

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Authorizing the City Manager to Execute an Amendment to the Contract with Jacobs Engineering Group for 100% Design on Phase 1 of the SR-523 (N/NE 145th Street) Aurora Avenue to Interstate-5 Project in an Amount Not to Exceed \$1,614,366
DEPARTMENT:	Public Works
PRESENTED BY:	Tricia Juhnke, City Engineer
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

The City of Shoreline has passed the 60% design submittal milestone for the 145th Corridor project (SR 523 - Aurora Avenue N to Interstate 5). Now that the entire corridor has been designed to the 60% design level, Phase 1 of the project design will be advanced to completion.

The original contract with CH2M Hill included 30% design and environmental review of the project. A contract supplement was approved for 60% design and to begin the right-of-way phase of the project. Since the initial contract authorization, CH2M Hill has been acquired by Jacobs Engineering Group (Jacobs), thus the name has been revised from the original contract.

Tonight, Council is being asked to authorize the City Manager to execute an amendment (Supplement #5) with Jacobs to continue with design and right-of-way services for 100% design on Phase 1 (Interstate 5 to Corliss Avenue).

RESOURCE/FINANCIAL IMPACT:

Jacobs will continue engineering design and right-of-way services for the project as defined in Attachment A to this staff report. The fee estimate for services is \$1,614,366 as per Attachment B. The City has received \$4,235,000 of Surface Transportation Program grant funding for environmental review and final design. The additional funds for this amendment include \$660,954 in Roads Capital Funds and \$1,117,129 in Connect Washington Grants. Future phases of the project will utilize Connecting Washington grant funding. The project cost and budget summary for the design phase is as follows:

EXPENDITURES

City Staff + Expenses	\$691,595
<u>Consultant Contracts</u>	
30-Percent Design and Environmental	\$ 1,710,639
60-Percent Design and Right-of-Way Acquisition Services	\$ 1,873,112
100-Percent Design and Right-of-Way Acquisition	\$ 1,614,366
Services – Phase 1	
WSDOT	\$ 50,000
Contingency	\$ 73,371
Total Expenditures	\$ 6,013,083

REVENUE

Roads Capital Fund (Design Phase)	\$ 660,954
Federal Grant (Design Phase)	\$ 4,235,000
Connecting Washington (Design Phase, LA8901)	\$ 663,621
Connecting Washington (Right-of Way-Phase, LA9999)	\$453,508
Total Revenue	\$ 6,013,083

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute an amendment with Jacobs Engineering Group for 100% design and right-of-way services related to Phase 1 of the SR-523 (N/NE 145th Street) Aurora Avenue N to Interstate-5 Interchange Project in an amount not to exceed \$1,614,366 for a contract maximum amount of \$5,198,116.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

In 2016, the City completed the [145th Street Multimodal Corridor Study](#) which identified needed improvements along SR-523 (145th Street) from Aurora Avenue N to Interstate-5, in addition to improvements on three other segments of the corridor. The improvements are needed to improve traffic operations, safety, pedestrian, and bicycle mobility and to improve access to the proposed 145th Street light rail station. The Multimodal Corridor Study broke the project into five phases that are consistent with segments of the roadway. This contract covers the segment from Interstate 5 to Aurora Avenue N. The interchange is being designed through a separate project; the segment from SR-522 to I-5 is included in the Sound Transit 3 BRT scope; and the final segment from Aurora Avenue to 3rd Avenue is not currently funded for design.

On June 5, 2017, City Council authorized the City Manager to enter into a contract with CH2M Hill for the design and environmental services for the 145th Corridor project. The staff report for this Council authorization can be found at the following link: <http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/council/staffreports/2017/staffreport060517-7b.pdf>. The scope of the initial contract covered through 30% design and environmental review for a contract amount of \$1,710,639.

On November 18, 2019, the City Council authorized the City Manager to execute an amendment for the contract with Jacobs Engineering Group for the design and right of way services for the 145th Corridor Project. The staff report for this Council authorization can be found at the following link: <http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/council/staffreports/2019/staffreport111819-7f.pdf>. The scope of the amendment covered through 60% design and right of way services for a contract amount of \$1,873,112.

Since the initial contract authorization, CH2M Hill has been acquired by Jacobs Engineering Group (Jacobs), thus the name has been revised from the original contract.

