlan is an expert in applied hydrology and hydraulics using and directing others in numerical simulation programs such as HEC-HMS, SacCalc, HEC-RAS, XP-SWMM, EPA-SWMM, InfoWorks ICM, FLO-2D, MIKE 11/21 and MIKE FLOOD, as well as legacy programs such as HEC-1, HEC-2 and UNET. Mr. Nowlan regularly utilizes GIS to assist in developing and reviewing simulation results, and authoring report documentation. In addition to work duties Mr. Nowlan currently serves on the Board of Directors for the Floodplain Management Association.

EXPERIENCE

Caltrans Central Region On-Call for Districts 5, 6, and 10 – Fresno, California. Mr. Nowlan is providing Hydraulic/Hydrology support for this California Department of Transportation (Caltrans) Central Region on-call contract to provide a variety of highway design services. Projects have included safety projects, rehabilitation projects, and operational improvement projects including the development Project Reports for a safety projects located in Monterey, Modesto and Placer Counties.

Caltrans District 3 SR 89 El Dorado County (Segment 1) – Lake Tahoe, California. Mr. Nowlan provided hydraulics and drainage services as part of our On-Call contract with Caltrans for the preparation of PS&E for approximately 6.2 miles of SR 89 in El Dorado County from the intersection of US 50 to the Alpine County line. The project was a $15 million project to rehabilitate pavement, install drainage and water quality improvements, and correct other deficiencies (guardrail, clear recover zone, etc.). Early in the design process, the project was identified as a potential recipient of ARRA (American Recovery and Reinvestment Act) Funding; as such, Wood Rodgers expedited the PS&E and by being proactive with Caltrans on in-progress submittals, as well as enhanced project communications, was able to deliver the Final PS&E with a four-month savings. The project is a multi-season construction effort, so special care was taken with storm water practices and traffic handling approaches. The project is currently under construction.

Caltrans District 3 SR 89 El Dorado County (Segments 3, 4, 5) – Lake Tahoe, California. Mr. Nowlan provided hydraulics and drainage services as part of our On-Call contract with Caltrans for the preparation of project reports and PS&E for over 20 miles of SR 89 in El Dorado County along the west shore of Lake Tahoe. Originally, there were three separate projects with an overall budget of over $80 million. The projects shared similar slopes; water quality and drainage improvements, dig-out and replace failed pavements, and rehabilitation of guardrails striping, traffic signs, etc. Through close coordination with the Lahontan Regional Water Quality Control Board and Caltrans, Wood Rodgers was able to identify areas where the Natural Environment was providing water quality treatment, thereby reducing the need for structural BMPs. As a result, the project costs were reduced, and pavement overlay, shoulder widening/stabilization, and maintenance vehicle access was added into the slope, and the projects are now proposed to be combined. Wood Rodgers has prepared PS&E for approximately 7.5 miles of the project, while Caltrans is doing the remaining. As the project is multi-seasonal, and covers areas of high tourist traffic, innovative traffic handling concepts have been proposed such as; temporary signals, partnerships with local transit, and public outreach. The projects also required significant stakeholder outreach including Wood Rodgers facilitation of several public meetings and the public hearings.

Caltrans Central Region - SR 99 Rehabilitation – Modesto, California. Mr. Nowlan provided hydraulics and drainage services for the preparation of PS&E for the rehabilitation of five ramps along SR 99 through the City of Modesto. Three of the ramps were on-ramps and two were off-ramps. The project was designed to Caltrans Resurfacing, Restoration, and Rehabilitation (RRR) standards and included; repairing failed pavement, widening to accommodate STAA trucks, correction of non-standard superelevation, reconstruction of pump station, and installation of retaining walls and concrete

barriers. The project also required complex traffic handling and construction phasing to ensure minimal impacts to traffic, especially the heavily used STAA truck traffic. This was accomplished through close coordination with Caltrans Construction and Permits staff to ensure design and phasing met their expectations. The PS&E package was submitted to Caltrans Central Region.

Caltrans Central Region US 101 Safety Improvements – Monterey County, California. Mr. Nowlan provided hydraulics and drainage services for the preparation of PS&E for safety improvements along approximately 20 miles of US 101 in Monterey County. The area had experienced a high number of collisions attributed to the existing at-grade crossings along US 101 in the vicinity. To correct these, the project installed; left-turn pockets, acceleration lanes, drainage improvements, and guardrailing at 13 different locations. The PS&E was submitted in spring 2009, and the project began construction in summer 2009.

SR 101/Laurel Drive Interchange Improvements – City of Salinas - Salinas, California. Mr. Nowlan provided hydraulics and drainage services for project to modify interchange, and adjacent intersections to improve operations and safety. Project widens two ramps to accommodate new turn lanes, modifies and adds traffic signals, and constructs new retaining walls to avoid environmental and right-of-way impacts. Project required close coordination with Caltrans and the City.

California Department of Water Resources (DWR), Central Valley Floodplain Evaluation and Delineation Program (CVFED). DWR retained the services of Wood Rodgers to provide engineering support services for floodplain delineation within the Lower Sacramento River Basin. For this seven-year, $38 million contract, Mr. Nowlan performed the role of One-Dimensional and Two-Dimensional Hydraulic Modeling Quality Control Manager for modeling and floodplain mapping, duties which included:

