WORK ORDER CONTRACT
Land Use/Transportation Planning

Work Order Contract # 4 **Agreement to Agree # 23474**

Project Name and Location: **I-5 Columbia River Crossing Partnership Traffic and Tolling Analysis**

This Work Order Contract ("WOC") hereby incorporates by this reference all of the terms and conditions contained in the Agreement to Agree ("ATA") between the Oregon Department of Transportation ("Agency") and David Evans and Associates, Inc., ("Contractor"), effective date September 24, 2003, and all references to "Agreement to Agree" therein are deemed to be references to "Work Order Contract" for purposes of this WOC except for references to "Agreement to Agree" in the second sentence of Section 1, Effective Date and Duration, in Section 3(a), Compensation, and in Exhibit A, Section H, Travel.

No Services shall occur until this Work Order Contract is signed by all parties and all necessary State of Oregon governmental approvals are obtained, and the Notice-to-Proceed is issued by the Agency.

WOC Expiration Date: December 31, 2005

DBE Goal (Does this WOC include federal funds? Y☒ N☐)	-0-%
ODOT Key # (or N/A)	# N/A
The authorized Not-to-Exceed compensation for this WOC	$639,147

STATEMENT OF WORK and SUMMARY OF ESTIMATE FOR SERVICES are attached and incorporated by this reference.

Certification: The individual signing on behalf of Contractor hereby certifies and swears under penalty of perjury: (a) the number shown on the above-referenced Agreement to Agree is Contractor's correct taxpayer identification; (b) Contractor is not subject to backup withholding because (i) Contractor is exempt from backup withholding, (ii) Contractor has not been notified by the IRS that Contractor is subject to backup withholding as a result of a failure to report all interest or dividends, or (iii) the IRS has notified Contractor that Contractor is no longer subject to backup withholding; (c) s/he is authorized to act on behalf of Contractor, s/he has authority and knowledge regarding Contractor's payment of taxes, and to the best of her/his knowledge, Contractor is not in violation of any Oregon tax laws (including, without limitation, the state inheritance tax, gift tax, personal income tax, withholding tax, corporation income and excise taxes, amusement device tax, timber taxes, cigarette tax, other tobacco tax, 9-1-1 emergency communications tax, the homeowners and renters property tax relief program and local taxes administered by the Department of Revenue (Multnomah County Business Income Tax, Lane Transit District Tax, Tri-Metropolitan Transit District Employer Payroll Tax, and Tri-Metropolitan Transit District Self-Employment Tax).; and (d) Contractor is an independent contractor as defined in ORS 670.600.

CONTRACTOR

David Evans and Associates, Inc. Name/Title Date

LEGAL *Refer to Class Exemption from the Department of Justice dated June 24, 2003.*

AGENCY

Manager, Purchasing & Contract Management Date

Michael Wolfe, Deputy for Statewide Project Delivery Date

John Rosenberger, Deputy Director Highway Division Date

DAS *Refer to Delegation 008-99b from DAS dated June 28, 2002.*

EXHIBIT A
STATEMENT OF WORK AND DELIVERY SCHEDULE

WOC No. 4, ATA No. 23474

Project Name: I-5 Columbia River Crossing Partnership: Traffic and Tolling Analysis

This is a Land Use/Transportation Planning Assignment

	Agency's Work Order Project Manager (WPM)		Contractor's Project Manager (PM)
Name:	Matt Garrett	Name:	Ron Anderson
Address:	ODOT Region 1 123 NW Flanders Portland, OR 97209-4037	Address:	David Evans and Associates, Inc. 2100 SW River Parkway Portland, OR 97201
Phone:	(503) 731-8256	Phone:	(503) 223-6663
Fax:	(503) 731-8259	Fax:	(503) 223-2701
Email:	Matthew.L.Garrett@odot.state.or.us	Email:	rqa@deainc.com

A. Work Order Contract (WOC) BACKGROUND/OVERVIEW

The Strategic Plan approved at the end of the previous phase of the I-5 Transportation and Trade Partnership found that (i) the two-lane sections of I-5 between I-205 and Fremont Bridge should be upgraded to three lanes, (ii) the I-5 Columbia River crossing should provide five traffic lanes in each direction, and (iii) one or more of these lanes should be reserved for HOV or reversible lanes. The Strategic Plan and related documents specified several "Bridge Influence Area" design options (the "BIA Options") for accomplishing these objectives. These include, but are not limited to:

- 5-lane supplemental lift-span bridge (west of existing bridge) serving southbound traffic and five lanes of northbound traffic provided on existing bridge.
- 10-lane replacement fixed-span bridge.
- 4-lane supplemental lift-span bridge serving collector-distributor function with existing bridge providing six lanes of through freeway traffic.

These bridge/freeway options are considered with and without light rail transit (LRT) and some include HOV lanes. Concept drawings exist for many of these alternatives. Further, the previous studies examined No Build and Baseline alternatives that were used to assess the traffic, travel time, and economic benefits/impacts of the highway/bridge improvements; including such measures as representative travel times, hours of delay, etc.

The purpose of this Statement of Work (SOW) is to assist Agency and Agency's overall project contractor in scoping and analyzing highway/bridge improvement alternatives and tolling options for the I-5 Columbia River Crossing Project. This SOW is intended to accomplish the following:

- Assist the Agency in identifying and resolving the status of freeway improvement alternatives and traffic operations options (i.e., HOV, Truck-Only lanes, etc.) examined in the Strategic Planning phase of study and identifying such alternatives and options that have not yet been studied but merit study;

- Document traffic and travel-related reasons for recommending continued study or screening-out bridge and freeway improvement alternatives, and traffic operations options; and
- Identify comprehensive tolling scenario(s) for financial planning in this phase of study and inclusion in the Draft Environmental Impact Statement (DEIS), including rate structure, tolling system (types of collection, etc), and plaza design concepts.

With regard to the tolling objectives, it is the further objective of this SOW to:
- Establish valid and credible technical methodology for assessing toll volumes and impacts;
- Identify toll rate scenarios for this phase of study and the DEIS;
- Identify tolling system concepts and plaza configuration/operation concepts for this phase of study and the DEIS; and
- Estimate revenue generation, traffic impacts, and costs of the identified tolling scenario(s).

The tolling scenarios identified and evaluated include:
- Tolling the I-5 Columbia River crossing under various river crossing improvement scenarios; and
- Tolling both the Columbia River I-5 and I-205 river crossings.

B. TASKS

This section describes, on a task-by task basis, the specific activities, deliverables, and schedule for the Contractor and Agency. The task descriptions and deliverables employ the following conventions and principles:

- Three types of deliverable products are specified in this SOW:
  - **Technical Memoranda (TM)** that provide a comprehensive analysis of an issue specified in this SOW.
  - **Working Papers (WP)** that document interim findings or methodological conclusions, or are ad hoc or informal memoranda prepared in response to questions or meetings.
  - **Meeting Reports (MR)** that are written summaries of issues, management decisions, etc., identified or resolved at the formal meetings described under Task 3. For meetings requiring preparation of an MR, unless stated otherwise in this SOW, Contractor shall also prepare and distribute a meeting agenda. Meeting agendas must be distributed to the Work Order Project Manager (WPM) at least two days prior to meetings unless a different timeframe is agreed to by Agency's WPM.

- Unless requested otherwise, Contractor shall provide one copy of all Technical Memoranda (TM), Working Papers (WP) and Meeting Reports (MR) to the WPM or his/her designee (a) electronically in Microsoft Word format for the Microsoft Windows NT or XP operating system and (b) in hard copy.

- Wherever a TM or WP is shown as a deliverable, only the final product is shown as the deliverable. In all such cases, Contractor shall provide a draft of the TM or WP to the WPM for a five-business day review and comment period by Agency (unless additional time is agreed to between the WPM and Contractor), and Contractor shall revise the draft TM or WP based on such comments, as appropriate, and provide the final TM or WP to the WPM.

- Depending on the needs of the study process and meeting schedules, the WPM may request Contractor to prepare a TM or WP in two or more stages. Unless otherwise approved by the WPM, Contractor shall complete the final TM or WP in the series by the due date; ensuring that Agency receives the full deliverable product in accordance with the schedule.

- MRs and agendas will only be written for formal meetings. Informal or ad hoc meetings, emails, and phone calls, unless otherwise requested by Agency or where important project/program related decisions are made or action items are assigned, unless otherwise requested by Agency or deemed important by Contractor. Contractor is not required to write detailed meeting reports for informal or on-going coordination and oversight meetings or communications with sub-contractors where no project/program decisions are made or action items are assigned.

- Contractor shall provide regular monthly billing and progress reports.

- The budget shown for each task is the best estimate possible at this time. However, the study process may dictate that more funding be applied to some tasks and deliverable products and less to others. Contractor shall monitor such needs on an on-going basis and, when needed, propose budget refinements (within the limits of the not-to-exceed amount established for this WOC) to the WPM for his/her approval on a monthly basis as part of the invoicing and status report.

- The term "days" as used in this SOW refers to business days.

Task 1: Project Management/Administration and Quality Control

This task includes day to day management of the project, including scheduling, monitoring, and controlling the work. This task includes the oversight of schedules and budgets, review of work deliverable products, and the establishment of lines of communication between the WPM, interested agencies, and the Contractor. The WPM shall oversee the work of the Contractor, and coordinate the work of Agency and other interested agencies. The Contractor Project Manager shall manage the work of the consultant team and work closely with the WPM to coordinate related tasks by others.

Contractor shall:

- Direct and supervise consultant team.
- Attend meetings, and prepare agendas and MR as described within the tasks.
- Prepare invoices and supporting data.
- Coordinate with WPM, Agency, and other interested agencies.
- Prepare and update project schedule.
- Develop and maintain a project filing system.
- Prepare monthly progress reports, which will address current status, unresolved issues, projected significant milestones, project schedule, and major accomplishments during the month.

