NORTH COUNTY CORRIDOR
TRANSPORTATION EXPRESSWAY AUTHORITY

ITEM: 4b

SUBJECT:

Authorization of Amendment No. 1 to the Agreement for Professional Design Services with Drake Haglan & Associates in the amount of $390,932.

STAFF RECOMMENDATIONS:

Authorize the Authority Manager to execute Amendment No. 1 to the Agreement for Professional Design Services with Drake Haglan & Associates for the North County Corridor Transportation Expressway Project in the amount of $390,932 for a total contract amount not to exceed $3,390,508.

FISCAL IMPACT:

The North County Corridor project is funded by State Transportation Improvement Program (STIP) and Regional Transportation Impact Fees (RTIF).

The requested amendment will be funded with $390,932 of the available RTIF funds.

DISCUSSION:

In June of 2013, Caltrans approved the Traffic Forecasting for the project. Preliminary Traffic Operation information, Project Design Team (PDT) meetings and subsequent meetings with member agencies made it clear that changes to the traffic controls at the intersections of Coffee Road and in the area of Claus Road / Roselle Avenue.

The Traffic Forecasting information at Coffee Road demonstrated the design traffic volumes are at the cusp of the decision point between a signalized at-grade intersection and an interchange. The preliminary Traffic Operations information indicated that there are large left turn movements requiring triple left turn pockets. These factors, combined with the fact that this intersection is between two planned interchanges compelled the PDT to upgrade the Coffee Road intersection to an interchange.

Similarly, preliminary Traffic Operations at the Claus Rd. signalized at-grade intersection shows large left turn movements; however, the City of Modesto has future plans for realigning Claus Road. JPA staff met with both Riverbank and Modesto and determined that an interchange at the existing Claus Road alignment would not meet their needs and it was decided that an interchange at Roselle Avenue could both serve a future realigned Claus Road and alleviate some of the left turn congestion at the traffic signal at Claus Road.

In September 2013, Caltrans implemented a new Traffic Operations policy called the Intersection Control Evaluation (ICE). This policy establishes a context and performance-based

evaluation process to identify viable and practical access alternatives. Essentially, it requires designers to consider several alternatives (e.g. roundabout, continuous flow, signals, interchanges) for each intersection in a project. This new policy required the design team to re-evaluate all intersections along the four alternatives (1A, 1B, 2A and 2B). Further analysis is currently being performed at several intersections near the termini of the project at State Route 120.

On September 18, 2013, the JPA authorized a contract with Drake Haglan & Associates for Professional Design Services for completing the preparation of the Project Approval and Environmental Document phase of the North County Corridor Transportation Expressway project in the amount of $2,997,641.

The scope of the aforementioned contract was carried over from the previous design team and included assumptions based upon an Architectural Area of Potential Effects (APE) map that included 571 parcels. Geometric changes previously described and the inclusion of frontage and access road details has expanded the APE to include 737 parcels. Of the original 571 parcels it was estimated that there would be only 32 parcels requiring a full historic record evaluation, but the number of evaluations being required is now up to 168.

The purpose of Amendment No. 1 is to cover costs associated with the extra work needed to:

- Perform the Intersection Control Evaluations
- Update Traffic Forecasting because of the addition of the Roselle interchange
- Update Traffic Operations because of the addition of the Coffee and Roselle interchanges and Intersection Control Evaluations
- Updates and revisions to the Geometric Approval Documents because of the addition of the Coffee and Roselle interchanges and refinements to the alternative alignments.
- Revisions to the Archeological Area of Potential Effects mapping and an additional 136 full historic record evaluations required by the Historic Resources Evaluation Report

Staff has reviewed the proposed scope and fee of Drake Haglan & Associates and recommends that the Board authorize the Authority Manager to execute Amendment No. 1 to the Agreement for Professional Design Services with Drake Haglan & Associates for the North County Corridor Transportation Expressway Project in the amount of $390,932 for a total contract amount not to exceed $3,390,508.

May 7, 2014

North County Corridor Expressway Authority
Mr. Colt Esenwein, Project Manager
1716 Morgan Road
Modesto, CA 95358-5805

Subject: North County Corridor - Contract Amendment #1

Dear Mr. Esenwein:

The North County Corridor Expressway Authority (NCCTEA) approval is requested for Contract Amendment #1 as outlined below. This amendment incorporates additional project work required to complete the Project Approval and Environmental Documentation phase of the project that are outside of the original contract scope and fee.

The following is a summary of the extra work required and associated cost.