- Project management planning and implementation, including development of project scoping documents, budgets, and schedules for one-dimensional and two-dimensional hydraulic models.
- Preparation of work plan documents, quality control plan documents, and safety plans required prior to starting work.
- Review of existing hydraulic models, calibration data, as-built record drawings, and other existing information to support hydraulic model development.
- Providing hydraulic engineering insight to support secondary post-processing of LiDAR datasets.
- Quality Control review and troubleshooting of intermediate and final development of twelve two-dimensional floodplain hydraulic model study areas (using FLO-2D and TUFLOW) covering over 2,600 square miles of floodplain.
- Collaboration with hydraulic modeling software vendors to address project specific issues, including the development and testing of new features.
- Preparation of technical engineering reports.
- Quality Control review and integration of preliminary US Army Corps of Engineers (USACE) Central Valley Hydrology Study input for defining 200-year coincident conditions, including providing feedback regarding identification of hydrologic system definition improvements.
- Implementation of internal quality control procedures and coordinating reviews with DWR's Independent Quality Assurance Review team experts.
- Supervision and Quality Control of multiple two-dimensional floodplain simulations using FLO-2D and TUFLOW to support preparation of informational maps representing the 200-year floodplain in the communities of Yuba City, Davis, Sacramento, and West Sacramento.
- Quality Control Review and results presentation of final Lower Sacramento River system modeling and combined Upper and Lower Sacramento River HEC-RAS network modeling, including defining levee breach parameters, performing floodplain validation reviews using FLO-2D results and HEC-RAS storage area simulations.

JEREMY FITCH, PE, TE

PROJECT ROLE

Traffic Engineering Design

TITLE

Associate Engineer II

EDUCATION

BS, Civil Engineering, California State University, Sacramento, 1987

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 34633, 1982

Registered Professional Traffic Engineer, California No. 1514, 1989

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers

WOOD RODGERS, INC. START DATE

July 23, 2002

Mr. Fitch has 34 years of engineering experience in roadway improvement project design of all types, including signalized intersections, multi-lane arterials, projects on California state highways, and local neighborhoods. With the Sacramento County Department of Transportation, his experience also included traffic operations and maintenance. At the County, he introduced such innovations as the triple left-turn lane and count-down pedestrian heads to the Sacramento area. As the City Engineer for the City of Citrus Heights, Mr. Fitch was responsible for all phases of City's transportation capital program, including planning, funding, project design and development, and construction management. As Project Manager, he is also involved in all phases of the project process, from conceptual layout stages, to refinement of alternatives, traffic analysis, environmental process, right-of-way acquisition, electrical and conduit design, power source development, hardware placement, and utility coordination. Mr. Fitch's breadth of experience, from financing, planning, and design of new facilities, through maintenance and operation of those facilities, provides a "wide-angle" perspective view of roadway systems that include sustainability, economy, and user-friendliness as core values.

EXPERIENCE

Traffic Engineer – Monterey County, California. Mr. Fitch served in the capacity of on-site traffic engineer for the County for six months in 2012. In this role, he updated the County's traffic signal timing in accordance with current MUTCD and Caltrans standards and best practices. He brought the County's roadway accident database up to date used it in two successful federal HSIP/H3 funding applications. He was an advisor to the City's roadway CIP program and a reviewer for active County and developer roadway improvement projects. He was active in cooperating with Caltrans District 5 and protecting the County's interests on a major Caltrans construction project on SR 101 in the County. Scenic Road, located in unincorporated Carmel By-the-Sea, was converted to one-way traffic during his term at the County, after many years of project development. His duties also included responding to and investigating citizen neighborhood traffic concerns throughout the County, reviewing traffic handling plans for construction, reviewing encroachment permits, and coordinating with County staff and departments at all levels on traffic concerns.

Abbott Street/Harkins Road Improvement Project – Salinas, California. Mr. Fitch managed the design and environmental phase for the Abbot Street/Harkins Road project in the City of Salinas. They also managed the design and preparing of the full PS&E package. The project included new frontage improvements, underground and surface drainage improvements, pavement rehabilitation, traffic signal modifications, railroad crossing abandonment, tree planting, and roadway restriping.

Laurel Avenue/US 101 Interchange – Salinas, California. Mr. Fitch provided traffic and signal design for the widening the northbound and southbound off-ramps of the US 101 and West Laurel Drive interchange in Salinas, California. The project involved widening each ramp to accommodate an additional left-turn lane at the signalized ramp intersections to improve queuing lengths and delays on the ramps. The existing traffic signals at the ramp intersections with West Laurel Drive were modified to accommodate the revised intersection geometrics. Storm drainage facilities, landscaping, and utilities were relocated to avoid conflicts with the ramp widenings. A retaining wall with traffic barrier was designed to allow the widening of the northbound off-ramp.

Salinas Main Street Two-Way Conversion Project – Salinas, California. Project Engineer for the preparation of PS&E package for a City-sponsored construction project on Main Street in the City of Salinas. The project converted a block of Main Street from one-way to two-way traffic, converted diagonal to parallel parking, constructed underground drainage, and placed striping, signing, and landscaping. Project involved close coordination with the architect of Maya Theaters to achieve a smooth interface between the building and adjacent sidewalks.

Sanborn Road Improvement Project – Salinas, California. Mr. Fitch is the Project Manager in charge of widening, improvement, and pavement reconstruction project for approximately one-

mile segment of an existing four-lane arterial. Project included underground drainage, pavement widening, median and frontage road median reconstruction, landscaping and irrigation, street light modifications, stage construction plans, traffic signal modifications, temporary traffic signals, striping and signing work, and utility relocations. A Caltrans encroachment permit was secured for work under US 101.

Kroy Pathway – Sacramento, California. Mr. Fitch provided signage and street lighting design for this project to provide a 12'-6" wide paved Pedestrian/Bicycle Path connection between Kroy Street and 65th Street adjacent to the eastbound off-ramp from the US 50 freeway to 65th Street. The project provided complete Plans, Special Provisions, and Engineer's Estimate for the project, including path design, drainage design, signing and pavement delineation, path/street lighting, landscape planting and irrigation, special steel fencing, and installation of CCTV security cameras. The project was constructed partly within state right-of-way for the US 50 off-ramp, and metal beam guardrail was installed along the edge of the off-ramp to protect trail users from errant vehicles. As such, an encroachment permit was secured from Caltrans District 3. The project was constructed for $160,000 and was completed in 2010.

