

RESOLUTION NO. 18-43

Resolution Of The City Council Of The City Of Emeryville Authorizing The City Manager To Enter Into A Contract With The Safe Transportation Research And Education Center (SafeTREC) To Perform A Pedestrian And Bicycle Safety Evaluation At Selected Emeryville Intersections

WHEREAS, The intersections at Powell Street/Christie Avenue, Christie Avenue and Shellmound Street, the Powell Street off- and on-ramps to I-80, and Powell Street/Frontage Road experience high traffic volumes; and

WHEREAS, In 2005, the City of Emeryville contracted with the Safe Transportation and Education Center (SafeTREC) to conduct a study on pedestrian and cyclist safety at these four intersections; and

WHEREAS, Since the report was published, the City has made a number of changes to the studied intersections, and is interested in re-evaluating pedestrian and cyclist safety at these locations; and

WHEREAS, SafeTREC has provided a proposal to study these intersections again to identify current conditions and propose potential improvements; now, therefore, be it


RESOLVED, that the City Council Authorizes the City Manager to enter into a contract with SafeTREC in the amount of \$81,877.00 to conduct the proposed study, with authority to approve up to \$28,000.00 for additional scope as needed.

ADOPTED, by the City Council of the City of Emeryville at a regular meeting held Tuesday, May 1, 2018, by the following vote:

AYES:	<u>5</u>	Mayor Bauters, Vice Mayor Medina and Council Members Donahue, Martinez and Patz
NOES:	<u>0</u>	
ABSTAIN:	<u>0</u>	
ABSENT:	<u>0</u>	

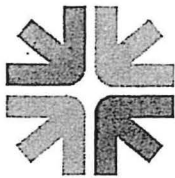

MAYOR

ATTEST:


CITY CLERK

APPROVED AS TO FORM:


CITY ATTORNEY



City of Emeryville

CALIFORNIA

PROFESSIONAL SERVICES AGREEMENT

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is effective as of this 2nd day of May, 2018, by and between **THE CITY OF EMERYVILLE**, a municipal corporation, ("City") and **THE Regents of the University of California, on behalf of its SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER (SafeTREC)** ("Consultant"), collectively referred to as the "Parties."

WITNESSETH THAT

WHEREAS, the City desires to perform a pedestrian and bicycle safety evaluation at selected Emeryville intersections; and

WHEREAS, the City finds that specialized knowledge, skills, and training are necessary to render the services necessary to do the work contemplated under this Agreement; and

WHEREAS, the City has determined that the Consultant is qualified by training and experience to render such services; and

WHEREAS, the Consultant desires to provide such services; and,

WHEREAS, the public interest will be served by this Agreement; and

NOW, THEREFORE, the Parties hereto do mutually agree as follows:

1. SCOPE OF SERVICES AND TERMINATION DATE

1.1 Project Description

A complete Project Description is described in the "PROPOSAL", attached as Exhibit A.

1.2 Services

The services to be completed under this Agreement ("Services") are described in Exhibit A.

1.3 Schedule and Completion Date

The services to be provided by Consultant under this Agreement shall commence on May 2, 2018 and terminate on March 30, 2019.

FOR CITY USE ONLY			
Contract No.		CIP No.	
Resolution No.		EPW No.	

2. WORK CHANGES

2.1 City Rights to Change

The City reserves the right to order changes in the work to be performed under this Agreement by altering, adding to or deducting from the work. All such changes shall be incorporated in written change orders executed by the Consultant and the City. Such change orders shall specify the changes ordered and any necessary adjustment of compensation and completion time.

2.2 Additional Work Changes

Any work added to the scope of this Agreement by a change order shall be executed under all the applicable conditions of this Agreement. No claim for additional compensation or extension of time shall be recognized unless contained in a change order duly executed on behalf of the City and the Consultant.

2.3 City Manager Execution

The City Manager has authority to execute without further action of the Emeryville City Council, any number of change orders so long as their total effect does not materially alter the terms of this Agreement or increase the total amount to be paid under this Agreement, as set forth in Section 3.2 below. Any such change orders materially altering the terms of this Agreement or increasing the total amount to be paid under this Agreement in excess of \$45,000 must be approved by resolution of the Emeryville City Council.

3. COMPENSATION AND METHOD OF PAYMENT

3.1 Compensation for Services Performed

City agrees to pay the Consultant for the services performed and costs incurred by Consultant upon certification by the City that the services were actually performed and costs actually incurred in accordance with the Agreement. Compensation for Services performed and reimbursement for costs incurred shall be paid to the Consultant upon receipt and approval by the City of invoices setting forth in detail the services performed and costs incurred. The City shall pay the Consultant within thirty days (30)days after approval of the invoice by City staff.

3.2 Total Compensation Amount

The total amount paid under this Agreement as compensation for Services performed and reimbursement for costs incurred shall not, in any case, exceed **EIGHTY ONE**

THOUSAND EIGHT HUNDRED SEVENTY SEVEN DOLLARS AND NO CENTS (\$81,877.00), except as outlined in Section 2.3 above. The compensation for Services performed shall be as set forth in Exhibit A, Budget.

4. COVENANTS OF CONSULTANT

4.1 Assignment of Agreement

The Consultant covenants and agrees not to assign or transfer any interest in, nor delegate any duties of this Agreement, without the prior express written consent of the City. As to any approved subcontractors, the Consultant shall be solely responsible for reimbursing them and the City shall have no obligation to them.

4.2 Responsibility of Consultant and Indemnification of City

Consultant shall defend, indemnify, and hold the City, its officers, employees and agents harmless from and against any and all liability, loss, expense (including reasonable attorney's fees), or claims of injury or damages arising out of the performance of this agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees or claims of injury or damages are caused by or result from the negligent or intentional acts or omissions of the Consultant, its officers, agents or employees.

4.3 Independent Contractor

The Consultant hereby covenants and declares that it is engaged in an independent business and agrees to perform the services as an independent contractor and not as the agent or employee of the City. The Consultant agrees to be solely responsible for its own matters relating to the time and place the services are performed; the instrumentalities, tools, supplies and/or materials necessary to complete the services; hiring of consultants, agents or employees to complete the services; and the payment of employees, including compliance with Social Security, withholding and all other regulations governing such matters. The Consultant agrees to be solely responsible for its own acts and those of its subordinates and employees during the life of this Agreement.