Traffic and Engineering

Intersection Control Evaluation (ICE) - In September 2013, Caltrans implemented a new process to evaluate the best way to control an intersection (i.e.: utilizing a traffic signal, roundabout, interchange). This new process required the traffic and engineering team to re-evaluate all intersections along the four alignment alternatives (1A, 1B, 2A and 2B) and resulted in further evaluations of utilizing two roundabouts at the eastern termini to State Route 120 east of Oakdale.

Additional Interchanges at Coffee Road and Roselle Avenue – Based on the preliminary traffic forecasting information and subsequent meetings with the member jurisdictions, changes to the traffic controls at the North County Corridor intersections of Coffee Road and Roselle Avenue were required. The future traffic volumes at both intersections will necessitate interchanges as opposed to traffic signals to move traffic efficiently through this segment of the project. These changes to the project required additional traffic forecasting effort and modifications to the traffic operations analysis as well as engineering changes to the geometric drawings.

Environmental

Historic Resources Evaluation Report (HRER) – The current contract scope for this task was based on the previously drawn Architectural Area of Potential Effects (APE) consisting of 571 parcels. Based on the geometric changes previously described above and the inclusion of frontage and access road details to the plans, the APE now includes 737 parcels.

The team has made a considerable effort to exempt as many properties as possible, and has coordinated extensively with Caltrans throughout the exemption process. Despite these efforts,

there are still 168 properties that need to be evaluated and several different resource types (e.g., buildings, railroads, canals). The original contract scope assumed 32 properties would require further evaluation. This amendment request is to cover the additional 136 properties requiring further evaluation for inclusion in the HRER.

Fee Estimate

The NCCTEA approval is requested for Contract Amendment #1 to incorporate the additional work as described in this request. The total increase to the contract for these changes is $390,932

The following table provides a summary of the costs:

Task Description	Sub Total	Total
Traffic – Fehr & Peers -ICE Evaluation -Update Traffic Forecasting -Update Traffic Operations	$39,710	$39,710
Engineering – Drake Haglan & Associates -ICE Evaluation -Update Geometrics	$91,570	$91,060
Environmental – LSA Associates -Historic Resources Evaluation Report	$260,162	$260,162
	Total:	$390,932

Please let me know if you have any questions or comments about this proposal and thank you again for the opportunity to serve the NCCTEA.

Sincerely,

Drake Haglan & Associates

Matt Satow, P.E.
Project Manager

Attachments: Fehr & Peers Scope & Fee dated February 18, 2014
LSA Associates Scope and Fee dated April 21, 2014
Drake Haglan & Associates Fee dated February 28, 2014

Traffic Scope of Work – February 18, 2014

This presents the scope for the revised project description of the North County Corridor Project (Project). It is our understanding that the revised limits of the Project will be from Tully Road (just west of the Kiernan Avenue/McHenry Avenue intersection) to SR 120/108 just east of Oakdale. While the design of the project has not been completed it is our understanding that the Project will be an access-controlled expressway facility with at-grade crossings except at McHenry Avenue and Oakdale Road (note that other locations may potentially be grade separated depending on the traffic operations analysis). ***This work scope is based on a previously approved scope of work by the Project Team (including Caltrans).*** Only one major task (traffic forecasts) was completed from the previous scope of work. This scope of work includes only those tasks that were not completed in the previous scope of work.

WBS 100 – Project Management & Meetings

Fehr & Peers will provide project management for the transportation engineering team. Specific duties include the following:

- Supervise, coordinate, and monitor traffic study for conformance with Caltrans standards and policies
- Prepare invoices
- Prepare, circulate, and file correspondence, memos, and reports as appropriate
- Prepare minutes for all focused traffic operations meetings with Fehr & Peers in attendance
- Perform scheduling and coordination
- Prepare monthly progress reports
- Participate in 5 face to face team meetings (includes PDT, focused, and public) and 6 conference call team meetings (note: for budgeting purposes 1 face to face meeting = 2 conference call team meetings)

WBS 160.05.20 - Identify Study Locations and Collect Traffic Data

As part of the on-going effort for the Project Fehr & Peers collected existing AM (7-9 AM) and PM (4-6 PM) peak period intersection traffic counts at the following 17 intersections in 2010. ***This work scope (like previous approved work scope) assumes that these counts are valid for use and will not be recounted.***