Orchard Lane at Barandas Drive Traffic Signal – Sacramento, California. Mr. Fitch served as Engineer in Charge for traffic analysis and preparation of PS& E package for this Arco AM/PM gas station and convenience store located on Orchard Lane at Barandas Drive. Services included a CEQA compliant traffic analysis, and improvement plans for off-site improvements including; new signal design, signal modifications, modification of existing street lighting system, roadway widening, signing and striping improvements, and turn pocket and ingress/egress improvements. Project was completed in 2009 at a construction cost of $350,000.

Freeport Boulevard/21st Street Two-Way Conversion Project – Sacramento, California. Mr. Fitch was the project engineer for five traffic signal modifications and one new signal on this project. The new signal is at existing skewed RR grade crossing, creating multiple design and administrative challenges involving two RR companies, the California PUC, City staff, signal phase configuration, RR pre-emption, and striping and signing.

Bridge District Infrastructure Project – West Sacramento, California. Developed project specifications in support of "green" project features, such as recycling concrete from demolished foundations and roadway improvements to provide detention/filtration beds for storm water runoff. This complex project included extensive utility relocation and required the cooperation of many agencies and utility owners.

Safe Routes to School Project – Lincoln, California. Mr. Fitch served as Project Engineer for this project which added curbs, gutters, sidewalks, and drainage improvements to areas surrounding the schools in the City of Lincoln. The project featured context-sensitive treatment of existing homes, trees, landscaping, and driveways. In selected areas, continuous frontage improvement bulb-outs were used creatively to solve driveway slope problems while preserving parking and avoiding right-of-way takes. The new facilities will be ADA-compliant, pedestrian friendly, safe, and attractive. The project was done very economically, making efficient use of existing improvements and drainage systems.

Caltrans Task Order 3 for Modesto Ramp Rehabilitation – Modesto, California. Mr. Fitch served as Project Engineer/Traffic Designer for the development of a PS&E package, which will include the rehabilitation five ramps along SR 99 within the City of Modesto. Three of the ramps are on-ramps and two of the ramps are off-ramps. Work included completing the design for the ramp rehabs and designing them to conform to the requirements of the Caltrans Resurfacing, Restoration, and Rehabilitation (RRR) Criteria. Challenges related to the project are widening the ramps to accommodate STAA trucks, poor pavement conditions, substandard super elevation, and construction staging. In order to minimize the potential impacts related to these challenges, design strategies were developed for each ramp that are based on safety, cost effectiveness, and constructability.

STEVEN LEUNG, PE, TE

PROJECT ROLE

Traffic Engineering Design

TITLE

Engineer II

EDUCATION

BS, Civil Engineering, University of California at Davis, 1994

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 70004

Registered Professional Traffic Engineer, California No. 2457

PROFESSIONAL AFFILIATIONS

Member, Institute of Transportation Engineers

WOOD RODGERS, INC. START DATE

July 28, 2003

Mr. Leung is a registered Civil and Traffic Engineer with 22 years of experience in transportation engineering with an emphasis in preparing PS&E for roadway and electrical design primarily in traffic signal, roadway lighting, interconnect, traffic monitoring system design. He has been responsible for the electrical design includes field visiting, utility coordination, preparation of conceptual layouts, reports, and calculations. He also prepares detail design of traffic signal hardware placement, underground conduit and conductor system, and signal phase operating sequences. Mr. Leung has also worked extensively with utility companies, general contractors, and government agencies for project coordination and construction support services. He also has extensive experience in roundabout and roadway geometric, signing and striping, traffic handling design, and traffic modeling.

Mr. Leung is highly competent in the use of AutoCAD, Microstation, AutoTurn, and AGI (area lighting analysis software), Synchro 8, and Vissim.

EXPERIENCE

Mr. Leung has completed various traffic signal/roadway lighting design/modifications, signing and striping, and Roundabouts design in various jurisdictions:

Oakland CA 130 Grade Crossings – Oakland, California. Mr. Leung provided signal design for safety improvements at two separate grade crossing locations within the City of Oakland; each having high volume train, pedestrian and vehicular traffic. Wood Rodgers provided the Civil Engineering, Signal Design, and Project Management required for the preparation of PS&E and the CPUC GO-88B application. Site one, Broadway and Embarcadero intersection with UPRR and Amtrak railway grade crossing, consists primarily of reconstructing the four curb ramps to meet current California ADA standards, installation of lane separating devices, pavement rehabilitation, and installation new CPUC Standard no. 8 flashing light assemblies. Site two, Fruitvale Avenue grade crossing with UPRR and Amtrak railway, primarily consisted of enhancing the interface and signal operation of the adjacent (vehicle only) intersection as it relates to rail crossing safety. The combined construction is scheduled for early/mid 2013.

San Antonio Road/Fayette Drive Intersection Signal Modification, City of Mountain View, California – Mr. Leung provided traffic signal design for completing modifications to the pre-existing antiquated traffic signal located at the San Antonio/Fayette intersection in the City, as part of a larger redevelopment project for the adjacent San Antonio Commercial Retail Center. Services managed include design of signing and striping modifications, modern video detection design, and design recommendations for new signal controller and accessories.

Caltrans Traffic Signals, Highway Lighting, Ramp Metering, and Traffic Monitoring System.

Mr. Leung prepared PS&E for traffic signal, highway lighting installation, and modification for:

- District 3 – SR 99/Elverta Road Interchange
- District 3 – SR 99/Queens Avenue Interchange
- District 3 - I-80/Leisure Town Road Interchange
- District 4 - SR 12 at Farmers Lane
- District 5 - US 101 at Las Tablas Road Interchange
- District 5 – US 101 at Laurel Drive Interchange
- District 6 - SR 99/SR 145 Interchange
- District 6 - I-880/Coleman Avenue Interchange

Arch Road at SR 99 Off-Ramp Modifications – Stockton, California. Mr. Leung provided signal and lighting design modifications to the northbound off ramp at this existing single point interchange. The project was completed under an encroachment permit with District 10. Project included widening of the off ramp, signalization of the right turn movement, geometric design, striping, detour plans, and landscape modifications. The project was design-build, and part of the larger California Health Care Facility project. Improvements were mandated to be installed by July 2013, and this deadline was exceeded by eight months.