4.4 Insurance

4.4.1 REQUIREMENTS

The Consultant represents that a) it is appropriately self-insured for comprehensive general liability, professional liability, worker's compensation, and property coverage and b) will address and respond to any and all claims, costs, attorney's fees, or other expenses that arise as a result of any acts or omissions by the Consultant under this agreement. In any event, the Consultant shall carry no less than the following coverage at the following specified limits for each:

- A. General Liability Insurance - \$2 million per occurrence. General Liability policies shall be primary and non-contributory, and be endorsed to provide that City and its officers, officials, employees, and agents shall be additional insureds under such policies.
- B. Automobile Liability Insurance - \$2 million per occurrence. Auto Liability shall cover owned, non-owned, and hired autos.
- C. Worker's compensation Insurance – per statutory requirements. Consultant shall provide a Waiver of Subrogation endorsement in favor of City, its officers, agents, employees, and volunteers
- D. Employer's liability insurance - \$1 million policy limit.
- E. Professional Liability Insurance - \$ 2 million per claim.

4.4.2 VERIFICATION OF COVERAGE

Consultant shall furnish the City with certificates of insurance and endorsements to the policies evidencing coverage required by this Agreement prior to the start of work. The certificate of insurance and endorsements shall be on a form utilized by Consultant's insurer in its normal course of business and shall be received and approved by the City prior to execution of this Agreement by the City. The Consultant shall provide proof that any expiring coverage has been renewed or replaced at least two (2) weeks

City of Emeryville | Professional Services Agreement
prior to the expiration of the coverage.

4.5 Records, Reports and Audits

4.5.1 RECORDS

- A. Records shall be established and maintained by the Consultant in accordance with requirements prescribed by the City with respect to all matters covered by this Agreement. Except as otherwise authorized, such records shall be maintained for a period of three years from the date that final payment is made under this Agreement. Furthermore, records that are the subject of audit findings shall be retained for three years or until such audit findings have been resolved, whichever is later.
- B. All costs shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers, or other official documentation evidencing in proper detail the nature and propriety of the charges. All checks, payrolls, invoices, contracts, vouchers, orders or other accounting documents pertaining in whole or in part to this Agreement shall be clearly identified and readily accessible.

4.5.2 REPORTS AND INFORMATION

Upon written request, the Consultant shall furnish to the City any and all statements, records, reports, data and information related to matters covered by this Agreement in the form requested by the City.

4.5.3 AUDITS AND INSPECTIONS

Upon reasonable advance written notice and within during normal business hours there shall be made available to the City for examination all records with respect to all matters covered by this Agreement. The Consultant will permit the City to audit, examine, and make excerpts or transcripts from such records, and to audit all contracts, invoices, materials, payrolls, records of personnel, conditions of employment and or data relating to all matters covered by this Agreement.

4.6 Conflicts of Interest

To the extent of the actual knowledge of the undersigned as of the effective date of this agreement, the Consultant covenants and declares that, other than this Agreement, its University of California, Berkeley campus has no holdings or interests within the City of Emeryville, nor business holdings or agreements with any official, employee or other representative of the City. For the duration of this Agreement and to the extent of the actual knowledge of the undersigned, in the event the Consultant or its principals, agents or employees acquire such a holding, interest or agreement within the City of Emeryville or with any official, employee or representative of the City in the future, the Consultant will immediately notify the City of such holding, interest or agreement in writing.

4.7 Confidentiality

It is expected that the work of this Agreement can be carried out without any of the parties disclosing confidential information to the other parties.

However, should it become necessary to disclose confidential information, the City will notify the Consultant in advance and in writing. All confidential documents must be clearly marked as "Confidential." If the information is orally disclosed which is deemed to be confidential, such confidential information must be reduced to writing by the City within thirty (30) days of the oral disclosure, and provided to the Consultant. Consultant agrees to protect City's confidential information with the same degree of care as they would their own.

The obligations contained in this clause shall not apply to any confidential information which:

- a. Is publicly known at the time of the disclosure to the receiving party;
- b. After disclosure becomes publicly known otherwise than through a breach by the receiving party, its officer, employees, agents or contractors;
- c. Can be shown by reasonable proof by the receiving party to have reached its hands otherwise than by being communicated by the other party, including being known to it prior to disclosure, or having been developed by or for it wholly independently of the other party or having obtained from a third party without any restrictions on disclosure on such third party of which the recipient is aware, having made due inquiry;
- d. Is required by law, regulation or order of a competent authority (including any regulatory or governmental body or securities exchange) to be disclosed by the receiving party, provided that, where practicable, the disclosing party is given reasonable advance notice of the intended disclosure and provided that the relaxation of the obligations of confidentiality shall only last for as long as necessary to comply with the relevant law, regulation or order and shall apply solely for the purposes of such compliance; or
- e. Is approved for release, in writing, by an authorized representative of the disclosing party.

4.8 Discrimination Prohibited

The Consultant covenants and agrees that in performing the services required under this Agreement, the Consultant shall not discriminate against any person on the basis of race, color, religion, sex, sexual orientation, gender identity, marital status, national origin or ancestry, age or disability.

4.9 Licenses, Certifications and Permits

The Consultant covenants and declares that it has obtained all diplomas, certificates, licenses, permits or the like required of the Consultant by any and all national, state, regional, county, city or local boards, agencies, commissions, committees or other regulatory bodies in order to perform the services contracted for 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 expected of competent professionals.

4.10 Key Personnel

Jill Cooper is necessary for the successful prosecution of the work due to her unique expertise and depth and breadth of experience. There shall be no change in Consultant's Project Manager, Jill Cooper, without City's prior approval. In the event that a PI leaves for any reason, City may consider transfer of the project to another UCB PI after reviewing the credentials of UCB proposed candidate, if applicable and agreeable by all parties.