DISCUSSION

Work performed under this amendment will advance the design of Phase 1 (Interstate 5 to Corliss Avenue) to 100% completion and will support the City's future purchase of the right-of-way needed for the project. The project has three funding sources: local funding from the Roads Capital Fund; federal State Transportation Project (STP) grant funding for engineering and design; and State Connecting Washington (CWA) grant funding. Additional funding will be needed for completion of the project.

ALTERNATIVES ANALYSIS

CH2M Hill was selected for this work in 2017 based on a competitive selection process including review of written qualifications, an interview, and a review of references. The scope of the selection process included design, right-of-way services and construction. Their work on the preliminary design and environmental documentation has been satisfactory and staff recommends that the consultant be retained for the additional services presented.

The alternative is to not authorize this amendment which would stop progress on the design of the project resulting in a delay in construction and potentially risk grant funds.

COUNCIL GOAL(S) ADDRESSED

Progress on the 145th Corridor Project helps to implement City Council Goal 2: Continue to deliver highly valued public services through management of the City’s infrastructure and stewardship of the natural environment; and Goal 3: Continue preparation for regional mass transit in Shoreline.

RESOURCE/FINANCIAL IMPACT

Jacobs will continue engineering design and right-of-way services for the project as defined in Attachment A to this staff report. The fee estimate for services is \$1,614,366 as per Attachment B. The City has received \$4,235,000 of Surface Transportation Program grant funding for environmental review and final design. The additional funds for this amendment include \$660,954 in Roads Capital Funds and \$1,117,129 in Connect Washington Grants. Future phases of the project will utilize Connecting Washington grant funding. The project cost and budget summary for the design phase is as follows:

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Interchange Project in an amount not to exceed \$1,614,366 for a contract maximum amount of \$5,198,116.

ATTACHMENTS

- Attachment A: Jacobs Engineering 145th Street Multimodal Corridor Project – Aurora Avenue to Interstate-5 Project, Phase 1 Final Design and Bidding Support Scope of Work (Supplement #5)
- Attachment B: Fee Estimate/Level of Effort (LOE)

City of Shoreline
145th Street Multimodal Corridor Project
Aurora Avenue to I-5
PH.1 Final Design and Bidding Support

05/12/2021

Exhibit A4 - Scope of Work
Supplement #5

During the term of this AGREEMENT, CH2M HILL, Inc., a wholly owned subsidiary of Jacobs Engineering, Inc. (CONSULTANT) team will perform professional services in connection with the 145th Street Multimodal Corridor Project as described below. The CONSULTANT team consists of CH2M HILL, Inc., LMN Architects, Envirolssues, Parametrix, HBB Landscape Architecture, and RES Group Northwest.

PROJECT DESCRIPTION

This Scope of Work is for the CITY of Shoreline 145th Street Multimodal Corridor Project with project extents from the Aurora Avenue intersection to the I-5 Interchange (approximately 1 mile). The entire corridor was designed through 60% milestone. The City is developing final engineering and construction in Phases. Phase 1 extents are from approximately Corliss Avenue to the I-5 Interchange. Phase 2 extends from Corliss Avenue to Wallingford Avenue. Phase 3 completes the project from Wallingford Avenue to Linden Avenue. This scope of work is for the design completion of Phase 1. This scope includes survey and base mapping, right of way acquisition, final design engineering, plans, specifications, cost estimating, public involvement, agency approvals, and agency coordination. The Project will be completed in Phases. This scope of work is for the following phases:

- Phase 1 Final design, from 60% through support services during bidding

Completion of Phase 2 and other phases will require an amendment of this scope.

Proposed improvements are based on the 145th Street Corridor 60% Design, expected to be completed in May 2021.

This scope of work assumes that the project will have duration of no more than 16 months commencing in July 2021 and being completed by October 2022.