State Route 99 Design-Build – Madera California. Mr. Leung assisted with preparation of PS&E as part of a team along with Granite Construction for Caltrans' first design-build project. The project scope entailed pavement rehabilitation, installation of ITS elements, and bringing guard railing and signage to current standards. This $35 million project was delivered via a design-build process which required plans and specifications delivered in Caltrans standard formats in an aggressive timeframe. Wood Rodgers has accomplished this by utilizing staff across the company while utilizing a very comprehensive QA program to ensure plans are delivered with high quality and to Caltrans' standards. The project is currently under construction and is expected to be completed in 2013.

Dixieanne Ave "Green Street" Project - City of Sacramento, California. Mr. Leung was the Street Light, Signing and Striping designer for this project that included modification of existing street light system along the corridor. Relocated existing street lights and modified existing electrical system in accordance with the new sidewalk and landscape improvements. Project also included design for roadway traffic calming by installing bulb-outs, traffic circles, new traffic stripes and signage. Construction completed August 2009.

Kroy Pathway – Sacramento, California. Mr. Leung provided signage and street lighting design for this project to provide a 12'-6" wide paved Pedestrian/Bicycle Path connection between Kroy Street and 65th Street adjacent to the eastbound off-ramp from the US 50 freeway to 65th Street. The project provided complete Plans, Special Provisions, and Engineer's Estimate for the project, including path design, drainage design, signing and pavement delineation, path/street lighting, landscape planting and irrigation, special steel fencing, and installation of CCTV security cameras. The project was constructed partly within state right-of-way for the US 50 off-ramp, and metal beam guardrail was installed along the edge of the off-ramp to protect trail users from errant vehicles. As such, an encroachment permit was secured from Caltrans District 3. The project was constructed for $160,000 and was completed in 2010.

Caltrans Central Region, Districts 5, 6, and 10 On-Call – Fresno, California. Mr. Leung is providing design support for traffic, and electrical design services for the Caltrans Central Region. Projects have included safety projects, rehabilitation projects, and operational improvement projects. The first project was for the development of a Project Report and a PS&E for a safety project located in Monterey County. This project will upgrade or lengthen metal beam guardrail and install crash cushions or end treatments at over 50 separate locations. The second project is for the development of PS&E for a project that will upgrade 12 at-grade intersections to lengthen and/or construct left-turn channelization lanes along US 101 in Monterey County.

County of Sacramento Traffic Signals, Street Lighting, and Interconnect – Sacramento, California. Mr. Leung prepared PS&E for traffic signal installation, and modification for various intersections on Sunrise Boulevard; various intersections on Douglas Road; Douglas Road Interconnect; various intersections on Bradshaw Road; Bradshaw Road Interconnect; Red Light Camera in various County locations; Elkhorn Boulevard Widening – Street Lighting; and Fulton Avenue Beautification – Street Lighting and Landscape Lighting.

City of Sacramento Traffic Signals, Street Lighting, and Interconnect – Sacramento, California. Mr. Leung prepared PS&E for traffic signal installation, modification, and signing and striping at various intersections in the City; 21st Street/Freeport Boulevard Two-way conversion; Sutterville Road at 21st and 23rd Street; Sutterville Road Interconnect; Red Light Camera in various City locations; and the Stockton Boulevard Beautification Project.

City of Elk Grove Traffic Signals and Street Lighting, and Interconnect – Elk Grove, California. Mr. Leung prepared PS&E for traffic signal installation, modification, and signing and striping for: various intersections on Franklin Boulevard; various intersections on Wilard Parkway; various intersections on Power Inn Road; Sheldon Road at Whitehouse Road; and Elk Grove Boulevard at Bay Point Way Roundabout Lighting.

SANFORD WONG, PE, QSD/QSP

PROJECT ROLE

Caltrans Document Preparation

TITLE

Associate, Engineer III

EDUCATION

BS, Engineering & Construction Management, University of Pacific, Stockton, 1998

BS, Civil Engineering, University of Pacific, Stockton, 1996

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 66784

Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP)

WOOD RODGERS, INC. START DATE

June 9, 2014

Mr. Wong has 20 years of civil engineering experience in the transportation field. He is knowledgeable and experienced in writing project initiation documents (PIDs) and Project Approval and Environmental Documents (PA&EDs) and developing Plans, Specifications, and Estimates (PS&E) for state transportation projects. He is well versed in the Highway Design Manual (HDM), Project Development Procedure Manual (PDPM), Work Breakdown Structure (WBS), and the importance of developing and leading the project development team (PDT) in delivering PID and PA&ED reports and completing PS&E sets. He is capable of sequencing and supervising work under tight schedules and is able to monitor, update, and successfully meet project schedules.

EXPERIENCE

Pacific Street Bike Lane and Widening PS&E – Rocklin, California. Served as the Lead Project Engineer for the widening of 3,600 ft. of Pacific Street to accommodate a two way left turn lane and addition of shoulders ranging between 4-6 ft., rehabilitation of Portland Concrete Cement pavement, addition of a Class 1 and 2 bicycle facility, and inclusion of landscape features such as irrigations and plants between Pacific Street and the Class 1 bicycle path. Completed both the environmental and design phases on scope, budget, and schedule. We are retained to provide construction support.

