

CITY OF YUBA CITY  
STAFF REPORT

**Date:** March 5, 2019  
**To:** Honorable Mayor & Members of the City Council  
**From:** Public Works Department  
**Presented by:** Diana Langley, Interim City Manager

---

**Summary**

**Subject:** Yuba City Development Impact Fee Study & Travel Demand Model Update – Award of Professional Services Agreement for Transportation Engineering Services

**Recommendation:** A. Award a professional services agreement to Fehr & Peers for Transportation Engineering Services related to the City's Development Impact Fee Study and Travel Demand Model Update in the amount of \$325,000 with the finding that it is in the best interest of the City.

B. Authorize the City Manager to execute the Professional Services Agreement on behalf of the City, in substantial compliance with the material terms and conditions presented in the attached draft agreement, subject to review and approval as to legal form by the City Attorney.

C. Authorize the Finance Director to make a budget transfer from Unallocated Development Impact Fees to Capital Improvement Project (CIP) Account No. 1214 (Citywide Traffic Model Update) in the amount of \$157,000.

**Fiscal Impact:** \$357,000 – Account No. 1214 (Citywide Traffic Model Update) broken down as follows:  
    \$325,000 – Professional Expense (1214-65514)  
    \$ 16,000 – Const/Admin Cost (1214-65503)  
    \$ 16,000 – Contingency (1214-65504)

---

**Purpose:**

To perform a comprehensive update of the City's travel demand model, Circulation Element of the General Plan, and Road Developer Impact Fees to facilitate development within the City.

**Background:**

The City has utilized Fehr & Peers, a transportation consulting firm, for the development of the City's travel demand model in 2004 and the preparation of multiple traffic impact studies for both City projects and private development projects throughout the Sphere of Influence. The roadway network identified and evaluated as part of the travel demand model created the basis for calculating Road Developer Impact Fees as part of the City's 2007 AB 1600 fee study.

### **Analysis:**

Since that time, much has changed in terms of the development landscape for the City and staff recommends an update to the travel demand model, General Plan Circulation Element, and Development Impact Fee Study due to the following factors:

- Re-assess growth projections and update traffic count data and land uses – The travel demand model was developed during the peak of residential development within the City. Since that time, the growth rate has declined, which impacts the projections utilized in the model.
- Evaluate the need for 4-lane arterials all the way to the edges of the Sphere of Influence – The Circulation Element of the General Plan currently shows 4-lane arterials all the way to the edges of the Sphere of Influence. Staff believes that the road sections can be reduced thereby reducing the infrastructure costs and possibly the Road Developer Impact Fee.
- Update Circulation Element of 2004 General Plan – There is a need to address the City's current Level of Service Policy to consider potentially exempting certain corridors or reducing the Level of Service requirements in order to facilitate future development under buildout conditions and to formalize thresholds for determining whether or not a development needs to prepare a traffic impact study.
- Compliance with Senate Bill 743 – SB 743 replaces intersection delay (level of service) with vehicle miles of travel (VMT) as the primary transportation metric used in environmental documents. SB 743 will become effective statewide on July 1, 2020, and is a complete shift of how projects are evaluated under CEQA. The City's travel demand model needs to be updated to be able to analyze projects based on VMT.
- Road Development Impact Fee Update – Results from the update of the travel demand model and General Plan will allow staff to re-evaluate Road Development Impact fees for the various land uses.

Based on the scope of work and time constraints associated with SB 743, staff contacted Fehr & Peers' Roseville office for a proposal. Fehr & Peers has been selected in the past as the most qualified consultant through standard Request for Proposals (RFP) processes administered by the City. Fehr & Peers' familiarity with the City, along with the complexity of the scope of work, makes Fehr & Peers uniquely qualified. Also, Fehr & Peers is proposing to use a local engineering firm, MHM, Inc., of Marysville, to prepare cost estimates associated with the Road Development Impact Fee update. Fehr & Peers has recently performed similar work for Rocklin, Manteca, Vacaville, Roseville, and Elk Grove and is able to apply the lessons learned from those projects to Yuba City.

With Council award of this professional services agreement, staff anticipates the travel demand model and development impact fee updates will take approximately 1 ½ years to complete. As a follow-up to the completion of updating the Circulation Element of the General Plan, an environmental analysis will be required, which is not part of Fehr & Peers' scope of work.

### **Fiscal Impact:**

The estimated total cost for the project is \$357,000, which would be funded through CIP Account No. 1214 (Citywide Traffic Model Update) using development impact fees. This estimated cost includes 5% for staff time over the course of the project (approximately 1 ½ years) and a 5% contingency to cover unforeseen costs associated with the new SB743 requirements. Approximately \$200,000 is available in this CIP account, so staff is requesting authorization for a budget transfer of \$157,000 from Unallocated Road Development Impact Fees to Account No. 1214.

**Alternatives:**

- a. Do not award the professional services agreement and direct staff to issue a RFP.
- b. Delay or modify recommended action.

**Recommendation:**

- a. Award a professional services agreement to Fehr & Peers for Transportation Engineering Services related to the City's Development Impact Fee Study and Travel Demand Model Update in the amount of \$325,000 with the finding that it is in the best interest of the City.
- b. Authorize the City Manager to execute the Professional Services Agreement on behalf of the City, in substantial compliance with the material terms and conditions presented in the attached draft agreement, subject to review and approval as to legal form by the City Attorney.
- c. Authorize the Finance Director to make a budget transfer from Unallocated Development Impact Fees to Capital Improvement Project (CIP) Account No. 1214 (Citywide Traffic Model Update) in the amount of \$157,000.

**Attachments:**

- 1. Draft Professional Services Agreement
- 2. Fehr & Peers proposal dated 2/31/19

Prepared by:

*/s/ Kevin Bradford*  
Kevin Bradford  
Senior Engineer

Submitted by:

*/s/ Diana Langley*  
Diana Langley  
Interim City Manager

Reviewed by:

Department Head

BM

Finance

RB

City Attorney

SLC by email

# ATTACHMENT 1

## **AGREEMENT FOR PROFESSIONAL SERVICES**

This Agreement is made and entered into as of March 5, 2019, by and between the City of Yuba City, a municipal corporation ("City") and Fehr & Peers ("Consultant").

### **RECITALS**

- A. Consultant is specially trained, experienced and competent to perform the special services which will be required by this Agreement; and
- B. Consultant possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement on the terms and conditions described herein; and
- C. City desires to retain Consultant to render professional services as set forth in this Agreement.

### **AGREEMENT**

1. Scope of Services. The Consultant shall furnish the following services in a professional manner.

**See Attached Scope of Services  
(Exhibit A)**

2. Time of Performance. The services of Consultant are to commence upon execution of this Agreement and shall continue until all authorized work is completed and approved by the City. Finalization shall be completed at the direction of the City of Yuba City.
3. Compensation. Compensation to be paid to Consultant shall be in accordance with the Schedule of Charges set forth in Exhibit B, which is attached hereto and incorporated herein by reference. In no event shall Consultant's compensation exceed three hundred twenty five thousand dollars (\$325,000) without additional written authorization from the City. Payment by City under this Agreement shall not be deemed a waiver of defects, even if such defects were known to the City at the time of payment.
4. Method of Payment. Consultant shall submit monthly billings to City describing the work performed during the preceding month. Consultant's invoices shall include a brief description of the services performed, the date the services were performed, the number of hours spent and by whom, and a description of any reimbursable expenses. City shall pay Consultant not later than 30 days after approval of the monthly invoice by City staff. When payments made by the City equal 90% of the maximum fee provided for in this Agreement, no further

payments shall be made until the final work under this Agreement has been accepted by City.

5. Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from City.
6. Termination. This Agreement may be terminated by the City immediately for cause or by either party without cause upon fifteen days written notice of termination. Upon termination, Consultant shall be entitled to compensation for services performed up to the effective date of termination. Such compensation is subject to the conditions of Section 4 of this agreement.
7. Ownership of Documents. All plans, studies, documents and other writings prepared by and for Consultant, its officers, employees, agents and subcontractors in the course of implementing this Agreement, except working notes and internal documents, shall become the property of the City upon payment to Consultant for such work, and the City shall have the sole right to use such materials in its discretion without further compensation to Consultant or to any other party. Consultant shall, at Consultant's expense, provide such reports, plans, studies, documents and other writings to City upon request.
8. Licensing of Intellectual Property. This Agreement creates a nonexclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regards to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents & Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.
9. Confidentiality. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents & Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held

confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the services under this Agreement. Nor shall such materials be disclosed to any person or entity not connected with the performance of the services under this Agreement. Nothing furnished to Consultant, which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs relating to project for which Consultant's services are rendered, or any publicity pertaining to the Consultant's services under this Agreement in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

10. Consultant's Books and Records:

- a. Consultant shall maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant to this Agreement.
- b. Consultant shall maintain all documents and records which demonstrated performance under this Agreement for a minimum period of three (3) years, or for any longer period required by law, from the date of termination or completion of this Agreement.
- c. Any records or documents required to be maintained pursuant to this Agreement shall be made available for inspection or audit, at any time during regular business hours, upon written request by the City Administrator, City Attorney, City Auditor or a designated representative of these officers. Copies of such documents shall be provided to the City for inspection at City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Consultant's address indicated for receipt of notices in this Agreement.
- d. Where City has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, City may, by written request by any of the above named officers, require that custody of the records be given to the City and that the records and documents be maintained in City Hall. Access to such records and documents shall be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor-in-interest.

11. Independent Contractor. It is understood that Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and shall not act as an agent or employee of the City. Consultant shall obtain no rights to retirement benefits or other benefits which

accrue to City's employees, and Consultant hereby expressly waives any claim it may have to any such rights.

