



September 9, 2015

Rob Dayton
City of Santa Barbara
630 Garden Street
Santa Barbara, CA 93101

Transportation Services Proposal:

TRAFFIC COUNTS & TRAVEL DEMAND MODEL UPDATE FOR THE CITY OF SANTA BARBARA

Dear Rob,

Fehr & Peers is pleased to respond to the City's request for a proposal to collect new traffic counts and update the Santa Barbara Travel Demand Model to reflect current travel conditions and the latest planned development and transportation improvements. This proposal outlines the tasks needed to complete this update.

SCOPE OF WORK

1. Traffic Counts

We will collect traffic counts in Fall 2015 for the facilities studied as part of Plan Santa Barbara as follows:

- 52 intersections during the AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hours (including pedestrian and bike counts at each location)
- 35 roadway segment daily counts (48-hour period)

We will prepare figures showing the intersection turning movement volumes and tables summarizing the roadway segments counts. We will compare the 2015 traffic counts to those collected in 2008 and provide a table summarizing the changes in traffic volumes.

2. Base Year Travel Demand Forecasting Model Update

The base year model created for Plan Santa Barbara reflected 2008 land use and travel conditions. We will update the baseline model to reflect Year 2015 conditions as follows:

- Current Land Uses: Development that has occurred between 2008 and 2015 will be provided by the City of Santa Barbara; the data should only include projects that are open/occupied at the time traffic counts are collected in Fall 2015 (projects that are planned/under construction are not yet generating new trips)
- Existing Traffic Volumes: We will recalibrate the travel demand model to match existing travel conditions based on traffic counts collected in Fall 2015

We will document the 2015 travel demand model update and the model calibration and validation results in a technical memorandum.



3. Future Year Travel Demand Forecasting Model Update

The future year (2030) Plan Santa Barbara model will be updated to reflect the following:

- Approved General Plan Land Uses: Land use data will be provided by the City by traffic analysis zone (TAZ) and we will code the land use information into the model
- U.S. 101 Widening: The recently approved widening of U.S. 101 to provide HOV lanes will be incorporated into the Year 2030 model

We will review the forecasts to verify that the U.S. 101 widening project is producing results similar to the detailed operations analysis conducted for the SBCAG EIR. The EIR indicated that more vehicles would be able to enter the City of Santa Barbara during the AM peak hour with the relief of the northbound U.S. 101 bottleneck. Consequently, the widening is expected to increase the number of vehicles on the City's off-ramps and adjacent arterial intersections. We will review the detailed AM peak hour traffic forecasts prepared for the EIR and manually adjust the travel demand model forecasts at specific off-ramp locations, if needed.

During the PM peak hour, the additional capacity on U.S. 101 may relieve existing bottlenecks at the on-ramps caused by mainline congestion; however, the widening may also create new bottlenecks in the City's roadway network. Similar to the process described above for the morning commute period, we will review the PM peak hour forecasts prepared as part of the SBCAG EIR. We will compare the SBCAG forecasts with the U.S. 101 widening in place to the updated City's model and adjust the travel demand forecasts at specific on-ramp locations, if needed.

We will prepare updated Year 2030 traffic forecasts for the study intersections (52) and roadway segments (35) analyzed in the General Plan as noted in Task 1. Figures displaying the AM and PM peak hour intersection forecasts and tables summarizing the daily roadway volumes will be prepared.

4. Traffic Operations Analysis

The 52 study intersections will be analyzed during the AM and PM peak hours under the following scenarios:

- Existing Conditions based on Fall 2015 traffic counts
- Future Year 2030 Conditions based on the traffic forecasts developed in Task 3 that reflect the approved General Plan land uses and U.S. 101 widening project

We will provide tables showing the level of service (LOS) results for the study intersections under the above scenarios. We will highlight any changes in LOS compared to those presented in the Plan Santa Barbara General Plan EIR.

We will also conduct a sensitivity analysis for up to 10 study intersections to compare the LOS with and without the U.S. 101 widening in place during the AM and PM peak hours. The study locations will be selected based on the intersections most impacted by the planned widening.

5. Documentation

We will document the results of Tasks 1-5 in a report for the City of Santa Barbara. One draft and one final report will be submitted.

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COST ESTIMATE TRAFFIC COUNTS & TRAVEL DEMAND MODEL UPDATE

Task	Project Manager / Principal	Senior Engineer	Project Engineer	Graphics / Admin Support	Cost Estimate
<i>Hourly Billing Rate:</i>	\$235	\$145	\$130	\$125	
Task 1: Traffic Counts	1	4	10	4	\$2,615
Task 2: Base Model Update	6	40	36	8	\$12,890
Task 3: Future Model Update	8	44	80	6	\$19,410
Task 4: Traffic Operations Analysis	12	38	68	6	\$17,920
Task 5: Documentation	4	16	16	8	\$6,340
<i>Sub-Total</i>					\$59,175
				Traffic Counts	\$17,500
				<i>Total Cost Estimate</i>	\$76,675
				Additional Bicycle Counts	\$3,000
				<i>Total Cost Estimate with Bicycle Counts</i>	\$79,675
<p>Note: The above hourly rates are used for cost estimating purposes. Time will be invoiced based on the attached hourly billing rates per staff classification.</p>					

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2015-2016

(July 2015 through June 2016)

Hourly Billing Rates

Classification Hourly Rate

Principal	\$195.00	-	\$325.00
Senior Associate	\$200.00	-	\$310.00
Associate	\$130.00	-	\$210.00
Senior Engineer/Planner	\$140.00	-	\$190.00
Engineer/Planner	\$110.00	-	\$145.00
Senior Technical Support	\$125.00	-	\$175.00
Senior Administrative Support	\$110.00	-	\$140.00
Administrative Support	\$100.00	-	\$125.00
Technician	\$105.00	-	\$135.00
Intern	\$80.00	-	\$95.00