Deliverables and Schedule for Task 1

Task No. 1	Deliverables	Due Date NLT _____ from NTP
1.1	Prepare and update project schedule	2 weeks
1.2	Prepare invoices and monthly progress reports	Monthly

Task 2: Determine Existing and New Traffic Forecasts and Impact Analyses Required to Identify and Screen Highway/Bridge Improvement Alternatives and Tolling Options

The purpose of Task 2 is to assess the data and improvement concepts from the previous phase of study to:

- Determine their validity and the extent to which they can be relied upon with regard to identifying and analyzing tolling issues and narrowing the road/bridge improvement alternatives; and

- Determine where more detailed work must be done to accomplish the screening of freeway/bridge and tolling alternatives to be accomplished in this phase of study.

2.1 Contractor shall prepare for and conduct two half-day working sessions with the WPM and the members of the Regional Coordinating Committee to provide a detailed explanation of the options and data prepared during the strategic planning phase of the I-5 Trade Corridor study.

2.2 Contractor shall review the traffic analyses prepared for the previous phase of the I-5 Trade Corridor Partnership and assess the following:

(a) Are the travel forecasts and results documented in the Final Report, technical appendices, and background reports sufficiently reliable and detailed or must new or more detailed forecasts be prepared to:
   (i) Identify, evaluate, and screen tolling options in this current phase of study, or are new or more detailed travel forecasts required?
   (ii) Identify, evaluate, and screen road/bridge improvement alternatives in this current phase of study?

(b) If new or revised travel forecasts are proposed:
   (i) Explain for what purposes such new or revised forecasts are required, and specifically why they are required.
   (ii) Explain which work (see following tasks), if any, can proceed prior to the new forecasts.
   (iii) Explain if the new forecasts are to be done by Contractor, or are new forecasts from Metro or RTC required?
   (iv) Explain how overall study deadlines will be kept, including any material technical work-around that will be required to keep to schedule.

2.3 Contractor shall review recommended alternatives from the I-5 Trade Corridor Partnership and recommend a range of options to be used for the tolling analyses. The range of options shall be selected based on a determination of design factors likely to affect tolling options. This is not intended to encompass all possible design options, but rather to select a reasonable range to be used in the tolling analyses.

2.4 Contractor shall review the engineering concept drawings and sketches and determine the extent of additional traffic analysis needed to refine or narrow alternatives without additional engineering work, and determine where targeted additional engineering detail must and can be done, within the schedule, to advance the narrowing of alternatives.

2.5 Contractor shall assemble from Agency, WSDOT, Metro, and the Regional Transportation Commission (RTC) existing information on the I-205 river crossing, which was not considered in the previous stage of the I-5 partnership, and determine the data and analyses required to identify improvement requirements for the I-205 Bridge and nearby freeway segments.

2.6 Contractor shall prepare a WP documenting findings from Tasks 2.2, 2.3, 2.4, and 2.5.

2.7 Contractor shall organize and facilitate meetings with the Regional Coordinating Committee to review data issues and discuss Contractor's recommendations.

2.8 Contractor shall prepare a WP, including a review by the Regional Coordinating Committee, that describes each bridge/highway alternative examined during the Strategic Plan phase of study, the level of detail it was defined and evaluated, and the current status of the alternative. The WP must also identify:

(a) Alternatives that were discussed in the Strategic Plan phase that required study, or more study, but whose study was deferred to the next phase.
(b) Reasonable alternatives that were not discussed in the Strategic Plan phase, but may require study in this current phase.
(c) The association of freeway and interchange improvements with each of the bridge alternatives.
(d) Contractor's preliminary judgments regarding which freeway/bridge alternatives and design options constitute a reasonable range of alternatives for the DEIS.
(e) Alternatives that were not carried forward and why.

Deliverables and Schedule for Task 2

Task No. 2	Deliverables	Due Date NLT _____ from NTP
2.1	MR 2.1: Materials for initial meeting with Agency contractor.	2 weeks
2.3	Range of options for Tolling Analysis	6 weeks
2.6	WP 2.6: Existing and New Traffic Forecasts and Impact Analyses Required to Identify and Screen Highway/Bridge Improvement Alternatives and Tolling Options	10 weeks
2.7	MR 2.7: Meetings on Traffic Forecasting Requirements	4 weeks
2.8	WP 2.8: Preliminary Identification of Freeway/Bridge Alternatives and Design Options for Further Study	10 weeks

Task 3: Identify and Prepare Travel Demand/Impact Model(s) to be used to Estimate Toll Volumes and Traffic Impacts of Toll Options

Metro has prepared regional travel demand forecasts that have been used to evaluate alternatives in the previous phase of the I-5 study. In addition, a VISSIM model has been developed for a segment of I-5 and used to evaluate traffic operations issues. Unless otherwise determined in Task 2, this phase of study will continue to use these data and models for basic traffic analysis.

Contractor, in consultation with Metro and RTC travel model staff, shall undertake the following process to evaluate and select the travel and traffic performance models to be used to analyze/evaluate alternative tolling strategies for the Columbia River Crossing that meet the criteria for reliable results based on the level of project development:

3.1 Contractor, in consultation with Metro and RTC travel model staff, shall prepare a WP on alternative models that may be applicable to analyzing/evaluating travel demand and traffic impacts of alternative tolling strategies for the Columbia River Crossing. The purpose of this paper is to provide background information to aid in the selection of the forecasting model to be used with regard to tolling for this study. The WP shall:
(a) Identify models being considered for estimating tolling volumes and impacts, by providing one or more of the following:
(i) If the Contractor has an existing set of models capable of reliably generating the tolling and traffic impact data required by this SOW, in particular a modeling set that has been used in previous major tolling studies, the WP will provide a detailed explanation of the model, its assumptions, and its performance in other studies and peer reviews. In addition, the WP will identify any required upgrades to meet study requirements, and how such upgrades will be undertaken.
(ii) If the Contractor does not have an existing model capable of meeting study needs, the WP will identify and evaluate models that have been used on major tolling projects that provide the capacity to reliably generate the information required herein.

(iii) In addition, the WP will identify and evaluate applicable models already in use by Metro, RTC, WSDOT, or Agency that may be ready as-is to generate the required information or can be upgraded to meet study requirements, and, if applicable, identify the refinements that would have to be made.

(b) For each identified model, the WP will explain critical features, advantages, and disadvantages for addressing the tolling scenarios.

(c) Identify/assess the availability of the model, the practical ability to make the model operational within the schedule, and the ability of the model to produce reliable results on the types of scenarios discussed below by five months from Notice to Proceed (NTP).

(d) Identify critical assumptions to be applied in model.

(e) Set forth the Contractor's recommendation regarding the model to be used, any refinements to the model that may be required to meet the needs of this study and the source of any data that may be required to implement the refinements.

3.2 Contractor shall implement the tolling model/analytical tool(s) approved by the WPM and in consultation with Metro and RTC travel model staff.

3.3 Contractor shall prepare a WP assessing the ability of VISSIM to measure the performance and impacts of toll plaza design and configuration options, and possible model refinements to the existing VISSIM model for I-5 that Contractor recommends to be undertaken. If Contractor determines that VISSIM is not necessary for determining queue build-up at plazas, the WP shall identify and assess other plaza operation models and recommend a course of action.

3.4 Subsequent to approval by WPM, Contractor shall, if necessary, acquire on behalf of Agency, refine (if necessary), and implement the plaza operations model approved by the WPM for the I-5 and I-205 Columbia River crossings. Traffic analysis will be sufficient to support the data input needs for the operations model.

3.5 Contractor shall organize and facilitate meetings with the Regional Coordinating Committee to review toll and plaza operations model issues and discuss Contractor's recommendations.

Deliverables and Schedule for Task 3

Task No. 3	Deliverables	Due Date NLT _____ From NTP
3.1	WP 3.1: Identification and Evaluation of Toll Models	4 weeks
3.2	Operationalize tolling models	6 weeks
3.3	WP 3.3: Identification and Evaluation of Plaza Operation Models	4 weeks
3.4	Operationalize plaza operations models (I-5 and I-205)	8 weeks
3.5	MR 3.5: Meetings on Toll Model Requirements	4 weeks

Task 4: Identify Current Characteristics and Historical Trends of Columbia River Crossing Traffic (I-5 and I-205 Corridors)

The purpose of Task 4 is to provide a detailed profile of current and historical traffic crossing the I-5 and I-205 Columbia River bridges for the purposes of:

- Pinpointing characteristics pertinent to identifying and evaluating tolling options and volumes;
- Calibrating or refining, as necessary, the demand and performance models identified in Task 3; and
- Providing information for the preparation of the Purpose and Need Statement (to be prepared by another contractor).

4.1 Contractor shall compile and review, exclusively from Contractor's available I-5 Trade Corridor, I-5/Delta Lombard, and I-5 Partnership files, current and historical traffic counts, origin-destination and survey data, trip purpose information, previously documented study results, and computer simulations regarding the volumes and characteristics of travel and traffic conditions crossing the I-5 and I-205 bridges that may be pertinent to the objectives enumerated above. To the extent practical, data for the I-5 corridor shall be disaggregated from data for the I-205 corridor. Contractor shall provide data to WPM and Regional Coordinating Committee in an organized manner and in a usable electronic and hard copy format.

4.2 Contractor shall prepare a WP that:
(a) Provides a comprehensive listing of available information;
(b) Identifies any key and relevant information that may be missing or incomplete; and
(c) Recommends methods to address any missing or incomplete data.