Consultant is not a designated employee within the meaning of the Political Reform Act because Consultant:

- a. Will conduct research and arrive at conclusions with respect to his/her rendition of information, advice, recommendation or counsel independent of the control and direction of the City or of any City official, other than normal agreement monitoring; and
- b. Possesses no authority with respect to any City decision beyond rendition of information, advice, recommendation or counsel. (FPPC Reg. 18700(B)(2).)

12. Interest of Consultant. Consultant (including principals, associates and professional employees) covenants and represents that it does not now have any investment or interest in real property and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. Consultant further covenants and represents that in the performance of its duties hereunder no person having any such interest shall perform any services under this Agreement.

13. Professional Ability of Consultant. City has relied upon the professional training and ability of Consultant to perform the services hereunder as a material inducement to enter into this Agreement. Consultant shall therefore provide properly skilled professional and technical personnel to perform all services under this Agreement. All work performed by 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 Consultant's field of expertise.

14. Compliance with Laws. Consultant shall use the standard of care in its profession to comply with all applicable federal, state and local laws, codes, ordinances and regulations.

15. Licenses. Consultant represents and warrants to City that it has all licenses, permits, qualifications, insurance and approvals of whatsoever nature, which are legally required of Consultant to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement, any licenses, permits, insurance and approvals which are legally required of Consultant to practice its profession. Consultant shall maintain a City of Yuba City business license.



16. Indemnity. Consultant agrees to defend, indemnify and hold harmless the City, its officers, officials, agents, employees and volunteers from and against any and all claims, demands, actions, losses, damages, injuries, and liability, direct or indirect (including any and all costs, including attorney fees and expenses in connection therein), arising out of the performance of this Agreement in whole or in part by any negligent act or omission of the Consultant, or anyone directly or indirectly employed by the Consultant or anyone for whose acts the Consultant may be liable, or its failure to comply with any of its obligations contained in this Agreement, except for any such claim arising out of the sole negligence or willful misconduct of the City, its officers, agents, employees or volunteers.

17. Insurance Requirements. Consultant, at Consultant's own cost and expense, shall procure and maintain, for the duration of the contract, necessary insurance policies as described in Exhibit C.

18. Notices. Any notice required to be given under this Agreement shall be in writing and either served personally or sent prepaid, first class mail. Any such notice shall be addressed to the other party at the address set forth below. Notice shall be deemed communicated within 48 hours from the time of mailing if mailed as provided in this section.

If to City  
Diana Langley  
City of Yuba City  
1201 Civic Center Blvd  
Yuba City, CA 95993  
(530) 822-4792

If to Consultant:  
John Gard, P.E.  
Principal  
Fehr & Peers  
1013 Galleria Boulevard, Suite 255  
Roseville, CA 95678  
(916) 773-1900

19. Entire Agreement. This Agreement constitutes the complete and exclusive statement of Agreement between the City and Consultant. All prior written and oral communications, including correspondence, drafts, memoranda, and representations, are superseded in total by this Agreement.

20. Amendments. This Agreement may be modified or amended only by a written document executed by both Consultant and City and approved as to form by the City Attorney.

21. Assignment and Subcontracting. The parties recognize that a substantial inducement to City for entering into this Agreement is the professional reputation,

experience and competence of Consultant. Assignments of any or all rights, duties or obligations of the Consultant under this Agreement will be permitted only with the express consent of the City. Consultant shall not subcontract any portion of the work to be performed under the Agreement without the written authorization of the City. If City consents to such subcontract, Consultant shall be fully responsible to City for all acts or omissions of the subcontractor. Nothing in this Agreement shall create any contractual relationship between City and subcontractor nor shall it create any obligation on the part of the City to pay or to see to the payment of any monies due to any such subcontractor other than as otherwise is required by law.

22. Waiver. Waiver of a breach or default under this Agreement shall not constitute a continuing waiver of a subsequent breach of the same or any other provision under this Agreement.
23. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.
24. Controlling Law Venue. This Agreement and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to this Agreement shall be held exclusively in a state court in the County of Sutter.
25. Litigation Expenses and Attorneys' Fees. If either party to this Agreement commences any legal action against the other party arising out of this Agreement, the prevailing party shall be entitled to recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorneys' fees.
26. Mediation. The parties agree to make a good faith attempt to resolve any disputes arising out of this Agreement through mediation prior to commencing litigation. The parties shall mutually agree upon the mediator and shall divide the costs of mediation equally. If the parties are unable to agree upon a mediator, the dispute shall be submitted to JAMS/ENDISPUTE ("JAMS") or its successor in interest. JAMS shall provide the parties with the names of five qualified mediators. Each party shall have the option to strike two of the five mediators selected by JAMS and thereafter the mediator remaining shall hear the dispute. If the dispute remains unresolved after mediation, either party may commence litigation.
27. Execution. This Agreement may be executed in several counterparts, each of which shall constitute one and the same instrument and shall become binding upon the parties when at least one copy hereof shall have been signed by both parties hereto. In approving this Agreement, it shall not be necessary to produce or account for more than one such counterpart.

28. Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and to bind each respective party.

29. Prohibited Interest. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising there from.

30. Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non- discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date first written above.

**CITY OF YUBA CITY:**

**CONSULTANT:**

By: \_\_\_\_\_ By \_\_\_\_\_

**Diana Langley  
Interim City Manager**

**John Gard  
Principal**

Attachments: Exhibit A – Scope of Services  
Exhibit B – Cost Estimate and Schedule  
Exhibit C – Insurance Requirements

# EXHIBIT A

## Exhibit A – Scope of Work

---

Fehr & Peers will complete the following six tasks for this study:

- Task 1 – Project Management and Meetings
- Task 2 – Data Collection
- Task 3 – City of Yuba City Travel Demand Model Update
- Task 4 – Circulation Element Development
- Task 5 – SB 743 Implementation
- Task 6 – Development Impact Fee Study Update

### **Task 1 – Project Management and Meetings**

Fehr & Peers will attend a project kick-off meeting with City of Yuba City Staff. This meeting will include a review of the project scope and schedule, communication protocols, and expectations for project invoicing and progress reports. Project management will include meetings and calls with City staff throughout the project duration and preparation of monthly progress reports describing task status.

During the course of the study, Fehr & Peers will participate in up to six additional team meetings with City staff to present and review deliverables and to discuss key implementation decisions. These meetings can be scheduled on a regular basis (i.e., every other month) or as deliverables are completed. For all meetings, Fehr & Peers will develop the agendas and prepare minutes summarizing the meeting outcomes.

### **Task 2 – Data Collection**

#### **TASK 2.1 TRAFFIC DATA COLLECTION**

Fehr & Peers will collect traffic counts during the AM (7-9 AM) and PM (4 – 6 PM) peak periods at the following 48 intersections within the City of Yuba City. For ease of reference, intersections are listed from west to east, starting in the north and extending to the south.

These facilities were selected because they represent intersections consisting of two arterials, intersections of an arterial and a freeway, and/or other critical intersections. Note that some arterial-to-arterial intersections in the City will be analyzed under cumulative conditions, but not under existing conditions because they currently carry low volumes of traffic (but will experience growth).

Counts will be collected while schools are in session, and when weather conditions are dry. Caltrans does not allow cameras to be placed in their right-of-way (ROW) for count purposes. Thus, counting of state highway intersections will require placement of camera(s) outside of the ROW and/or manual counting personnel to be located on-site.



<ol style="list-style-type: none"><li>1. Pease Road/SR 99 SB Ramps</li><li>2. Pease Road/SR 99 NB Ramps</li><li>3. Queens Avenue/SR 99 SB Ramps</li><li>4. Queens Avenue/SR 99 NB Ramps</li><li>5. Queens Avenue/Live Oak Blvd.</li><li>6. Butte House Road/Harter Parkway</li><li>7. Butte House Road/Stabler Lane</li><li>8. Butte House Road/Gray Avenue</li><li>9. SR 20/Township Road</li><li>10. SR 20/Western Parkway</li><li>11. SR 20/George Washington Blvd.</li><li>12. SR 20/ El Margarita Road</li><li>13. SR 20/Harter Parkway</li><li>14. SR 20/Tharp Road</li><li>15. SR 20/Stabler Lane/Walton Avenue</li><li>16. SR 20/SR 99</li><li>17. SR 20/Gray Avenue</li><li>18. SR 20/Clark Avenue</li><li>19. SR 20/Live Oak Blvd</li><li>20. SR 20/Plumas Street</li><li>21. SR 20/Shasta Street</li><li>22. Bridge Street/Walton Avenue</li><li>23. Bridge Street/SR 99</li><li>24. Bridge Street/Gray Avenue</li></ol>	<ol style="list-style-type: none"><li>25. Bridge Street/Clark Avenue</li><li>26. Bridge Street/Plumas Street</li><li>27. Bridge Street/Shasta Street</li><li>28. Bridge Street/5<sup>th</sup> Street Bridge</li><li>29. Bridge Street/Second Street</li><li>30. Franklin Rd./George Washington Blvd.</li><li>31. Franklin Road/Walton Avenue</li><li>32. Franklin Road/SR 99</li><li>33. Franklin Avenue/Gray Avenue</li><li>34. Franklin Avenue/Clark Avenue</li><li>35. Franklin Avenue/Plumas Blvd.</li><li>36. Franklin Avenue/Garden Highway</li><li>37. Richland Road/Walton Avenue</li><li>38. Richland Road/SR 99</li><li>39. Lincoln Rd./George Washington Blvd.</li><li>40. Lincoln Road/Walton Avenue</li><li>41. Lincoln Road/SR 99</li><li>42. Lincoln Road/Garden Highway</li><li>43. Bogue Rd./George Washington Blvd.</li><li>44. Bogue Road/Walton Avenue</li><li>45. Bogue Road/SR 99</li><li>46. Bogue Road/Garden Highway</li><li>47. Stewart Road/SR 99</li><li>48. Sutter Street/5<sup>th</sup> Street Bridge</li></ol>
---	---

The following 34 roadway segments in Yuba City will be counted for two consecutive mid-week days to obtain average daily traffic (ADT) volumes.