The baseline milestone schedule for the project is shown on the table below:

Table 2. Project Design Milestones

	Dates
PS&E – 60% Submittal	May 31, 2020
PS&E – 90% Submittal	December 2021
WSDOT R/W Certification*	June 2022
Advertise Date for construction bids*	October 2022
Award	December 2022

Scope Assumptions

The following general assumptions have been made in developing the Scope of Work and Budget for 145th Street. Additional detail has been included in the task descriptions contained in the remainder of the Scope of Work

General Assumptions

1. This Scope of Work is premised on a notice-to-proceed date of approximately July 1, 2021, with a 16-month project duration for final design activities. CONSULTANT's ability to meet this schedule is contingent upon timely receipt of information and / or comments from CITY or third parties.
2. CITY will secure agreements between City of Shoreline and City of Seattle agencies and stakeholders and coordinate the execution of this Scope of Work. A stakeholders meeting (led by CITY) will occur prior to signing agreements to ensure that there is agreement from other City agencies and the products they need. If additional design work is required beyond this scope of work to satisfy the agreements, the project milestone dates and the project schedule will be revised to reflect delay associated with additional design work.
3. Work performed will be in accordance with the WSDOT Local Agency Guidelines as applicable.
4. If additional sheets are required to adequately detail the project, then the level of effort and associated fees will be adjusted.
5. All drawings will be produced using AutoCAD.
6. City of Shoreline, SDOT and review AGENCIES will take four weeks to review all products. CITY will be responsible for the collecting comments from AGENCIES reviews, resolving conflicting comments, and submitting one set of consolidated comments to the CONSULTANT for each submittal.
7. The CONSULTANT will coordinate and obtain rights-of-entry.
8. If asbestos or hazardous substances in any form are encountered or suspected, CONSULTANT will stop its own work in the affected portions of the PROJECT to permit testing and evaluation by

CITY. If asbestos is suspected, CONSULTANT will, if requested, support CITY with related activities using a qualified subcontractor at an additional fee and contract terms to be negotiated. If hazardous substances other than asbestos are suspected, CONSULTANT will, if requested, conduct tests to determine the extent of the problem and will perform the necessary studies and recommend remedial measures at an additional fee and contract terms to be negotiated. CITY recognizes that CONSULTANT assumes no risk and/or liability for a waste or hazardous waste site originated by other than CONSULTANT.

9. Subsurface Investigations - In soils, foundation, groundwater, and other subsurface investigations, the actual characteristics may vary significantly between successive test points and sample intervals and at locations other than where observations, exploration, and investigations have been made. Because of the inherent uncertainties in subsurface evaluations, changed or unanticipated underground conditions may occur that could affect total project cost and/or execution. These conditions and cost/execution effects are not the responsibility of CONSULTANT.
10. Opinions of Cost, Financial Considerations, and Schedules - In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, CONSULTANT makes no warranty that CITY's actual project costs, financial aspects, economic feasibility, or schedules will not vary from CONSULTANT's opinions, analyses, projections, or estimates.
11. CONSULTANT will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by CITY.

1.0 PROJECT MANAGEMENT

The CONSULTANT will provide overall project administration and management for the duration of this contract.

- 1.1 Project Management Plan. A brief update to the project management plan will be prepared to include a project work breakdown structure (WBS), identification of the project team and organization structure, scope of services, quality management plan, risk analysis plan, and project Health and Safety Plan.
- 1.2 Quality Plan. No additional work for this task.
- 1.3 Project Schedule. An overall project schedule completion date will be established by the CITY. A detailed schedule for the CONSULTANT work elements shall be prepared by the CONSULTANT and will be jointly developed with the CITY. The schedule shall be revised up to 6 times during the course of the project, at the request of the CITY.
- 1.4 Direction and Review. Implementation of the workplan, and direction of the staff and review of their work over the course of the project shall be provided. This is for the overall project rather than a specific work element and shall provide guidance to the entire team. The CONSULTANT shall

direct and control the staff by supervising their work, holding regular internal coordination meetings, and by other methods.