4.11 Authority to Contract

The Consultant covenants and declares that it has obtained all necessary approvals of its board of directors, stockholders, general partners, limited partners or similar authorities to simultaneously execute and bind Consultant to the terms of this Agreement, if applicable.

4.12 Ownership of Work

All reports produced by the Consultant and delivered to the City ("Materials") shall be the property of the City and the City shall be entitled to full access and copies of all such Materials. The Consultant will have the right to use the reports for any research or educational purposes.

4.13 Living Wage [intentionally omitted]

4.14 Prevailing Wages [intentionally omitted]

5. TERMINATION

- A. The City and the Consultant shall have the right to terminate this Agreement for any reason whatsoever by providing advance written notice thereof at least thirty (30) calendar days in advance of the termination date.
- B. All termination notice periods triggered pursuant to written notice shall begin to run from the date the Consultant has received the written notice.
- C. Upon termination, City shall provide for payment to the Consultant for services rendered and expenses incurred prior to the termination date.
- D. Upon receipt of a termination notice the Consultant shall: (1) promptly discontinue all services affected, unless the notice directs otherwise; and (2) promptly deliver to the City all data, drawings, reports, summaries, and such other information and materials as may have been generated or used by the Consultant in performing this Agreement, whether completed or in process, in the form specified by the City.
- E. The rights and remedies of the City and the Consultant provided in this Section are in addition to any other rights and remedies provided under this Agreement or at law or in equity.

6. NO PERSONAL LIABILITY

No member, official or employee of the City shall be personally liable to the Consultant or any successor in interest in the event of any default or breach by the City or for any amount which may become due to the Consultant or successor or on any obligation under the terms of this Agreement.

7. ENTIRE AGREEMENT

This Agreement constitutes the complete agreement between the parties and supersedes any and all other agreements, either oral or in writing, between the parties with respect to the subject matter of this Agreement. No other agreement, statement or promise relating to the subject matter of this Agreement not contained in this Agreement shall be valid or binding. This Agreement may be modified or amended only by a written document signed by representatives of both parties with appropriate authorization.

8. SUCCESSORS AND ASSIGNS

Subject to the provision of this Agreement regarding assignment, this Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the respective parties.

9. APPLICABLE LAW AND ATTORNEY'S FEES; VENUE

If any action at law or in equity is brought to enforce or interpret the provisions of this Agreement, the rules, regulations, statutes and laws of the State of California will control. The exclusive venue for any legal action taken pursuant to this Agreement shall be the State of California Superior Court for the County of Alameda or the United States District Court for the Northern District of California.

10. SEVERABILITY

The caption or headnote on articles or sections of this Agreement are intended for convenience and reference purposes only and in no way define, limit or describe the scope or intent thereof, or of this Agreement nor in any way affect this Agreement. Should any article(s) or section(s), or any part thereof, later be deemed unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall remain in full force and effect to the extent possible.

11. BUSINESS LICENSE [intentionally omitted]

12. NOTICES

12.1 Communications Relating to Daily Activities

All communications relating to the day-to-day activities of the work shall be exchanged between **Nancy Humphrey** for the City and **Jill Cooper** for the Consultant.

12.2 Official Notices

All other notices, writings or correspondence as required by this Agreement shall be directed to the City and the Consultant, respectively, as follows:

CITY

Public Works Director

1333 Park Avenue

Emeryville, California 94608

Phone No.: (510) 596-3728

E-Mail: nhumphrey@emeryville.org

CONSULTANT

Erin Lentz, Contract and Grant

Officer, SPO

1608 Fourth Street, Suite 220,

Berkeley, CA 94710 E-mail


address: spoawards@berkeley.edu

13. WAIVER OF AGREEMENT

The City's failure to enforce any provision of this Agreement or the waiver in a particular instance shall not be construed as a general waiver of any future breach or default.

IN WITNESS WHEREOF the City and the Consultant have executed this Agreement, which shall become effective as of the date the City Manager executes this Agreement on behalf of the City.

Approved As To Form:



Michael A. Guina, City Attorney

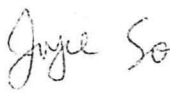
CITY OF EMERYVILLE

Dated:

_____, 2018

Carolyn Lehr, City Manager

CONSULTANT


for
BY: Pam Miller

Dated:

April 18th, 2018

ITS: Interim Executive Director, Sponsored Projects Office

EXHIBIT A

Pedestrian and Bicycle Safety Evaluation for the City of Emeryville at Selected Intersections

November 2017
SafeTREC

Contacts

Jill Cooper - SafeTREC
cooperj@berkeley.edu

Kate Beck - SafeTREC
katembeck@berkeley.edu

Methodology

Methodology used in Initial Study

In the initial report *Pedestrian and Bicycle Safety Evaluation for the City of Emeryville at Four Intersections* (2005), six methods were used to collect quantitative and qualitative data on vehicle, pedestrian and bicycle safety issues. These methods, the types of data that were collected and the methods' limitations are outlined below.

1. Collision Data

SWITRS data provided by the California Highway Patrol was used to reconstruct vehicle, pedestrian and bicycle collision data from 1998 to 2002 at each of the four intersections studied. The data is developed through police reported collisions. SWITRS data is useful in that it has been collected and publicly provided for 10 years and over the state of California, meaning collisions can be tracked and compared over time and by location.

Limitations: because the dataset only includes collisions that have been reported to the police, near misses, minor collisions and collisions involving pedestrians and bicyclists are often under-represented.¹

2. Vehicle Volumes

The City of Emeryville provided vehicle counts from 2002 and 2004 at three of the four intersections (Powell & I-80 was not included). Data was provided on vehicle approach and departure directions. 2002 data is provided as aggregate counts over the given time periods (9am-1pm and 5-9pm), and 2004 data is provided per one hour peak periods (12-1 pm and 5-6 pm).

Limitations: pedestrian and bicycle traffic were not included in the count data. The initial traffic study compensated for this by including pedestrian and bicycle traffic counts in field observations. The vehicle volume data also did not provide information on the types of vehicle traffic (single occupancy vehicles, trucks, buses, etc.). Additionally, the volumes were done before Shellmound was converted to a one-way street, and therefore did not reflect traffic patterns of the time when the study was done for two of the four intersections.