<ol style="list-style-type: none"><li>1. Harter Parkway north of SR 20</li><li>2. Harter Parkway south of SR 20</li><li>3. George Washington Blvd. south of SR 20</li><li>4. Tharp Road north of SR 20</li><li>5. Tharp Road south of SR 20</li><li>6. Stabler Lane north of SR 20</li><li>7. Walton Avenue south of SR 20</li><li>8. Butte House Road west of Harter Parkway</li><li>9. Butte House Road east of Stabler Lane</li><li>10. Bridge Street west of SR 99</li><li>11. Franklin Road west of SR 99</li><li>12. Richland Road west of SR 99</li><li>13. Lincoln Road west of SR 99</li><li>14. Bogue Road west of SR 99</li><li>15. Walton Avenue north of Lincoln Road</li></ol>	<ol style="list-style-type: none"><li>18. Richland Road east of SR 99</li><li>19. Lincoln Road east of SR 99</li><li>20. Bogue Road east of SR 99</li><li>21. Bridge Street east of Gray Avenue</li><li>22. Bridge Street east of Shasta Street</li><li>23. Gray Avenue south of SR 20</li><li>24. Gray Avenue north of SR 20</li><li>25. Sutter Street north of SR 20</li><li>26. Second Street south of Bridge Street</li><li>27. Garden Highway south of Bogue Street</li><li>28. Garden Highway north of Lincoln Road</li><li>29. Queens Avenue east of SR 99</li><li>30. Queens Avenue west of SR 99</li><li>31. Live Oak Boulevard south of Pease Road</li><li>32. Live Oak Boulevard north of SR 20</li></ol>
--	--

16. Bridge Street east of SR 99 17. Franklin Road east of SR 99	33. Plumas Street south of SR 20 34. Shasta Street south of SR 20
--	--

In addition to the segment counts, Fehr & Peers will obtain available data from Caltrans data sources including their PeMS database and Annual Average Daily Traffic Volume database to augment the ADT volumes on City streets.

**TASK 2.2 OTHER DATA COLLECTION**

Fehr & Peers will obtain existing traffic signal timing plans from the City of Yuba City and Caltrans for all signalized study intersections.

**Task 3 – City of Yuba City Travel Demand Model Update**

This task consists of the following three primary efforts:

- *Existing Intersection Level of Service (LOS) Results.* LOS results should be accurately calculated using state-of-the-practice techniques.
- *Update the City of Yuba City base year model to represent a 2019 condition.* It is important to have a well-validated base year model, which can then be used to develop an accurate set of future year traffic forecasts.
- *Update the City of Yuba City future year model to represent a 2040 horizon.* The selection of a 2040 horizon is appropriate for several reasons. First, it establishes consistency with SACOG’s draft 2020 MTP/SCS, which will have a 2040 horizon year. Second, it represents a forecast 20 years into the future, which is typical for a General Plan.

These tasks are described in detail below.

**TASK 3.1 EXISTING INTERSECTION OPERATIONS**

All intersections will be analyzed using procedures described in the *Highway Capacity Manual, 6<sup>th</sup> Edition* (Transportation Research Board, 2016). We will coordinate with City staff regarding intersections that should be analyzed using the deterministic Synchro software program or the SimTraffic micro-simulation model. Micro-simulation is generally preferred when analyzing closely spaced intersections, corridors that have queue spillbacks due to congestion, and coordinated signal systems. For budgeting purposes, we have assumed about one-third of the intersections will be analyzed in SimTraffic during each peak hour.

**Work Efficiency Example:**  
*Fehr & Peers will use the Synchro and SimTraffic models we built in 2017-2018 as part of the Bogue-Stewart Master Plan EIR at 14 study intersections.*

### TASK 3.2 UPDATE BASE YEAR TRAFFIC MODEL

Model development guidelines are listed in the *2017 California Regional Transportation Plan (RTP) Guidelines for Metropolitan Planning Organizations*, CTC, 2017. These guidelines establish new benchmarks for CEQA legal adequacy for travel forecasting validation that apply to model updates. These benchmarks include basic validation requirements to ensure that the forecasting model is sensitive and accurate for model applications. The approach described below reflects these guidelines.

Fehr & Peers will update the base year version of the City of Yuba City travel demand model to represent Year 2019 conditions, both in terms of developed land uses and constructed roadways. It is assumed that City staff will provide Fehr & Peers with a 2019 land use database by providing a GIS land use database, a parcel by parcel inventory in spreadsheet form, and/or an itemized electronic list of existing land uses. If necessary, Fehr & Peers will conduct one field visit to confirm certain built land uses, review aerial imagery, and/or conduct internet research to resolve specific land use quantity/type uncertainties.

The model will be calibrated to a level of validation for average daily, AM peak hour, and PM peak hour conditions that meets or exceeds the suggested validation targets published in the 2017 RTP Guidelines. The validation compares the model's estimate of link-level daily and peak hour traffic against the observed existing volumes (from Task 1). The segments to be counted in Task 1 were strategically selected so as to enable screenline analyses (e.g., all east-west roads west of SR 99) of observed versus model ADT estimates. Consistent with standard practice, vehicle trip rates that are X-X (external-to-external), XI (external-to-internal), and IX (internal-to-external) will be estimated at the model's external gateways using station weights and SACOG's base year travel demand model.

#### **Optional Task 1 – Develop Locally Valid Trip Generation Rates**

*This task would consist of data collection at ten single-family and/or multi-family areas located throughout the City that are easily counted. This would provide more accurate estimates of home-based travel than national ITE or other default model rates that would otherwise be used in the model.*

The base year model validation will include a residential Vehicle Miles of Travel (VMT) assessment in which the VMT per dwelling unit is calculated for different sub-areas of the City and for the City as a whole. This assessment will leverage Fehr & Peers' previous work with California Household Travel Survey (CHTS) data regarding residential trip length data. This is an important exercise to confirm that the model predictions are reasonable, allowing it to be used for SB 743 implementation.

### TASK 3.3 DEVELOP 2040 TRAFFIC MODEL

Fehr & Peers will use the 2019 base year model as the starting point to develop a new 2040 model. The creation of the 2040 model will require a number of steps to be performed including:

1. City of Yuba City staff will provide an initial set of Year 2040 land use forecasts by traffic analysis zone (TAZ) for the entire City.



2. Fehr & Peers will adjust the external gateway trip factors (IX, XI, and XX) to match regional growth projections from SACOG's SACMET travel demand forecasting model.
3. Fehr & Peers will work with City of Yuba City staff to develop an appropriate set of land use assumptions to be made in adjacent jurisdictions.
4. Fehr & Peers will work with City of Yuba City staff to obtain an initial set of Year 2040 roadway network assumptions to include both within and outside of the City of Yuba City.

The land use assumptions should generally represent 'reasonably foreseeable projects' that would be assumed in place under cumulative conditions for a CEQA document. Roadway improvements outside of the City should generally consist of transportation projects in the SACOG MTP/SCS Tier 1 (i.e., funded and constructed by 2040) list.

The traffic model will be evaluated to assess its reasonableness with respect to the following:

- City-wide traffic growth versus land use growth within the City.
- Change in inter- versus intra-City trips given change in jobs-housing balance between the base year and future year models.
- Usage of key arterial City streets and reasonableness of diversion to collector streets.
- Residential VMT estimates for sub-areas of the City and City as a whole.

Deliverable: The *Yuba City Travel Demand Model Development Report* will be prepared that presents the base year model calibration and validation results, base year and future year land uses, model, validation statistics, model operating script, and thumb drive containing model files. Existing LOS results will also be presented. The report will include, at a minimum, the following exhibits:

- Existing roadway system (including functional class and number of lanes)
- Existing traffic volumes, lane configurations, and traffic controls at all study intersections
- Traffic Analysis Zone (TAZ) Map

## **Task 4 – Circulation Element Development**

The development of the Circulation Element for this update will require an evaluation of the inherent tradeoffs between the community values expressed in existing policies, financial constraints, and the long-term vision for the City.

### **TASK 4.1 DEVELOPMENT OF PREFERRED CIRCULATION NETWORK**

We will use the cumulative (2040) travel demand model developed in Task 3 to test the effects of up to twelve (12) sets of roadway network changes. For each scenario, we will update the model accordingly, run it, and then interpret the results at a program-level (i.e., daily traffic volume screening, focused intersection analysis, diversion to new roads, etc.).

It is anticipated that the following considerations will play a key role in helping to guide the selection of preferred roadway plan that will shape the Circulation Element:

1. Cost of future roadways (including maintenance considerations for both existing/future system) relative to anticipated funds from impact fee program and other sources.
2. Level of service considerations (i.e., what roads are needed to support LOS C, D, E) and consideration of potentially exempted areas or corridors.
3. Alternative means for accommodating travel needs including roundabouts, signal coordination, transit, and bicycle travel.

**Best Practices:**

*General Plan Guidelines call for Land Use and Circulation Elements to be internally consistent. This implies that the preferred circulation plan should consider the amount of impact fee revenues generated by planned land uses.*

We will analyze AM and PM peak hour operations at all existing study intersections within the City of Yuba City for the two preferred land use/roadway network packages.