- 1.5 Document Management. The CONSULTANT shall provide for the management of the drawings and documents received and generated over the course of the project. This information shall be filed to facilitate ready and selective retrieval.
- 1.6 Monthly Progress Reports and Invoicing. This work element shall include the monthly invoice and progress reports. Invoices and backup shall be prepared in accordance with the format agreed to with the CITY project manager. The progress reports shall describe the work accomplished during the billing period including the status of individual work elements, meetings attended, and action or information needed from the CITY. Progress reports shall also indicate work to be accomplished during the next month. The progress reports shall be submitted to the CITY with the monthly invoice.
- 1.7 Budget Monitoring and Projections. Periodic monitoring of the CONSULTANT'S budget shall occur over the course of the project and projections provided to the CITY upon request. Current project financial status as well as independent projections (i.e. non-project related Consultant staff) to complete work shall be developed as needed. This work element is intended to help monitor costs and budgets and to propose corrective actions. These actions could include formal requests for budget or scope modifications.
- 1.8 Issue and Change Management. The Project Change Log will be updated to identify changes and communicate response strategies. Six updates to the Change Log are assumed.
- 1.9 Subconsultant Management. SUBCONSULTANT management shall provide an overview of progress, review invoices and provide overall coordination of SUBCONSULTANTS conducting various project elements.

Task 1 Deliverables:

- Project Management Plan
- Project schedule and up to six (6) schedule updates
- Monthly invoices and progress reports
- Monthly budget status reporting
- Project change log and updates

2.0 PROJECT DELIVERY AND PROJECT COORDINATION

This work element is continuous throughout the duration of the project. It includes the work necessary to coordinate the work with the CITY, related projects, and partner agencies.

- 2.1 Project Management Team Meetings. The CONSULTANT will plan, facilitate, and host weekly project management team (PMT) meetings. These meetings assumed to be 1.5 hours in length. Up to two CONSULTANT team staff members will attend each meeting, depending on the agenda. The CONSULTANT will prepare meeting agendas, meeting summaries, and action items.
- 2.2 Risk Management. The Risk Register is a tool that identifies potential risks to the project and management strategies for those risks. A Risk Register will be maintained and updated by the CONSULTANT up to five times to monitor project progress over the course of the development of this Project Element.

- 2.3 Interchange Project Coordination Meetings. The CONSULTANT will participate in monthly project coordination meetings with the Interchange Project team. These meetings will occur at the CITY's office and are assumed to be 2 hours in length. Up to two CONSULTANT team staff members will attend each meeting, depending on the agenda. The CONSULTANT will prepare meeting agendas, meeting summaries, and action items.
- 2.4 Consultant Project Team Meetings. The CONSULTANT will plan and lead bi-weekly team meetings to coordinate work between the team members. This effort is for the overall project rather than a specific task and is intended to provide the coordination that the team will need to understand project priorities, deadlines, and resolve issues that arise. CITY staff involvement is encouraged. For budgeting purposes, bi-monthly meetings, two hours in length are assumed over the duration of the project (24 meetings).
- 2.5 City of Shoreline Design Coordination Meetings. Design coordination meetings with City of Shoreline staff will be required throughout the development of final design. Meetings may include Public Works, Stormwater, Maintenance, and other City departments. The CONSULTANT will plan and lead meetings to coordinate design decisions. Eight (8) meetings are assumed for this task.
- 2.6 Additional Project Coordination Meetings as Directed. The CONSULTANT will support the CITY as directed with participation in additional coordination meetings. Meeting support includes preparation of agendas, meeting notes, and meeting materials. The level of effort (LOE) for this task is limited to the budget established in Exhibit D under this task.
- 2.7 Constructability Review. The CONSULTANT will conduct a constructability review of the Project. Construction management professionals from the CONSULTANT team will review the project design after the 90% milestone to provide comments on constructability issues for the project. The Constructability Review will include a constructability review meeting with project and Public Works staff. The CONSULTANT shall prepare for and facilitate the Constructability Review meeting. It is anticipated that comments will address project plans, specifications, bid items, utility conflicts, construction sequencing, construction staging, and traffic control with the goal of reducing risk of changes during construction.

Task 2 Deliverables:

- PMT meeting agendas and meeting notes
- Risk Register, up to five updates
- Interchange Coordination Meeting notes

3.0 Funding Support

The CONSULTANT will assist the CITY in its continued pursuit of full funding for the Project. This will consist of the preparation of funding applications and promotion of the project.

- 3.1 Grant Application Support. The CONSULTANT will provide supporting technical information for grant applications, assist with preparation and delivery of project graphics and presentation information, and support project information requests. City will identify funding opportunities and prepare applications.

