Early Action 25314 1.3.

Xcopy: KHW PHG JMR

AGREEMENT NO. Y-7888

SUPPLEMENT 1

SR 99: Alaskan Way Viaduct EIS – Phase 2

This SUPPLEMENTAL AGREEMENT is made and entered into on this _____ day of _____, 2001, by and between the State of Washington acting through the Washington State Department of Transportation and the Secretary of Transportation, hereinafter called the "STATE", and Parsons Brinckerhoff Quade & Douglas, Inc., hereinafter called the "CONSULTANT."

WITNESS:

WHEREAS, the parties have previously entered into an AGREEMENT for professional services to prepare a scope of work to complete the first phase of the project, which is to assist the STATE on the development of the Environmental Impact Statement with associated design work for the SR 99, Alaskan Way Viaduct, Phase 2, such work hereinafter called the "PROJECT", said AGREEMENT being Y-7888 dated August 1, 2001; and

WHEREAS, both parties desire to supplement said AGREEMENT Y-7888 by adding new work; and increasing the maximum total amount payable to cover this additional work for these services on the PROJECT; and

WHEREAS, the STATE has directed the CONSULTANT to replace the public involvement subconsultants; and

WHEREAS, Section XIV, EXTRA WORK, of the AGREEMENT provides for changes to the AGREEMENT by SUPPLEMENTAL AGREEMENT.

NOW, THEREFORE, in consideration of the promises, covenants, terms, conditions, and performance contained herein, or attached and incorporated and made a part hereof, the parties mutually agree as follows:

Each and every provision of the original Agreement Y-7888 shall remain in full force and effect, except as expressly modified in the following sections:

I

Section II, Scope of Work, is supplemented to add the Scope of Work for the early start items of the PROJECT, attached hereto as Exhibit A-1, Parts 1 (Seawall) and 2 (Viaduct) and by this reference made a part of this SUPPLEMENTAL AGREEMENT.

II

Section III, General Requirements, is supplemented to revise the agreement provisions regarding the notice of meetings. In the first paragraph of Section III of the AGREEMENT, the sentence which refers to "Exhibit A" will be substituted entirely with the following: Unless otherwise provided, a minimum of eight (8) hours advance notice of such meetings will be required to be given to the CONSULTANT by the STATE.

Section III, General Requirements, is also supplemented to add Exhibit B-1, attached hereto and by this reference made part of this SUPPLEMENTAL AGREEMENT. Exhibit B-1 shows the current status of the DBE goals for the PROJECT, as well as the Federal Identification numbers, Unified Business Identification numbers and Certification numbers (where applicable) of all the subconsultants.

III

Section V, Payment, shall be supplemented to compensate the CONSULTANT for the additional engineering services necessary to complete the activities included in this SUPPLEMENTAL AGREEMENT. A summary of the CONSULTANT's cost estimate is attached hereto as Exhibit D-1, Parts 1 (Seawall) and 2 (Viaduct) and by this reference made part of this SUPPLEMENTAL AGREEMENT. Part of Exhibit D-1 includes updated Negotiated Hourly Rates tables for the CONSULTANT including fee percentage, which are to be used for this portion of work on the PROJECT.

Section V is supplemented as follows:

3. Management Reserve Fund

The STATE desires to establish a Management Reserve Fund for this AGREEMENT in the amount of $50,000, based on the following:

Original Agreement	$0
Supplement 1	$50,000
Total Management Reserve Fund Amount	$50,000

4. Maximum Total Amount Payable

The Maximum Amount Payable, by the STATE to the CONSULTANT under this SUPPLEMENTAL AGREEMENT, shall not exceed $2,591,378. The Maximum Total Amount Payable by the STATE to the CONSULTANT under this AGREEMENT, including the previous agreement amount, the Management Reserve Fund and this SUPPLEMENT is $2,691,378. Unless a further supplemental agreement has been negotiated and executed by the STATE prior to incurring any costs in excess of the maximum total amount payable, this amount shall not be exceeded. This authorization is based on the following:

Original agreement	MPD Scoping	$50,000
Supplement 1	Additional MPD Scoping	$100,000
Supplement 1	Part 1: Seattle Seawall	$214,197
Supplement 1	Part 1: Seawall Optional Work	$100,000
Supplement 1	Part 2: EIS Early Start Items	$1,677,181
Supplement 1	Part 2: EIS Optional Work	$500,000
Sub Total		$2,641,378
Management Reserve Fund		$50,000
Maximum Total Amount Payable		$2,691,378

It is noted that the additional MPD scoping funds noted in the table above will continue to be Negotiated Hourly Rates without Fee, and will apply to the work following the work of this SUPPLEMENTAL AGREEMENT.

It is also noted that the elements listed as "Optional Work" in the table above are funds for increased scope for each part of the work in this PROJECT and are to be authorized to the

CONSULTANT in writing by the STATE. No work may begin on funds from this section unless so authorized. It is expected that a scope and estimate will accompany the written authorization.

IV

Section VI, Subcontracting, shall be supplemented to recognize the work of this SUPPLEMENTAL AGREEMENT. The CONSULTANT's cost proposals for the subconsultants are attached hereto and by this reference made part of this SUPPLEMENTAL AGREEMENT as Exhibits E-1(a) through E-1(c), E-1(e) through E-1(j), E-1(l) through E-1(o), and E-1(q) through E-1(s). It is noted that some subconsultants will participate in Part 1 (Seawall) and some will participate in Part 2 (Viaduct) and some will participate in both elements of work. It is also noted that Pacific Rim Resources (Exhibit E(d)) and HS Public Affairs (was not involved in scoping), subconsultants doing Public Involvement work, have been removed from the subconsultant team, and EnviroIssues, Inc. has been added (Exhibit E-1(j)) to do the same work. Included in these exhibits are updated Negotiated Hourly Rates tables or Negotiated Rates Letters, as applicable. All include the fee percentage allowable for this SUPPLEMENTAL AGREEMENT. This cost proposal is summarized as follows:

BERGER / ABAM ENGINEERS

	Total
Original Agreement Allowance	$1,000
Supplement 1, Part 1 (Seawall)	$141,275
Total Not to Exceed	$142,275

Note: The original agreement allowance is the maximum payable to this consultant for work on the scoping process in the ORIGINAL AGREEMENT on a Negotiated Hourly Rates without fee basis.

DAVID EVANS & ASSOCIATES, INC.

	Total
Original Agreement Allowance	$1,000
Supplement 1, Part 2 (Viaduct)	$27,131
Total Not to Exceed	$28,131

Note: The original agreement allowance is the maximum payable to this consultant for work on the scoping process in the ORIGINAL AGREEMENT on a Negotiated Hourly Rates without fee basis.

ENTECH NORTHWEST, INC.

	Total
Original Agreement Allowance	$0
Supplement 1, Part 2 (Viaduct)	$18,782
Total Not to Exceed	$18,782

Note: This firm is on a Negotiated Hourly Rates basis.

PARAMETRIX, INC.

	Total
Original Agreement Allowance	$3,000
Supplement 1, Part 2 (Viaduct)	$92,129
Total Not to Exceed	$95,129

Note: The original agreement allowance is the maximum payable to this consultant for work on the scoping process in the ORIGINAL AGREEMENT on a Negotiated Hourly Rates without fee basis.

ROMA DESIGN GROUP

	Total
Original Agreement Allowance	$500
Supplement 1, Part 2 (Viaduct)	$83,095
Total Not to Exceed	$84,595

Note: This firm is on a Negotiated Hourly Rates basis.

ROSEWATER ENGINEERING, INC.

	Total
Original Agreement Allowance	$0
Supplement 1, Part 2 (Viaduct)	$41,317
Total Not to Exceed	$41,317

SHANNON & WILSON, INC.

	Total
Original Agreement Allowance	$1,500
Supplement 1, Part 1(Seawall)	$59,799
Supplement 1, Part 2 (Viaduct)	$133,658

Total Not to Exceed	$194,957

Note: The original agreement allowance is the maximum payable to this consultant for work on the scoping process in the ORIGINAL AGREEMENT on a Negotiated Hourly Rates without fee basis.

SVERDRUP CIVIL, INC.