1. Kiernan Avenue/Tully Road	10. SR 108/1st Street
2. McHenry Avenue/Ladd Road	11. SR 108/Claus Road
3. SR 108/Kiernan Avenue	12. Claribel Road/Claus Road
4. SR 108/Pelandale Avenue	13. Patterson Road/Crane Road
5. Coffee Road/Claribel Road	14. SR 108/Oak Avenue
6. Coffee Road/Pelandale Avenue	15. SR 108/SR 120
7. Oakdale Road/SR 108	16. Patterson Road/Albers Road
8. Oakdale Road/Claribel Road	17. SR 108/Maag Avenue
9. Oakdale Road/Pelandale Avenue	

In June 2013, Caltrans reviewed the preliminary forecasts for the rescoped NCC project. Based on that review it was determined by Caltrans and the PDT that the western limit of traffic analysis should be the Kiernan Avenue/Carver Road intersection. Therefore, intersections west of Carver Road along Kiernan Avenue (i.e., Dale Road, Stoddard Road, Sisk Road, SR 99 NB and SB Ramps) will not be evaluated. The following four additional intersections will be evaluated as part of the NCC project.

1. Kiernan Avenue/Carver Road
2. Claribel Road/Roselle Avenue
3. Claribel Road/Bentley Road

4. Claribel Road/Albers Road

Fehr & Peers will perform peak period field surveys at the 4 locations listed above to identify existing geometric features, lane configurations and traffic control devices at the intersections. Fehr & Peers will also identify existing queue lengths at each of the locations.

In the future, under Project conditions, the new North County Corridor intersections will be evaluated in addition to the intersections listed above. As part of the project several frontage roads will also be constructed adjacent to NCC. To ensure that adequate intersection spacing is provided to avoid vehicle queue spillback impacts the frontage road intersections adjacent to NCC will also be evaluated under Project conditions.

Fehr & Peers also proposes to evaluate the following roadway segments (Figure 1 presents the roadway segments and the analysis methodology that will be used to evaluate them):

- Kiernan Avenue between Carver Road and Tully Road
- Kiernan Avenue between Tully Road and McHenry Avenue
- SR 108 between Ladd Road and Kiernan Avenue
- SR 108 between Kiernan Avenue and Pelandale Avenue
- SR 108 between McHenry Avenue and Oakdale Road
- Coffee Road between SR 108 and Claribel Road
- Coffee Road between Claribel Road and Pelandale Avenue
- Oakdale Road between SR 108 and Claribel Road
- Oakdale Road between Claribel Road and Pelandale Avenue
- Claribel Road between SR 108 and Coffee Road
- Claribel Road between Coffee Road and Oakdale Road
- Pelandale Avenue between McHenry Avenue and Coffee Road
- Pelandale Avenue between Coffee Road and Oakdale Road.
- SR 108 between Oakdale Road and 1st Street
- SR 108 between 1st Street and Claus Road
- Patterson Pass between SR 108 and Langworth Road
- Roselle Avenue between Patterson Road and Claribel Road
- Roselle Avenue between Claribel Road and Sylvan Avenue
- Claus Road between Patterson Road and Claribel Road
- Claus Road between Claribel Road and Sylvan Avenue
- Claribel Road between Oakdale Road and Claus Road
- SR 108 between Claus Road and Crane Road
- Langworth Road between SR 108 and Claribel Road
- Claribel Road between Claus Road and Langworth Road
- SR 108 between Crane Road and Oak Avenue
- Patterson Road between Crane Road and Albers
- Claribel Road between Langworth Road and Oakdale Waterford Highway
- SR 108 between Oak Avenue and SR 120
- Yosemite Avenue between SR 108 and Patterson Road
- Albers Road between Patterson Road and Claribel Road
- Oakdale Waterford Highway between Patterson Road and Claribel Road
- SR 120 between Yosemite Avenue and Maag Avenue
- SR 120 between Maag Avenue and Wamble Road
- SR 120 between Wamble Road and Lancaster Road