Deliverable: Fehr & Peers will prepare a Technical Memorandum that evaluates each of the twelve (12) potential roadway network modifications, including interpretation of results. This will lead to a staff / Fehr & Peers recommended Preferred Circulation Network that would be presented before the Planning Commission / City Council for their consideration and feedback.

**TASK 4.2 CUMULATIVE INTERSECTION OPERATIONS**

All intersections will be re-analyzed under cumulative (2040) conditions based on the Preferred Circulation Network from Task 4.1. Up to 10 additional intersections will be analyzed as part of this cumulative analysis. This information will be used to inform Task 4.3.

Based on the “Lessons Learned” to the right, this task also includes two subsequent analyses of all existing/future intersections based on modified circulation networks.

**Lessons Learned:**

*Our work on similar projects has shown that staff and elected officials are more comfortable with intersection LOS results versus other metrics (ADTs, v/c plots, VMT, etc.) when comparing benefits of alternative circulation plans.*

**TASK 4.3 LEVEL OF SERVICE POLICY CONSIDERATIONS**

We will review the existing and cumulative intersection LOS results and prepare guidance for potential changes in the City’s LOS policies. We will present a range of LOS policies from other jurisdictions, and exceptions some of them use under certain circumstances (e.g., prioritization of non-motorized modes, high percentages of through travel, excess cost to achieve a certain objective, etc.). We will coordinate with City staff on developing a recommended LOS policy for consideration by the City’s Planning Commission / City Council.

As part of this effort, recommendations will be made regarding how to evaluate the significance of impacts to conditions, which are already unacceptable (i.e., a five-second increase in delay). Additionally, guidance will be provided on thresholds that could trigger a traffic study.

## **Task 5 – Senate Bill (SB) 743 Implementation**

SB 743 replaces intersection delay with vehicles mile of travel (VMT) as the primary transportation metric used in environmental documents. This fundamental change places the focus squarely on importance of developing accurate, defensible, and consistent VMT estimates that are understood by decision makers and the public. A handful of cities in California have already opted-in to the provisions of SB 743. The provisions of SB 743 become effective statewide on July 1, 2020.

When considering implementation of SB 743, lead agencies should, at a minimum, be able to answer the following questions:

- What is the preferred methodology for estimating and forecasting VMT considering that this metric is a required input for air quality, energy, GHG, and now transportation impact analysis in CEQA?
- What are the significance thresholds for VMT impacts under baseline and cumulative conditions?
  - If a lead agency wants to follow the December 2018 Office of Planning Research Technical Advisory recommendations, what travel forecasting model will be used to estimate baseline VMT for citywide or regional averages?
  - How will a lead agency ensure that project-scale VMT analysis is consistent with the methodology used to estimate thresholds?
- Will VMT impact screening be allowed based for residential and employment land uses based simply on location within a transit priority area (TPA) or low-VMT generating area? Will screening also be allowed for local-serving retail projects consisting of less than 50,000 square feet?
- What mitigation does the lead agency consider to be feasible for VMT impacts?
  - If TDM is used, how will the lead agency verify its effectiveness over time since many TDM programs are building tenant dependent?

These questions highlight some of the challenges inherent to this new process. The following tasks are proposed to answer these and other questions.

### **TASK 5.1                      BASELINE VMT CALCULATIONS**

Fehr & Peers will produce a series of baseline VMT calculations from the base year and cumulative year City of Yuba City travel demand model. We will work with the City to identify any potential subareas (e.g., Priority Development Areas, Downtown Core, etc.) that should be summarized separately for VMT reporting purposes.

## TASK 5.2

### DEVELOP VMT THRESHOLD RECOMMENDATIONS AND MITIGATION STRATEGIES

Fehr & Peers will work closely with the City staff to develop three to four VMT threshold options. These threshold recommendations will consider the latest SB 743 changes to the CEQA Guidelines and the associated Technical Advisory prepared by the Governor's Office of Planning Research plus the plan/policy review conducted as part of Task 5.1. This work will also include potential revisions to the General Plan to establish clear City priorities related to VMT reduction expectations and a strategy for addressing potential VMT impacts through the General Plan EIR.

This task also includes discussion/evaluation of available data on strategies to reduce VMT, with a focus on those most applicable to the City of Yuba City. This review will include the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* plus new research conducted by Fehr & Peers on TDM effectiveness since the 2010 publication of the CAPCOA document. Fehr & Peers will identify five to seven mitigation measures that would be most effective in Yuba City given the local land use and transportation context.

#### **Optional Task 2 – VMT Screening Tool**

*Some agencies have asked Fehr & Peers to develop a webmap-based VMT screening tool hosted on the City's GIS infrastructure. The screening tool incorporates a logic model to screen proposed projects based on the selected VMT methodology and thresholds. Projects that do not pass the screening process would require a more detailed VMT analysis using the City's model.*

#### **Optional Task 3 – Case Studies**

*Some agencies have also requested that case studies be prepared to demonstrate how the VMT estimation methods, thresholds, screening tool, and mitigation measures would function for different land use types in differing geographic areas within the City.*

## TASK 5.3

### DOCUMENTATION

The results of Task 5 will be documented in a Technical Memorandum for review by City staff. The memo will identify the baseline and cumulative VMT, identify recommended VMT thresholds, discuss mitigation measure opportunities, and include all associated supporting technical details. Specific implementation steps to be followed by project applicants will also be included. Fehr & Peers will prepare a final memo based on one set of written comments from City staff.

## **Task 6 – Development Impact Fee Study Update**


The State of California Mitigation Act (AB 1600) requires the establishment of a “nexus” when creating a traffic impact fee for new development. The nexus requirements are that (1) a development fee is directly related to the impacts of the development, and (2) the nature of the fee is roughly proportional to the impacts of the project.

Fehr & Peers will work with the City to update its Development Impact Fee program and corresponding traffic impact fees. The technical analysis described below assumes an update to the City’s *Traffic Impact Fee Update – Major Planned Roadway Improvements* spreadsheet, which was derived from the 2004 General Plan. This spreadsheet is very detailed including the list of upgraded/new roadways, their typical cross-section, length, ROW needs, unit construction costs, contingency costs, and design/environmental costs. The spreadsheet also includes intersection improvements, bridges and interchanges.

### **TASK 6.1 TECHNICAL ANALYSIS**

The technical analysis for the impact fee program will rely on the following work efforts:

- 1) MHM Incorporated will be retained as a subconsultant to Fehr & Peers to provide cost estimates for the roadway network upgrades and intersection improvements. For purposes of this scope, MHM has assumed cost estimating for a total of 25 roadway segments (including preparation of typical cross-sections, and unit costs for ROW needs) and 10 intersections. Their scope also includes attendance at up to four (4) meetings, conference calls, and preparation of draft/final memorandum documenting their work.
- 2) Based on the results of Task 4, Fehr & Peers and City staff will obtain the preferred list of projects to be included in the impact fee program including any developer-required and/or external funding sources. We will work with City staff to determine how ongoing and future roadway operations and maintenance (O&M) are being funded and whether such funding should be covered through the impact fee program.
- 3) We will use the City’s base year and 2040 traffic models to determine the following:
  - a. Extent to which roadways/intersections included in the fee program are used by existing City land uses, future City land uses, and non-City land uses.
  - b. Number of dwelling unit equivalents (DUEs) anticipated between 2019 and 2040.
- 4) We will update the cost of the traffic impact fee per DUE, and cost per square-foot for various non-residential land uses using the same (or similar) analysis methods as applied in the current fee program.
- 5) As requested by City staff, impact fees will be calculated both for the City as a whole and for a subset of improvements and corresponding benefit district consisting of the Bogue-Stewart Master Plan.



Our budgeting for this update does not include more complex fee program elements such as:

- The use of districting (via model fair share calculations) to establish different impact fees (per DUE) in different parts of the City.
- Updated cost estimates for improvements to SR 99, SR 20 including widening, new/upgraded interchanges, etc.).
- More nuanced fee calculations that consider trip length, pass-by trips, etc.

Deliverable: Fehr & Peers will prepare a Technical Report that contains the legal nexus between the proposed mitigation fees and new development. This report will include the MHM memo as a technical appendix.

### **Items Excluded from Current Scope of Services**

- Preparation of technical content typically required for a General Plan EIR (i.e., required analysis scenarios such as cumulative with current General Plan, analysis of non-auto modes, preparation of transportation chapter, DEIR response to comments, etc.).
- Review of applicability of transportation-related circulation policies from the existing General Plan.
- Cost estimates or analysis of future interchange at SR 20/SR 99.

## EXHIBIT B

## Exhibit B – Cost Estimate and Schedule

Fehr & Peers will complete the mandatory tasks in Exhibit A on a time-and-materials basis for a not-to-exceed amount of \$325,000. This fee does not include any of the optional tasks listed in Exhibit A.