	Total
Original Agreement Allowance	$2,000
Supplement 1, Part 1 (Seawall)	$4,462
Supplement 2, Part 2 (Viaduct)	$156,164
Total Not to Exceed	$162,626

Note: The original agreement allowance is the maximum payable to this consultant for work on the scoping process in the ORIGINAL AGREEMENT on a Negotiated Hourly Rates without fee basis.

ENVIROISSUES, INC.

	Total
Supplement 1, Part 2 (Viaduct)	$98,555
Total Not to Exceed	$98,555

LARSON ANTHROPOLOGICAL ARCHAEOLOGICAL SERVICES, LTD.

	Total
Supplement 1, Part 2 (Viaduct)	$3,803
Total Not to Exceed	$3,803

Note: This firm is on a Negotiated Hourly Rates basis.

MIMI SHERIDAN, AICP

	Total
Supplement 1, Part 2 (Viaduct)	$6,665
Total Not to Exceed	$6,665

Note: This firm is on a Negotiated Hourly Rates basis.

PANGEO, INC.

	Total
Supplement 1, Part 1 (Seawall)	$1,201

Total Not to Exceed	$1,201

Note: This firm is on a Negotiated Hourly Rates basis.

PARSONS BRINCKERHOFF CONSTRUCTION SERVICES, INC.

	Total
Supplement 1, Part 2 (Viaduct)	$6,782
Total Not to Exceed	$6,782

PRESTON GATES ELLIS, LLP

	Total
Supplement 1, Part 2 (Viaduct)	$41,923
Total Not to Exceed	$41,923

Note: This firm is on a Negotiated Hourly Rates basis.

STEVE KRAMER

	Total
Supplement 1, Part 1 (Seawall)	$1,081
Total Not to Exceed	$1,081

Note: This firm is on a Negotiated Hourly Rates basis.

TAYLOR ASSOCIATES, INC.

	Total
Supplement 1, Part 2 (Viaduct)	$9,271
Total Not to Exceed	$9,271

V

Section XX, Premium Overtime, is added to the AGREEMENT to allow for the payment of premium overtime. If the STATE deems it in its interest for the CONSULTANT to perform a portion of the work on an overtime basis, it may so authorize such action in a subsequent authorization letter. Overtime premium payments shall not be burdened for overhead or fee. The premium portion, for the purpose of this SUPPLEMENTAL AGREEMENT, is that part paid to an employee over and above their usual and customary straight time rate for hours worked over and above their usual and customary work period.

IN WITNESS WHEREOF, the parties hereto have executed this AGREEMENT as the day and year first above written.

PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.	STATE OF WASHINGTON DEPARTMENT OF TRANSPORTATION
By: _____	By: _____
Title: _____	Assistant Secretary for Environmental and Engineering Services Center

Approved as to Form:

on this _____ day of _____, 2001

By: _____
Assistant Attorney General

Any modification, change, amendment or reformation of this agreement requires the further approval as to form of the Office of the Attorney General.

ALASKAN WAY VIADUCT
PHASE 2 SEAWALL EARLY ACTION SCOPE OF WORK

TABLE OF CONTENTS

PROJECT DESCRIPTION

Objectives

The scope of work under this agreement consists of early action items necessary for transition from Phase 1 to Phase 2 work elements for the Alaskan Way Viaduct (AWV) Environmental Impact Statement (EIS). These early action items are necessary to maintain the aggressive project schedule established by the STATE and the City of Seattle. This particular scope of work covers the Seawall portion of work that the CONSULTANT is doing.

Project Description and Limits

The FHWA, the Washington State Department of Transportation (STATE), and the City of Seattle (CITY) have initiated the preparation of a NEPA/SEPA EIS to document the environmental consequences for alternative solutions to improve the existing SR 99 corridor now partially served by the AWV and the City of Seattle seawall both located in downtown Seattle, King County, Washington. This proposed scope will determine whether action on the seawall to upgrade its capabilities for support of the adjacent roadways in the event of a design level earthquake would be required as part of the Alaskan Way Viaduct PROJECT. For the early action scope of work, the limits of the Alaskan Way Seawall work items will be from South Washington Street to Myrtle Edwards Park. Future studies may address a newer section of wall between South Hanford and South Forest Street.

Assumptions

1. The early action items outlined in this scope of work will begin upon execution and Notice-to-Proceed of this agreement and are intended to span a ninety (90) calendar day period beginning at that time.

2. The scope of work may be altered depending upon input received from other experts that will be consulted during the information-gathering phase of the project (ITEM SW3.1)

3. It is assumed that sufficient information exists, including geotechnical information, for a preliminary structural analysis of the wall to be completed as described in ITEM SW3.2. The scope of work may be altered if supplemental investigations are required due to insufficient information. The CONSULTANT shall, in consultation with the CITY and the STATE, make this determination prior to proceeding with ITEM SW3.2. The intent is to conserve the funds for analyzing the wall until there is sufficient information to allow the wall to be analyzed with a reasonable degree of accuracy.

4. It is assumed that the project's Quality Control Plan, which has not yet been developed, will be compatible with the level of effort assumed for Quality Control of this work element. This effort is included in each of the subtasks. Therefore, no allowance as been made for coordinating the development of the project's Quality Plan as described in ITEM SW5.

ITEM SW1 PROJECT MANAGEMENT / ADMINISTRATION

SW1.1 Ongoing Project Management

The CONSULTANT shall develop and conduct the project tracking, document control, and coordination efforts necessary for project execution. These efforts shall include the continuous tracking of schedules, budgets, and products; coordination with subconsultants relating to work in progress; and coordination with the STATE and CITY.

SW1.2 Invoicing and Progress Reporting

The CONSULTANT shall prepare Monthly Progress Reports, in a form approved by the STATE, that outlines in written and graphical forms the various phases of the work, and the order of performance, in sufficient detail so that the progress of the work can be easily evaluated. These reports shall:

- Highlight project milestones,
- Target potential problem areas needing special attention or coordination prior to delays occurring,
- Outline activities planned for the next period,
- Compare actual work progress with contractual obligations, and
- Show the current and cumulative financial status of the scope items SW1,2,3,4, and 5.

The progress reports shall include current scheduling reports, indicating all progress to date and resources expended. Progress shall be monitored and reported in diagrammatic and quantitative forms to present a clear, concise and understandable picture of the project status. This update shall also include any changes in schedule, sequence, or resource loading. If any schedule delays have occurred, a plan for bringing the work back on schedule, and back on budget, will be included.

Billings shall be prepared by the CONSULTANT in a form and detail as approved by the STATE and submitted on a monthly basis. These shall be supported by detailed record keeping to closely track the project budget and expenditures.

ITEM SW2 COORDINATION AND MEETINGS

SW2.1 Coordination Meetings With State / City

The Coordination Meetings with the STATE / CITY shall be coordinated by the CONSULTANT. Unresolved problems shall be identified and required actions presented during the meetings. It is assumed that there will be four (4) regularly scheduled coordination meetings. It is assumed that the Coordination Meetings will include in attendance three (3) staff (on average) from the CONSULTANT at each meeting. Assume all meetings will be held at the CONSULTANT's office.

PRODUCT:
• 4 Coordination Meeting Notes

Meeting notes should include:

- brief meeting purpose statement
- brief list of meeting discussions and conclusions
- list of action items
- list of attendees

ITEM SW3 SEAWALL EVALUATIONS, STUDIES, AND INVESTIGATIONS

SW3.1 Research and Compile Existing Data

The CONSULTANT shall contact the CITY and the STATE to identify and obtain all known plans, studies and maintenance records pertaining to the Seattle Seawall. It is anticipated that this will involve searching through archival information maintained by the CITY and the STATE. Information to be collected is anticipated to include:

-Research and compile existing data.

-Existing subsurface exploration data (boring logs, CPT, other in-situ tests).
Possible sources include: SPU, SeaTran, DCLU, WSDOT, King County (Metro), UW.

-Design and/or as-built plans of seawall, relieving platform, and utilities.

-Field diaries and construction reports documenting the condition of the relieving platform and seawall at various times that they were exposed during other construction activities.

Interview and consult with Dr. Steve Kramer and Mr. Paul Grant to gain insights from their past work on the viaduct. It is expected they will provide suggestions for the direction of the study.

This information will be reviewed by the CONSULTANT and cataloged in a database for easy reference by other team members.