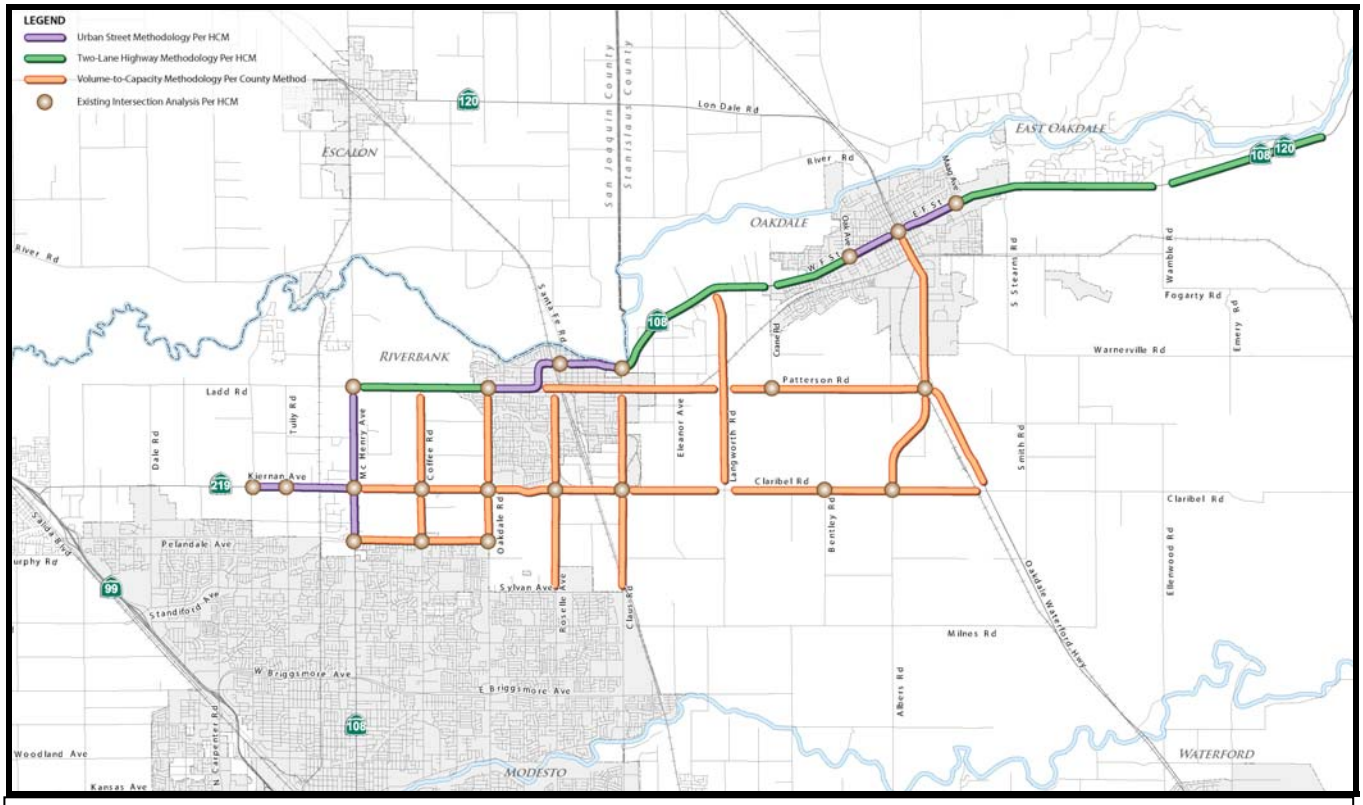


Figure 1: Proposed Study Locations and Analysis Methodology

WBS 160.05.25 - Review Geometrics and Project Alternatives

Fehr & Peers will work with the Project Team to review and refine up to ***four*** Project Alternatives. It is anticipated that the major focus of this task will involve identifying the most appropriate traffic control and intersection geometry that would be necessary at each crossing with an existing or future roadway.

Intersection Control Evaluation Process

The District 10 Intersection Control Evaluation (ICE) Comparison will be completed for each intersection that is a viable option as part of the ICE process. If a roundabout is not a viable option for the location based on a preliminary analysis (capacity check/right-of-way restriction on the existing alignment, etc.) than a note will be made on the ICE Comparison Matrix for those particular locations. Fehr & Peers will perform the roundabout capacity checkusing Year 2042 peak hour volumes (either AM or PM depending on which is highest) at each location to determine if a roundabout is a viable option. The evaluation is based on *Exhibit 3-14, Roundabouts: an Informational Guide 2nd Edition (NCHRP Report 672)*. An example of the roundabout evaluation is attached. A roundabout will be considered a viable option if all approaches to the roundabout require two lanes or less (i.e. a one-lane or two-lane roundabout). *Note: The attached example would not be considered a viable roundabout option since at least one approach requires more than two lanes.* At locations where a roundabout is deemed a viable option an analysis using SIDRA 6 will be performed to determine traffic operations for the Year 2042 peak hour. The results from the SIDRA 6 analysis will be used to enter appropriate information in the Intersection Control Evaluation Comparison summary.