Tasks	Fehr & Peers								Labor Hours	Direct Costs	MHM Sub Cost	Total Costs
	John Gard Project Manager	David Robinson Principal-in-Charge	David Stanek Associate	Jimmy Fong Lead Modeler	Rebecca Shafer Lead Engineer	Carrie Carsell Lead GIS / Viscom	William Edmonson GIS / Viscom	Admin				
	\$300	\$265	\$215	\$150	\$145	\$165	\$120	\$120				
1. Project Management & Meetings	60	8		32	16	8		16	140	\$1,220		\$31,700
2. Data Collection	2				8			2	12	\$23,500		\$25,500
3. City Travel Demand Model Update	60	8	16	200	160	40	32	36	552	\$3,660		\$95,180
4. Circulation Element Update	16	4	8	48	120	16	32	22	266	\$1,650		\$42,950
5. Senate Bill 743 Implementation	24	4		60		8	32	16	144	\$970		\$25,310
6. Development Impact Fee Study Update	30	4		40	7		16	11	108	\$808	\$83,237	\$104,360
<b>Total For All Required Tasks</b>	<b>192</b>	<b>28</b>	<b>24</b>	<b>380</b>	<b>311</b>	<b>72</b>	<b>112</b>	<b>103</b>	<b>1,222</b>	<b>\$31,810</b>	<b>\$83,237</b>	<b>\$325,000</b>



# EXHIBIT C

**Exhibit C**  
**Professional Services Agreement**  
**Insurance Requirements**

- I. Workers' Compensation Coverage.** Consultant shall maintain Workers' Compensation Insurance for his/her employees in accordance with the laws of the State of California and Employers Liability Insurance in an amount not less than one million dollars (\$1,000,000) per accident for bodily injury and/or disease. In addition, Consultant shall require each subcontractor to similarly maintain Workers' Compensation Insurance in accordance with the laws of the State of California and Employers Liability Insurance in an amount not less than one million dollars (\$1,000,000) per accident for bodily injury and/or disease for all of the subcontractor's employees. Any notice of cancellation or non-renewal of all Workers' Compensation policies must be received by the City at least thirty (30) days prior to such change. The insurer shall agree to waive all rights of subrogation against City, its officers, agents, employees and volunteers for losses arising from work performed by Consultant for City. This provision shall not apply if Consultant has no employees performing work under this Agreement. If the Consultant has no employees for the purposes of this Agreement, Consultant shall sign the "Certificate of Exemption from Workers' Compensation Insurance" which is attached hereto as Exhibit C.
- II. General Liability Coverage.** Consultant shall maintain commercial general liability insurance in an amount not less than one million dollars (\$1,000,000) per occurrence for bodily injury, personal injury and property damage. If a commercial general liability insurance form or other form with a 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.
- III. Automobile Liability Coverage.** Consultant shall maintain automobile liability insurance covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with the work to be performed under this Agreement, including coverage for owned, hired and non-owned vehicles, in an amount of not less than one million dollars (\$1,000,000) combined single limit for each occurrence.
- IV. Professional Liability Coverage.** Consultant shall maintain professional errors and omissions liability insurance for protection against claims alleging negligent acts, errors or omissions which may arise from Consultant's operations under this Agreement, whether such operations are by the 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) on a claims-made annual aggregate basis, or a combined single-limit per occurrence basis.

- V. **Endorsements.** Each general liability and automobile liability insurance policy shall be with insurers possessing a current A.M. Best's rating of no less than A:VII and shall be endorsed with the following specific language or equivalent:
- A. The City, its elected or appointed officers, officials, employees, agents and volunteers are to be covered as additional insured with respect to liability arising out of work performed by or on behalf of the Consultant, including materials, parts or equipment furnished in connection with such work or operations. Conforms to ISO CG 2009 and CG 2037 10 01. Both are required.
  - B. This policy shall be considered primary insurance as respects to the City, its elected or appointed officers, officials, employees, agents and volunteers. Any insurance maintained by the City, including any self-insured retention the City may have, shall be considered excess insurance only and shall not contribute with it.
  - C. 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.
  - D. The insurer waives all rights of subrogation against the City, its elected or appointed officers, officials, employees or agents.
  - E. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its elected or appointed officers, officials, employees, agents or volunteers.
  - F. The insurance provided by this policy shall not be suspended, voided, canceled, or reduced in coverage except after thirty (30) days written notice has been received by the City.
- VI. **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions must be declared to and approved by the City. At the City's option, Consultant shall demonstrate financial capability for payment of such deductibles or self-insured retention's.
- VII. **Certificates of Insurance.** Consultant shall provide certificates of insurance with original endorsements to City, as evidence of the insurance coverage required herein. Certificates of such insurance shall be filed with the City on or before commencement of performance of this agreement. Current certification of insurance shall be kept on file with the City at all times during the term of this Agreement.

## ATTACHMENT 2

February 13, 2019

Ms. Diana Langley  
Public Works Director/City Engineer  
Public Works Department  
City of Yuba City  
1201 Civic Center Blvd.  
Yuba City, CA 95993

**Subject: Proposal for Yuba City Development Impact Fee Study & Travel Demand Model Update**

Dear Ms. Langley:

We are pleased to submit this proposal to update the City's Travel Demand Model and Development Impact Fee Study. Our proposed scope of work (see Exhibit A) is based on our phone conversation on January 30<sup>th</sup> and our experiences working on similar projects. The scope of work in Exhibit A is organized into six tasks, which will meet the City's stated objectives. We believe that our technical expertise and knowledge of the City's transportation system makes us uniquely qualified to perform this study.

We are prepared to complete the tasks in Exhibit A on a time-and-materials basis for a not-to-exceed cost of \$325,000. This fee includes retention of MHM Incorporated to provide updated cost estimates for the roadway network upgrades and intersection improvements. Exhibit B provides a detailed cost estimate by phase and task, and also discusses the schedule. Refer to Exhibit C for list of mid-sized jurisdictions in the Sacramento region, for which we have previously conducted travel demand model updates.

Our project manager on this study will be John Gard, P.E. John is a Principal with Fehr & Peers who has been with the firm since 1995. John is currently wrapping up similar studies in other jurisdictions, and has substantial work experience in the City of Yuba City (see attached resume).

Please call or e-mail if you have any questions or need additional information regarding this proposal. We look forward to working with you on this exciting and important project.

Sincerely,

FEHR & PEERS



John Gard, P.E.  
Principal



Fred Choa, P.E.  
Principal

“

Our mission is to empower every employee to develop effective and innovative transportation solutions that  
**improve communities**

P19-3974-RS



# **Yuba City Development Impact Fee Study & Travel Demand Model Update**

**Prepared for:  
City of Yuba City**

February 13, 2019

P19-3974-RS

**FEHR & PEERS**



# Table of Contents

---

<b>Exhibit A – Scope of Work</b>	<b>3</b>
Task 1 – Project Management and Meetings .....	3
Task 2 – Data Collection .....	3
Task 2.1 Traffic Data Collection.....	3
Task 2.2 Other Data Collection.....	5
Task 3 – City of Yuba City Travel Demand Model Update .....	5
Task 3.1 Existing Intersection Operations.....	5
Task 3.2 Update Base Year Traffic Model .....	6
Task 3.3 Develop 2040 Traffic Model .....	6
Task 4 – Circulation Element Development.....	7
Task 4.1 Development of Preferred Circulation Network.....	7
Task 4.2 Cumulative Intersection Operations .....	8
Task 4.3 Level of Service Policy Considerations .....	8
Task 5 – Senate Bill (SB) 743 Implementation .....	9
Task 5.1 Baseline VMT Calculations .....	9
Task 5.2 Develop VMT Threshold Recommendations and Mitigation Strategies .....	10
Task 5.3 Documentation.....	10
Task 6 – Development Impact Fee Study Update.....	11
Task 6.1 Technical Analysis .....	11
Items Excluded from Current Scope of Services .....	12
<b>Exhibit B – Cost Estimate and Schedule</b>	<b>1</b>
<b>Exhibit C – Relevant Work Experience</b>	<b>2</b>



## Exhibit A – Scope of Work

---

Fehr & Peers will complete the following six tasks for this study:

- Task 1 – Project Management and Meetings
- Task 2 – Data Collection
- Task 3 – City of Yuba City Travel Demand Model Update
- Task 4 – Circulation Element Development
- Task 5 – SB 743 Implementation
- Task 6 – Development Impact Fee Study Update

### **Task 1 – Project Management and Meetings**

Fehr & Peers will attend a project kick-off meeting with City of Yuba City Staff. This meeting will include a review of the project scope and schedule, communication protocols, and expectations for project invoicing and progress reports. Project management will include meetings and calls with City staff throughout the project duration and preparation of monthly progress reports describing task status.

During the course of the study, Fehr & Peers will participate in up to six additional team meetings with City staff to present and review deliverables and to discuss key implementation decisions. These meetings can be scheduled on a regular basis (i.e., every other month) or as deliverables are completed. For all meetings, Fehr & Peers will develop the agendas and prepare minutes summarizing the meeting outcomes.

### **Task 2 – Data Collection**

#### **TASK 2.1 TRAFFIC DATA COLLECTION**

Fehr & Peers will collect traffic counts during the AM (7-9 AM) and PM (4 – 6 PM) peak periods at the following 48 intersections within the City of Yuba City. For ease of reference, intersections are listed from west to east, starting in the north and extending to the south.

These facilities were selected because they represent intersections consisting of two arterials, intersections of an arterial and a freeway, and/or other critical intersections. Note that some arterial-to-arterial intersections in the City will be analyzed under cumulative conditions, but not under existing conditions because they currently carry low volumes of traffic (but will experience growth).

Counts will be collected while schools are in session, and when weather conditions are dry. Caltrans does not allow cameras to be placed in their right-of-way (ROW) for count purposes. Thus, counting of state highway intersections will require placement of camera(s) outside of the ROW and/or manual counting personnel to be located on-site.