PRODUCT:

- One copy of all information will be catalogued and maintained.
- Two Bound Copies of Existing Subsurface Exploration Data will be assembled and provided to the CITY and to the STATE.
- Three (3) sets of Meeting Notes

Meeting notes will include:

- brief meeting purpose statement
- brief list of meeting discussions and conclusions
- list of action items
- list of attendees

SW3.2 Preliminary Seawall Evaluation

The CONSULTANT shall prepare a structural evaluation of seawall sections Type A, Type B, the gravity section and one other section that is anticipated to be the recently constructed pile supported sidewalk/wall. This evaluation shall involve an assessment of the global stability of the seawall including an assessment of individual structural details and connections as required.

It is anticipated that the Type 'A' and Type 'B' walls will be analyzed using a two-dimension structural frame model with equivalent lateral loads applied to simulate loads due earthquake and liquefaction.

Subsurface cross sections at critical locations shall be provided. Proposed supplemental investigations and analyses, if required, will be coordinated with the CITY and the STATE. An allowance for three (3) meetings has been made for this purpose.

PRODUCT:
- Preliminary Structural Evaluation of Seawall (6 Copies)
- Draft Scope of Work for supplemental investigations, if necessary. (6 Copies)
- Three (3) sets of Meeting Notes

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions and conclusions
- list of action items
- list of attendees

ITEM SW4 VIADUCT ALTERNATIVES COORDINATION

SW4.1 Coordination with Alternatives Screening Analysis

The CONSULTANT shall review up to six (6) viaduct replacement alternatives and identify those that will impact the stability of the seawall and/or will rely on the seawall. It is anticipated that this effort will be conducted as part of the screening analysis and will assist in determining the final viaduct replacement alternative to be carried through the EIS process.

PRODUCT:
- Technical Memorandum summarizing the relationship of the seawall to the proposed viaduct replacement alternatives and identifying the viaduct replacement alternatives that will require modification, retrofit or replacement of the seawall. (6 Copies)

SW4.2 Concepts for Modifying or Replacing Seawall

Up to three (3) concepts shall be developed for modifying or replacing the entire length of the seawall, as defined in project descriptions and limits, that are compatible with the proposed viaduct replacement alternatives that affect the seawall as determined in Item SW4.1. These concepts shall be developed in sufficient detail to allow a subjective evaluation of the relative advantages and disadvantages of each. Feasibility issues requiring further study shall be identified.

PRODUCT:
- Technical Memorandum summarizing seawall construction alternatives that support the viaduct replacement alternative. (6 Copies)

ITEM SW5 IMPLEMENT QUALITY CONTROL PROGRAM

The CONSULTANT shall implement the project's Quality Control Plan as developed and approved in the work element "Quality Control Plan."

In the event that the STATE / CITY determines that it has received products which have not been properly quality-controlled, the STATE / CITY will return the products to the CONSULTANT for review and correction, at no additional cost to the STATE / CITY. The products shall then be re-submitted to the STATE / CITY for the standard review and comment period.

ALASKAN WAY VIADUCT
PHASE 2 EARLY ACTION SCOPE OF WORK

TABLE OF CONTENTS

PROJECT DESCRIPTION

Objectives

The scope of work under this agreement consists of early action items necessary for transition from Phase 1 to Phase 2 work elements for the Alaskan Way Viaduct (AWV) Environmental Impact Statement (EIS). These early action items are necessary to maintain the aggressive project schedule established by the STATE and City of Seattle.

Project Description and Limits

The FHWA, the Washington State Department of Transportation (STATE), and the City of Seattle (CITY) have initiated the preparation of a NEPA/SEPA EIS to document the environmental consequences for alternative solutions to improve the existing SR 99 corridor now partially served by the AWV and the City of Seattle seawall both located in downtown Seattle, King County, Washington. The proposed action would provide a facility with improved earthquake resistance that maintains or improves mobility for people and goods along the existing SR 99 Corridor. The proposed action would involve improvements to the existing 2-mile viaduct structure or construction of a new facility. The southern terminus of the project would be Spokane Street. The north terminus would be north of the existing Battery Street Tunnel and will not preclude the following:

1) a possible connection to the south Lake Union vicinity (the Mercer Street Corridor connection to Interstate 5);

2) a possible realignment of the SR 99 corridor; and 3) using the existing Battery Street Tunnel and existing Alaskan Way Viaduct facilities.

Assumptions

The early action items outlined in this scope of work will begin upon execution and Notice-to-Proceed of this agreement and are intended to span a ninety (90) calendar day period beginning at that time.

ITEM E1 PROJECT MANAGEMENT / ADMINISTRATION

E1.1 Ongoing Project Management / Administration

The CONSULTANT shall develop and conduct the project tracking, document control, and coordination efforts necessary for project execution. These efforts will include the continuous tracking of schedules, budgets, and products; coordination with subconsultants relating to work in progress; and coordination with the STATE and CITY.

Additionally, key members of the CONSULTANT team shall function as interagency/intergovernmental advisors to the project steering committee with respect to the leadership group, interdisciplinary team, appointed and elected officials, and other important stakeholders.

E1.2 Project Implementation Plan

The CONSULTANT shall prepare a Project Implementation Plan that includes every major work element of the project. This plan will organize the scope of work into a work element structure for which specific budgets, schedules, and completion dates are clearly identified.

The plan shall identify the following:

- Breakdown of work,
- Management and administration of activities as they relate to work assignments (document control, filing, invoicing, etc.,)
- A Public Involvement Overview outlining the goals, objectives, schedule and desired outcomes of the Alaskan Way public involvement actions,
- Reporting of the progress of the work,
- Responsibilities of the STATE, the CONSULTANT, and other support groups,
- Project schedule
- Cost controls for completing the work within budget.

The plan shall also include:

- Summary of the work elements,
- Public Involvement Plan,
- Duration and sequencing of the work elements,
- The Plan's critical path,
- A List of the work to be submitted to the STATE and supporting agencies, and
- All review periods.

The CONSULTANT shall submit a draft Project Implementation Plan to the STATE for a five (5)-day review and comment period, upon which the plan will be returned to the CONSULTANT for revision. The revised plan will become the final Project Implementation Plan.

PRODUCT:
- Draft Project Implementation Plan (8 Copies)
- Final Project Implementation Plan (50 Copies)

E1.3 Invoicing and Progress Reporting

The CONSULTANT shall prepare Monthly Progress Reports, in a form approved by the STATE, that outlines in written and graphical forms the various phases of the work, and the order of performance, in sufficient detail so that the progress of the work can be easily evaluated. These reports shall:

- Highlight project milestones,
- Target potential problem areas needing special attention or coordination prior to delays occurring,
- Outline activities planned for the next period,

- Compare actual work progress with contractual obligations, and
- Show the current and cumulative financial status of the project.

The progress reports shall include current scheduling reports, indicating all progress to date and resources expended. Progress shall be monitored and reported in diagrammatic and quantitative forms to present a clear, concise and understandable picture of the project status. This update shall also include any changes in schedule, sequence, or resource loading. If any schedule delays have occurred, a plan for bringing the work back on schedule, and back on budget, will be included.

Billings shall be prepared by the CONSULTANT in a form and detail as approved by the STATE, and submitted on a monthly basis. These shall be supported by detailed record keeping to closely track the project budget and expenditures.

E1.4 Subconsultant Agreement and Management

The CONSULTANT shall coordinate with subconsultants regarding contracting procedures, shall prepare and execute contracts with individual subconsultants, and shall address contract-related issues with the subconsultants as they arise during the project.

E1.5 Project Management Website

The CONSULTANT shall develop a specification for a project management website to facilitate the exchange of information within the technical team and between the STATE, CITY, and Resource Agencies regarding the status of the AWV Study. This website will be a secure website, deployed using the CONSULTANT's Project Solve team collaboration software. The CONSULTANT shall develop a detailed plan for implementation, including scope and budget for installation of the site, hosting costs, and on-going maintenance. The CONSULTANT shall also identify opportunities to link the public involvement website directly with the secured Project Management Website to provide enhanced communication capabilities.