3. Pedestrian and Bicyclist Surveys

A sample of 150 pedestrians and bicyclists at each intersection completed paper surveys that were focused on their perceptions of safety at the intersection and in Emeryville at three time periods; a weekday from 12-1pm and 5-6 pm and a weekend from 12-1pm.

¹ Leilani Schwarcz, "Severe Traffic Injuries in San Francisco" (San Francisco Department of Public Health, September 2015), http://sf.streetsblog.org/wp-content/uploads/sites/3/2015/09/SevereInjuriesSF_2014_15_PSAC.pdf.

we propose to replicate the data collects to the highest degree possible while integrating new forms of data collection based in today's technology and best practices.

1. Collision Data

We propose to use SWITRS vehicle, pedestrian and bicycle collision data from 1998-2002, 2005-2009, 2010-2014 at each of the four intersections to track changes in collisions over time. We will compare collision data at the intersections to collisions in the entire Emeryville jurisdiction and to other intersections in the region with similar mode shares.

SafeTREC will also use crowdsourcing methods to collect qualitative data on near misses, minor collisions and collisions involving pedestrians and bicyclists during the community outreach events to complement SWITRS data. SafeTREC has used crowdsourcing methods to collect similar data with communities in the past, and although the accuracy and reliability of the data are uncertain, the data can be useful qualitative measures of safety when paired with SWITRS data.

2. Vehicle Volumes

We propose to use vehicle, pedestrian and bicycle counts collected by the City of Emeryville in 2002, 2004, 2008, 2009, 2010, 2015 during weekday and weekend am and pm hours, when possible. Volume data that the City of Emeryville currently provides will allow us to measure pedestrian, bicycle and vehicle traffic over time at all four intersections, addressing many of the limitations in the initial study.

3. Pedestrian and Bicyclist Surveys

We propose to distribute surveys with similar questions to those asked in the initial study. In order to address limitations of the initial study, we will distribute paper surveys and links to online surveys in common community locations, such as the Emeryville Farmers Market or Trader Joe's, in residential and business mailboxes, during the community outreach events, as well as at each of the four study intersections. Online surveys will be provided through a source like *Google Forms*, and can be available in English and Spanish.

4. Community Forums

Due to the success of the community forum in the initial study, we propose to hold two similar community meetings in two of the condo developments in Emeryville, Watergate and Pacific Park Plaza condominiums or other community locations that the City of Emeryville thinks are appropriate. Similar community engagement methods will be used. Paper and web-based maps will be available for participants to comment on.

5. Key Stakeholder Interviews

We propose to conduct interviews with key stakeholders from the following agencies and community groups in order to develop a comprehensive understanding of the diverse

Appendix A - Field Observation Criteria

FINAL REPORT—Emeryville Pedestrian and Bike Safety Evaluation Page 103 of 175

Pedestrian Form																	
Pedestrian Behavior Form																	
Location:					Corner:		Observer:										
Date:					Time Start:		End:		Weather:								
X walk Leg	Ped Observation				Begin Crossing			Finish Crossing			Out of crossed is	Ped Action (R A W)	Vehicle ? if yes, movement at (L)	Vehicle violation ? none	P.V. Contact (?) if yes, Type	Notes	
	Number	Gender (M/F)	Age (A-D)	Speed PED action	W	RH:DW	RH:DW	W	RH:DW	RH:DW							
	1																
	2																
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*A=0-9, B=10-17, C=18-64, D=65-//, **Run, Aborn, Walk

*** (1) Ped changed gait or stride to avoid perceived real threat, (2) Vehicle stops or swerves to avoid a pedestrian

**** Vehicle nears/croaching on PED during which maneuver Left, Right, Through/Straight

***** Vehicle violation: vehicle violates ped ROW, and/or breaks traffic law (e.g. runs red light)

NOTE: Please make a footnote if a PED stops on a median island or if they are running but you are unsure if there is a safety concern.

FINAL REPORT—Emeryville Pedestrian and Bike Safety Evaluation Page 136 of 175						
12	Do Street furniture, plantings, and other fixed items protrude into travel routes? (y/n) (Bad for	E			N	
		W			S	
13	Sidewalks passable for wheelchairs? w>=3ft, 5ft (60 in) turning/passing (mobility)	E	Y	Y	N	Y
		W			S	
14	Sidewalk obstructions, plantings furniture, etc. inhibit ped and wheelchair mobility? 3ft-5ft (y/n)	E			N	
		W			S	
15	Curb return radius <20 ft? encourage high speed and long crossing (y/n)	E			N	
		W			S	
16	Driveway entrances within 100 ft of intersection (y/n)	E			N	
		W			S	
17	Posted speed limits nearby? Where?					
18	Are Pedestrian facilities on and along sidewalks accessible? Signal actuating buttons, drinking fountains, telephones, kiosks, and other pedestrian elements should meet accessibility criteria for approach and maneuvering space, reach range, and controls and operation. (y/n/NA)	E			N	
		W			S	
19	Bus stop locations (shelters, other struct. If within 100 feet =yes, otherwise no)	E			N	Y
		W			S	
20	Existing median (size) ? (in feet) Is median suitable for a refuge? (y/n)					
21	Possible 4ft median insert w/10ft lanes (lane reduction) (y/n)?					
22	Potential for curb bulbs (towaways, bus stops, utilities, drains, poles)	E			N	
		W			S	
23	Adjacent land uses (up to 2 blocks away) Residential, Commercial, Industrial, School, Government (R, C, I, S, G) comma delimited	E			N	
		W			S	