4.3 Based on the data assembled in Tasks 4.1 and 4.2, Contractor shall prepare a TM detailing the travel and traffic characteristics and trends pertinent to identifying and evaluating a tolling strategy. To the extent appropriate, TM No. 3.3 will address separately for I-5 and I-205 corridors and by direction the following:
(a) Average Weekday, AM Peak, PM Peak, Mid-Day, and Evening traffic volumes on bridges and connecting freeway segments by class of vehicle;
(b) Maximum Weekday AM Peak, PM Peak, Mid-Day, and Evening traffic volumes on bridges and connecting freeway segments by class of vehicle;
(c) Any relevant weekend and seasonal variations;
(d) Non-Freight trips by trip purpose;
(e) Origin-destination of traffic by type of vehicle, type of trip, mode;
(g) Level of Service, volume-to-capacity ratios, and delay on bridges, I-5 and I-205, and major access and parallel routes;
(h) Representative travel times by time of day;
(i) Auto occupancy and transit ridership; and
(j) Historic trends in factors listed above.

The data above shall be based on Contractor's available I-5 Trade Corridor, I-5/Delta Lombard, and I-5 Partnership files, as appropriate.

In addition to detailing travel and traffic characteristics, TM No. 3.3 will include an analysis of the relationship between those characteristics and the tolling options being recommended by the Contractor.

Deliverables and Schedule for Task 4

Task No. 4	Deliverables	Due Date NLT _____ from NTP
4.1	Compilation of data in electronic format and hard copy	7 weeks
4.2	WP 4.2: Listing of Available and Needed Data	7 weeks
4.3	TM4.3: Travel and Traffic Trends Pertinent to Tolling Opti ons	8 weeks

Task 5: Identify Toll Rate Structure Options

The purpose of this task is to identify practical tolling rate options that demonstrate the material differences in tolling policy, revenue generation, and impacts of potentially tolling the I-5 Columbia River crossing or the I-5 and I-205 Columbia River crossings. Unless otherwise recommended by the Contractor and

approved by the WPM, the Contractor will assume that in scenarios in which both I-5 Columbia River and I-205 Columbia River crossings are tolled, the toll rate structure would be the same in both corridors.

5.1 Based on information provided by WPM, additional research available to the Contractor, and the characteristics of traffic crossing the Columbia River, the Contractor shall prepare a WP that identifies and evaluates alternative toll rate structures and recommends, based on objectives provided by the WPM, a set of toll rate structure options to be examined in this Study. The proposed toll rate structures should correspond to the mix of toll lanes/collection methods proposed in Task 7. That is, if a mix of electronic and manual (including automatic coin machines and/or toll-taker personnel) toll collection lanes is proposed, the toll rate structure must be one that can be practically implemented by manual operations. Unless otherwise amended by WPM, the recommended options shall include the following:

(a) Uniform toll rate for SOV, HOV, and heavy and medium trucks for all time of day
(b) Uniform toll rate for SOV, HOV, and heavy and medium trucks with time of day differentials
(c) Differential by vehicle category –constant during day
(d) Differential by vehicle category with time of day differentials
(e) Loyalty discounts
(f) HOV discounts
(g) Alternative strategies for tolling freight traffic
(h) Toll escalation rates per year over the study period

5.2 Contractor shall prepare a WP assessing the operational, revenue and traffic impacts of collecting tolls (assuming the toll rate options identified in Task 5.1) on:

(a) Northbound traffic only (one-way toll)
(b) Southbound traffic only (one-way toll)
(c) Both northbound and southbound traffic (one-half of the two-way toll rate)

5.3 With regard to the electronic collection component, Contractor shall prepare a WP identifying, evaluating, and recommending approaches to sale/distribution of electronic "passes," including fees, and forecast the potential market penetration of the proposed approach(es) by user category.

5.4 As requested by WPM, Contractor shall prepare material for and participate in six intergovernmental technical and/or policy level committee meetings arranged by WPM to discuss preliminary assessments and final findings regarding toll rate structures.

5.5 Contractor shall prepare a TM that assembles the conclusions of from Tasks 5.1, 5.2 and 5.3 into a comprehensive report to be used with federal agencies, future environmental documents and available for public review.

Deliverables and Schedule for Task 5

Task No. 5	Deliverables	Due Date NLT _____ From NTP
5.1	WP 5.1: Toll Rate Structure Options	2 Months
5.2	WP 5.2: Location of Toll Collection Options	2 Months
5.3	WP 5.3: Sale/Distribution of Electronic Passes	2 Months
5.4	MR 5.4: Meetings on Toll Rate Structure	2 Months
5.5	TM5.5: Identification of Toll Rate St ructures	3 Months

Task 6: Identify River Crossing HOV and Truck-Only Operations Options

In Task 2, the Contractor will have determined the basic bridge/freeway improvement options that require additional analysis. In Task 5, the Contractor will have determined the toll rate structures meriting further study. Task 6 focuses on identifying and evaluating operational options for the bridge/freeway improvement and toll rate structure options. Each subtask below calls for the preparation of a WP that documents the analysis and recommends HOV and truck-only options for further study. The purpose of these WPs is to allow the WPM to determine which options require detailed study as part of the current effort, and ultimately in the DEIS. The papers will be used to explain, during Scoping, why some alternatives are not to be included in the DEIS. Options meriting further analysis based on the threshold analyses in this Task 6 will be further evaluated in Task 11, where options are screened for further study in the DEIS.

6.1 Contractor shall prepare a WP on the benefits and impacts of operating (i) two freeway/bridge lanes (one in each direction) and (ii) one reversible lane as an HOV lane. In identifying the HOV options, the Contractor shall assess the merits of and recommend (i) the appropriate occupancy threshold for HOV lanes, (ii) whether freight trucks could also use HOV lane, and (iii) time of day HOV operations. The WP prepared under this Task 6.1 shall address:

(a) The travel time /congestion savings to HOV travelers;
(b) The travel time/congestion impact on non-HOV lane users;
(c) Upstream, downstream, and parallel and intersecting route traffic impacts;
(d) The amount of usage and characteristics of users of the HOV lane; and
(e) The anticipated differences in the above factors based caused by the HOV options for each of the bridge/freeway improvement options, and toll rate structure options.
(f) Person through-put versus auto through-put

6.2 Contractor shall prepare a WP on the benefits and impacts of operating (i) two freeway/bridge lanes (one in each direction) and (ii) one reversible lane as a truck-only lane. Factors analogous to those set forth in Task 6.1 shall be addressed.

Deliverables and Schedule for Task 6

Task No. 6	Deliverables	Due Date NLT _____ from NTP
6.1	WP 6.1: Identification and Threshold Analysis of HOV Lane Options	3 Months
6.2	WP 6.2: Identification and Threshold Analysis of Truck Only Lane Options	3 Months

Task 7: Identify Toll System Options for Study

At this phase of study, Agency is not interested in evaluating and selecting specific technologies, hardware products, or software products. Rather, this phase is aimed at determining the following:

(a) Whether there are any Tag, Reader, "Backroom," and Enforcement system options that could be particularly well adapted or poorly adapted to the Columbia River crossing (I-5 and I-205), considering traffic characteristics, currently active project improvement options, recommended toll rate structure options, climate, and other pertinent factors.
(b) Of those tolling system options that could be reasonably adapted to the Columbia River Crossing, are their impacts and costs sufficiently similar that only one conceptual option need be identified for purposes of the financial planning and administrative analyses being undertaken in the current phase of study and the upcoming DEIS, or must multiple options be carried forward.

(c) Identify and provide needed information on the tolling system option or options that must be carried through the current study phase and upcoming DEIS.

7.1 Evaluate Toll System Options Meriting Study. Contractor shall prepare a WP, to be presented to the Regional Coordinating Committee, that identifies, and evaluates concepts (not specific products) for further study including, but not limited to the following:

(a) Tag System Options, including Read-Only, Active and Smart Card tag systems. Consultant shall consider, if pertinent, mounting locations and sales/distribution options;
(b) Reader System Options, including roadside, in-pavement and overhead systems;
(c) Backroom Systems, including verification, billing, maintenance, administration systems, and data processing facilities;
(d) Violation and Enforcement Systems, including in-lane and toll plaza surveillance options, camera, red light, and videotape options, and use of troopers/police; and
(e) For any non-electronic lanes, manual and automatic coin machine options.

In assessing these options, Contractor shall consider the following:

(a) Capital and operating costs
(b) Reliability
(c) Security
(d) Growth capacity
(e) Privacy
(f) Traffic operations and impacts
(g) Policy implications

7.2 Meetings with Regional Planners/Decision-Makers. Contractor shall meet with and/or make presentations to the relevant technical staff teams, the Regional Coordinating Committee and the Bi-State Coordination Committee to review the options and analysis identified in the I-5 Columbia River Crossing Traffic and Tolling Analysis.