Placer 65 CAPM PS&E (EA 03-4F0200) – Placer County, California. Served as the Lead Project Engineer for this pavement rehabilitation project. The project will rehabilitate State Route 65 from the 65/80 junction to the Twelve Bridge Interchange which is approximately 50 lane miles. Project includes upgrading the existing metal beam guard railing to Midwest Guardrail System, new signs, and upgrading all the pavement delineations to new standards.

Yuba Route 20 Realignment and Widening PA&ED and PS&E (EA 03-0A5700) – Yuba County, California. Served as the Lead Project Engineer for the widening and realignment of 4.5 miles of Route 20 in Yuba County between Marysville Road to the Yuba River Bridge (PM 13.3/R17.8). Project features includes a new Dry Creek Bridge, realignment to improve stopping sight distances, widening of Route 20 to provide standard 8 ft. shoulder, upgrading all existing metal beam guard railing to Midwest Guard Rails, drainage extensions and new drainage facilities, removing all existing utilities within the Clear Recovery Zone, and determining right of way impacts. Currently completing both the environmental and design phases of this project through our ongoing on-call contract with Caltrans District 3.

Colusa 20 Rehabilitation PA&ED and PS&E (EA 03-2G9800) – Colusa County, California. Served as the Lead Project Engineer for this roadway rehabilitation project. The project will rehabilitate the existing surface to improve ride quality and extend the life of the existing pavement. The roadway profile will be reconstructed from PM 31.8 to PM 32.5 in the town of Colusa to improve cross slopes. Utility covers will be reset and drainage facility will be repaired. Existing curb ramps will be reconstructed to meet ADA standards. Existing curb and gutter will be reconstruct rued as required.

California High Speed Rail Authority (CHSRA) Merced-Fresno Segment – Fresno and Madera County, California. Served as right of way manager for the appraisal and acquisition in Madera and Fresno County for over 270 impacted properties with a project development fee of $15 million. Task activities include boundary survey, development of appraisal maps and plats, Initial Site Assessment (ISA) Phase 1 and 2 studies, and gathering title and easements in Fresno and Madera County between Ashlan Ave in Fresno County to Avenue 17 in Madera County. Estimated right-of-way cost is $700 million.

Central Valley Independent Network (CVIN) PS&E – Nevada, Placer, Sutter, El Dorado, and Yuba Counties, California. Served as the Project Manager for 53 miles of longitudinal broad band utility within Caltrans rights of way in several counties in District 3. Completed this project on schedule, scope, and budget. Lead to 24 additional task orders over 6 months worth $750,000 in fees.

Watt Avenue/US 50 Interchange PS&E – Sacramento County, California. Deputy Project Manager for the Watt / US 50 interchange PS&E. Project responsibilities include monitoring scope, schedule, and budget as the Deputy Project Manager and supervision of staff and review of engineering deliverables as the lead project engineer and Civil Department Manager. Construction capital cost was $25 million.

Rancho Cordova/US 50 Interchange PA&ED – Rancho Cordova, California. Served as the Lead Project Engineer responsible for managing the successful completion of a new interchange (Type L-1) PA&ED while maintaining project budget and schedule. Completed the DRAFT Project Report, processed both the Mandatory and Advisory Design Exception documents, and other attachments for the document.

Feather River Blvd Interchange PS&E – Yuba County, California. Lead project engineer for the PS&E engineering for a new interchange (Type L-1/L-9) to replace the at-grade intersection at Feather River Boulevard and SR 70. Work included development of a new geometric different from the PA&ED Geometric Approval Drawing, 35% and 65% plan sets. Construction cost was $20 million.

State Route 88 Lockeford Bypass PA&ED – San Joaquin County, California. Lead project engineer for developing new bypass alignment alternatives on State Route 88 near Lockeford different from the PID phase alternatives. Task included analyzing impacts, performing benefit cost analysis, and developing an alternative screening matrix. Construction cost was $150 million.

State Route 65/70 Project Study Report – Yuba County, California. Responsible for developing the preferred alternative for the Erle / Stare Route 70 Interchange that is fundable and constructable. Also completed the Advisory and Mandatory design exception, storm water report, and other PID attachments. Construction cost was $100 million.

State Route (SR) 99 Manteca Widening – San Joaquin County, California. Lead project engineer in the development and advancement of the PID alternatives for defining a preferred alternative to move forward to the PS&E project phase. Project includes ten miles of mainline median widening, a new interchange, one interchange reconstruction, three creek structure widenings, and local road improvements. Construction cost was $175 million.

US 101 widening Project Study Report (PSR) Project Development Support (PDS) - Santa Clara and San Benito Counties, California. Lead project engineer in the development of the PSR (PDS) for the US 101 widening project from SR 129 to just north of the San Benito/Santa Clara County line. This project proposes to widen US-101 from four to six lanes, and provide access control in Santa Clara County to meet future traffic demands and address route safety concerns. Construction cost was $100 million.

City of Lodi Feasibility Study on Victor and Harney Lane Interchange – Lodi, California. Project Manager and Project Engineer for preliminary conceptual study and design of the Victor/SR 99 interchange.

I5/French Camp Interchange Project Report (PR) and wrote the supplemental PR – San Joaquin County, California. Completed the supplemental project report to address minor design changes from the original project report.

Russian River Bridge Repair PS&E – Napa County, California. Project engineer for preparation of plans, specifications, and estimates of the Russian River Bridge that was damaged by a truck that did not have vertical clearance underneath the bridge.

US 50/Sunrise Boulevard Interchange Reconstruction and High Occupancy Vehicle (HOV) – Placer County, California. Field engineer in the construction of the Sunrise Blvd interchange and HOV on US 50 to Latrobe. Project included new ramps, reconstruction of existing ramps, project drainage facilities, project scheduling and cost, SWPPP, and solving project issues using my design background in interchange and mainline construction and reconstruction.