WBS 160.10.10 – Traffic Forecasts

Caltrans approved the traffic forecasts for NCC in July 2013. However, the local agencies have decided to add a new access location at Roselle Avenue. Fehr & Peers met with Caltrans Forecasting and Operations on February 14, 2014 to develop an approach to adjust the approved traffic forecasts. In advance of the meeting, Fehr & Peers performed the following analysis:

- Added the Roselle Avenue access point to the Year 2042 Alt.1A model.
- Re-ran the Year 2042 Alt. 1A model.
- Compared raw model output between the new Year 2042 Alt. 1A model (with Roselle Avenue access) to the old Year 2042 Alt. 1A model (without Roselle Avenue access)

Based on this information the team agreed that the changes in forecasts were limited to a small geographic area. The team agreed on the following to adjust the Year 2042 forecasts for all alternatives:

- Manually adjust the approved forecasts to account for the Roselle Avenue interchange.
- It is expected that traffic volumes will be shifted manually from the Oakdale Avenue and Claus Road access locations to the new Roselle Avenue access location based on the model comparison
- The following locations are anticipated to be adjusted:
    - NCC/Oakdale Avenue interchange
    - NCC/Claus Road intersection
    - Claribel Road/Oakdale Avenue
    - NCC (eastbound and westbound) between Oakdale Avenue and Claus Road
- Forecasts at all other locations will remain the same

The team also agreed to adjust the Year 2022 forecasts based on the same approach presented above. However, the adjustments would be based on a model comparison between the Year 2022 Alt. 1A model with and without the Roselle Avenue access.

Fehr & Peers will prepare an addendum to the *Final Year 2022, 2032 and 2042 Traffic Demand Forecasts for North County Corridor PA/ED* (July 12, 2013). The addendum will present the new Year 2022 and Year 2042 forecasts at the locations that have been updated (AM and PM peak hour turning movements, peak hour link volumes, and daily volumes) for review and approval by Caltrans.

WBS 160.10.35 – Perform Traffic Operations Analysis

The intersection traffic counts, lane configurations, signal timings, and other information collected under WBS 160.05.20 will be used to develop existing AM and PM peak hour Synchro 8.0 models. Synchro 8.0 provides results consistent with the Transportation Research Board's 2010 Highway Capacity Manual (HCM) methodology. The Synchro analysis will be converted to micro-simulation (using the SimTraffic software) to determine existing intersection delay, level of service, and 95th percentile queue lengths. Based on the results from intersection control evaluation process any intersections proposed as roundabouts will be evaluated using SIDRA 6. SIDRA 6 will be used to determine delay, level of service, and 95th percentile queue lengths at roundabout locations. The roadway segments identified in WBS 160.05.20 will be evaluated under existing conditions using the methodology identified in Figure 1.

As part of the on-going Project effort Fehr & Peers has prepared a Final Existing Conditions Report (March 2011) that did not include analysis of Kiernan Avenue west of Tully Road. This report has been reviewed and approved by the local agencies and Caltrans. As part of the Existing Conditions analysis the Synchro/SimTraffic simulation models were calibrated and validated. This work scope assumes that no new calibration/validation will be necessary. However, given that four new intersections have been added to the analysis, the existing conditions analysis will need to be updated to reflect the LOS, delay, and queue lengths for the additional study intersections. The analysis results will be presented in the Draft and Final Traffic Operations Report (WBS 160.10.70).

The traffic forecasts developed under WBS 160.10.10 will be used to develop Synchro models (AM and PM peak hour) for up to five alternatives including No Build conditions for the opening year (2022) and design year (2042). **Note: Interim-year traffic operations analysis will not be included unless it is determined that the proposed facility will need to be widened before the Design Year (2042), then the interim scenario will be the year when the facility needs to be widened.** This scope assumes that each alternative has only one proposed configuration at each intersection (e.g. a traffic signal, side-street stop, roundabout, or grade separated) except at the NCC/Oakdale Road interchange, where two interchange concepts may be evaluated. The Synchro models will include the same intersections evaluated under existing conditions plus the new intersections created by the Project. Similar to existing conditions analysis the Synchro models will be converted to micro-simulation (SimTraffic) to determine intersection delay and level of service. Peak hour analysis will be performed for the opening year and design year for each alternative. Results will include average delay, level of service, and estimated 95th percentile queue lengths for each intersection. For analysis of intersections within the State Right of Way the measures of effectiveness (delay, level of service, and 95th percentile queue) will be reported for each individual movement.

The roadway segments identified in WBS 160.05.20 will be evaluated under opening year and design year conditions using the methodology identified in Figure 1 for up to five alternatives including No Build conditions.