7.3 Identify and Recommend Toll Options for Financial Analysis and DEIS. Based on the analysis prepared in Task 7.1, and the recommendations resulting from Task 7.2, Contractor shall prepare a TM describing the toll system option or options recommended for further analysis in this phase and the DEIS. Two descriptions shall be provided: (a) a summary description for use in meetings with government officials and public groups; and (b) a more detailed description that can be used by technical staff performing other analyses. The detailed description shall include a capital and operating cost estimate for each option that is sufficiently comprehensive and reliable to be used in the financial analyses to be undertaken in this study phase and the DEIS. These cost estimates shall be sufficiently disaggregated to demonstrate the major cost components

Deliverables and Schedule for Task 7

Task No. 7	Deliverables	Due Date NLT _____ from NTP
7.1	WP 7.1: Evaluation of Toll System Options	3 Months
7.2	MR 7.2: Meetings on Toll System Options	3 Months
7.3	TM7.3: Toll System Options to be Studied	3.5 Months

Task 8: Identify Toll Facility Design and Configuration Options

Based on the toll system options identified in Task 7, the operational concepts identified in Task 6 and the toll rate structures determined in Task 5, Contractor shall prepare a WP addressing the toll facility (plaza)

design concepts for each of the bridge/freeway alternatives identified in Task 2.7. Contractor will review potential plaza sites in Washington and Oregon in the context of design standards, impact to existing developments, and within the constraints of existing laws and policies. Designs will be at a conceptual level within the available budget for the purpose of incorporating feasible options in the DEIS. For each option identified, the WP must specify:

(a) The mix of electronic, manual, and/or other designated lanes;
(b) The layout and area requirements of the toll plaza, including any ancillary facilities or administration buildings; and
(c) The anticipated processing rate for the option.

Deliverables and Schedule for Task 8

Task No.	Deliverables	Due Date NLT _____ From NTP
8	WP 8: Evaluation of Toll Facility Design Options	3 Months

Task 9: Prepare Improvement/Toll Alternatives for Screening

9.1 Alternatives for Screening. The alternatives to be evaluated include combinations of the (i) bridge/freeway improvement options identified in Task 2.7, (ii) the freeway/bridge operations options identified in Task 6, (iii) the toll rate structure options identified in Task 5, (iv) the toll system options identified in Task 7 and the toll facility design and configuration options identified in Task 8. In addition, the alternatives must address conditions with and without high capacity transit conditions and tolling I-5 only or tolling both I-5 and I-205. The travel demand forecasting and evaluation of all possible permutations of these options far exceeds the time and resources available for this SOW. Moreover, such analysis would not be necessary to accomplish the primary purposes of the evaluation to be undertaken in Task 10 and Task 11, which include:

(a) Estimate the toll revenues generated by the various alternatives;
(b) Estimate the traffic diversion associated with tolling I-5 only;
(c) Estimate the differential traffic impacts of the toll rate structures, toll systems, plaza design configurations, and freeway/bridge operation concepts; and
(d) Assist in "scoping" the options and alternatives.

Within this context, Contractor shall assist WPM to coordinate with the Regional Coordinating Committee and Bi-State Coordination Committee in determining up to six alternatives for evaluation. Contractor shall prepare a TM identifying the alternatives selected for travel demand forecasting, and the concepts for which forecasts will be derived or extrapolated based on the results of the travel demand forecasts.

9.2 Meetings with Regional Planners/Decision-Makers. Contractor shall meet with staff-level and policy level committees to review the alternatives for evaluation.

Deliverables and Schedule for Task 9

Task No. 9	Deliverables	Due Date NLT _____ From NTP
9.1	TM 9.1: Identifying Selected Alternatives for Travel Demand Forecasting	4 Months
9.2	MR 9.2: Meetings	4 Months

Task 10: Generate Forecasts for Evaluation of Options and Alternatives

10.1 Forecasting. For each of the alternatives identified for travel demand forecasting in Task 9, Contractor shall use data from the forecasting and operational models identified in Task 3 and, to the extent necessary, work with Metro to implement its modeling activities to generate the following data:

(a) Year 2020 traffic volume, speed, and delay for AM Peak, PM Peak, and Typical Mid-Day on:
- I-5 between Rose Quarter and I-5/I-205 interchange in Clark County;
- I-205 between I-205/I-84 and I-5/I-205 interchange in Clark County;
- Major parallel routes to the above based on aggregate screenline information; and
- Major intersecting routes (I-84, SR 14, and SR 500) to the above.

(b) Columbia River crossing forecasts above shall be provided by:
- Vehicle type
- Trip purpose

(c) Columbia River crossing forecasts shall be provided for interim years (by extrapolation or growth rate analysis) between start-up of tolls and year 2025.

10.2 Document Results of Forecasts. Contractor shall prepare a WP documenting the results of Task 10.1.

Deliverables and Schedule for Task 10

Task No. 10	Deliverables	Due Date NLT _____ from NTP
10.2	WP 10.2: Documentation of Model Forecasts	5 Months

Task 11: Evaluate Alternatives

The impacts of the concepts and alternatives shall be assessed by comparison to the No Build and Baseline alternatives developed for the Strategic Plan, where applicable, and by comparison to each other.

11.1 Evaluate Impacts of Toll Rate Structures. Contractor shall analyze the toll rate structure in each forecasted alternative (and where applicable concepts by extrapolation) and prepare a WP addressing:
- Gross revenues and net revenues (accounting for operating costs) generated;
- Impact on traffic volumes and traffic diversion;
- Impact on traffic characteristics at river crossing, such as vehicle type, trip type;
- Impact on transit usage and HOVs;
- Characteristics of electronic toll users versus manual and coin machine lane users;
- Toll rate structures options to be carried into the DEIS and those proposed to be eliminated from further consideration;
- Refinements to the toll rate structure that can optimize revenues; and
- Elasticity of toll rates.

11.2 Evaluate Toll System Options. Contractor shall analyze the toll system option in each forecasted alternative (and where applicable concepts by extrapolation) and prepare a Working Paper addressing:
- Impact on traffic volumes, (I-5/I-205) diversion, freeway operations (including at the toll plaza), including travel times, delay and service levels;
- Impact on user types; and
- Toll system options to be carried into the DEIS and those proposed to be eliminated from further consideration.

11.3 Evaluate Freeway/Bridge Operation Concepts. Contractor shall analyze the freeway/bridge operations (i.e., HOV, truck-only) option in each forecasted alternative (and where applicable concepts by extrapolation) and prepare a WP addressing:

- Impact on traffic volumes, diversion, freeway operations (including at the toll plaza), including travel times, delay and service levels;
- Impact on user types (HOV, trucks, etc.); and
- Freeway/bridge operations options to be carried into the DEIS and those proposed to be eliminated from further consideration.

11.4 Evaluate Toll Facility Design and Configuration Options. Contractor shall analyze the toll facility design and configuration option in each forecasted alternative (and where applicable concepts by extrapolation) and prepare a WP addressing:

- Through-put volumes under the various freeway/bridge improvement and operations options;
- Impact on traffic volumes, diversion, freeway operations (including at the toll plaza), including travel times, delay and service levels;
- Impact on user types (HOV, trucks, etc.); and
- Toll facility design and configuration options to be carried into the DEIS and those proposed to be eliminated from further consideration.

11.5 Evaluate Freeway/Bridge Improvement Alternatives. Contractor shall analyze the freeway/bridge improvements in each forecasted alternative (and where applicable concepts by extrapolation) and prepare a WP addressing:

- Impact on traffic volumes, diversion, freeway operations (including at the toll plaza), including travel times, delay and service levels;
- Impact on user types (HOV, trucks, etc); and
- Freeway/bridge improvement options to be carried into the DEIS and those proposed to be eliminated from further consideration

Deliverables and Schedule for Task 11

Task No. 11	Deliverables	Due Date NLT _____ from NTP
11.1	WP 11.1: Evaluation of Toll Rate Structures	6 Months
11.2	WP 11.2: Evaluation of Toll System Options	6 Months
11.3	WP 11.3: Evaluation of Freeway/Bridge Operations Options	6 Months
11.4	WP 11.4: Evaluation of Toll Plaza Concepts	6 Months
11.5	WP 11.5: Evaluation of Freeway/Bridge Alternatives	6 Months

Task 12: Final Report, Public Review and Continuing Assistance

12.1 Final Report on Results of Evaluation. Contractor shall prepare a FR documenting the results and recommendations from Task 11. The FR shall also include an executive summary with appropriate color graphics. Ten copies of the FP shall be produced along with a CD that can be used to either produce additional paper copies or CD's for distribution.

12.2 Participate in Meetings with Technical Staff, Policy-Makers and Public Involvement. Prepare for and participate in meetings with technical staffs from the Regional Coordinating Committee and Bi-State Coordination Committee, and participate in the public involvement process. For budgeting purposes, there are estimated to be four Agency meetings and two public meetings.

12.3 Provide Continuing Technical Assistance. Assist WPM in addressing questions arising during this phase of study from technical staffs of participating governments, policy-makers, and public

involvement. For budgeting purposes, the level of involvement is estimated **not to exceed 180 hours**.

Deliverables and Schedule for Task 12

Task No. 12	Deliverables	Due Date NLT _____ From NTP
12.1	TM 12.1: Final Report on Results of Evaluation	9 Months
12.2	MR 12.2: Meeting Materials	12 Months
12.3	WP 12.3: Working Papers as Requested by WPM	12 Months

Task 13 Monthly Progress Reports

Contractor shall prepare monthly progress reports that track project scope, schedule and budget, and:

- Include description of the previous month's project activities, meetings facilitated/attended, and the planned activities for the next month.
- Record of important project/program related decisions made and action items assigned during ad hoc meetings and communications (report must include dates and participants).
- Identify issues and/or concerns that affect the project SOW, schedule, and/or budget.
- Indicate the percentage of each task completed, and reconcile the percentage of the total work completed versus the percentage of the not-to-exceed amount billed to date.