PRODUCT:
- Memorandum detailing CONSULTANT's proposal for a Project Management Website (10 Copies)

ITEM E2 MEETINGS

E2.1 Coordination Meetings With State / City

The Coordination Meetings with the STATE / CITY shall be coordinated by the CONSULTANT. Unresolved issues shall be identified, direction given and required actions presented during the weekly meetings. It is assumed that there will be twelve (12) regularly scheduled coordination meetings, and up to six (6) Interdisciplinary Team (IDT) meetings. It is assumed that the Coordination Meetings will include in attendance four (4) staff (on average) from the CONSULTANT at each meeting, in addition to a representative from each subconsultant with major current involvement. Assume six (6) meetings will be held at the Dayton Avenue North office of the STATE, and twelve (12) meetings will be held at the CONSULTANT's office or the City of Seattle.

PRODUCT:
- Eighteen (18) Coordination Meeting Notes (10 Copies)

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

E2.2 Team Coordination Meetings

The CONSULTANT team shall meet to review the progress of the design and documentation process. The meetings shall be conducted on an informal basis and held at the CONSULTANT's office, or a location chosen by the CONSULTANT. It is assumed that there will be eighteen (18) Coordination Meetings and will involve six (6) CONSULTANT Team staff persons (on average) in addition to a representative from each subconsultant with major current involvement. The STATE / CITY will attend as appropriate.

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

E2.3 Other Agency Meetings

The CONSULTANT shall meet with third parties such as Federal, County officials, Port of Seattle, FHWA, FTA, and other consultants as directed by the STATE. Up to twelve (12) meetings for up to three (3) people (on average) shall be held.

PRODUCT:
- Twelve (12) Agency Meeting Notes (10 Copies)

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

ITEM E3 ALTERNATIVES DEVELOPMENT

E3.1 Review / Refine Alternative Concepts

The CONSULTANT shall review the current transportation concepts prepared by the Phase 1 team, including those initially discarded as fatally flawed. The CONSULTANT shall conduct discussions with the Phase 1 team to understand their intent, issues, and concerns during the

development of these transportation concepts. The CONSULTANT shall also obtain and review comments regarding these concepts from both agencies and the public during the scoping process to date. The CONSULTANT and the STATE will identify any additional concepts or combinations of concepts that should be considered using a Year 2030 horizon.

The CONSULTANT shall propose those technical design parameters required for the definition and configuration of the facilities and to identify major deviations. Specifically, lane and shoulder widths for the tunnel alternatives shall be determined as well as ventilation, fire protection, and emergency exit requirements. A draft of these parameters shall be submitted to the STATE for review and approval. These criteria will be expanded and refined in later project phases.

The CONSULTANT shall develop and refine up to fifteen (15) concepts with sufficient engineering detail to facilitate evaluation of identified concepts. The development of these concepts shall be performed using available mapping and/or aerial photos. Alignments and structure types shall be developed to a conceptual level. Critical areas shall be developed to sufficient detail to allow the identification of fatal flaws. Critical areas are the connections to the north and south, the downtown access, pinch points along the alignment, and other locations identified during the development process.

Engineering recommendations shall be developed at a conceptual level for evaluating surface, subsurface (bored tunnel and cut/cover), and elevated alternatives. Additionally, geological conditions of potential alignments shall be evaluated to develop conceptual recommendations regarding design and construction considerations.

The CONSULTANT shall attend up to four (4) additional meetings with five (5) staff (on average) in attendance, which will be held with the STATE and other agencies to finalize the transportation concepts.

PRODUCT:

- Draft and final design parameters (10 Copies each).
- A revised and refined list of alternative concepts that are to be evaluated as per Item E3.3. (10 Copies)
- A technical memorandum of the geotechnical issues associated with surface, subsurface, and elevated alternatives. (10 Copies)
- Four (4) agency meeting notes (10 copies)

Meeting notes should include:

- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

E3.2 Review and Finalize Screening Criteria

The CONSULTANT, in cooperation with the STATE and partner agencies, shall draft a revised set of screening criteria. The evaluation criteria shall focus on a planning level analysis of

transportation, environmental, and engineering impacts necessary to distinguish the relative performance among the alternative concepts.

The CONSULTANT shall review the current draft screening criteria developed by the Phase 1 team. The CONSULTANT shall conduct discussions with the Phase 1 team to understand their intent, issues, and concerns during the development of these screening criteria. The CONSULTANT shall also obtain and review comments regarding the screening criteria from both agencies and the public during the scoping process to date.

A draft of up to twenty (20) screening criteria shall be submitted for review and approval by the STATE. A technical memorandum shall be prepared to describe the data to be provided for evaluation and the methods to be used for the evaluation/ presentation of the results. The draft screening criteria shall be revised once in response to STATE comments, and shall be resubmitted for approval by the STATE. The CONSULTANT shall attend up to four (4) additional meetings with three (3) staff (on average) in attendance, which will be held with the STATE and other agencies to finalize the screening criteria.

PRODUCT:
- Draft screening criteria. (8 Copies)
- Final screening criteria. (25 Copies)
- Four (4) Agency meeting notes (10 copies)

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

E3.3 Evaluation of Alternative Concepts

The CONSULTANT shall obtain the physical, operational and environmental data necessary to evaluate the transportation concepts based on the agreed screening criteria as developed in Item E3.2. The CONSULTANT shall apply the screening criteria using either a quantitative or qualitative analysis as applicable to the criteria.

The CONSULTANT shall develop an evaluation tool to identify the relative advantages and disadvantages of each concept for up to twenty (20) technical criteria.

PRODUCT:
- A draft report recommending alternatives to carry forward into the NEPA/SEPA EIS. (25 Copies)

E3.4 Utilities Data Collection

The CONSULTANT shall collect data on existing utilities including water, sewer, storm drain, electrical, gas, steam, telephone, cable TV, and fiber optic cable, and obtain any information from the Phase 1 team. Data collection shall be conducted at the CITY, at private utility

franchises, and at any other sources that may have underground utility information to collect known existing as-built utility maps along the existing AWV corridor from the north portal of Battery Street Tunnel, south to Spokane Street and west to Elliot Bay. The CITY will provide all available utility data. Costs for theses materials are not the CONSULTANT's responsibility and are therefore not included.

PRODUCT:
- Technical memorandums will be prepared to accompany composite utility as-built maps. (10 Copies)

E3.5 Property Ownership Research

The CONSULTANT shall identify property ownership for lands lying within the area described in Item E6.1. Property ownership will reference King County Tax Lot Parcel numbers. The CONSULTANT shall request that the CITY provide them the City of Seattle GIS parcels or electronic drawings of Kroll maps for plotting of property ownership.

PRODUCT:
- Property ownership listing. (10 Copies)

E3.6 GIS Database Maintenance

The CONSULTANT shall coordinate with the STATE to develop a GIS library to support the analysis of alternatives, traffic analysis, environmental analysis, and technical survey. The library shall also serve as an information base to support public information activities. The STATE will provide all GIS data bases from Phase 1 of the Alaskan Way Viaduct Study in software compatible with ArcView software. The CONSULTANT shall be responsible for identifying additional GIS-based data that may be needed to provide a planning platform. The STATE will facilitate the acquisition of public and/or private databases identified by the CONSULTANT as may be appropriate to support the technical analysis of the corridor. The CONSULTANT shall establish appropriate GIS protocol, consistent with STATE guidelines, to assimilate necessary data into a single data resource. The CONSULTANT shall maintain the GIS database, accessible through the Project Management Website and publish a periodic catalog of available data via e-mail to project participants and by posting to the Project Management Website.

PRODUCT:
- Project protocol for GIS interface and maintenance of data.
- Project GIS data catalog, with monthly updates on available data coverages (via e-mail and posting to the Project Management Site)

ITEM E4 ENVIRONMENTAL DOCUMENTATION

E4.1 Revise the Purpose and Need Statement

The STATE has prepared an initial draft of the Purpose and Need Statement. The CONSULTANT shall assist the STATE and partner agencies in preparing a revised Purpose and Need Statement based on the initial draft. The revised draft statement of Purpose and Need shall be submitted to the STATE for review. Review comments from the STATE shall be incorporated into the draft Purpose and Need statement, and shall be resubmitted for approval by the STATE.

PRODUCT:
- Draft Revised Statement of Purpose and Need. (25 Copies)
- Final Revised Statement of Purpose and Need. (25 Copies)

E4.2 Initiate Environmental Studies

The CONSULTANT shall develop annotated outlines for the Draft EIS, supporting discipline reports and technical studies. The outlines shall be based on FHWA NEPA requirements and guidance and WSDOT and Seattle SEPA requirements. Document outlines shall be updated as screening is completed and the concepts to be carried forward in environmental studies are identified.