ALLAN LACA, PE, QSD/QSP

PROJECT ROLE

Storm Water/SWPPP

TITLE

Engineer III

EDUCATION

BS, Civil Engineering, California State University, Sacramento, 2006

REGISTRATIONS/ CERTIFICATIONS

Registered Professional Civil Engineer, California No. 74868, 2009

Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP), CASQA Certificate No. 01269, 2010

WOOD RODGERS, INC. START DATE

February 13, 2006

Mr. Laca is a Design Engineer and a certified Qualified SWPPP Developer/Qualified SWPPP Practitioner (QSD/QSP) specializing in the preparation of Storm Water Pollution Prevention Plans (SWPPPs) and post-construction storm water quality plans, drainage design, and floodplain analysis. Mr. Laca has completed numerous SWPPPs and has served as a SWPPP Inspector on multiple projects throughout Central and Northern California. Mr. Laca has transportation design experience and is familiar with Caltrans design standards and processes. Mr. Laca has prepared geometric layouts, typical section, construction details, drainage designs, construction staging, and striping plans as well as cost estimates and project reports. Mr. Laca has proficient knowledge of hydraulic modeling and floodplain mapping. Mr. Laca has recently completed and calibrated a 500+ mile hydraulic HEC-RAS model for DWR for the Lower Sacramento River system. Mr. Laca has excellent experience with engineering programs such as Microstation, Geopak, AutoCAD, Autoturn, HEC-RAS, HEC-GeoRAS, ArcMap, Global Mapper, and FLO-2D as well as Microsoft Word, Excel, and Powerpoint.

EXPERIENCE

State of California FloodSAFE, Department of Water Resources – Lower Sacramento River Study Area, Sacramento, Placer, Butte, Yuba Counties, California (2011 – Present). Mr. Laca was in charge of developing a calibrated one-dimensional system HEC-RAS hydraulic model for the Lower Sacramento River, which includes 500+ miles of Sacramento River and American Rivers, Feather River, Bear River and tributaries, South Honcut and tributaries, Sutter and Yolo Bypass, Delta streams, and West Side tributaries Cache Creek, Willow Slough Bypass, and Knights Landing. The Lower Sacramento River combined system was calibrated for the 1997 and 2006 flood events to be used for future modeling to lower the risk of flooding in the urban project levee areas. The Lower Sacramento River system model is currently being combined with the Upper Sacramento River system, which will total over 1000+ miles. The unsteady flow HEC-RAS modeling program is the primary tool for the One-dimensional model development. Also used was a two-dimensional TUFLOW model in selected areas to enhance the complex split flows of the Fremont Weir and Sacramento River Bypass system.

Bridge District – West Sacramento, California. Mr. Laca prepared the SWPPP for the Bridge District Project which constructed the base infrastructure associated with a large portion of the Triangle Specific Plan Area (TSPA) including new and reconstructed roadways, intersections, sewer, water, drainage and other public utility facilities.

Caltrans District 10 – Stanislaus County, California. Mr. Laca provided design services for the development of a PS&E package, which include the rehabilitation of three on-ramps and two off-ramps along SR 99 within the City of Modesto. Work included completing the design for the ramp rehabilitation and designing them to conform to the requirements of the Caltrans Resurfacing, Restoration, and Rehabilitation (RRR) Criteria. Challenges related to the project are widening the ramps to accommodate STAA trucks, poor pavement conditions, substandard super elevation, and construction staging. In order to minimize the potential impacts related to these challenges, design strategies were developed for each ramp that are based on safety, cost effectiveness, and constructability.

Caltrans District 5 – Monterey County, California. Mr. Laca provided design services for the development of a PS&E package, which include the rehabilitation of 12 intersections along US 101 in Monterey County. Work included intersection improvements, the addition of left turn lanes and median acceleration lanes, and designing them to conform to the requirements of the Caltrans Highway Design Manual. Challenges related to the project are widening intersections to accommodate STAA trucks and poor pavement conditions.

Tahoe Regional Planning Agency US 50 Stateline Core/Loop Road Project – South Lake Tahoe, California/Nevada. Mr. Laca prepared alternative geometric layouts for the Project Study Report to realign US 50 around the casino entertainment and gaming center at the California/Nevada state line area of South Lake Tahoe.

Kroy Bike Path – Sacramento, California. Mr. Laca developed the geometric layout for the

rehabilitation of the Kroy Bike Path. The bike path was designed to conform to AASHTO standards while precautions were taken to avoid encroachment upon Caltrans Right of Way.

Caltrans District 3 Lake Tahoe Area Project Development Services – Lake Tahoe, California. Mr. Laca provided design services for this five year on-call contract with Caltrans to assist in completion of various Lake Tahoe Basin water quality task assignments. Work includes all facets of all Caltrans' design efforts in the Lake Tahoe Basin with an emphasis on EIP efforts. Initial assignments underway early in 2007 includes two separate task assignments encompassing approximately five miles of storm water quality and EIP improvements on SR 89 in El Dorado County. Work included hydrologic investigations, hydraulics analysis, sediment yield analysis; planning and preliminary design of storm water quality and roadway improvements, civil design, and PS&E.

Caltrans District 3 Segment 3, Lake Tahoe Region – El Dorado County, California. Mr. Laca assisted in the design of water quality improvements along eight miles of SR 89 near Lake Tahoe in El Dorado County. The project included designing methods to collect and treat storm water runoff from the highway, shoulder widening, and curb and gutter installation. Mr. Laca performed preliminary designs and prepared the project report.

The Oaks at Willow Springs, Site Monitoring and SWPPP (Storm Water Pollution Prevention Plan) – City of Folsom, California. Mr. Laca analyzed the site's drainage to minimize offsite runoff by implementing a short term ATS and numerous BMPs. Relevant experience included obtaining multiple Caltrans Encroachment Permits during numerous phases of construction. In addition, Mr. Laca assisted with developing the long term strategy of protecting the quality of storm water discharges generated from the site while effectively balancing the need to mitigate post construction flows from the site to pre-construction levels.