Task No.	Deliverables	Due Date
13	Progress Reports (submit with monthly invoice)	NLT 5th of each month

C. DELIVERABLES AND SCHEDULE

Task No.	Deliverables	Due Date NLT _____ from NTP
1.1	Prepare and update project schedule	2 weeks
1.2	Prepare invoices and monthly progress reports	Monthly
1.1	MR 1.1: Materials for initial meeting with Agency contractor.	2 weeks
1.3	Range of Options for Tolling Analysis	6 weeks
1.6	WP 1.5: Existing and New Traffic Forecasts and Impact Analyses Required to Identify and Screen Highway/Bridge Improvement Alternatives and Tolling Options	10 weeks
1.7	MR 1.6: Meetings on Traffic Forecasting Requirements	4 weeks
1.8	WP 1.7: Preliminary Identification of Freeway/Bridge Alternatives and Design Options for Further Study	Pending
2.1	WP 2.1: Identification and Evaluation of Toll Models	4 weeks
2.2	Operationalize tolling models	6 weeks
2.3	WP 2.3: Identification and Evaluation of Plaza Operation Models	4 weeks
2.4	Operationalize plaza operations models (I-5 and I-205)	8 weeks
2.5	MR 2.5: Meetings on Toll Model Requirements	4 weeks
3.1	Compilation of data in electronic format and hard copy	7 weeks

Task No.	Deliverables	Due Date NLT _____ from NTP
3.2	WP 3.2: Listing of Available and Needed Data	7 weeks
3.3	TM 3.3: Travel and Traffic Trends Pertinent to Tolling Options	8 weeks
4.1	WP 4.1: Toll Rate Structure Options	2 Months
4.2	WP 4.2: Location of Toll Collection Options	2 Months
4.3	WP 4.3: Sale/Distribution of Electronic Passes	2 Months
4.4	MR 4.4: Meetings on Toll Rate Structure	2 Months
4.5	TM 4.5: Identification of Toll Rate Structures	3 Months
5.1	WP 5.1: Identification and Threshold Analysis of HOV Lane Options	3 Months
5.2	WP 5.2: Identification and Threshold Analysis of Truck Only Lane Options	3 Months
6.1	WP 6.1: Evaluation of Toll System Options	3 Months
6.2	MR 6.2: Meetings on Toll System Options	3 Months
6.3	TM 6.3: Toll System Options to be Studied	3.5 Months
7	WP 7: Evaluation of Toll Facility Design Options	3 Months
8.1	TM 8.1: Identifying Selected Alternatives for Travel Demand Forecasting	4 Months
8.2	MR 8.2: Meetings	4 Months
9.2	WP 9.2: Documentation of Model Forecasts	5 Months
10.1	WP 10.1: Evaluation of Toll Rate Structures	6 Months
10.2	WP 10.2: Evaluation of Toll System Options	6 Months
10.3	WP 10.3: Evaluation of Freeway/Bridge Operations Options	6 Months
10.4	WP 10.4: Evaluation of Toll Plaza Concepts	6 Months
10.5	WP 10.5: Evaluation of Freeway/Bridge Alternatives	6 Months
11.1	TM 11.1: Final Report on Results of Evaluation	9 Months
11.2	MR 11.2: Meeting Materials	12 Months
11.3	WP 11.3: Working Papers as Requested by WPM	12 Months
12	Progress Reports (submit with monthly invoice)	NLT 5th of each month

D. ACRONYMS

Agency/ODOT	Oregon Department of Transportation
AA	Alternatives Analysis
ATA	Agreement to Agree
C-TRAN	Clark County Transit District
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Study
FEIS	Final Environmental Impact Statement

FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GMA	Growth Management Act
HOV	High Occupancy Vehicle
ICCP	Intergovernmental Coordination and Communications Plan
LRT	Light Rail Transit
IPP	Agency's Innovative Partnerships Program
MPO	Metropolitan Planning Organization
MOS-1	Minimum Operable Segment No. 1
MR	Meeting Reports
NEPA	National Environmental Policy Act
NLT	Not Later Than
NTE	Not to Exceed
NTP	Notice to Proceed
PE	Preliminary Engineering
PPP	Public-Private Partnership
RFP	Request For Proposals
RTC	Regional Transportation Commission
SEPA	State Environmental Policy Act
SOW	Statement of Work
TDM	Transportation Demand Management
T&M	Time and Materials
TM	Technical Memoranda
TriMet	Tri-County Metropolitan Transportation District of Oregon
TSM	Transportation System Management
TSUB	Transportation System User Benefits
WOC	Work Order Contract
WP	Working Paper
WPM	Agency's Work Order Project Manager
WSDOT	Washington Department of Transportation

E. COST AND METHOD OF COMPENSATION

All Compensation under this WOC is on a Time and Materials (T&M) basis and is only for the tasks identified for this Phase 1 work up to the NTE amount stated in the Compensation section on page 1. **No compensation is provided to Contractor for negotiations, preparing or revising cost estimate for services, or negotiating contracts with subcontractors.** Invoices for T&M work must include an attached breakdown of actual hours (as detailed in the ATA), identifying staff, and classification by task and allowable direct non-labor costs. Compensation terms and conditions allowed for this WOC is referenced in the ATA, or by Amendment, in Exhibit A and Exhibit B. Total Not-To-Exceed (NTE) payable to Contractor is **$639,147.00.**

SUMMARY OF ESTIMATE FOR SERVICES
David Evans and Associates, Inc.

Task #	Work Element	DEA Total Costs ($)	Vollmer Total Costs ($)	Parisi Total Costs ($)	Total Costs	% of Total
1.0	**Project Management & Quality Control**	$11,524		$1,332	$12,856	2.01%
	Work Element 1.0 Total	**$11,524**		**$1,332**	**$12,856**	**2.01%**
2.0	**Assess Data and Improvement Concepts**					
2.1	Working Sessions	$12,323	$7,040	$3,882	$23,245	3.64%
2.2	Review Traffic Analysis	$5,234	$13,080	$3,346	$21,660	3.39%
2.3	Range of Options for Tolling Analysis	$2,869	$3,920	$536	$7,325	1.15%
2.4	Review Engineering Concepts	$5,996		$1,072	$7,068	1.11%
2.5	Assemble Existing Information	$958		$536	$1,494	0.23%
2.6	Prepare Working Paper (Tasks 2.2, 2.3, 2.4)	$4,583		$2,209	$6,792	1.06%
2.7	Organize and Facilitate Meetings	$4,103		$2,209	$6,312	0.99%
2.8	Prepare Working Paper for Alternatives	$8,834		$5,490	$14,324	2.24%
	Work Element 2.0 Total	**$44,899**	**$24,040**	**$19,280**	**$88,219**	**13.80%**
3.0	**Identify and Prepare Models for TA**					
3.1	Prepare WP on Alternative Models	$3,391	$13,280	$3,882	$20,553	3.22%
3.2	Implement Tolling Model	$1,511	$9,480	$2,144	$13,135	2.06%
3.3	Prepare WP on Plaza Models/Design	$3,784	$6,840	$1,072	$11,696	1.83%
3.4	Implement the Plaza Operations Model	$9,331	$4,040	$2,274	$15,645	2.45%
3.5	Organize and Facilitate Meetings	$3,501		$2,144	$5,645	0.88%
	Work Element 3.0 Total	**$21,518**	**$33,640**	**$11,516**	**$66,674**	**10.43%**
4.0	**Identify Current Characteristics and Tr..**					
4.1	Compile and Review Traffic Data	$6,309	$5,040	$2,810	$14,159	2.22%
4.2	Prepare WP on Task 4.1	$3,366		$1,608	$4,974	0.78%
4.3	Prepare TM Detailing Traffic Characteristics	$8,663		$4,954	$13,617	2.13%
	Work Element 4.0 Total	$18,338	$5,040	$9,372	**$32,750**	**5.12%**
5.0	**Identify Toll Rate Structure Options**					
5.1	Prepare WP that Evaluates TR Structures	$442	$6,640	$536	$7,618	1.19%
5.2	Prepare WP Assessing Operational ...	$221	$6,840	$268	$7,329	1.15%
5.3	Prepare WP Approaches to Electronic ...	$221	$6,640	$268	$7,129	1.12%
5.4	Participate in Six Intergovernmental Mtgs.	$4,902	$7,040	$1,738	$13,680	2.14%
5.5	Prepare TM Toll Rate Structures	$958	$2,520	$536	$4,014	0.63%

	Work Element 5.0 Total	**$6,745**	**$29,680**	**$3,346**	**$39,771**	**6.22%**
6.0	**Identify River Crossing HOV and ...**					
6.1	Prepare WP on HOV Lane Options	$15,408	$2,520	$6,627	$24,555	3.84%
6.2	Prepare WP on Truck-Only Lane Options	$10,799	$2,520	$4,353	$17,672	2.77%
	Work Element 6.0 Total	**$26,208**	**$5,040**	**$10,980**	**$42,228**	**6.61%**
7.0	**Identify Toll System Options for Study**					
7.1	Prepare WP that Evaluates Concepts ...	$455	$4,560	$536	$5,551	0.87%
7.2	Meetings with Regional Planners ...	$3,047	$7,040	$536	$10,623	1.66%
7.3	Prepare TM Describing Toll Options		$4,040	$268	$4,308	0.67%
	Work Element 7.0 Total	**$3,501**	**$15,640**	**$1,340**	**$20,481**	**3.20%**
8.0	**Identify Toll Facility Design and Con ...**					
8.0	Prepare WP of toll Facility Design Options	$13,939	$24,760	$1,072	$39,771	6.22%
	Work Element 8.0 Total	**$13,939**	**$24,760**	**$1,072**	**$39,771**	**6.22%**
9.0	**Prepare Improvement/Toll Alts. For ...**					
9.1	Alternatives for Screening	$7,286	$10,080	$3,476	$20,842	3.26%
9.2	Meetings with Regional Planners	$5,221		$2,144	$7,365	1.15%
	Work Element 9.0 Total	**$12,507**	**$10,080**	**$5,620**	**$28,207**	**4.41%**
10.0	**Generate Forecasts for Evaluation ...**					
10.1	Forecasting	$11,284	$16,520	$6,692	$34,496	5.40%
10.2	Document Results of Forecasts	$3,796	$6,160	$2,144	$12,100	1.89%
	Work Element 10.0 Total	**$15,080**	**$22,680**	**$8,836**	**$46,596**	**7.29%**
11.0	**Evaluate Alternatives**					
11.1	Evaluate Impacts of Toll Rate Structures	$7,151	$5,900	$4,150	$17,201	2.69%
11.2	Evaluate Toll System Options	$6,192	$5,900	$4,150	$16,242	2.54%
11.3	Evaluate Freeway/Bridge Operation ...	$7,826	$5,900	$4,150	$17,876	2.80%
11.4	Evaluate Toll Plaza Concepts ...	$11,365	$5,900	$4,150	$21,415	3.35%
11.5	Evaluate Freeway/Bridge Alternatives	$8,674	$5,900	$4,150	$18,724	2.93%
	Work Element 11.0 Total	**$41,208**	**$29,500**	**$20,750**	**$91,458**	**14.31%**
12.0	**Final Report, Public Review and ...**					
12.1	Final Report on Results of Evaluation	$14,031	$15,840	$5,490	$35,361	5.53%
12.2	Participate in Meetings with ...	$18,097	$14,080	$10,980	$43,157	6.75%
12.3	Provide Continuing Technical Assistance	$18,552		$5,490	$24,042	3.76%
	Work Element 12.0 Total	**$50,680**	**$29,920**	**$21,960**	**$102,560**	**16.05%**
	Direct Expenses	$1,975	$18,100	$7,500	$27,575	**4.31%**
	PROJECT WORK ELEMENTS TOTALS	**$268,123**	**$248,120**	**$122,904**	**$639,147**	**100.00%**