The CONSULTANT shall assist the STATE in defining the limits of the project area and shall begin research on documenting existing conditions within the project area. This Item shall begin concurrently with alternatives development, but shall not be completed during the initial ninety (90) calendar day study period. Research on the affected environment shall be integrated into the GIS database and used to evaluate the alternative concepts during the screening process. Documentation on existing conditions within the project area shall be used to complete the Affected Environment sections of the EIS Discipline Reports and represents up to approximately one-third of the effort anticipated to complete the EIS Discipline Reports.

An interim summary of key issues shall be developed for each environmental element listed below based on available, published information and initial agency comments.

- Land Use
- Transportation
- Neighborhoods
- Relocation/Displacements
- Economics
- Noise and vibration
- Historic/Archaeological Resources/Section 106
- Parks and Recreation/Section 4(f) Properties
- Visual Quality
- Environmental Justice
- Public Services and Utilities
- Hazardous Materials

- Air Quality
- Geology and Soils
- Surface Water Quality and Quantity
- Groundwater
- Vegetation, Wildlife, and Habitat
- Threatened and Endangered Species

Based on the alternatives to emerge from the screening process, the CONSULTANT shall prepare a Methodology Report to outline and describe the process to be used to evaluate each alternative in the Draft EIS. For each environmental element, the methodology report shall identify key environmental and technical issues; guiding plans and policies; data needs and sources; proposed coordination with agencies, the STATE and CITY; proposed level of detail and measures to compare among alternatives; and approach to research and analysis.

PRODUCT:
- Annotated outlines for the Draft EIS, discipline reports, and related studies (25 Copies)
- Existing Conditions information for the screening process. (25 Copies)
- Initial summary of key issues (25 Copies)
- Draft Methodology Reports (25 Copies)

E4.3 Regulatory Strategy

The CONSULTANT shall assist the STATE in developing a strategic approach to integrate regulatory agencies into the EIS process. The CONSULTANT shall attend up to six (6) meetings with two (2) staff (on average) in attendance, which shall be held with STATE and other agencies.

PRODUCT:
- Notes from meetings with regulatory agencies. (25 Copies)

Meeting notes should include:
- brief meeting purpose statement
- brief list of meeting discussions
- list of action items
- list of attendees

ITEM E5 PUBLIC INVOLVEMENT / COMMUNITY OUTREACH

E5.1 Communications Strategy

The CONSULTANT shall work with the STATE and CITY to develop a communications strategy for involving and informing the public and decision-makers about the Alaskan Way Viaduct project. This will include up to two strategy meetings with key staff, including project management, media, public involvement, and communications resources. The CONSULTANT shall develop a communications strategy based on these meetings. The communications strategy

will incorporate the public involvement plan completed under Phase 1 and expand the current plan to include media and communication elements. The CONSULTANT shall finalize the communications strategy based on comments received.

PRODUCT:
- Draft communications strategy (circulated via e-mail)
- Final communications strategy (circulated via e-mail)

E5.2 Public Information Materials

The CONSULTANT shall work with the STATE and CITY to develop and refine public information materials for use with the public and decision-makers. This shall include the development of two separate packages comprised of a presentation and fact sheets to reflect developing project information. It is anticipated that 200 copies of the information packages will be distributed at the two leadership group meetings and other venues, and will be transferable to the project website for greater distribution.

The CONSULTANT shall draft one mailing to send to mailing list recipients, distribute at public meetings, and place with community-based display boards that shall announce the series of open house as well as give the latest information about the project. This draft shall be sent to the STATE and CITY for review and finalized for production by the STATE.

The CONSULTANT shall also use the information kit materials to develop a series of display boards for placement in visible and high traffic public locations to reach a broader audience with information about the project. It is anticipated that two sets of boards will be produced.

The CONSULTANT shall also continue to update and maintain the public website on a biweekly basis over the initial 30 calendar days. Thereafter, the STATE will update and maintain the website and the CONSULTANT shall assist by providing information to be uploaded to the site.

The CONSULTANT shall continue support for the project media strategy by developing key messages, talking points, and news releases for review by project team and distribution by the STATE and CITY.

PRODUCT:
- Draft revised information kits (2), including presentation and up to 6 fact sheets.
- Final revised information kits (2), including presentation and fact sheets (maximum of 6 fact sheets).
- Continued refinement and updating of project web page over the initial 30 calendar days; thereafter preparation of material to be uploaded to site.
- Draft display boards for placement in public locations (maximum of 3 sets of 4 display boards).
- Draft key messages, talking points, and news releases (up to 2).
- Final key messages, talking points, and news releases (up to 2).

E5.3 Public Meetings/Community Briefings/Interested Parties Meetings

The CONSULTANT shall work with the STATE and CITY to involve key community leaders, through the Leadership Group, in providing feedback on the project at up to two (2) meetings. This shall include identifying information to present, preparing presentation materials, providing meeting logistics, facilitating the meetings, and preparing meeting summaries. The CONSULTANT shall provide up to six (6) persons at the Leadership Group meetings.

The CONSULTANT shall work with the STATE and CITY in involving key government agencies in early consultation on the project through facilitation and logistics support for the Interdisciplinary Team. The CONSULTANT shall conduct the activities necessary to support Interdisciplinary Team meetings, including maintaining team membership lists and contact information for use by the project team; meeting with team members on a monthly basis to ensure their involvement in the process and answer any ongoing questions and issues, as appropriate; designing, facilitating, and summarizing meetings; providing meeting logistical support, including identifying and scheduling meeting facilities and maintaining team rosters, nametags, and other meeting supplies; preparing meeting summaries and distribute to team members, staff, and interested parties; preparing meeting materials, producing and copying materials as appropriate; and ensuring meeting materials are placed on project web page.

The CONSULTANT shall prepare for and support two open houses/workshops at two (2) locations for each. Each of these two open houses shall provide the same information to the public in two (2) locations about the alternatives being considered and information generated. It assumed that the meetings shall last about four hours, and shall be a combination of information sharing and dialogue through an open house format, periodic overview presentations, and formal and informal opportunities for participants to provide input. The CONSULTANT shall prepare the advertisements and secure the advertising space in regional (*Seattle Times, Seattle P-I*) and local papers (*Magnolia News, Queen Anne News, Northwest Asian Weekly, La Voz*, etc.); reserve and pay any fees for the meeting space. The CONSULTANT shall provide up to six (6) persons at the open houses.

The CONSULTANT shall work with the STATE and CITY to identify key community groups, decision-makers, and interest groups with which to schedule community briefings. The CONSULTANT shall be responsible for preparing the presentation materials, providing logistical support, and providing a written summary of the key issues and questions raised during the community briefing. Up to twenty-four (24) meetings with two (2) persons (on average) in attendance will be conducted.

PRODUCT:

- Support for Leadership Group, including presentation and other information materials, meeting logistics, meeting facilitation, and meeting summaries (up to 2 meetings).
- Committee membership lists and meeting summaries for Interdisciplinary Team (up to 4 meetings).
- Two Open House/workshop meeting plans – draft and final.
- Meeting handouts and display boards, including: sign-in sheets, copies of all fact

sheets, mailings, comment forms and other written information provided (200 Copies of 10 pages of handouts for two Open House forums).
- Compilation of written and verbal comments received at the meeting and attendee lists from the open house.
- Display advertisements for open houses designed and placed in regional and local newspapers
- Scheduling, logistics support, and summaries of up to 24 community briefings or decision-maker briefings.

E5.4 Public Comment Tracking

The CONSULTANT shall develop a public comment database to track input received. This database shall track comments by categories developed by the project team, reflecting key issues to be addressed during environmental review or design work. The CONSULTANT shall prepare monthly summaries of public comments and track action items, as well as provide support for responses to emails and letters received.

PRODUCT:
- Project hotline (telephone)
- Monthly summary of public comments and action items
- Public comment database

ITEM E6 GEOTECHNICAL

E6.1 Review Known Subsurface Conditions

The CONSULTANT shall review historical files and photos of the area to retrace the shoreline development. This will also include reviewing the Denny Regrade area, which was used as a fill source and may also eventually be considered for tunnel portal locations.