Barrett Ranch, John Laing Homes, Post-Construction Storm Water Quality Plan (PCSQP) – Sacramento County, California. Mr. Laca prepared the Storm Water Treatment Control Plan which included the design of treatment BMPs (water quality basin and swales) and low impact development techniques (runoff reduction measures). The treatment plan was designed to meet Sacramento County's requirements. Control measures included; water quality basins, vegetative swales, porous pavement, storm planters, and structural treatment devices.

West Roseville Specific Plan, Westpark and Fiddyment Ranch SWPPPs (Storm Water Pollution Prevention Plans) – Roseville, California. These two projects encompass more than 3,000 acres just south of SR 65 and north of Pleasant Grove Boulevard. Relevant experience included a complex site dewatering plan using multiple Advanced Treatment Systems (ATS) to limit discharge from the site. In addition, Mr. Laca has designed comprehensive plans for BMP implementation on both sites that have met the primary objective of protecting the three receiving waters that traverse the sites and the many vernal pools present.

Amy L. Augustine, AICP

EDUCATION:

B.A., Biology - California State University, Sacramento (1984)

WORK EXPERIENCE:

Augustine Planning Associates, Inc. (1994 – Present)
City of Sonora City Planner (2010-2013)
City of Oakdale On-call Planner (2003-present)
City of Oakdale Grant Writer (2011-present)
Angels Camp, Planning Director (2001 -2004)
Tuolumne County Community Resources Agency - Senior Planner (1988-1994)

SUMMARY OF RELEVANT EXPERIENCE:

Specialized Studies and Public Works Projects

In coordination with public works departments, regional transportation agencies and Caltrans (District 10) for state and/or federally funded infrastructure projects: prepared, revised and gained approvals for Preliminary Environmental Studies (PES), Natural Environment Studies (NES), Area of Potential Effects (APE) Maps, Farmland Impact Assessments (AD1006), 4f Evaluations, Land Use and Community Impact Assessments and related studies. Coordinated, prepared contracts for and conducted oversight to complete: traffic studies, noise and air quality studies, visual impact assessments, archaeological and cultural resource surveys and reports (HPSR – HRER, ASR), Section 106 Consultations, hydrological surveys and floodplain encroachment reports, geotechnical surveys, Phase 1 Site Assessments (hazardous materials), wetlands delineations, Section 401 and 404 permitting, Streambed Alteration Agreements (California Department of Fish and Wildlife), Section 7 consultations, Biological Assessments (BA), Essential Fish Habitat (EFH) Assessments, preliminary environmental assessment report (PEAR) equivalents, Project Study Reports (PSR),and similar studies.

Representative projects include: bridge rehabilitation, construction and widening; road repaving, widening, signalization and new crossings; shoulder improvements; sidewalk and related infrastructure improvements; historic railroad grade trail; a community center; a medical center, and related projects.

Specific public works/infrastructure projects include:

Jamestown Sanitary District Sewer Rehabilitation Project (CDBG funded)
Jamestown Sanitary District Sewer Treatment Plant Location Project
Twain Harte Community Services District – Meadowbrook Well
Twain Harte Community Services District – Shadybrook Well
Tuolumne Utilities District – Gibbs Estate sewerline rehabilitation

5th Avenue Widening Project – Jamestown, CA (Tuolumne County Community Resources Agency)
Rawhide Road Bridge Rehabilitation (Tuolumne County Department of Public Works – ongoing)
Valley View River Access Trail (City of Oakdale, 2006 -present)
Parrotts Ferry Road Corridor Improvements (Tuolumne County Transportation Council, 2012-Present)
Sugar Pine RR Grade Trail - (Tuolumne County Department of Public Works – 2006 with construction support ongoing)
Keyes/Geer Road widening and realignment (Stanislaus County Department of Public Works, 2004)
Carpenter/Robertson/Beverly realignment, widening project (Stanislaus County Department of Public Works, 2008)
Fairchild Lane Improvement Project -widening and curve realignment (San Joaquin County Department of Public Works, 2003)
Oakdale Community Center (City of Oakdale, 2003)
Wilson Way Bridge at Stockton Diverting Canal widening (San Joaquin County Department of Public Works, 2001)
Bethany Road Bridge Demolition and Rehabilitation/Replacement (San Joaquin County Department of Public Works, 2003)
City of Oakdale Public Works Community Development Block Grant projects
Indian Community Development Block Grant Mariposa Amador Calaveras Tuolumne (MACT) Health Board, Inc. Medical Center (HUD) Categorical Exclusion

CEQA and NEPA Environmental Reviews

Managed, prepared, edited, scoped, peer reviewed, prepared, distributed, negotiated and presented (to planning commissions, city councils, boards of supervisors, boards of directors) all levels of environmental documents including: categorical exemptions, categorical exclusions, expanded initial studies with mitigated negative declarations and mitigation monitoring and reporting plans, environmental assessments, environmental impact reports, and environmental impact statements pursuant to the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA) and other applicable laws (Clean Water Act, California Endangered Species Act, federal Endangered Species Act). Representative recent experience includes:

Expanded Initial Studies/Mitigated Negative Declarations: South Oakdale Industrial Specific Plan, Tuolumne County General Plan Amendment & Rezoning, Jamestown Sanitary District Sewer Rehabilitation Project, Cedar Ridge Apple Ranch Waterline Extension, CHW Mark Twain St. Joseph's Medical Center, Bret Harte High School Baseball Field Improvements and Aquatic Center, Hennes Miner's Ditch Road Crossing

Joint Environmental Impact Report/Environmental Impact Statement: San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (2000-2002)

Environmental Impact Reports (EIR): Draft/Final EIR City of Sonora General Plan (2005-06), Draft/Final EIR Angels Camp General Plan (2007-08); Participated on three-member team preparing the draft /final Tuolumne County General Plan EIR (1996)

Environmental Assessment: Jamestown Sanitary District Sewer Rehabilitation Project (CDBG funded)

Prepared, filed, posted, noticed, and distributed: Notices of Exemption (NOE), Notices of Determination (NOD), Notices of Availability (NOA), Notices of Completion and Document Transmittal (NOC), Notices of Preparation (NOP), Finding of No Significant Impact (FONSI), Notice of Intent (NOI), and related. Where necessary, drafted requests for proposals (RFPs), distributed RFPs, evaluated proposals, conducted interviews, prepared scopes of work, drafted contracts, verified insurance levels, approved payments to and managed consultant work for all levels of environmental documents.