David Evans and Associates, Inc.

Item No.	Work Element	Lyman, Jay (PIC/Sr.PM)	Anderson, Ron (Sr. PM)	Baker, Mike (Sr. Traffic Engr)	LaProwse, Ryan (EIT)	Harmon, Scott (EIT)	Note, Inga (Traffic Engr)	Grile, Cameron (EIT)	Sr. (Design) Engineer	Sr. CADD Tech. (CADD, Graphics)	Office/ Project Assistant	Total DEA Hours	Total DEA Dollars	% of Total
	Hourly Rates:	$168.93	$184.29	$110.57	$76.79	$79.86	$71.09	$63.52	$102.91	$76.79	$58.36			
1.0	**Project Management & Quality Control**	8	40								48	96	$11,524	4.30%
	Work Element 1.0 Total	**8**	**40**								**48**	**96**	**$11,524**	**4.30%**
2.0	**Assess Data and Improvement Concepts**													
2.1	Working Sessions	16	12	16	36	36						116	$12,323	4.60%
2.2	Review Traffic Analysis	12		12	12	12						48	$5,234	1.95%
2.3	Range of Options for Tolling Analysis	4	2	4						18		28	$2,869	1.07%
2.4	Review Engineering Concepts	12	6	12	8					12		50	$5,996	2.24%
2.5	Assemble Existing Information					12						12	$958	0.36%
2.6	Prepare Working Paper (Tasks 2.2, 2.3, 2.4)	4	6	12	4	4				8	4	42	$4,583	1.71%
2.7	Organize and Facilitate Meetings	4	8	12	4	4						32	$4,103	1.53%
2.8	Prepare Working Paper for Alternatives	8	8	24	16	16				8	4	84	$8,834	3.29%
	Work Element 2.0 Total	**60**	**42**	**92**	**80**	**84**				**46**	**8**	**412**	**$44,899**	**16.75%**
3.0	**Identify and Prepare Models for TA**													
3.1	Prepare WP on Alternative Models		2	16	8	8						34	$3,391	1.26%
3.2	Implement Tolling Model			8	4	4						16	$1,511	0.56%
3.3	Prepare WP on Plaza Models/Design		2	8	8	24						42	$3,784	1.41%
3.4	Implement the Plaza Operations Model			12	24	30	40			12		118	$9,331	3.48%
3.5	Organize and Facilitate Meetings		6	16	4	4						30	$3,501	1.31%
	Work Element 3.0 Total		**10**	**60**	**48**	**70**	**40**			**12**		**240**	**$21,518**	**8.03%**
4.0	**Identify Current Characteristics and Tr..**													
4.1	Compile and Review Traffic Data	2		20	24	24						70	$6,309	2.35%
4.2	Prepare WP on Task 4.1		2	8	12	12					4	38	$3,366	1.26%
4.3	Prepare TM Detailing Traffic Characteristics	2	4	24	24	12	30					96	$8,663	3.23%
	Work Element 4.0 Total	**4**	**6**	**52**	**60**	**48**	**30**				**4**	**204**	**$18,338**	**6.84%**
5.0	**Identify Toll Rate Structure Options**													
5.1	Prepare WP that Evaluates TR Structures			4								4	$442	0.16%
5.2	Prepare WP Assessing Operational ...			2								2	$221	0.08%
5.3	Prepare WP Approaches to Electronic ...			2								2	$221	0.08%
5.4	Participate in Six Intergovernmental Mtgs.	12	12	6								30	$4,902	1.83%
5.5	Prepare TM Toll Rate Structures		4	2								6	$958	0.36%
	Work Element 5.0 Total	**12**	**16**	**16**								**44**	**$6,745**	**2.52%**
6.0	**Identify River Crossing HOV and ...**													
6.1	Prepare WP on HOV Lane Options	8	12	24	40	40	20	20			4	168	$15,408	5.75%

Item No.	Work Element	Lyman, Jay (PIC/Sr.PM)	Anderson, Ron (Sr. PM)	Baker, Mike (Sr. Traffic Engr)	LeProwse, Ryan (EIT)	Harmon, Scott (EIT)	Note, Inga (Traffic Engr)	Grile, Cameron (EIT)	Sr. (Design) Engineer	Sr. CADD Tech. (CADD, Graphics)	Office/ Project Assistant	Total DEA Hours	Total DEA Dollars	% of Total
	Hourly Rates:	$168.93	$184.29	$110.57	$76.79	$79.86	$71.09	$63.52	$102.91	$76.79	$58.36			
6.2	Prepare WP on Truck-Only Lane Options	8	12	18	32	32					4	106	$10,799	4.03%
	Work Element 6.0 Total	**16**	**24**	**42**	**72**	**72**	**20**	**20**			**8**	**274**	**$26,208**	**9.77%**
7.0	**Identify Toll System Options for Study**													
7.1	Prepare WP that Evaluates Concepts ...			2							4	6	$455	0.17%
7.2	Meetings with Regional Planners ...	8	8	2								18	$3,047	1.14%
7.3	Prepare TM Describing Toll Options													
	Work Element 7.0 Total	**8**	**8**	**4**							**4**	**24**	**$3,501**	**1.31%**
8.0	**Identify Toll Facility Design and Con ...**													
8.0	Prepare WP of toll Facility Design Options	8	12	8	12	24			40	30	4	138	$13,939	5.20%
	Work Element 8.0 Total	**8**	**12**	**8**	**12**	**24**			**40**	**30**	**4**	**138**	**$13,939**	**5.20%**
9.0	**Prepare Improvement/Toll Alts. For ...**													
9.1	Alternatives for Screening	8		20	12	12				24		76	$7,286	2.72%
9.2	Meetings with Regional Planners	8	8	16	4	4						40	$5,221	1.95%
	Work Element 9.0 Total	**16**	**8**	**36**	**16**	**16**				**24**		**116**	**$12,507**	**4.66%**
10.0	**Generate Forecasts for Evaluation ...**													
10.1	Forecasting			28	28	40	40					136	$11,284	4.21%
10.2	Document Results of Forecasts		2	12	16	8					4	42	$3,796	1.42%
	Work Element 10.0 Total		**2**	**40**	**44**	**48**	**40**				**4**	**178**	**$15,080**	**5.62%**
11.0	**Evaluate Alternatives**													
11.1	Evaluate Impacts of Toll Rate Structures		2	16	32	32						82	$7,151	2.67%
11.2	Evaluate Toll System Options		2	16	32	20						70	$6,192	2.31%
11.3	Evaluate Freeway/Bridge Operation ...	4	2	16	32	32						86	$7,826	2.92%
11.4	Evaluate Toll Plaza Concepts ...		2	16	20	32			32	24		126	$11,365	4.24%
11.5	Evaluate Freeway/Bridge Alternatives	4	2	16	32	32				8	4	98	$8,674	3.24%
	Work Element 11.0 Total	**8**	**10**	**80**	**148**	**148**			**32**	**32**	**4**	**462**	**$41,208**	**15.37%**
12.0	**Final Report, Public Review and ...**													
12.1	Final Report on Results of Evaluation	4	24	24	24	24			8	16	8	132	$14,031	5.23%
12.2	Participate in Meetings with ...	12	24	60	32	32						160	$18,097	6.75%
12.3	Provide Continuing Technical Assistance	28	40	30	20	20						138	$18,552	6.92%
	Work Element 12.0 Total	**46**	**88**	**114**	**76**	**76**			**8**	**16**	**8**	**430**	**$50,680**	**18.90%**
	EXPENSES												**$1,975**	**0.74%**
PROJECT WORK ELEMENTS TOTALS		**184**	**266**	**544**	**556**	**586**	**130**	**20**	**80**	**160**	**92**	**2618**	**$268,123**	**100.00%**

David Evans and Associates, Inc.