<ol style="list-style-type: none"> <li>1. Pease Road/SR 99 SB Ramps [UG1]</li> <li>2. Pease Road/SR 99 NB Ramps</li> <li>3. Queens Avenue/SR 99 SB Ramps</li> <li>4. Queens Avenue/SR 99 NB Ramps</li> <li>5. Queens Avenue/Live Oak Blvd.</li> <li>6. Butte House Road/Harter Parkway</li> <li>7. Butte House Road/Stabler Lane</li> <li>8. Butte House Road/Gray Avenue</li> <li>9. SR 20/Township Road</li> <li>10. SR 20/Western Parkway</li> <li>11. SR 20/George Washington Blvd.</li> <li>12. SR 20/ El Margarita Road</li> <li>13. SR 20/Harter Parkway</li> <li>14. SR 20/Tharp Road</li> <li>15. SR 20/Stabler Lane/Walton Avenue</li> <li>16. SR 20/SR 99</li> <li>17. SR 20/Gray Avenue</li> <li>18. SR 20/Clark Avenue</li> <li>19. SR 20/Live Oak Blvd</li> <li>20. SR 20/Plumas Street</li> <li>21. SR 20/Shasta Street</li> <li>22. Bridge Street/Walton Avenue</li> <li>23. Bridge Street/SR 99</li> <li>24. Bridge Street/Gray Avenue</li> </ol>	<ol style="list-style-type: none"> <li>25. Bridge Street/Clark Avenue</li> <li>26. Bridge Street/Plumas Street</li> <li>27. Bridge Street/Shasta Street</li> <li>28. Bridge Street/5<sup>th</sup> Street Bridge</li> <li>29. Bridge Street/Second Street</li> <li>30. Franklin Rd./George Washington Blvd.</li> <li>31. Franklin Road/Walton Avenue</li> <li>32. Franklin Road/SR 99</li> <li>33. Franklin Avenue/Gray Avenue</li> <li>34. Franklin Avenue/Clark Avenue</li> <li>35. Franklin Avenue/Plumas Blvd.</li> <li>36. Franklin Avenue/Garden Highway</li> <li>37. Richland Road/Walton Avenue</li> <li>38. Richland Road/SR 99</li> <li>39. Lincoln Rd./George Washington Blvd.</li> <li>40. Lincoln Road/Walton Avenue</li> <li>41. Lincoln Road/SR 99</li> <li>42. Lincoln Road/Garden Highway</li> <li>43. Bogue Rd./George Washington Blvd.</li> <li>44. Bogue Road/Walton Avenue</li> <li>45. Bogue Road/SR 99</li> <li>46. Bogue Road/Garden Highway</li> <li>47. Stewart Road/SR 99</li> <li>48. Sutter Street/5<sup>th</sup> Street Bridge</li> </ol>
--	--

The following 34 roadway segments in Yuba City will be counted for two consecutive mid-week days to obtain average daily traffic (ADT) volumes.

<ol style="list-style-type: none"> <li>1. Harter Parkway north of SR 20</li> <li>2. Harter Parkway south of SR 20</li> <li>3. George Washington Blvd. south of SR 20</li> <li>4. Tharp Road north of SR 20</li> <li>5. Tharp Road south of SR 20</li> <li>6. Stabler Lane north of SR 20</li> <li>7. Walton Avenue south of SR 20</li> <li>8. Butte House Road west of Harter Parkway</li> <li>9. Butte House Road east of Stabler Lane</li> <li>10. Bridge Street west of SR 99</li> <li>11. Franklin Road west of SR 99</li> <li>12. Richland Road west of SR 99</li> <li>13. Lincoln Road west of SR 99</li> <li>14. Bogue Road west of SR 99</li> <li>15. Walton Avenue north of Lincoln Road</li> </ol>	<ol style="list-style-type: none"> <li>18. Richland Road east of SR 99</li> <li>19. Lincoln Road east of SR 99</li> <li>20. Bogue Road east of SR 99</li> <li>21. Bridge Street east of Gray Avenue</li> <li>22. Bridge Street east of Shasta Street</li> <li>23. Gray Avenue south of SR 20</li> <li>24. Gray Avenue north of SR 20</li> <li>25. Sutter Street north of SR 20</li> <li>26. Second Street south of Bridge Street</li> <li>27. Garden Highway south of Bogue Street</li> <li>28. Garden Highway north of Lincoln Road</li> <li>29. Queens Avenue east of SR 99</li> <li>30. Queens Avenue west of SR 99</li> <li>31. Live Oak Boulevard south of Pease Road</li> <li>32. Live Oak Boulevard north of SR 20</li> </ol>
--	--

16. Bridge Street east of SR 99 17. Franklin Road east of SR 99	33. Plumas Street south of SR 20 34. Shasta Street south of SR 20
--	--

In addition to the segment counts, Fehr & Peers will obtain available data from Caltrans data sources including their PeMS database and Annual Average Daily Traffic Volume database to augment the ADT volumes on City streets.

**TASK 2.2 OTHER DATA COLLECTION**

Fehr & Peers will obtain existing traffic signal timing plans from the City of Yuba City and Caltrans for all signalized study intersections.

**Task 3 – City of Yuba City Travel Demand Model Update**

This task consists of the following three primary efforts:

- *Existing Intersection Level of Service (LOS) Results.* LOS results should be accurately calculated using state-of-the-practice techniques.
- *Update the City of Yuba City base year model to represent a 2019 condition.* It is important to have a well-validated base year model, which can then be used to develop an accurate set of future year traffic forecasts.
- *Update the City of Yuba City future year model to represent a 2040 horizon.* The selection of a 2040 horizon is appropriate for several reasons. First, it establishes consistency with SACOG’s draft 2020 MTP/SCS, which will have a 2040 horizon year. Second, it represents a forecast 20 years into the future, which is typical for a General Plan.

These tasks are described in detail below.

**TASK 3.1 EXISTING INTERSECTION OPERATIONS**

All intersections will be analyzed using procedures described in the *Highway Capacity Manual, 6<sup>th</sup> Edition* (Transportation Research Board, 2016). We will coordinate with City staff regarding intersections that should be analyzed using the deterministic Synchro software program or the SimTraffic micro-simulation model. Micro-simulation is generally preferred when analyzing closely spaced intersections, corridors that have queue spillbacks due to congestion, and coordinated signal systems. For budgeting purposes, we have assumed about one-third of the intersections will be analyzed in SimTraffic during each peak hour.

**Work Efficiency Example:**  
*Fehr & Peers will use the Synchro and SimTraffic models we built in 2017-2018 as part of the Bogue-Stewart Master Plan EIR at 14 study intersections.*



### TASK 3.2 UPDATE BASE YEAR TRAFFIC MODEL

Model development guidelines are listed in the *2017 California Regional Transportation Plan (RTP) Guidelines for Metropolitan Planning Organizations*, CTC, 2017. These guidelines establish new benchmarks for CEQA legal adequacy for travel forecasting validation that apply to model updates. These benchmarks include basic validation requirements to ensure that the forecasting model is sensitive and accurate for model applications. The approach described below reflects these guidelines.

Fehr & Peers will update the base year version of the City of Yuba City travel demand model to represent Year 2019 conditions, both in terms of developed land uses and constructed roadways. It is assumed that City staff will provide Fehr & Peers with a 2019 land use database by providing a GIS land use database, a parcel by parcel inventory in spreadsheet form, and/or an itemized electronic list of existing land uses. [UG2] If necessary, Fehr & Peers will conduct one field visit to confirm certain built land uses, review aerial imagery, and/or conduct internet research to resolve specific land use quantity/type uncertainties.

The model will be calibrated to a level of validation for average daily, AM peak hour, and PM peak hour conditions that meets or exceeds the suggested validation targets published in the 2017 RTP Guidelines. The validation compares the model's estimate of link-level daily and peak hour traffic against the observed existing volumes (from Task 1). The segments to be counted in Task 1 were strategically selected so as to enable screenline analyses (e.g., all east-west roads west of SR 99) of observed versus model ADT estimates. Consistent with standard practice, vehicle trip rates that are X-X (external-to-external), XI (external-to-internal), and IX (internal-to-external) will be estimated at the model's external gateways using station weights and SACOG's base year travel demand model.

#### Optional Task 1 – Develop Locally Valid Trip Generation Rates

*This task would consist of data collection at ten single-family and/or multi-family areas located throughout the City that are easily counted. This would provide more accurate estimates of home-based travel than national ITE or other default model rates that would otherwise be used in the model.*

The base year model validation will include a residential Vehicle Miles of Travel (VMT) assessment in which the VMT per dwelling unit is calculated for different sub-areas of the City and for the City as a whole. This assessment will leverage Fehr & Peers' previous work with California Household Travel Survey (CHTS) data regarding residential trip length data. This is an important exercise to confirm that the model predictions are reasonable, allowing it to be used for SB 743 implementation.

### TASK 3.3 DEVELOP 2040 TRAFFIC MODEL

Fehr & Peers will use the 2019 base year model as the starting point to develop a new 2040 model. The creation of the 2040 model will require a number of steps to be performed including:

1. City of Yuba City staff will provide an initial set of Year 2040 land use forecasts by traffic analysis zone (TAZ) for the entire City.

2. Fehr & Peers will adjust the external gateway trip factors (IX, XI, and XX) to match regional growth projections from SACOG's SACMET travel demand forecasting model.
3. Fehr & Peers will work with City of Yuba City staff to develop an appropriate set of land use assumptions to be made in adjacent jurisdictions.
4. Fehr & Peers will work with City of Yuba City staff to obtain an initial set of Year 2040 roadway network assumptions to include both within and outside of the City of Yuba City.

The land use assumptions should generally represent 'reasonably foreseeable projects' that would be assumed in place under cumulative conditions for a CEQA document. Roadway improvements outside of the City should generally consist of transportation projects in the SACOG MTP/SCS Tier 1 (i.e., funded and constructed by 2040) list.

The traffic model will be evaluated to assess its reasonableness with respect to the following:

- City-wide traffic growth versus land use growth within the City.
- Change in inter- versus intra-City trips given change in jobs-housing balance between the base year and future year models.
- Usage of key arterial City streets and reasonableness of diversion to collector streets.
- Residential VMT estimates for sub-areas of the City and City as a whole.