The design of the facility has not yet been established. Depending on the final design of the project Fehr & Peers may perform the following:

- AM and PM peak hour two-lane highway analysis and/or
- AM and PM peak hour multi-lane highway analysis and/or
- AM and PM peak hour freeway analysis

The mainline analysis will be consistent with the methodologies presented in the 2010 HCM. In addition, ramp merge and ramp diverge analysis will be evaluated at the interchanges. If required, ramp meter storage will be determined using the 7% ramp meter storage calculation. Weaving analysis, if necessary, will be consistent with the methodologies presented in Chapter 500 (Leisch Method) of the Caltrans Highway Design Manual (HDM).

In addition to peak hour level of service analysis, Fehr & Peers will utilize the modified StanCOG 2011 RTP Model to project daily and peak hour volume changes on study roadway segments as a result of the Project. Furthermore, the regional implications of the corridor will also be evaluated by examining additional measures of effectiveness (MOEs) such as vehicle miles of travel (VMT) and vehicle hours of delay (VHD) with and without the Project. The VMT information will be provided in 5 mph speed bins.

Deliverables:

- None (Note: Information obtained from the analysis will be used for the deliverable in the following section WBS 160.10.70)

WBS 160.10.70 – Prepare Traffic Reports

Fehr & Peers will prepare the Traffic Operations Report summarizing the results and findings. The submittal will include the following:

- Key Assumptions
- Performance Measures of Effectiveness (MOE) summary tables
- Delay, LOS, and 95th percentile queue calculation reports
- Peak hour traffic signal warrant worksheets for all intersections where a signal is proposed
- Left turn/right turn/though lane storage

- SIDRA 6 output for proposed roundabout locations
- HCS 2010 Highway Capacity Analysis output
- Synchro 8/SimTraffic Output
- Provide all analysis files (electronic)

In an effort to minimize individual review times by both the internal team and Caltrans and provide meaningful information to the project team as early as possible the traffic report will be submitted as follows:

- Administrative Draft Traffic Operations Report to JPA – The report will include Existing Conditions, Traffic Forecasts, and Year 2042 Analysis

- First Draft Traffic Operations Report to Caltrans - The report will include Existing Conditions, Traffic Forecasts, and Year 2042 Analysis

- Second Draft Report to Caltrans – This report will include responses to Caltrans comments on First Draft Report and the Year 2022 Analysis and Results

- Final Report to Caltrans – If there are any comments on the Second Draft Report to Caltrans it will be updated and a Final Report will be provided

We will submit an Administrative Draft Traffic Operations Report to JPA for one round of review and written comments. We have budgeted up to 8 hours to respond to JPA written comments and prepare the First Draft Traffic Operations Report to submit to Caltrans and other PDT members for one round of review and written comments. We have budgeted up to 20 hours to respond to comments on the Draft Traffic Operations Report and prepare the Second and Final Traffic Operations Report. We will submit the final report in both hard copy and electronic format.

This work scope assumes that Drake Haglan will prepare the traffic section in the Project Report and the transportation chapter of the Environmental Document. Fehr & Peers has also budgeted up to 6 hours to respond to comments on the public draft environmental document. Assuming that it takes ½ hour to respond to one comment translates to responding up to 12 comments.

Deliverables:

- Administrative Draft Traffic Operations Report
- First Draft Traffic Operations Report
- Second Draft Traffic Operations Report
- Final Traffic Operations Report

Assumptions:

All deliverables will be subject to one review cycle by Caltrans and the JPA.