Long-Range Planning Experience (Project Specific)

Draft Calaveras County General Plan

Prepared the text of the draft General Plan (released December, 2014) including the Land Use Element, Conservation and Open Space Element, Public Facilities and Services Element, Housing Element, Safety Element, Noise Element, Resource Production Element, Introduction, Glossary, Background Report, Community Plan Cross Reference Tables and assisted in conducting the eight Open Houses conducted in January and February, 2015 countywide.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)

Project Coordinator (1994-2002). Prepared the SJMSCP for the San Joaquin County Council of Governments on behalf of the cities of Stockton, Tracy, Lodi, Manteca, Lathrop, Ripon, Escalon and San Joaquin County planning agencies. Staffed Habitat Policy Advisory Committee and Habitat Technical Advisory Committee focusing diverse stakeholders on critical issues and building consensus among the often factious groups to identify solutions acceptable to the county's development, environmental, agricultural, and other interests while fulfilling local, state and federal regulatory criteria. Identified and secured funding to assist in SJMSCP preparation. Prepared requests for proposals, oversaw hiring and contracting for biological and economic consultants. Prepared Joint CEQA/NEPA EIR/EIS for SJMSCP adoption. Extensive outreach resulted in the SJMSCP's unanimous adoption by all seven city councils, the San Joaquin County Board of Supervisors, US Fish and Wildlife Service, California Fish and Wildlife Service and multiple water agencies in 2001. Continuing to provide Joint Powers Authority (SJCOG, Inc.) with support services (e.g. training new agency staff, preparing plan amendments).

City of Sonora General Plan

Prepared *Sonora 2020 General Plan* under the guidance of the City of Sonora Planning Committee. Responsible for drafting, gathering public input for, and preparing all general plan elements and supporting documents including the Land Use, Circulation, Housing, Conservation & Open Space (including managing mineral resources), Noise, Safety (including Flood Hazards), Public Facilities & Services, Air Quality, Cultural Resources, Economics, Community Identity and Recreation Elements. Organized public open house and outreach events to encourage one-on-one discussions with landowners regarding land use decisions on their properties. Oversaw production of full coverage globally-positioned aerial photographs and topographic maps of the city and the city's sphere of influence for use in the planning process. Resulting topographic maps continue to assist in implementing the city's Hillside Preservation Ordinance. Completed draft and final environmental impact reports for the project. Plan was unanimously adopted in 2007.

City of Angels General Plan

Prepared the *Angels Camp 2020 General Plan* under the guidance of a special planning committee formed to provide broad input in the planning process. Responsible for drafting, gathering public input for, and producing all general plan elements and supporting documents including the Land Use, Housing, Circulation, Economic Development, Community Identity, Parks & Recreation, Conservation & Open Space (including managing mineral resources), Noise,

Air Quality, Public Safety (including flood hazard mitigation), Public Facilities & Services, and Cultural Resources elements. Organized public open houses to encourage one-on-one discussions with landowners regarding land use decisions affecting their properties. Completed draft and final environmental impact reports for the project. General Plan 2020 was unanimously adopted in February, 2009.

Current (Short-Term) Planning, Permits and Ordinances

Managed, assisted applicants in project re-design, prepared staff reports, edited, scoped, peer reviewed, distributed, discussed with affected property owners, negotiated and presented (to planning commissions, city councils, boards of supervisors, boards of directors) all levels of short-term planning projects including: Conditional Use Permits, Development Agreements, Variances, Tentative Subdivision Maps, Tentative Parcel Maps, Rezonings, General Plan Amendments, Pre-Acquisition Reviews (Schools), Site Plan Reviews (Side Development Permits), Design Review Permits, Grading Permits, Demolition Permits, and similar entitlements.

Prepared dozens of ordinances implementing new programs and streamlining old procedures. Representative examples or recently drafted and adopted ordinances include:

- Streamlining procedure ordinances for City of Sonora (Parcel Maps, Site Plan Review, Setbacks, Amending permitted and conditional uses in various zoning districts)
- Demolition and cottage food operations ordinances (City of Sonora)

Grant Writing & Implementation

Developed, wrote, secured and implemented dozens of grant programs. Representative recent grants secured include:

- Proposition 84 Statewide Parks Grant $4,375,000 to acquire and develop a 2.9 acre park site with skate plaza, skate park, outdoor entertainment stage, par-agility course, community garden, water feature, children's play/adventure area (City of Oakdale)
- CALFED Lower Mokelumne River Watershed Stewardship Program - $227,000 to prepare a resources management plan for the Lower Mokelumne River
- California River Parkways Grant $896,000 to construct the Valley View River Access Trail to the Stanislaus River (City of Oakdale)

ADDITIONAL SKILLS:

Geographic Information Systems and Mapping - CSU Stanislaus
Land Use Law (Paralegal 1987-1988)
Economics – Columbia Community College
Journalism – UC Berkeley Extension

CERTIFICATES/CONTINUING EDUCATION:

American Institute of Certified Planners (AICP) - Continuing education required - includes current planning law, ethics & planning issues

PROFESSIONAL AFFILIATIONS:

American Institute of Certified Planners (AICP), Member
American Planning Association, Member