The CONSULTANT shall review available subsurface information along the project corridor. The project corridor is identified as the area bounded to the east by Westlake Avenue at South Lake Union, south along Westlake to Virginia Street, west along Virginia St. to Third Avenue, south along Third Ave. to Prefontaine Place S., southeast along Prefontaine Place S. to Fourth Avenue South, south along Fourth Avenue S. to South Spokane Street. The western limits of the corridor extend from Westlake Avenue at Aloha Street, west on Aloha Street to Aurora Ave., south on Aurora Ave. to Mercer Street, west on Mercer Street to Sixth Avenue N., south on Sixth Ave. to Wall Street, west on Wall Street to the waterfront at Pier 67, south along the waterfront to the north side of Terminal 46, and then south along Alaskan Way to South Spokane Street.

The CONSULTANT'S review shall include evaluating files at the CITY's Department of Construction and Land Use (DCLU), Washington State Department of Transportation (WSDOT), Department of Ecology (DOE), Seattle Public Utilities (SPU), Seattle Transportation (SeaTran), Seattle Parks, King County Metro, and the CONSULTANT. Existing subsurface information including test pit and boring logs will be copied and collated. This information will be included on the GIS base, as maintained in Item E1.6.

PRODUCT:

- Preliminary subsurface profiles along up to ten (10) selected alignments. (10 Copies)
- Memorandum of general geologic conditions (soil and groundwater) of the area (10 Copies).
- Initiation of a database that includes available subsurface information along the project corridor (will not be complete by the end of the initial 90 calendar day period.)

E6.2 Contaminated Soils Assessment

Based on the findings described in E6.1, the CONSULTANT shall complete historical and agency record reviews in accordance with Washington State Department of Transportation Environmental Procedures Manual.

Agency Records Review

The CONSULTANT shall review records that will help identify recognized environmental conditions in connection with the corridor properties. Standard federal and state databases will be reviewed for the site and nearby properties within the ASTM- recommended search distances and include:

Federal agency:

- National Priorities List (NPL) sites
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites
- Resource Conservation and Recovery Act (RCRA) treatment, storage, and disposal (TSD) facilities
- RCRA Corrective Actions (CORRACTS) for TSD facilities
- RCRA generators
- Emergency Response Notification System (ERNS) sites

Washington State Department of Ecology:

- Hazardous Sites List
- Confirmed and Suspected Contaminated Sites (C&SCS) list
- Landfill and/or solid waste disposal sites
- UST and leaking underground storage tank (LUST) lists

The NPL, RCRA TSD facilities with CORRACTS, and the Hazardous Sites lists will be reviewed for sites within a one-mile radius of the site. The CERCLIS, RCRA TSD facilities without CORRACTS, C&SCS, state landfill/solid waste disposal sites, and the LUST lists will be reviewed for sites within a half-mile radius of the site. All other lists will be reviewed for properties within the above-described corridor.

Historical Use Records

The CONSULTANT shall review historical use information records with regard to previous land use or other activity that could have led to the presence of hazardous or dangerous materials, including petroleum products, in the environment of the site. Potential sources of information include aerial photographs; topographic maps; current and previous owners; abutters; historical societies; libraries; county assessor records; Polk city directories; Metskers, Sanborn, and Kroll maps; and files of federal, state, and local environmental agencies. The actual sources available for a given study will vary and may include other sources, as well as any or all of the above. The sources used will be referenced along with the name of the person contacted, where appropriate.

PRODUCT:

- Memorandum summarizing known and potential sites where contaminated soils may be present. (10 Copies)

E6.3 Contaminated Soils Site Reconnaissance

The CONSULTANT shall conduct a preliminary reconnaissance of up to twenty (20) sites within the corridor to look for and evaluate recognized environmental conditions identified during Item E6.2. Recognized environmental conditions may include, but are not limited to, solid waste disposal, drains, sumps, underground storage tanks (USTs), aboveground storage tanks (ASTs), drums, spills, stains, and hazardous materials. The CONSULTANT shall also look for stressed vegetation, fill, and other indicators of potential contamination. This initial reconnaissance shall be restricted to observations that can be made from public areas, as no right-of-entries will be obtained during this phase of the work. Item E6.3 will also not include any explorations such as test pits or borings.

PRODUCT:

- Memorandum summarizing sites with recognized environmental conditions prioritized by their likely significance to the project. The memorandum will also outline the additional work that is required to complete the Contaminated Soils Discipline Report. (10 Draft Copies and 10 Final Copies)

ITEM E7 TRAFFIC AND MODELING ANALYSIS

E7.1 Confirm Phase 1 Base and Future Year Models

The CONSULTANT shall coordinate with the STATE and CITY to review the base year validation and future year modeling completed and documented as part of the Phase 1 Alaskan Way Viaduct (AWV) Study. The STATE will provide full documentation (including EMME/2 databanks) of the completed validation effort and future year model development within two (2) weeks following Notice to Proceed (NTP). The CONSULTANT shall confirm the compatibility and consistency of the Phase 1 modeling with other regional modeling activities currently being participated in by the STATE (e.g., Trans Lake Washington Study, SR 509 Extension, I-405 Corridor Study, Sound Transit Forecasts, City of Seattle projects, and on-going PSRC Model updates).

PRODUCT:

- Memorandum detailing CONSULTANT's review of Phase 1 models and identified additional steps necessary to complete validation (10 Draft Copies and 10 Final Copies)

E7.2 Validate Base and Future Year Models for EIS Evaluation

The CONSULTANT shall initiate the development and documentation of an updated Base Year model, incorporating necessary network adjustments to the transit, high occupancy vehicle (HOV) and general purpose vehicle networks as may be necessary to reasonably replicate observed travel within the AWV corridor. The model shall be consistent with the I-405 modeling efforts, using the PSRC regional model as the base. The CONSULTANT shall develop a future Year 2030 model for use in the EIS. The CONSULTANT shall utilize the work completed as part of the Phase 1 Study as appropriate.

The CONSULTANT shall work with the STATE, CITY and the PSRC to develop population and employment forecasts to be used for the Year 2030 and Year of Opening forecasts.

Specific work activities to complete the validation for the Alaskan Way Viaduct corridor include:

- Converting zonal system and highway and transit networks in the PSRC-based model for base year and future (baseline) to be compatible with those in the City of Seattle model (Note: the extent of this work activity is dependent on efforts completed as part of Phase 1).
- Converting transit networks in PSRC-based model compatible with recently validated Sound Transit (ST) model.
- Calibrate certain parameters in the PSRC-based model to produce reasonable number of trips for each mode (e.g., transit and HOV).
- Assemble count data to allow model validation analysis.
- Prepare a technical memorandum to document validation related tasks.
- Coordinate with PSRC staff and other appropriate interested parties.

As part of the Year 2030 model development, the CONSULTANT shall define a No-Action Alternative that represents the STATE's best understanding of network conditions that are likely to exist in the Year 2030. This Year 2030 No-Action model will be the basis for all future analysis of potential Build Alternatives as part of the EIS and will be a multi-modal analysis tool.

Working with the STATE and CITY, the CONSULTANT shall identify a year of opening and prepare a model to represent the STATE's best understanding of network conditions in that year. This model will represent an intermediate analysis year. This work item is anticipated to be completed 120 calendar days after Notice to Proceed (NTP).

Note: Identified products are those to be delivered at the completion of validation. This work element is intended to initiate the process that will carry on beyond the initial ninety (90) calendar day period covered by the contract.

PRODUCT:

- Validated base year model and documentation (EMME/2 Databank and 5 Copies of documentation) – to be delivered at the completion of validation
- Year 2030 No-Action model and documentation (EMME/2 Databank and 5 Copies of documentation) – to be delivered at the completion of validation
- Year of opening model and documentation (EMME/2 Databank and 5 Copies of documentation) – to be delivered at the completion of validation

E7.3 Systems Modeling and Evaluation for Screening

To support the Screening Process, the CONSULTANT shall conduct a series of Year 2030 model runs (up to 14) necessary to determine the implications, benefits, and system impacts of a modified corridor that might be provided by a future AWV replacement alternative. This analysis represents a functional analysis of system concepts. System concepts may be representative of more than one AWV build alternative. These model runs will include trip generation, trip distribution, modal split and assignment elements of the modeling process and will rely on the EMME/2 model developed during Phase 1 of the study. If necessary, additional understanding of the transit implications will be gained using the Sound Transit Model to more accurately identify transit use of the AWV.