Example Roundabout Planning Level Evaluation

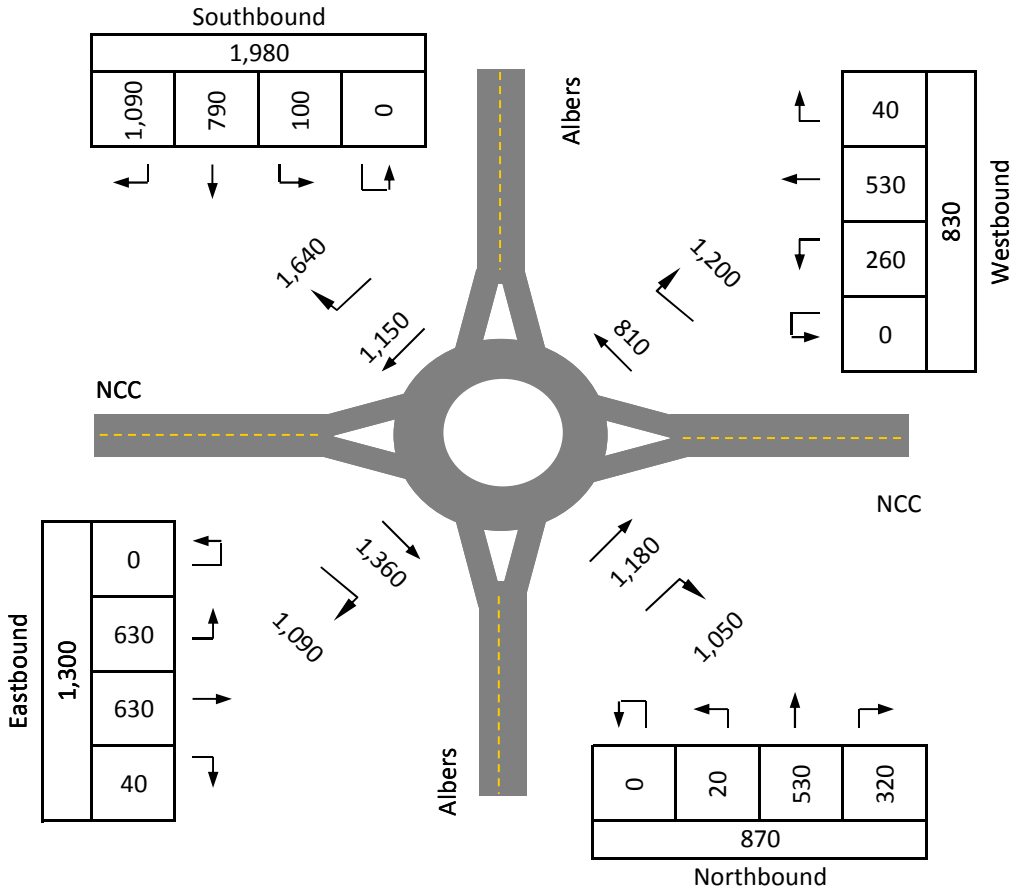
Roundabout Planning Evaluation
Determines Circulating Lanes Needed

FEHR PEERS

Project	NCC - Alternative 1		Sheet	1	of 1
Scenario	Year 2042		Street 1	Albers	
Peak Hour	PM		Street 2	NCC	

Peak Hour Turn Movement Volumes

Movement	Northbound	Westbound	Southbound	Eastbound
U Turn	0	0	0	0
Left Turn	20	260	100	630
Through	530	530	790	630
Right Turn	320	40	1,090	40
Total	870	830	1,980	1,300



Circulating Volume Check

Quadrant	Volume	Range	Lanes
From Eastbound to Northbound	2,450	> 1,800	**More than Two Lanes**
From Northbound to Westbound	2,230	> 1,800	**More than Two Lanes**
From Westbound to Southbound	2,010	> 1,800	**More than Two Lanes**
From Southbound to Eastbound	2,790	> 1,800	**More than Two Lanes**

Source: Exhibit 3-14, Roundabouts: an Informational Guide 2nd Edition (NCHRP Report 672)

Detailed Cost Estimate
NCC Addendum

Fehr & Peers Hours By Person						
	Principal	Senior Associate	Senior Engineer	Engineer	Engineering Tech. / Support	Cost
Billing Rates	$ 265	$ 215	$ 155	$ 125	$ 110	
Direct Labor Costs						
1.1 - Project Management & Meetings	0	0	0	0	0	$ -
3.3.1 - Collect Traffic Data	0	0	0	0	0	$ -
3.3.2 - Review Geometrics and Project Alternatives	0	12	0	8	0	$ 3,580
3.3.3 - Update Traffic Forecasts	0	16	30	60	8	$ 16,470
3.3.4 - Update Traffic Operations Analysis	0	12	40	80	8	$ 19,660
Sub-Total Direct Labor Costs	0	40	70	148	16	$ 39,710
Other Direct Costs						
Mileage						$ -
Printing/Reproduction/Communications						$ -
Postage and Express Mail						$ -
Traffic Counts						$ -
Sub-Total Other Direct Costs						$ -
Total Cost						$ 39,710

LSA ASSOCIATES, INC.
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PALM SPRINGS
PT. RICHMOND
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SAN LUIS OBISPO

April 21, 2014

Matt Satow
Principal Engineer
Drake Haglan & Associates
11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670

Subject: North County Corridor - Scope and Budget for Additional Historic Property Tasks

Dear Matt:

LSA Associates, Inc. (LSA) is currently under contract to Drake Haglan & Associates (DHA) to provide technical support for biology (Tasks 4.2.2.1 – 4.2.2.3, and 4.2.2.5), historic properties (Task 4.2.1.5), paleontology (Task 4.2.7), and air quality analysis (Tasks 4.2.4.1 and 4.2.4.2) for the North County Corridor (NCC) project. The purpose of his letter is to provide a scope and budget for additional cultural resources tasks associated with the evaluation and documentation of historic properties.