Deliverable: The *Yuba City Travel Demand Model Development Report* will be prepared that presents the base year model calibration and validation results, base year and future year land uses, model, validation statistics, model operating script, and thumb drive containing model files. Existing LOS results will also be presented. The report will include, at a minimum, the following exhibits:

- Existing roadway system (including functional class and number of lanes)
- Existing traffic volumes, lane configurations, and traffic controls at all study intersections
- Traffic Analysis Zone (TAZ) Map

## **Task 4 – Circulation Element Development**

The development of the Circulation Element for this update will require an evaluation of the inherent tradeoffs between the community values expressed in existing policies, financial constraints, and the long-term vision for the City.

### **TASK 4.1 DEVELOPMENT OF PREFERRED CIRCULATION NETWORK**

We will use the cumulative (2040) travel demand model developed in Task 3 to test the effects of up to twelve (12) sets of roadway network changes. For each scenario, we will update the model accordingly, run it, and then interpret the results at a program-level (i.e., daily traffic volume screening, focused intersection analysis, diversion to new roads, etc.).

It is anticipated that the following considerations will play a key role in helping to guide the selection of preferred roadway plan that will shape the Circulation Element:

1. Cost of future roadways (including maintenance considerations for both existing/future system) relative to anticipated funds from impact fee program and other sources.
2. Level of service considerations (i.e., what roads are needed to support LOS C, D, E) and consideration of potentially exempted areas or corridors.
3. Alternative means for accommodating travel needs including roundabouts, signal coordination, transit, and bicycle travel.

**Best Practices:**

*General Plan Guidelines call for Land Use and Circulation Elements to be internally consistent. This implies that the preferred circulation plan should consider the amount of impact fee revenues generated by planned land uses.*

We will analyze AM and PM peak hour operations at all existing study intersections within the City of Yuba City for the two preferred land use/roadway network packages.

Deliverable: Fehr & Peers will prepare a Technical Memorandum that evaluates each of the twelve (12) potential roadway network modifications, including interpretation of results. This will lead to a staff / Fehr & Peers recommended Preferred Circulation Network that would be presented before the Planning Commission / City Council for their consideration and feedback.

**TASK 4.2 CUMULATIVE INTERSECTION OPERATIONS**

All intersections will be re-analyzed under cumulative (2040) conditions based on the Preferred Circulation Network from Task 4.1. Up to 10 additional intersections will be analyzed as part of this cumulative analysis. This information will be used to inform Task 4.3.

Based on the “Lessons Learned” to the right, this task also includes two subsequent analyses [JG4] of all existing/future intersections based on modified circulation networks.

**Lessons Learned:**

*Our work on similar projects has shown that staff and elected officials are more comfortable with intersection LOS results versus other metrics (ADTs, v/c plots, VMT, etc.) when comparing benefits of alternative circulation plans.*

**TASK 4.3 LEVEL OF SERVICE POLICY CONSIDERATIONS**

We will review the existing and cumulative intersection LOS results and prepare guidance for potential changes in the City’s LOS policies. We will present a range of LOS policies from other jurisdictions, and exceptions some of them use under certain circumstances (e.g., prioritization of non-motorized modes, high percentages of through travel, excess cost to achieve a certain objective, etc.). We will coordinate with City staff on developing a recommended LOS policy [JG5] for consideration by the City’s Planning Commission / City Council.

As part of this effort, recommendations will be made regarding how to evaluate the significance of impacts to conditions, which are already unacceptable (i.e., a five-second increase in delay). Additionally, guidance will be provided on thresholds that could trigger a traffic study.

## **Task 5 – Senate Bill (SB) 743 Implementation**

SB 743 replaces intersection delay with vehicles mile of travel (VMT) as the primary transportation metric used in environmental documents. This fundamental change places the focus squarely on importance of developing accurate, defensible, and consistent VMT estimates that are understood by decision makers and the public. A handful of cities in California have already opted-in to the provisions of SB 743. The provisions of SB 743 become effective statewide on July 1, 2020.

When considering implementation of SB 743, lead agencies should, at a minimum, be able to answer the following questions:

- What is the preferred methodology for estimating and forecasting VMT considering that this metric is a required input for air quality, energy, GHG, and now transportation impact analysis in CEQA?
- What are the significance thresholds for VMT impacts under baseline and cumulative conditions?
  - If a lead agency wants to follow the December 2018 Office of Planning Research Technical Advisory recommendations, what travel forecasting model will be used to estimate baseline VMT for citywide or regional averages?
  - How will a lead agency ensure that project-scale VMT analysis is consistent with the methodology used to estimate thresholds?
- Will VMT impact screening be allowed based for residential and employment land uses based simply on location within a transit priority area (TPA) or low-VMT generating area? Will screening also be allowed for local-serving retail projects consisting of less than 50,000 square feet?
- What mitigation does the lead agency consider to be feasible for VMT impacts?
  - If TDM is used, how will the lead agency verify its effectiveness over time since many TDM programs are building tenant dependent?

These questions highlight some of the challenges inherent to this new process. The following tasks are proposed to answer these and other questions.

### **TASK 5.1                      BASELINE VMT CALCULATIONS**

Fehr & Peers will produce a series of **baseline VMT calculations** [UG6] from the base year and cumulative year City of Yuba City travel demand model. We will work with the City to identify any potential subareas (e.g., Priority Development Areas, Downtown Core, etc.) that should be summarized separately for VMT reporting purposes.

## TASK 5.2

### DEVELOP VMT THRESHOLD RECOMMENDATIONS AND MITIGATION STRATEGIES

Fehr & Peers will work closely with the City staff to develop three to four VMT threshold options. These threshold recommendations will consider the latest SB 743 changes to the CEQA Guidelines and the associated Technical Advisory prepared by the Governor's Office of Planning Research plus the plan/policy review conducted as part of Task 5.1. This work will also include potential revisions to the General Plan to establish clear City priorities related to VMT reduction expectations and a strategy for addressing potential VMT impacts through the General Plan EIR.

This task also includes discussion/evaluation of available data on strategies to reduce VMT, with a focus on those most applicable to the City of Yuba City. This review will include the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* plus new research conducted by Fehr & Peers on TDM effectiveness since the 2010 publication of the CAPCOA document. Fehr & Peers will identify five to seven mitigation measures that would be most effective in Yuba City given the local land use and transportation context.

#### **Optional Task 2 – VMT Screening Tool**

*Some agencies have asked Fehr & Peers to develop a webmap-based VMT screening tool hosted on the City's GIS infrastructure. The screening tool incorporates a logic model to screen proposed projects based on the selected VMT methodology and thresholds. Projects that do not pass the screening process would require a more detailed VMT analysis using the City's model.*

#### **Optional Task 3 – Case Studies**

*Some agencies have also requested that case studies be prepared to demonstrate how the VMT estimation methods, thresholds, screening tool, and mitigation measures would function for different land use types in differing geographic areas within the City.*

## TASK 5.3

### DOCUMENTATION

The results of Task 5 will be documented in a Technical Memorandum for review by City staff. The memo will identify the baseline and cumulative VMT, identify recommended VMT thresholds, discuss mitigation measure opportunities, and include all associated supporting technical details. Specific implementation steps to be followed by project applicants will also be included. Fehr & Peers will prepare a final memo based on one set of written comments from City staff.



## **Task 6 – Development Impact Fee Study Update**


The State of California Mitigation Act (AB 1600) requires the establishment of a “nexus” when creating a traffic impact fee for new development. The nexus requirements are that (1) a development fee is directly related to the impacts of the development, and (2) the nature of the fee is roughly proportional to the impacts of the project.

Fehr & Peers will work with the City to update its Development Impact Fee program and corresponding traffic impact fees. The technical analysis described below assumes an update to the City’s *Traffic Impact Fee Update – Major Planned Roadway Improvements* spreadsheet, which was derived from the 2004 General Plan. This spreadsheet is very detailed including the list of upgraded/new roadways, their typical cross-section, length, ROW needs, unit construction costs, contingency costs, and design/environmental costs. The spreadsheet also includes intersection improvements, bridges and interchanges.

### **TASK 6.1 TECHNICAL ANALYSIS**

The technical analysis for the impact fee program will rely on the following work efforts:

- 1) MHM Incorporated will be retained as a subconsultant to Fehr & Peers to provide cost estimates for the roadway network upgrades and intersection improvements. For purposes of this scope, MHM has assumed cost estimating for a total of 25 roadway segments (including preparation of typical cross-sections, and unit costs for ROW needs) and 10 intersections. Their scope also includes attendance at up to four (4) meetings, conference calls, and preparation of draft/final memorandum documenting their work.
- 2) Based on the results of Task 4, Fehr & Peers and City staff will obtain the preferred list of projects to be included in the impact fee program including any developer-required and/or external funding sources. We will work with City staff to determine how ongoing and future roadway operations and maintenance (O&M) are being funded and whether such funding should be covered through the impact fee program.
- 3) We will use the City’s base year and 2040 traffic models to determine the following:
  - a. Extent to which roadways/intersections included in the fee program are used by existing City land uses, future City land uses, and non-City land uses.
  - b. Number of dwelling unit equivalents (DUEs) anticipated between 2019 and 2040.
- 4) We will update the cost of the traffic impact fee per DUE, and cost per square-foot for various non-residential land uses using the same (or similar) analysis methods as applied in the current fee program.
- 5) As requested by City staff, impact fees will be calculated both for the City as a whole and for a subset of improvements and corresponding benefit district consisting of the Bogue-Stewart Master Plan.



Our budgeting for this update does not include more complex fee program elements such as:

- The use of districting (via model fair share calculations) to establish different impact fees (per DUE) in different parts of the City.
- Updated cost estimates for improvements to SR 99, SR 20 including widening, new/upgraded interchanges, etc.).
- More nuanced fee calculations that consider trip length, pass-by trips, etc.