	Classification		Hrs.	x	Rate	=	Cost
1	Lyman, Jay (Principal-in-Charge/Sr.PM)		184		$ 168.93		$31,083
2	Anderson, Ron (Sr. PM)		266		$ 184.29		$49,021
3	Baker, Mike (Sr. Traffic Engr)		544		$ 110.57		$60,150
4	LeProwse, Ryan (EIT)		556		$ 76.79		$42,695
5	Harmon, Scott (EIT)		586		$ 79.86		$46,798
6	Note, Inga (Traffic Engineer)		130		$ 71.09		$9,242
7	Grile, Cameron (EIT)		20		$ 63.52		$1,270
8	Sr. (Design) Engineer		80		$ 102.91		$8,233
9	Sr. CADD Tech. (CADD, Graphics)		160		$ 76.79		$12,286
10	Office/Project Assistant		92		$ 58.36		$5,369
		Total Hrs.	2618				
	Salary Cost						**$ 266,148**

Direct Expenses	**No.**	**Unit**	**Each**		**Cost**
Reproduction Costs					
Copies (Avg. incl. Color)	2,500	pages @	$0.50	/page	$ 1,250.00
Presentation Graphics					$ 500.00
Mileage	600	miles @	$0.375	/mile	$ 225.00

Subtotal	**$ 1,975**
David Evans and Associates Total	**$ 268,123**

Subconsultants

	-	W/DBE	M/DBE	Hrs	$ Total
Vollmer				1184	$ 248,120
Parisi				888	$ 122,904
Total	0.0%	0.0%	0.0%	2,072	
Subconsultant Total		**0%**			**$ 371,024**

Direct Expenses Sub-Total (including Subconsultants)	**$ 372,999**
Total Costs	**$ 639,147**

Summary of Hours

Work Element #	Work Element	DEA Total Hours	Vollmer Total Hours	Parisi Total Hours	Total	% of Total
1.0	**Project Management & Quality Control**	96		12	108	2.30%
	Work Element 1.0 Total	**96**		**12**	**108**	**2.30%**
2.0	**Assess Data and Improvement Concepts**					
2.1	Working Sessions	116	32	30	178	3.80%
2.2	Review Traffic Analysis	48	68	26	142	3.03%
2.3	Range of Options for Tolling Analysis	28	20	4	52	1.11%
2.4	Review Engineering Concepts	50		8	58	1.24%
2.5	Assemble Existing Information	12		4	16	0.34%
2.6	Prepare Working Paper (Tasks 2.2, 2.3, 2.4)	42		17	59	1.26%
2.7	Organize and Facilitate Meetings	32		17	49	1.04%
2.8	Prepare Working Paper for Alternatives	84		42	126	2.69%
	Work Element 2.0 Total	**412**	**120**	**148**	**680**	**14.50%**
3.0	**Identify and Prepare Models for TA**					
3.1	Prepare WP on Alternative Models	34	72	30	136	2.90%
3.2	Implement Tolling Model	16	48	16	80	1.71%
3.3	Prepare WP on Plaza Models/Design	42	36	8	86	1.83%
3.4	Implement the Plaza Operations Model	118	20	18	156	3.33%
3.5	Organize and Facilitate Meetings	30		16	46	0.98%
	Work Element 3.0 Total	**240**	**176**	**88**	**504**	**10.75%**
4.0	**Identify Current Characteristics and Tr..**					
4.1	Compile and Review Traffic Data	70	24	22	116	2.47%
4.2	Prepare WP on Task 4.1	38		12	50	1.07%
4.3	Prepare TM Detailing Traffic Characteristics	96		38	134	2.86%
	Work Element 4.0 Total	**204**	**24**	**72**	**300**	**6.40%**
5.0	**Identify Toll Rate Structure Options**					
5.1	Prepare WP that Evaluates TR Structures	4	36	4	44	0.94%
5.2	Prepare WP Assessing Operational ...	2	36	2	40	0.85%
5.3	Prepare WP Approaches to Electronic ...	2	36	2	40	0.85%
5.4	Participate in Six Intergovernmental Mtgs.	30	32	14	76	1.62%
5.5	Prepare TM Toll Rate Structures	6	12	4	22	0.47%
	Work Element 5.0 Total	**44**	**152**	**26**	**222**	**4.73%**
6.0	**Identify River Crossing HOV and ...**					
6.1	Prepare WP on HOV Lane Options	168	12	51	231	4.93%
6.2	Prepare WP on Truck-Only Lane Options	106	12	33	151	3.22%

Work Element #	Work Element	DEA Total Hours	Vollmer Total Hours	Parisi Total Hours	Total	% of Total
	Work Element 6.0 Total	**274**	**24**	**84**	**382**	**8.14%**
7.0	**Identify Toll System Options for Study**					
7.1	Prepare WP that Evaluates Concepts ...	6	24	4	34	0.72%
7.2	Meetings with Regional Planners ...	18	32	4	54	1.15%
7.3	Prepare TM Describing Toll Options		20	2	22	0.47%
	Work Element 7.0 Total	**24**	**76**	**10**	**110**	**2.35%**
8.0	**Identify Toll Facility Design and Con ...**					
8.0	Prepare WP of toll Facility Design Options	138	128	8	274	5.84%
	Work Element 8.0 Total	**138**	**128**	**8**	**274**	**5.84%**
9.0	**Prepare Improvement/Toll Alts. For ...**					
9.1	Alternatives for Screening	76	48	28	152	3.24%
9.2	Meetings with Regional Planners	40		16	56	1.19%
	Work Element 9.0 Total	**116**	**48**	**44**	**208**	**4.43%**
10.0	**Generate Forecasts for Evaluation ...**					
10.1	Forecasting	136	88	52	276	5.88%
10.2	Document Results of Forecasts	42	36	16	94	2.00%
	Work Element 10.0 Total	**178**	**124**	**68**	**370**	**7.89%**
11.0	**Evaluate Alternatives**					
11.1	Evaluate Impacts of Toll Rate Structures	82	32	32	146	3.11%
11.2	Evaluate Toll System Options	70	32	32	134	2.86%
11.3	Evaluate Freeway/Bridge Operation ...	86	32	32	150	3.20%
11.4	Evaluate Toll Plaza Concepts ...	126	32	32	190	4.05%
11.5	Evaluate Freeway/Bridge Alternatives	98	32	32	162	3.45%
	Work Element 11.0 Total	**462**	**160**	**160**	**782**	**16.67%**
12.0	**Final Report, Public Review and ...**					
12.1	Final Report on Results of Evaluation	132	88	42	262	5.59%
12.2	Participate in Meetings with ...	160	64	84	308	6.57%
12.3	Provide Continuing Technical Assistance	138		42	180	3.84%
	Work Element 12.0 Total	**430**	**152**	**168**	**750**	**15.99%**
PROJECT WORK ELEMENTS TOTALS		**2,618**	**1,184**	**888**	**4,690**	**100.00%**

Vollmer Associates LLP

Item No.	Work Element	Principal	Proj. Mgr/Coord.	Sr. Professional	Professional	Jr. Professional	Vollmer Hours Total	Vollmer Dollars	% of Total
	loaded rates:	$250.00	$190.00	$175.00	$150.00	$115.00			
1.0	**Project Management & Quality Control**								
	Work Element 1.0 Total								
2.0	**Assess Data and Improvement Concepts**								
2.1	Working Sessions	16	16				32	$7,040	2.84%
2.2	Review Traffic Analysis	12	32	16	8		68	$13,080	5.27%
2.3	Range of Options for Tolling Analysis	4	8	8			20	$3,920	1.58%
2.4	Review Engineering Concepts								
2.5	Assemble Existing Information								
2.6	Prepare Working Paper (Tasks 2.2, 2.3, 2.4)								
2.7	Organize and Facilitate Meetings								
2.8	Prepare Working Paper for Alternatives								
	Work Element 2.0 Total	**32**	**56**	**24**	**8**		**120**	**$24,040**	**9.69%**
3.0	**Identify and Prepare Models for TA**								
3.1	Prepare WP on Alternative Models	8	32	16	16		72	$13,280	5.35%
3.2	Implement Tolling Model	8	32	8			48	$9,480	3.82%
3.3	Prepare WP on Plaza Models/Design	4	16	16			36	$6,840	2.76%
3.4	Implement the Plaza Operations Model	4	16				20	$4,040	1.63%
3.5	Organize and Facilitate Meetings								
	Work Element 3.0 Total	**24**	**96**	**40**	**16**		**176**	**$33,640**	**13.56%**
4.0	**Identify Current Characteristics and Tr..**								
4.1	Compile and Review Traffic Data	8	16				24	$5,040	2.03%
4.2	Prepare WP on Task 4.1								
4.3	Prepare TM Detailing Traffic Characteristics								
	Work Element 4.0 Total	**8**	**16**				**24**	**$5,040**	**2.03%**
5.0	**Identify Toll Rate Structure Options**								
5.1	Prepare WP that Evaluates TR Structures	4	16	8	8		36	$6,640	2.68%
5.2	Prepare WP Assessing Operational ...	4	16	16			36	$6,840	2.76%
5.3	Prepare WP Approaches to Electronic ...	4	16	8	8		36	$6,640	2.68%
5.4	Participate in Six Intergovernmental Mtgs.	16	16				32	$7,040	2.84%
5.5	Prepare TM Toll Rate Structures	4	8				12	$2,520	1.02%
	Work Element 5.0 Total	**32**	**72**	**32**	**16**		**152**	**$29,680**	**11.96%**
6.0	**Identify River Crossing HOV and ...**								