**Budget: Evaluation of Pedestrian and Bicycle Safety
Measures for the City of Emeryville at Four Intersections**

	Monthly Rate	# months	Unit	%	Year 1	TOTAL BUDGET
Academic Personnel						
Jill Cooper Principal Investigator	\$10,757	9	cal. yr.	5.0%	\$4,841	\$4,841
Graduate Student Researcher, Academic	\$4,207	4.5	acad. Mo.	35.0%	\$6,626	\$6,626
Graduate Student Researcher, Summer	\$4,207	3	summer mo.	100.0%	\$12,621	\$12,621
TOTAL ACADEMIC PERSONNEL					\$24,088	\$24,088
Staff Personnel						
Finance Analyst	\$9,098	9	cal. yr.	5.0%	\$4,094	\$4,094
2 Student Assistant	\$2,784	9	cal. yr.	30.0%	\$15,034	\$15,034
TOTAL STAFF PERSONNEL					\$19,128	\$19,128
TOTAL ACADEMIC AND STAFF PERSONNEL					\$43,216	\$43,216
Employee Benefits						
	<u>Employee Benefit Rate</u>					
Jill Cooper		40.00%			\$1,936	\$1,936
Finance Analyst		48.00%			\$1,965	\$1,965
GSR Tuition Remission - S9316/semester					\$9,316	\$9,316
TOTAL EMPLOYEE BENEFITS					\$13,217	\$13,217
TOTAL PERSONNEL & BENEFITS					\$56,433	\$56,433
Travel						
In State Travel					\$100	\$100
TOTAL TRAVEL					\$100	\$100
Other Direct Costs						
Office Supplies					\$100	\$100
Printer Lease					\$311	\$311
Communications					\$414	\$414
Office Space					\$5,228	\$5,228
Computer/Software					\$1,500	\$1,500
Intersection Cameras					\$2,500	\$2,500
Research Materials					\$900	\$900
General, Automobile and Employment Liability (GAEL)					\$497	\$497
TOTAL OTHER DIRECT COSTS					\$11,450	\$11,450
TOTAL DIRECT COSTS					\$67,983	\$67,983
					MTDC	
					\$53,439	
Indirect Costs						
26% of Modified Total Direct Costs					\$13,894	\$13,894
TOTAL AMOUNT REQUESTED					\$81,877	\$81,877

the American Baptist Seminary of the West (2614 Dwight Way, Berkeley, CA) and the research will be conducted at that location. Indirect cost is not collected on the Office Space rental cost.

Indirect (F&A) Costs

Indirect Costs are charged on the federal rate of 26% of modified total direct costs (MTDC) for off-campus departments. Modified total direct costs consists of all salaries and wages, fringe benefits, materials, supplies, services (contractors), travel and subrecipients up to the first \$25,000 of each subrecipient (regardless of the period covered by the subrecipient). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subrecipient in excess of \$25,000.

Pedestrian and Bicycle Safety Evaluation for the City of Emeryville at Selected Intersections

November 2017
SafeTREC

Contacts

Jill Cooper - SafeTREC
cooperj@berkeley.edu

Kate Beck - SafeTREC
katembeck@berkeley.edu

Introduction

In 2005, the City of Emeryville contracted Safe Transportation Research and Education Center (SafeTREC) to conduct a study on pedestrian and bicycle safety at four key intersections in Emeryville (Powell St. & Frontage Rd., Powell St. & I-880, Shellmound St. & Christie Ave., and Powell St. & Christie Ave.). The study included; quantitative and qualitative data collection, intersection analyses, and street design and policy recommendations. Since the report was published, the City of Emeryville has made a number of changes to the studied intersections, and the agency is interested in re-evaluating pedestrian and bicycle safety at the four study intersections. The main objectives of the proposed evaluation are;

1. Re-evaluate pedestrian and bicycle collision risk factors at four (4) intersections,
2. Evaluate pedestrian and bicycle safety measures installed in four (4) intersections,
3. Propose recommendations to address pedestrian and bicycle safety issues at four (4) intersections.

Data collected will be compared to findings in *Pedestrian and Bicycle Safety Evaluation for the City of Emeryville at Four Intersections* (2005), a report conducted by the City of Emeryville and SafeTREC to analyze safety issues at study locations.

Recommendations will be based on data collected on risk factors, existing safety measures, as well as coordinated with planned improvements that other agencies are considering, including safety improvements on I-580 on and off ramps.

The four study intersections are located on Powell St. and Christie Ave., two multimodal arteries in Emeryville. In collecting data and developing recommendations, the needs of pedestrians, cyclists, transit users and drivers, will be taken into consideration. There are also a number of stakeholder needs that must be taken into consideration when making changes to these intersections, including the Emeryville transit service, the Emery-Go-Round, Caltrans, AC Transit, and businesses located in Powell Street Plaza Shopping Center and the Emeryville Public Market.

Below, we outline the methodology used in the initial report and propose new methodology for the proposed evaluation. Data collected using the new methodology will be comparable to the data collected in the initial study, and will be used to collect more comprehensive data on pedestrian and bicycle safety.

Estimated Cost and Timeline

SafeTREC expects to complete the evaluation in 9 months (1/15/18-10/15/18) with an estimated cost of approximated \$81,877.

Methodology

Methodology used in Initial Study

In the initial report *Pedestrian and Bicycle Safety Evaluation for the City of Emeryville at Four Intersections* (2005), six methods were used to collect quantitative and qualitative data on vehicle, pedestrian and bicycle safety issues. These methods, the types of data that were collected and the methods' limitations are outlined below.

1. Collision Data

SWITRS data provided by the California Highway Patrol was used to reconstruct vehicle, pedestrian and bicycle collision data from 1998 to 2002 at each of the four intersections studied. The data is developed through police reported collisions. SWITRS data is useful in that it has been collected and publicly provided for 10 years and over the state of California, meaning collisions can be tracked and compared over time and by location.

Limitations: because the dataset only includes collisions that have been reported to the police, near misses, minor collisions and collisions involving pedestrians and bicyclists are often under-represented.¹

2. Vehicle Volumes

The City of Emeryville provided vehicle counts from 2002 and 2004 at three of the four intersections (Powell & I-80 was not included). Data was provided on vehicle approach and departure directions. 2002 data is provided as aggregate counts over the given time periods (9am-1pm and 5-9pm), and 2004 data is provided per one hour peak periods (12-1 pm and 5-6 pm).