Deliverable: Fehr & Peers will prepare a Technical Report that contains the legal nexus between the proposed mitigation fees and new development. This report will include the MHM memo as a technical appendix.

### **Items Excluded from Current Scope of Services**

- Preparation of technical content typically required for a General Plan EIR (i.e., required analysis scenarios such as cumulative with current General Plan, analysis of non-auto modes, preparation of transportation chapter, DEIR response to comments, etc.).
- Review of applicability of transportation-related circulation policies from the existing General Plan.
- Cost estimates or analysis of future interchange at SR 20/SR 99.

## Exhibit B – Cost Estimate and Schedule

Fehr & Peers will complete the mandatory tasks in Exhibit A on a time-and-materials basis for a not-to-exceed amount of \$325,000. This fee does not include any of the optional tasks listed in Exhibit A.

Tasks	Fehr & Peers								Labor Hours	Direct Costs	MHM Sub Cost	Total Costs
	John Gard Project Manager	David Robinson Principal-in-Charge	David Stanek Associate	Jimmy Fong Lead Modeler	Rebecca Shafer Lead Engineer	Carrie Carsell Lead GIS / Viscom	William Edmonson GIS / Viscom	Admin				
	\$300	\$265	\$215	\$150	\$145	\$165	\$120	\$120				
1. Project Management & Meetings	60	8		32	16	8		16	140	\$1,220		\$31,700
2. Data Collection	2				8			2	12	\$23,500[JG7]		\$25,500
3. City Travel Demand Model Update	60	8	16	200	160	40	32	36	552	\$3,660		\$95,180[JG8]
4. Circulation Element Update	16	4	8	48	120	16	32	22	266	\$1,650		\$42,950[JG9]
5. Senate Bill 743 Implementation	24	4		60		8	32	16	144	\$970		\$25,310
6. Development Impact Fee Study Update	30	4		40	7		16	11	108	\$808	\$83,237[JG10]	\$104,360
<b>Total For All Required Tasks</b>	<b>192</b>	<b>28</b>	<b>24</b>	<b>380</b>	<b>311</b>	<b>72</b>	<b>112</b>	<b>103</b>	<b>1,222</b>	<b>\$31,810</b>	<b>\$83,237</b>	<b>\$325,000</b>



Notes:

*Cost estimate for traffic data collection based on unit costs of \$360 per intersection and \$120 per segment count  
Note that Task 3 also includes existing intersection LOS analysis at all study intersections.*

*Note that Task 4 includes cumulative intersection LOS for three scenarios.*

*This fee proposal is valid for a period of 90 days from the proposal submittal date.*

## Schedule

Fehr & Peers is committed to performing this work in a cost-effective and efficient manner. Our experiences on similar studies have shown that the overall schedule can vary considerably depending on a number of factors such as:

- Time required to assemble base year and future year land use datasets.
- Ease/difficulty of calibrating the base year model to meet applicable validation targets.
- Time required to schedule and deliver presentations to decision-makers regarding preferred circulation network concepts and LOS policy considerations.



## Exhibit C – Relevant Work Experience

---

The following summarizes Fehr & Peers' recent and ongoing experience on projects in the Sacramento region and Central Valley that are similar in nature to the Yuba City Development Impact Fee Study and Travel Demand Model update:

- City of Rocklin (model update, fee program, and SB 743 implementation)
- City of Manteca (model update, fee program, and SB 743 implementation)
- City of Vacaville (model refinement and SB 743 implementation)
- City of Roseville (model update and SB 743 implementation)
- City of Elk Grove (model refinement and SB 743 implementation)
- City of Woodland (model update)
- City of Sacramento (SB 743 implementation)
- El Dorado County (SB 743 implementation)
- Nevada County (SB 743 implementation)
- UC Davis / City of Davis (model update)
- Butte County Association of Governments, BCAG (model update and SB 743 implementation)



## John Gard, TE

*Principal, Senior Market Leader of Sierra Region*

### Education

M.S., Civil and Environmental Engineering, University of California Davis, 1994

B.S., Applied Mathematics, University of California Davis, 1992

### Registrations

Traffic Engineer, California (TR 2016)

### Expertise

- Long-Range Transportation Planning
- Transportation Studies for EIRs
- Traffic Impact/Parking Assessments
- Traffic Engineering Studies
- Freeway/Corridor Studies

### Awards & Publications

- 2007 recipient of ITE Daniel Hoyt Award for Innovative Intermodal Solutions for Urban Transportation
- 2002 ITE District 6 Wayne Vanwagoner Award
- 2001 recipient of ITE Young Consultants Award for ITE Journal article paper entitled "Estimation of Maximum Queue Lengths at Unsignalized Intersections"
- 1994 co-author "Public Attitudes Toward Conversion of Mixed-Use Freeway Lanes to High-Occupancy-Vehicle Lanes", Transportation Research Record, 1446

Mr. Gard joined the Roseville, California office of Fehr & Peers in 1995. He is a Principal and Senior Market Leader for the firm's Sierra region.

### Internal Roles and Responsibilities

#### **Senior Market Leader**

Mr. Gard works closely with the Sierra region Office Manager and Office Leader on aspects of business operations ranging from marketing, recruiting, quality control, training, and mentoring. As a Senior Market Leader, he focuses on external clients, new markets, and application of transportation best practices.

#### **Research & Development (R&D)**

Mr. Gard has served as the firm's Land Use & Transportation (LUT) Discipline Group leader since 2016. In that role, he leads the firm's research efforts on this ever-evolving topic, disseminates best practices guidance to staff in all offices, and assists in marketing efforts. One recent R&D effort includes a new, state-of-the-practice Transportation Demand Management (TDM) tool to be used for CEQA mitigation.

#### **F&P Academy Instructor**

Mr. Gard has taught several internal courses as part of F&P Academy. Since 2005, Mr. Gard has been the instructor for the Introduction to Transportation Impact Studies (TIS) course. From 2005-2016, he was a co-instructor for the firm's Philosophy of Project Management course.

#### **Project Management**

Mr. Gard often manages controversial and complex studies, and oversees smaller studies. He has a true talent for explaining complex technical information in simple terms, which Commissions, Councils, and Boards appreciate. Following is a list of projects he has managed over the past decade, which demonstrates the technical and geographic breadth of his project management experience.

### Relevant Project Experience

- Project Manager for City of Rocklin Model Update and Circulation Element Update (2016-present)
- Project Manager for Yuba County Travel Demand Model Update and Circulation Element Update (2008-2011)
- Principal-in-Charge for City of Manteca Travel Demand Model Update and Circulation Element Update (2016-present)
- Project Manager for 5<sup>th</sup> Street Bridge Replacement (2010-2012)
- Project Manager for transportation analysis for the Bogue-Stewart Master Plan EIR (2016-present)



# Jimmy Fong, PE

Senior Transportation Engineer/Planner

## Education

B.S., Civil and Environmental Engineering, University of California, Davis, 2011

## Registrations

Licensed Traffic Engineer (TR 2811)

## Professional Affiliations

Young Professionals in Transportation (YPT)

American Planning Association (APA)  
Davis Town and Gown Toastmasters

## Expertise

- Transportation Impact Analysis
- Traffic Operations and Simulation (Synchro/SimTraffic)
- Travel Demand Forecasting (Cube/TransCAD)
- Bicycle and Pedestrian Planning

## About

Jimmy Fong is a senior transportation engineer/planner in Fehr & Peers' Sacramento office. Since joining the company, he has worked on a variety of projects in the areas of traffic operations and simulation, travel demand forecasting, and bicycle and pedestrian planning. Jimmy has applied his comprehensive expertise to develop transportation system improvements for all users, in order to create more livable communities.

## Project Experience

### **Railyards/Kaiser/MLS EIR, Sacramento, CA | Transportation Engineer**

Fehr & Peers conducted an extensive transportation impact analysis in support of an EIR being prepared for three distinct project components consisting of a new Major League Soccer (MLS) stadium, a major (one million square-foot) Kaiser Medical Campus, and modifications to the Railyards Specific Plan in downtown Sacramento. Jimmy contributed to the use of Big Data from Streetlight, Inc. to determine travel patterns of the Sacramento Republic USL soccer team for the travel forecasting analysis.

### **I Street Bridge Replacement PA/ED, Sacramento, CA | Transportation Engineer**

Fehr & Peers is preparing the transportation analysis for a new multi-modal moveable bridge over the Sacramento River connecting the Cities of Sacramento and West Sacramento. Jimmy provided travel forecasting, microsimulation traffic operations, and bicycle and pedestrian access analysis for environmental review compliance with CEQA and NEPA.

### **Broadway Bridge Feasibility Study, West Sacramento, CA | Transportation Engineer**

Fehr & Peers is working on the feasibility study for a new multi-modal moveable bridge over the Sacramento River connecting the Cities of Sacramento and West Sacramento. Our work includes travel forecasting, operations analysis, bicycle and pedestrian access, transit accommodation, and local circulation patterns.

### **Mace Ranch Innovation Center EIR, Davis, CA | Transportation Planner**

Fehr & Peers prepared the transportation assessment for the 212-acre Mace Ranch Innovation Center EIR. The Mace Ranch Innovation Center project has a total of 2.654 million square feet of uses including 1.58 million square feet of office and research & development uses, 884,000 square feet of manufacturing/research uses, 150 hotel rooms, a conference center, and up to 110,000 square feet of ancillary uses. Jimmy worked on updating the Davis Travel Demand Model to reflect new SACOG MTP/SCS land use, which included comparison of regional travel patterns to update trips to/from model gateways.