The focus of this functional analysis will be to test the advantages and disadvantages of various termini and mid-corridor connections and combinations of access management approaches (i.e., combinations of arterial and limited-access capacity). Access connections (model runs) to be evaluated include:

Northern Termini:

- Access to Elliott/Western
- Access to Aurora North
- Access to I-5/SR 520 via a Mercer corridor connection
- Access to South Lake Union area

City Connections (Downtown Connections):

- Mid-town connections from south only (similar to existing Columbia/Seneca connections)
- Bi-directional connections to/from mid-town
- No-connections (i.e., representative of a deep tunnel) with access provided at a northern and a southern portal interchange
- Full access to downtown cross-arterials (i.e., representative of a boulevard/arterial approach rather than limited access approach)

Southern Termini:

- Connection to/from west at Spokane Viaduct/West Seattle Bridge
- Bi-directional (full interchange) connection at Spokane Viaduct/West Seattle Bridge
- Connection to I-90/I-5 via the SR 519 corridor and to First Avenue South vicinity

The Systems Modeling analysis will support the completion of concept screening and narrowing of alternatives for evaluation during the detailed environmental analysis (EIS). Focus at the systems level will assist decision makers in understanding the system implications of selected connections and selected combinations of roadway accessibility. The CONSULTANT shall document the transportation systems analysis in a transportation discipline report, suitable for use during detailed analysis.

PRODUCT:
- Documentation of up to 14 model runs completed as part of system analysis
- Transportation modeling summary (10 Draft and 25 Final Copies)

E7.4 Simulation Model Definition and Initiation

The CONSULTANT shall define the specifications for a simulation model for use in the AWV study. The CONSULTANT shall interview appropriate STATE and CITY staff, as well as representatives from the appropriate resource agencies (Federal Highway Administration, transit agencies, etc.) to determine the range of simulation capabilities that should be incorporated into the analysis tool and the range of data desired for detailed analysis.

The CONSULTANT shall investigate the use of up to five (5) off-the-shelf analysis software packages that may provide the appropriate simulation capabilities, including the ability to automate interface with data from the regional model. The CONSULTANT shall recommend to the STATE and CITY an appropriate analysis tool for use in the AWV study. The CONSULTANT shall assist the STATE in acquiring the appropriate software and installing it on computers to be located at the project office for use during the remainder of the study. It is assumed that the STATE would purchase any licensing agreement and/or software necessary to acquire the recommended software package.

Pending the acquisition by the STATE of the recommended simulation software package, the CONSULTANT shall initiate network coding necessary to simulate traffic for detailed evaluation of traffic impacts within the AWV corridor. The CONSULTANT shall detail the scope of services necessary to calibrate and maintain the simulation model and negotiate with the STATE the necessary scope, schedule and budget for implementation. This Item is to be completed within 45 calendar days of NTP.

PRODUCT:
- Memorandum documenting recommended traffic simulation tool. (10 Copies)
- Scope, schedule, and budget estimate for simulation model development and maintenance.

E7.5 Fielding Plan for On-Board Transit Survey of AWV Routes

In coordination with the affected transit agencies and working closely with the STATE and CITY, the CONSULTANT shall develop a fielding plan to design and administer an on-board transit survey of routes currently using the Alaskan Way Viaduct as well as routes that could potentially use a replacement alternative. Routes anticipated to fall into this grouping include

those currently using the AWV, First Avenue South, North Aurora approaching downtown, and those using the Interbay corridor, Dexter N, 4th Ave S, Waterfront Street Car, West Seattle Water Taxi. The CONSULTANT shall coordinate with the STATE, CITY, and affected transit agencies to identify candidate routes to be surveyed and range of information to be collected as well as to determine the appropriate timing of such a survey. The STATE will secure permission and participation from the participating transit agencies to conduct the on-board survey.

Working with the transit agency, the CONSULTANT shall develop a concise survey questionnaire to collect relevant travel information, including place of trip origin, destination location, trip purpose and frequency, respondent's household demographics, and limited opinions on project alternatives and/or funding mechanisms. A draft questionnaire will be presented for review and comment by the STATE, CITY, and affected transit agencies. The questionnaire length and format will be designed to achieve a balance between the user participation rate and the depth of information collected. The CONSULTANT shall focus on items of interest to the STATE and CITY (realizing that the affected transit agency may wish to add further data questions to the list of items to be surveyed.)

The CONSULTANT shall identify an appropriate vendor to undertake the on-board transit survey fielding and data coding elements of the survey (including the affected transit agencies themselves.)

Working with the identified vendor, the CONSULTANT shall detail the scope of services and schedule required to complete the fielding and processing components of the on-board survey. This item is to be completed within forty-five (45) days of Notice-to-Proceed.

PRODUCT:

- Draft and final questionnaire to be distributed during survey implementation. (10 Draft Copies and 10 Final Copies)
- Identification of a survey data collection vendor.
- Fielding plan document for conducting the survey, including the scope, schedule and budget for survey administration; data coding and processing; data analysis and tabulation; and documentation of survey findings and results. (10 Copies)

E7.6 Special Transportation Studies

To support the validation of the transportation model, the CONSULTANT shall conduct transportation studies of specific modal markets to improve identification of travel markets. It is anticipated that an analysis of truck use of the corridor will be required. It is also assumed that other special analyses will be identified as needed during the screening and evaluation of alternatives process. The intent of this task is to provide a mechanism for the STATE to authorize the scoping of those additional special data collection exercises.

Truck Movements

Working with the STATE and CITY, the CONSULTANT shall investigate truck use of the Alaskan Way Viaduct corridor. The objective of this investigation will be to determine major origins and destinations of truck traffic typically using the AWV. The CONSULTANT shall meet with the CITY and Port of Seattle and review previous and on-going studies related to

trucking in the Central Puget Sound region. From reasonably available public information sources, the CONSULTANT shall identify major trucking companies, representative trucking organizations that might use the AWV, delivery companies and large generators of truck traffic for truck movement information.

Working with the STATE and CITY, the CONSULTANT shall develop a camera-based methodology to track trucks through the existing AWV corridor. This methodology is based on the understanding that there are limited entrances and exits within the corridor and that individual vehicles can be traced visually using existing and/or added stationary cameras. The CONSULTANT shall identify a vendor capable of collecting and reporting the data and shall provide a scope, schedule, and budget for approval by the STATE prior to implementation.

Other Modal Analyses

Working with the STATE and CITY, the CONSULTANT shall identify additional modal analyses that may be needed to meet specific evaluation requirements during the period of this early phase of work (e.g., a pedestrian analysis). When the need for a special transportation study is identified, the CONSULTANT shall prepare a memorandum detailing the need for the study; identify a data collection vendor to support the analysis; and develop a proposed methodology or scope for the analysis, including a schedule and budget. The STATE and CITY will consider the request for special study and, if appropriate, authorize the CONSULTANT to pursue analysis under a contract modification. For budgeting purposes, it is assumed that up to four (4) additional studies might be identified during this early phase of work. The CONSULTANT shall budget appropriate to develop specifications for these special studies. Implementation of the special studies, however, is not assumed as part of this scope of work.

PRODUCT:

- Memorandum detailing the information gathered from investigation of existing trucking operations within the AWV corridor. (10 Copies)
- Identification of a data collection vendor for camera-based data collection analysis of trucking movements within AWV corridor.
- Fielding plan for conducting camera-based trucking analysis, including the scope, schedule and budget for administration; data analysis and processing; and documentation of findings.
- Memorandum detailing the need for additional transportation studies (scope/schedule/budget and identified data collection vendor) (10 Copies for up to 4 identified special studies).

E7.7 Emergency Response/Contingency Planning

The CONSULTANT shall review the STATE and CITY emergency disaster plan as it relates specifically to the Alaskan Way Viaduct and a potential event that results in the existing structure becoming unserviceable. The CONSULTANT shall conduct a literature search and collect current examples from up to four (4) communities related to emergency preparedness planning and make this material available to the STATE and CITY. The CONSULTANT shall coordinate with and support the STATE in reviewing the existing plan and identify modifications that might be necessary based on information gained from on-going Phase 2 AWV analyses.

PRODUCT:

- Memorandum detailing information gathered from literature research, including copies and/or pertinent exerts of plans obtained from other regions (10 Copies).