Limitations: pedestrian and bicycle traffic were not included in the count data. The initial traffic study compensated for this by including pedestrian and bicycle traffic counts in field observations. The vehicle volume data also did not provide information on the types of vehicle traffic (single occupancy vehicles, trucks, buses, etc.). Additionally, the volumes were done before Shellmound was converted to a one-way street, and therefore did not reflect traffic patterns of the time when the study was done for two of the four intersections.

3. Pedestrian and Bicyclist Surveys

A sample of 150 pedestrians and bicyclists at each intersection completed paper surveys that were focused on their perceptions of safety at the intersection and in Emeryville at three time periods; a weekday from 12-1pm and 5-6 pm and a weekend from 12-1pm.

¹ Leilani Schwarcz, "Severe Traffic Injuries in San Francisco" (San Francisco Department of Public Health, September 2015), http://sf.streetsblog.org/wp-content/uploads/sites/3/2015/09/SevereInjuriesSF_2014_15_PSAC.pdf.

we propose to replicate the data collects to the highest degree possible while integrating new forms of data collection based in today's technology and best practices.

1. Collision Data

We propose to use SWITRS vehicle, pedestrian and bicycle collision data from 1998-2002, 2005-2009, 2010-2014 at each of the four intersections to track changes in collisions over time. We will compare collision data at the intersections to collisions in the entire Emeryville jurisdiction and to other intersections in the region with similar mode shares.

SafeTREC will also use crowdsourcing methods to collect qualitative data on near misses, minor collisions and collisions involving pedestrians and bicyclists during the community outreach events to complement SWITRS data. SafeTREC has used crowdsourcing methods to collect similar data with communities in the past, and although the accuracy and reliability of the data are uncertain, the data can be useful qualitative measures of safety when paired with SWITRS data.

2. Vehicle Volumes

We propose to use vehicle, pedestrian and bicycle counts collected by the City of Emeryville in 2002, 2004, 2008, 2009, 2010, 2015 during weekday and weekend am and pm hours, when possible. Volume data that the City of Emeryville currently provides will allow us to measure pedestrian, bicycle and vehicle traffic over time at all four intersections, addressing many of the limitations in the initial study.

3. Pedestrian and Bicyclist Surveys

We propose to distribute surveys with similar questions to those asked in the initial study. In order to address limitations of the initial study, we will distribute paper surveys and links to online surveys in common community locations, such as the Emeryville Farmers Market or Trader Joe's, in residential and business mailboxes, during the community outreach events, as well as at each of the four study intersections. Online surveys will be provided through a source like *Google Forms*, and can be available in English and Spanish.

4. Community Forums

Due to the success of the community forum in the initial study, we propose to hold two similar community meetings in two of the condo developments in Emeryville, Watergate and Pacific Park Plaza condominiums or other community locations that the City of Emeryville thinks are appropriate. Similar community engagement methods will be used. Paper and web-based maps will be available for participants to comment on.

5. Key Stakeholder Interviews

We propose to conduct interviews with key stakeholders from the following agencies and community groups in order to develop a comprehensive understanding of the diverse

needs that must be considered when making changes to these intersections. Stakeholder interviews will be conducted in-person or by phone.

- Caltrans
- AC Transit
- Selected Businesses
- Community Residents
- Bike East Bay
- Emery-Go-Round
- Emeryville Police Department
- Emeryville City Council
- Emeryville Department of Public Works

6. Field Observations

We propose to conduct field observations at each site in person as well as by video recordings, observing similar measures as in the initial study; road user behavior, pedestrian and bicycle volumes and near misses between pedestrians, bicycles and vehicles (see Appendix A). We plan to conduct in-person field observations during peak weekday and weekend hours at each of the study intersections, and record 48 hours of video footage during a weekday and weekend at each of the intersections.

7. Field Inspections

In addition to doing in-person field inspections to determine adherence to ADA requirements and street design best practices as was done in the initial study (see Appendix B), we will also collect street measurements using Google Earth to cross reference measurements done by hand (See Appendix C for an example of measurements collected using Google Earth). We will collect information regarding crossing distance and signal timing using video recordings collected in the field observations section.

8. Case Studies of Safety Improvements in Other Cities

We will develop short case studies of safety improvements adopted by cities that have comparable needs those of Emeryville. These case studies will be used to inform recommendations.

Appendix A - Field Observation Criteria

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Pedestrian Form																
Pedestrian Behavior Form																
Location:					Corner:				Observer:							
Date:					Time Start:				End:							
X walk Leg	Ped Observation				Begin Crossing				Finish Crossing				Weather:		Notes	
	Number	in. (G-gmt) ol	Sex (M/F)	Age (A-D)*	Pred PED button	W	RH/DW	RH/DW	W	RH/DW	RH/DW	Out of crosswa lk	Ped Action (R A W)**	Vehicle ? if yes, movement ent (L)		Vehicle violation ? *****
	1															
	2															
	3															
	4															
	5															
	6															
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	40															

*A=0-9, B=10-17, C=18-24, D=25+/-, **Run, Abort, Walk

*** (1) Ped changed gait or stride to avoid perceived/real threat, (2) Vehicle stops or swerves to avoid a pedestrian

**** Vehicle near/encroaching on PED during which maneuver Left, Right, Through/Straight

***** Vehicle violation: vehicle violates ped ROW, and/or breaks traffic law (e.g. runs red light)

NOTE: Please make a footnote if a PED stops on a median island or if they are running but you are unsure if there is a safety concern.