Item No.	Work Element	Principal	Proj. Mgr/Coord.	Sr. Professional	Professional	Jr. Professional	Vollmer Hours Total	Vollmer Dollars	% of Total
	loaded rates:	$250.00	$190.00	$175.00	$150.00	$115.00			
6.1	Prepare WP on HOV Lane Options	4	8				12	$2,520	1.02%
6.2	Prepare WP on Truck-Only Lane Options	4	8				12	$2,520	1.02%
	Work Element 6.0 Total	**8**	**16**				**24**	**$5,040**	**2.03%**
7.0	**Identify Toll System Options for Study**								
7.1	Prepare WP that Evaluates Concepts ...	4	4	16			24	$4,560	1.84%
7.2	Meetings with Regional Planners ...	16	16				32	$7,040	2.84%
7.3	Prepare TM Describing Toll Options	4	16				20	$4,040	1.63%
	Work Element 7.0 Total	**24**	**36**	**16**			**76**	**$15,640**	**6.30%**
8.0	**Identify Toll Facility Design and Con ...**								
8.0	Prepare WP of toll Facility Design Options	24	64	24	16		128	$24,760	9.98%
	Work Element 8.0 Total	**24**	**64**	**24**	**16**		**128**	**$24,760**	**9.98%**
9.0	**Prepare Improvement/Toll Alts. For ...**								
9.1	Alternatives for Screening	16	32				48	$10,080	4.06%
9.2	Meetings with Regional Planners								
	Work Element 9.0 Total	**16**	**32**				**48**	**$10,080**	**4.06%**
10.0	**Generate Forecasts for Evaluation ...**								
10.1	Forecasting	16	40	16	8	8	88	$16,520	6.66%
10.2	Document Results of Forecasts	4	16		8	8	36	$6,160	2.48%
	Work Element 10.0 Total	**20**	**56**	**16**	**16**	**16**	**124**	**$22,680**	**9.14%**
11.0	**Evaluate Alternatives**								
11.1	Evaluate Impacts of Toll Rate Structures	4	16	8		4	32	$5,900	2.38%
11.2	Evaluate Toll System Options	4	16	8		4	32	$5,900	2.38%
11.3	Evaluate Freeway/Bridge Operation ...	4	16	8		4	32	$5,900	2.38%
11.4	Evaluate Toll Plaza Concepts ...	4	16	8		4	32	$5,900	2.38%
11.5	Evaluate Freeway/Bridge Alternatives	4	16	8		4	32	$5,900	2.38%
	Work Element 11.0 Total	**20**	**80**	**40**		**20**	**160**	**$29,500**	**11.89%**
12.0	**Final Report, Public Review and ...**								
12.1	Final Report on Results of Evaluation	16	40		16	16	88	$15,840	6.38%
12.2	Participate in Meetings with ...	32	32				64	$14,080	5.67%
12.3	Provide Continuing Technical Assistance								
	Work Element 12.0 Total	**48**	**72**		**16**	**16**	**152**	**$29,920**	**12.06%**
	EXPENSES							$18,100	7.29%
	PROJECT WORK ELEMENTS TOTALS	256	596	192	88	52	1184	$248,120	100.00%

Vollmer Associates LLP

	Classification		Hrs.	x	Burdened Rate	=	Cost
1	Principal		256		$250.00		$64,000
2	Project Manager/Coordinator		596		$190.00		$113,240
3	Senior Professional		192		$175.00		$33,600
4	Professional		88		$150.00		$13,200
5	Jr. Professional		52		$115.00		$5,980
		Total Hrs.	1184				
	Salary Cost						**$ 230,020**

	Direct Expenses	**No.**	**Unit**	**Each**		**Cost**	
	Reproduction Costs						
	Copies	5000	pages @	$0.06	/page	$ 300.00	
	Reports	20	reports @	$15	/report	$ 300.00	
	Mail/Deliveries/Fed Ex	25	@	$20		$ 500.00	
	Air Travel (IAW Fed. Req.)	10	trips	$1,200	/trip	$ 12,000	
	Hotel/Rental Car/Meals/etc	10	trips	$500	/trip	$ 5,000	
	Subtotal						**$ 18,100**
	Total						**$248,120**

David Parisi and Associates

Item No.	Work Element	Principal	Office/Proj. Assistant	Parisi Hours Total	Parisi Dollars	% of Total
	loaded rates:	$134.00	$65.00			
1.0	**Project Management & Quality Control**	8	4	12	$1,332	1.08%
	Work Element 1.0 Total	**8**	**4**	**12**	**$1,332**	**1.08%**
2.0	**Assess Data and Improvement Concepts**					
2.1	Working Sessions	28	2	30	$3,882	3.16%
2.2	Review Traffic Analysis	24	2	26	$3,346	2.72%
2.3	Range of Options for Tolling Analysis	4		4	$536	0.44%
2.4	Review Engineering Concepts	8		8	$1,072	0.87%
2.5	Assemble Existing Information	4		4	$536	0.44%
2.6	Prepare Working Paper (Tasks 2.2, 2.3, 2.4)	16	1	17	$2,209	1.80%
2.7	Organize and Facilitate Meetings	16	1	17	$2,209	1.80%
2.8	Prepare Working Paper for Alternatives	40	2	42	$5,490	4.47%
	Work Element 2.0 Total	**140**	**8**	**148**	**$19,280**	**15.69%**
3.0	**Identify and Prepare Models for TA**					
3.1	Prepare WP on Alternative Models	28	2	30	$3,882	3.16%
3.2	Implement Tolling Model	16		16	$2,144	1.74%
3.3	Prepare WP on Plaza Models/Design	8		8	$1,072	0.87%
3.4	Implement the Plaza Operations Model	16	2	18	$2,274	1.85%
3.5	Organize and Facilitate Meetings	16		16	$2,144	1.74%
	Work Element 3.0 Total	**84**	**4**	**88**	**$11,516**	**9.37%**
4.0	**Identify Current Characteristics and Tr..**					
4.1	Compile and Review Traffic Data	20	2	22	$2,810	2.29%
4.2	Prepare WP on Task 4.1	12		12	$1,608	1.31%
4.3	Prepare TM Detailing Traffic Characteristics	36	2	38	$4,954	4.03%
	Work Element 4.0 Total	**68**	**4**	**72**	**$9,372**	**7.63%**
5.0	**Identify Toll Rate Structure Options**					
5.1	Prepare WP that Evaluates TR Structures	4		4	$536	0.44%
5.2	Prepare WP Assessing Operational ...	2		2	$268	0.22%
5.3	Prepare WP Approaches to Electronic ...	2		2	$268	0.22%
5.4	Participate in Six Intergovernmental Mtgs.	12	2	14	$1,738	1.41%
5.5	Prepare TM Toll Rate Structures	4		4	$536	0.44%
	Work Element 5.0 Total	**24**	**2**	**26**	**$3,346**	**2.72%**
6.0	**Identify River Crossing HOV and ...**					
6.1	Prepare WP on HOV Lane Options	48	3	51	$6,627	5.39%
6.2	Prepare WP on Truck-Only Lane Options	32	1	33	$4,353	3.54%
	Work Element 6.0 Total	**80**	**4**	**84**	**$10,980**	**8.93%**
7.0	**Identify Toll System Options for Study**					
7.1	Prepare WP that Evaluates Concepts ...	4		4	$536	0.44%
7.2	Meetings with Regional Planners ...	4		4	$536	0.44%
7.3	Prepare TM Describing Toll Options	2		2	$268	0.22%
	Work Element 7.0 Total	**10**		**10**	**$1,340**	**1.09%**
8.0	**Identify Toll Facility Design and Con ...**					
8.0	Prepare WP of toll Facility Design Options	8		8	$1,072	0.87%
	Work Element 8.0 Total	**8**		**8**	**$1,072**	**0.87%**
9.0	**Prepare Improvement/Toll Alts. For ...**					
9.1	Alternatives for Screening	24	4	28	$3,476	2.83%
9.2	Meetings with Regional Planners	16		16	$2,144	1.74%

Item No.	Work Element	Principal	Office/Proj. Assistant	Parisi Hours Total	Parisi Dollars	% of Total
	loaded rates:	$134.00	$65.00			
	Work Element 9.0 Total	**40**	**4**	**44**	**$5,620**	**4.57%**
10.0	**Generate Forecasts for Evaluation ...**					
10.1	Forecasting	48	4	52	$6,692	5.44%
10.2	Document Results of Forecasts	16		16	$2,144	1.74%
	Work Element 10.0 Total	**64**	**4**	**68**	**$8,836**	**7.19%**
11.0	**Evaluate Alternatives**					
11.1	Evaluate Impacts of Toll Rate Structures	30	2	32	$4,150	3.38%
11.2	Evaluate Toll System Options	30	2	32	$4,150	3.38%
11.3	Evaluate Freeway/Bridge Operation ...	30	2	32	$4,150	3.38%
11.4	Evaluate Toll Plaza Concepts ...	30	2	32	$4,150	3.38%
11.5	Evaluate Freeway/Bridge Alternatives	30	2	32	$4,150	3.38%
	Work Element 11.0 Total	**150**	**10**	**160**	**$20,750**	**16.88%**
12.0	**Final Report, Public Review and ...**					
12.1	Final Report on Results of Evaluation	40	2	42	$5,490	4.47%
12.2	Participate in Meetings with ...	80	4	84	$10,980	8.93%
12.3	Provide Continuing Technical Assistance	40	2	42	$5,490	4.47%
	Work Element 12.0 Total	**160**	**8**	**168**	**$21,960**	**17.87%**
	EXPENSES				$7,500	6.10%
	PROJECT WORK ELEMENTS TOTALS	836	52	888	$122,904	100.00%

	Classification		Hrs.	x	Burdened Rate	=	Cost
1	Principal		836		$134.00		$112,024
2	Office/project assistant		52		$ 65.00		$3,380
		Total Hrs.	888				

	Salary Cost	**$115,404**
	Direct Expenses	
	Travel and Per Diem IAW Federal Guidelines (Est. 16 trips)	$7,500
	Total	**$122,904**