ITEM E8 MISCELLANEOUS REPORT PREPARATION

E8.1 Urban Design Assessment

Prepare an inventory and analysis of the characteristics, conditions and features of the urban environment adjacent to the project site. Such an analysis will address the following:

- General urban context including influencing neighborhoods, characterization of activities, grain and fabric of the site area and its role in the downtown, size and outlook.
- Surrounding land uses and activities including patterns of change and evolution.
- Existing plans, policies and codes, including neighborhood planning goals and objectives, City of Seattle Comprehensive Plan, Seattle Land Use and Zoning Code, and the Shoreline Master Program.
- Building fabric including condition, size, historic registry, over water structures, and development or revitalization plans.
- Community character including development structure, views, streetscapes, amenities and open space, pedestrian circulation, and major attractions or institutions.
- Problems and opportunity areas that may exist and have potential influence on the project area.

Specific design issues to be taken into consideration will include:

- View corridors along east/west streets from downtown, Pike Place Market, Pioneer Square and the Sports Stadiums to the waterfront and beyond.
- Pedestrian circulation and access from downtown, Pike Place Market, Pioneer Square and the Sports Stadiums to the waterfront and water's edge.
- Pedestrian environment and amenities north/south along the waterfront and the water's edge.
- Relationships to adjacent private properties and major public facilities such as the Aquarium, Sports Stadiums and the Ferry Terminal.
- Potential noise generation along the waterfront and its mitigation.
- Areas under potential elevated structures and light penetration, safety and security.
- Design criteria and guidelines that address community issues and concerns.
- Conceptual design investigations of the following:
  - Pedestrian circulation routes and open spaces.
  - Potential portal structures and ramps both north and south.
  - Potential elevated and retained earth structures.
  - Other design opportunities that result from the analysis.

The CONSULTANT shall prepare and conduct an initial workshop with selected and invited area-wide stakeholders to identify issues, concerns, needs and desires so that they may be addressed in the early design alternatives.

The CONSULTANT shall participate in a meeting with the City of Seattle Design and Planning Commission.

PRODUCT:
- Draft Urban Design Assessment (10 Copies)
- Final Urban Design Assessment (25 Copies)

E8.2 Primer on Cost Estimating Procedures

The CONSULTANT shall develop a primer on estimating to explain the basic rationale and process that accompanies an engineer's estimate of construction cost. This information will be presented to interested parties and members of the Leadership Group in the form of a booklet of elementary principles. The primer will relate to the STATE's estimating of its typical projects, particularly with respect to very large projects.

The primer will include such subject areas as:

- Different estimating techniques appropriate for the various stages of a project, including conceptual, preliminary and final stages.
- Approaches for incorporating contingencies in an estimate.
- Why, when and how to use ranges when estimating a project (e.g., the project is estimated to cost between $10 and 12 million).
- Different techniques for formatting and presenting estimates to the public and/or media and to other engineers.

PRODUCT:
- Draft of the primer (10 Copies)
- Final version of the primer booklet (50 Copies)
- Meeting presentation slides

ITEM E9 QUALITY CONTROL PROGRAM

E9.1 Quality Control Plan

A Project Quality Control Plan (PQCP) shall be prepared by the CONSULTANT and submitted to the STATE. The CONSULTANT is responsible for both the preparation and implementation of this PQCP. Work associated with implementing this plan will occur under the work element "Implement Quality Control Program."

This plan shall outline the CONSULTANT's measures to ensure that all products are reviewed for quality, and corrected if necessary, prior to submittal to the STATE.

PRODUCT:
- Draft Project Quality Control Plan (8 Copies)
- Project Quality Control Plan (50 Copies)

E9.2 Implement Quality Control Program

The CONSULTANT shall implement the project's Quality Control Plan as developed and approved in the Item E9.1.

In the event that the STATE determines that it has received products which have not been properly quality-controlled, the STATE will return the products to the CONSULTANT for review and correction, at no additional cost to the STATE. The products will then be re-submitted to the STATE for the standard review and comment period.

The environmental documentation will be developed in accordance with the applicable sections of the following, and other laws, regulations and guidance that may apply:

NEPA LAWS

The National Environmental Policy Act [NEPA] (42 United States Code [U.S.C.] Sec. 4321 et seq.)

EPA GUIDELINES

EPA, 1992. Guideline for Modeling Carbon Monoxide from Roadway Intersections - EPA 454/R-92-005. Research Triangle Park, NC.

EPA, 1992a. Users Guide to Mobile 5 (Mobile Source Emissions Factor Model) - EPA-AA-AQAB-92-01. Ann Arbor, MI.

EPA, 1992c. Users Guide to CAL3QHC Version 2.0, A Modeling Methodology For Predicting Pollutant Concentrations Near Roadway Intersections - EPA-454/R-92-006. Research Triangle Park, NC.

NEPA FEDERAL AGENCY REGULATIONS AND OTHER GUIDANCE

Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [C.F.R.] Section 1500.1 et seq.)

CEQ, Preamble to Proposed CEQ NEPA Regulations (43 Federal Register, page 25230, June 9, 1978). This document contains CEQ's detailed explanations of the proposed NEPA Regulations.

CEQ, Preamble to Final CEQ NEPA Regulations (43 Federal Register, page 55978, Nov. 29, 1978). This document contains CEQ's detailed explanations of the final NEPA regulations and discusses the comments raised during the regulatory review process.

CEQ, NEPA Implementation Procedures: Appendices I, II, and III (49 Federal Register, page 49750, Dec. 21, 1984). These appendices list agency NEPA contacts and agencies with jurisdiction by law or special expertise on environmental issue.

CEQ INFORMAL ADVICE.

Memorandum: Questions and Answers About the NEPA Regulations ("40 Questions"), 46 Federal Register, page 18026, March 23, 1981, as amended 51 Federal Register, page 15618, April 25, 1986.

Memorandum: Scoping Guidance, April 30, 1981

Memorandum: Guidance Regarding NEPA Regulations (48 Federal Register, page 34263, July 28, 1983.)

FHWA NEPA PROCEDURES

FHWA: 23 Code of Federal Regulations Sections 771.101 et seq.

FHWA Technical Advisory T 6640.8A, Guidance For Preparing and Processing Environmental and Section 4(f) Documents (October 30, 1987).

FHWA Memorandum, Freedom of Information Act (FOIA) and Environmental Documents, September 25, 1985 and March 27, 1989.

FHWA Memorandum, Implementation of Environmental Policy State - Questions and Answers ("Eleven Questions") (February 28, 1991).

NEPA/404 Merger Agreement, as amended (1995)

SEPA LAWS

State Environmental Policy Act Rules (Washington Administrative Code Chapter 197-11, as amended)

WSDOT WAC AND GUIDELINES

Transportation Commission and Transportation Department State Environmental Policy Act Rules (Washington Administrative Code Chapter 468-12)

WSDOT Environmental Procedural Manual (M31-11), Volumes 1-2.

STATE PUBLICATIONS

Standard Specifications for Road, Bridge and Municipal Construction (M41-10)

Standard Plans for Road, Bridge and Municipal Construction (M21-01)

Design Manual (M22-01)

Plans Preparation Manual (M22-31)

Highway Runoff Manual (M31-16)

Hydraulics Manual (M23-03)

Bridge Design Manual (M23-50)

R/W Manual (M26-01)

Traffic Manual (M51-02)

Northwest Region Hydraulic Report Guide

Roadside Classification Manual

Design Report Documentation Guidelines

Amendments and General Special Provisions

Standard Item Table

Standard drawings prepared by the STATE and furnished to the CONSULTANT shall be used as a guide in all cases where they fit design conditions.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) PUBLICATIONS

A Policy on Geometric Design of Highways and Streets (1984) ("Green Book")

Standard Specifications for Highway Bridges, Twelfth Edition (1977)

A Guide for Highway Landscape and Environmental Design (1970)

Highway Design and Operational Practices Related to Highway Safety (1974) ("Yellow Book")

Any American Association of State Highway and Transportation Officials policy applicable where said policy is not in conflict with the standards of the Washington State Department of Transportation.

US DEPARTMENT OF TRANSPORTATION PUBLICATIONS

Manual on Uniform Traffic Control Devices for Streets and Highways

Highway Capacity Manual (1994)

OTHER PUBLICATIONS

National Electrical Code

USACOE Wetland Delineation Manual.