Appendix B - Field Inspection Criteria

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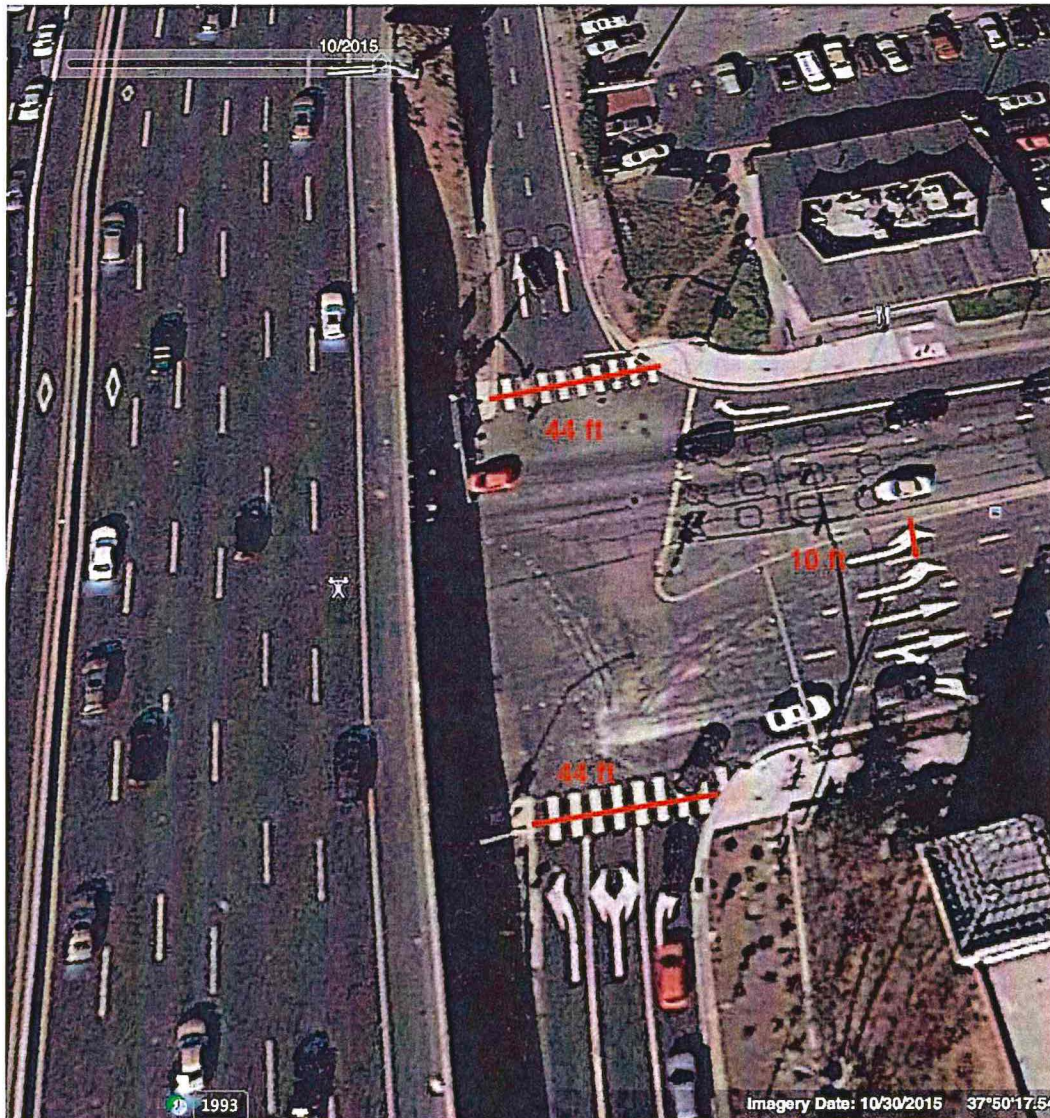
Accessibility Survey Checklist						
Intersection: POWELL & FRONTAGE						
Crossing/Connector:		Date:				
		North:	South:	East:	West:	
1	Confirm striping, xwalk & advance limit lines (clear(C) or faded (F))	E W	F F	C S	N S	C C
	Number of Lanes					
	Lane Configuration (Left Turn) (count of lanes)	E W			N S	1 2
	Lane Config (Through) (count of lanes)	E W	2 1	1	N S	2 2
	Lane Config (Right Turn) (count of lanes)				N	2
2	One-Way (y/n)					
	Traffic Signals (and restrictions), Signalized (y/n)					
	Left-turn Phase (y/n)					
	No Right Turn on Red Restriction (y/n)					
	No U-Turn (y/n)					
	Pedestrian signal head (y/n)	E W	N Y	Y	N S	Y
3	Pedestrian signal head, countdown (y/n)					
4	Ped signal timing (4ft/sec), 2.5 ft/sec covers 95 of peds (N/A)	E W			N S	
5	Street crossing design should ensure that the boundary between the sidewalk and the street is detectable. Pedestrian crossing information should be available to all users. (tactile strips, etc.) (y/n)	E W	Y Y		N S	
6	Level of ped traffic outside crosswalk or against signal (N/A)	E W			N S	
7	Parking locations & Approx locations from intersection, meters & towaways (distance, ft)	E W			N S	
8	Street light exist/adequate (y/n)	E W			N S	
9	Possible sight (LOS) obstructions (y/n)	E W	Y		N S	
10	ADA compliant curb ramps, w>=3ft, crossslopes 2%, level landing (y/n)	E W	Y Y	Y	N S	Y Y
11	Is foot of a curb ramp contained within the crosswalk markings (y/n)?	E W			N S	

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12	Do Street furniture, plantings, and other fixed items protrude into travel routes? (y/n) (Bad for	E			N		
		W			S		
13	Sidewalks passable for wheelchairs? w>=3ft, 5ft (60 in) turning/passing (mobility)	E	Y	Y	N	Y	Y
		W			S		
14	Sidewalk obstructions, plantings furniture, etc. inhibit ped and wheelchair mobility? 3ft-5ft (y/n)	E			N		
		W			S		
15	Curb return radius <20 ft? encourage high speed and long crossing (y/n)	E			N		
		W			S		
16	Driveway entrances within 100 ft of intersection (y/n)	E			N		
		W			S		
17	Posted speed limits nearby? Where?						
18	Are Pedestrian facilities on and along sidewalks accessible? Signal actuating buttons, drinking fountains, telephones, kiosks, and other pedestrian elements should meet accessibility criteria for approach and maneuvering space, reach range, and controls and operation. (y/n/NA)	E			N		
		W			S		
19	Bus stop locations (shelters, other struct. If within 100 feet =yes, otherwise no)	E			N	Y	
		W			S		
20	Existing median (size) ? (in feet)						
	Is median suitable for a refuge? (y/n)						
21	Possible 4ft median insert w/10ft lanes (lane reduction) (y/n)?						
22	Potential for curb bulbs (towaways, bus stops, utilities, drains, poles)	E			N		
		W			S		
23	Adjacent land uses (up to 2 blocks away) Residential, Commercial, Industrial, School, Government (R, C, I, S, G) comma delimited	E			N		
		W			S		