LSA's existing scope includes preparation of an Historic Properties Evaluation Report (HRER) based on an Architectural Area of Potential Effects (APE) consisting of 571 parcels. Of these 571 parcels, we are scoped to review 500 parcels to determine the exemption status of each built environment resource, and we are scoped to evaluate 32 built environment resources for inclusion in the California Register of Historic Resources and National Register of Historic Places (NRHP); 71 parcels do not require additional review.

Subsequent to our initial scoping effort and during development of the current range of project alternatives, the APE was substantially modified and currently consists of 737 parcels. Per coordination with Caltrans, 692 parcels need to be reviewed to determine the exemption status of each built environment resource, and 168 built environment resources need to be evaluated for inclusion in the NRHP; 45 parcels do not require additional review. The 168 resources that require evaluation include: 132 properties with buildings, 25 segments of water conveyance features, 8 electrical transmission features, and 3 segments of railroad.

SCOPE OF WORK

The following tasks are required to address historic properties in support of the environmental review, and will be supplemental to Task 4.2.1.5 HRER in LSA's existing contract with DHA.

Additional HRER Tasks

As noted above, the current APE consists of 692 parcels that need to be reviewed for exemption status – 192 more parcels than is included in our current scope. In addition, the current APE consists of 168 resources that need to be evaluated for inclusion in the NRHP – 136 more resources than is included in our current scope. Consequently, this scope of work includes review of 192 additional properties and evaluation of 136 additional resources. Also included in this task would be the additional documentation required to incorporate the evaluated resources in the HRER.

Due to the considerable additional work required (especially the additional evaluations), LSA will contract with PAR Environmental Services, Inc. (PAR) to assist with this effort; PAR will complete approximately 30 percent of the evaluations, prepare applicable background sections of the HRER, and provide peer review of the DPR form 523 records that are prepared for each evaluation.

BUDGET

We estimate $260,162 will be sufficient to conduct the tasks listed above (not including the Optional Task), as detailed below in Table A. Our estimated cost for the additional task is $175,279. We propose to perform this scope of work on an hourly basis in accordance with our current contract with DHA.

Table A – Estimated Additional Budget

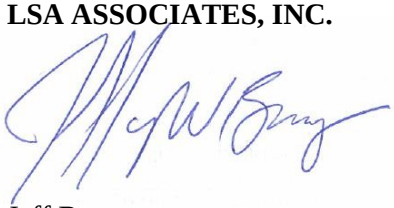
TASK	BUDGET
Additional HRER Tasks	$260,162
Total	**$260,162**

This additional budget, combined with our current budget of $567,626, would increase LSA's authorized budget to $827,788.

Please contact me if you have any questions, 916-630-4600 or jeff.bray@lsa-assoc.com.

Sincerely,

LSA ASSOCIATES, INC.



Jeff Bray
Principal / Biologist

North County Corridor - LSA Budget Estimate for Additional HRER Tasks

TASK	Principal Cultural Resources	Senior Cultural Res. Manager	Associate Architectural Historian	Senior Architectural Historian	Architectural Historian	GIS/ Graphics	WP/ Production	LSA Reim	TOTALS	Total Hours	
Historical Resource Evaluation Report (HRER)											
Additional HRER Tasks											
Exemption of 192 parcels		96			192				$23,631		
LSA Evaluations (80)	75	100	100	500	1000	50	10	$13,305	$162,933		
PAR Evaluations (56)								$73,598	$73,598		
Total									**$260,162**	**2123**	

North County Corridor
PA ED
Contract Amendment #1
February 28, 2014

drake haglan AND ASSOCIATES

Task Description	Project Manager	Project Engineer	Transportation Engineer	CADD Detailing & Estimating	TOTAL HOURS	TOTAL COST
	$180	$175	$145	$105		
TASK 1.0 - PROJECT MANAGEMENT	28	24			52	$9,240
1.2 Project Administration	20				20	$3,600
1.3 Quality Control	8	24			32	$5,640
TASK 8.0 - PRELIMINARY DESIGN	24	100	240	240	604	$81,820
8.1 Refine/Evaluate Conceptual Alignments	24	100	240	240	604	$81,820
TOTAL HOURS	52	124	240	240	656	
TOTAL COST	$9,360	$21,700	$34,800	$25,200		$91,060