Appendix C - Intersection Images and Measurements via Google Earth

Powell & I-80



**Budget: Evaluation of Pedestrian and Bicycle Safety
Measures for the City of Emeryville at Four Intersections**

	Monthly Rate	# months	Unit	%	Year 1	TOTAL BUDGET
Academic Personnel						
Jill Cooper Principal Investigator	\$10,757	9	cal. yr.	5.0%	\$4,841	\$4,841
Graduate Student Researcher, Academic	\$4,207	4.5	acad. Mo.	35.0%	\$6,626	\$6,626
Graduate Student Researcher, Summer	\$4,207	3	summer mo.	100.0%	\$12,621	\$12,621
TOTAL ACADEMIC PERSONNEL					\$24,088	\$24,088
Staff Personnel						
Finance Analyst	\$9,098	9	cal. yr.	5.0%	\$4,094	\$4,094
2 Student Assistant	\$2,784	9	cal. yr.	30.0%	\$15,034	\$15,034
TOTAL STAFF PERSONNEL					\$19,128	\$19,128
TOTAL ACADEMIC AND STAFF PERSONNEL					\$43,216	\$43,216
Employee Benefits						
	<u>Employee Benefit Rate</u>					
Jill Cooper		40.00%			\$1,936	\$1,936
Finance Analyst		48.00%			\$1,965	\$1,965
GSR Tuition Remission - \$9316/semester					\$9,316	\$9,316
TOTAL EMPLOYEE BENEFITS					\$13,217	\$13,217
TOTAL PERSONNEL & BENEFITS					\$56,433	\$56,433
Travel						
In State Travel					\$100	\$100
TOTAL TRAVEL					\$100	\$100
Other Direct Costs						
Office Supplies					\$100	\$100
Printer Lease					\$311	\$311
Communications					\$414	\$414
Office Space					\$5,228	\$5,228
Computer/Software					\$1,500	\$1,500
Intersection Cameras					\$2,500	\$2,500
Research Materials					\$900	\$900
General, Automobile and Employment Liability (GAEL)					\$497	\$497
TOTAL OTHER DIRECT COSTS					\$11,450	\$11,450
TOTAL DIRECT COSTS					\$67,983	\$67,983
					MTDC	
					\$53,439	
Indirect Costs						
26% of Modified Total Direct Costs					\$13,894	\$13,894
TOTAL AMOUNT REQUESTED					\$81,877	\$81,877

Budget Justification

Personnel

- Jill Cooper, Principal Investigator (total effort = 0.45 calendar months) will provide the overall guidance and direction for the technical and analytical efforts of the research.
- Finance Analyst (total effort = 0.45 calendar months) will oversee financial aspects of project activities, will monitor project-specific personnel, and ensuring compliance with UC and sponsor policies and procedures.
- Graduate Student Researcher (effort = 1.575 academic months and 3 summer months) will assist with research projects under the guidance of the project's Principal Investigator. The graduate student researcher will conduct background research, develop and implement data collection and analysis protocols, and write the final report.
- Undergraduate Student Assistant (effort = 2.7 calendar months each) will assist with literature review and research under the supervision of the Principal Investigator.

Fringe Benefits.

The University of California, Berkeley Composite Fringe Benefit Rates (CFBR) have been reviewed and federally approved by the Department of Health and Human Services (DHHS) for use by all fund sources for FY18. Rates beyond June 30, 2018 are estimates and are provided for planning purposes only. Future CFBR rates are subject to review and approval by DHHS on an annual or bi-annual basis. Fringe benefits are assessed as a percentage of the respective employee's salary. The benefit rates are as follows:

UCB Composite Benefit Rates (effective 7/1/2017)				
	Approved	Projections for Planning Purposes ----->		
CBR Rate Group	FY18	FY19	FY20	FY21
Academic	40.0%	40.0%	40.0%	40.0%
Staff	48.0%	48.0%	48.0%	48.0%
Limited	16.0%	16.0%	16.0%	16.0%
Students (Graduate and Undergraduate)	0.0%	0.0%	0.0%	0.0%

- The University of California provides tuition remission of tuition, fees, and graduate student health insurance to all graduate students who are employed on-campus at least 25% time during the academic year. The projected rate for in-state remission is \$9,316 per semester.

Travel

In-State Travel: Costs are included to attend meetings with city and community stakeholders, and conduct field work.

Materials and Supplies

Office Supplies – Used for standard office supplies to directly support grant-related activities, grant monitoring and reporting.

Computer/Software – Used for tracking grant activities and producing required reports. Costs may include monitor, printer, software, accessories, and software licenses.

Intersection Cameras – Used for photographing drivers, pedestrians and bicyclists at or approaching/leaving intersections to observe safety behavior.

Research Materials – Includes maps, posters, fact sheets, and reports.

Other Direct Costs

Printer Lease – Includes the costs for leasing printer/copier for use in printing and the duplication of grant materials.

Communications - Costs of telephone, cell phone, mail/messenger (excluding overnight priority mail), and similar communication services.

GAEL – The GAEL assessment rate is 1.15% of the payroll expense and applies to all funds except federal and federal flow-through funds.

Rent

Office Space: Office space rental costs are included as an Other Direct Cost because the University's indirect cost rate agreement excludes rental costs of off-campus facilities. The University has made arrangements for SafeTREC to rent spaces at

the American Baptist Seminary of the West (2614 Dwight Way, Berkeley, CA) and the research will be conducted at that location. Indirect cost is not collected on the Office Space rental cost.

Indirect (F&A) Costs

Indirect Costs are charged on the federal rate of 26% of modified total direct costs (MTDC) for off-campus departments. Modified total direct costs consists of all salaries and wages, fringe benefits, materials, supplies, services (contractors), travel and subrecipients up to the first \$25,000 of each subrecipient (regardless of the period covered by the subrecipient). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subrecipient in excess of \$25,000.