Task 3 Deliverables:

- Grant application support, up to two (2)

4. Right of Way

4.1 Property Owner Coordination Support

The CONSULTANT will prepare property restoration exhibits for communicating with property owners. These deliverables may be used in meetings with CITY staff, the CITY's appraiser, and property owners. Up to six exhibits are assumed. The CONSULTANT will coordinate project design elements with developers. Coordination will include sharing grading information, utility design, and property interface design. The CONSULTANT will participate in five (5) coordination meetings with developers and the City of Shoreline. Exhibits may include the following:

- Driveway restoration/modification designs, including profiles and any needed drainage.
- Modification or provision of walls (cast in place, rockery, landscape block, etc.
- Modification of walkways, paths, steps, railings, etc.
- Landscaping and property restoration (lawn, mulch, plantings, etc.)
- Utility service adjustments or relocations
- Property cross-sections, as needed
- Property line offset dimensions.
- Other site-specific modifications to existing appurtenances to be included in property exhibits

Deliverable(s):

- Property interface exhibits (6)

4.2 Building Demolition Construction Package

As part of the right of way acquisition process, for full parcel acquisitions that contain building structures, these structures can present a public safety concern if they are not demolished. The CONSULTANT will prepare construction documents for the demolition of these structures. The CONSULTANT shall prepare plans to depict the limits of demolition and regrading. The CONSULTANT shall prepare specifications for the bid package for the demolition of buildings on these properties. The CONSULTANT shall prepare an opinion of cost estimate. An initial outline will be prepared for the construction package to be reviewed by the CITY. A 90% submittal will be prepared, and a final submittal will be prepared.

Assumptions:

- Eight buildings are assumed

Deliverable(s):

- Building demolition construction package initial outline
- 90% Submittal Demolition bid package including plans and specifications
- Final Submittal Demolition bid package including plans and specifications
- Building demolition opinion of cost estimate

4.3 Property Demo Permitting Support

The CONSULTANT will prepare permitting for the demolition of eight (8) full-acquisition parcels, per the City of Shoreline Planning and Community Development Demolition Permit Submittal Checklist. The following items will be prepared for each parcel:

4.3.1 Permit Application. The Consultant will prepare the permit application form and compile the following checklist items.

4.3.2 Wastewater Permit Application for sewer cap-off

4.3.3 Critical Areas Worksheet

4.3.4 Asbestos/Demolition Notification. The Consultant will request asbestos/demolition notification from Puget Sound Clear Air Agency

4.3.5 Rodent Abatement Plan. The City will contract directly with a pest control company to develop a Rodent Abatement Plan.

4.3.6 Site Plan

4.3.7 Stormwater Pollution Prevention Plan (SWPPP). The Consultant will prepare the Short Form SWPPP for eight (8) parcels.

4.3.8 Historic Property Report. The Consultant will compile the Historic Property report that was prepared for the Cultural Resources Report in 2019.

Deliverable(s):

- Building demolition permit applications (8)
- Wastewater permit applications (8)
- Critical Areas Worksheets (8)
- Asbestos/Demolition Notifications (8)
- Site Plans (8)
- Short Form SWPPP (8)
- Historic Property Report (8)

4.4n Property Survey and Basemapping

Full-acquisition properties will be topographically surveyed to prepare base mapping for the Building Demolition Construction Package. The CONSULTANT will prepare a 1"=20' topographic base map and digital terrain model (DTM) within the limits of the eight (8) full-acquisition parcels. The base map will include building faces, building corners, trees with sizes noted, curbs, sidewalks, culverts, valves, hydrants, meters, manholes, catch basins, vaults, utility poles, and other surface features within the Project limits as described above. One-foot contours will be generated from the DTM.

4.6 Appraisals and Appraisal Reviews.

For Appraisals, the original contract budget estimate assumed 17 parcels at a cost of \$25,600. The original budget was based on an estimate prepared by appraisal firm, Valbridge in 2019. Valbridge is no longer in business, and the current estimates prepared by appraisal firm SOVA is \$45,000. This includes twenty (20) noncomplex appraisals at \$2000 each and two (2) complex appraisals at \$2500 each. For Appraisal Reviews, the original contract budget assumed 17 at \$525, and appraisal reviews are now priced at \$1200 each for 22 parcels for a total of \$26,400, per a recent estimate from appraisal reviewer sub-contractor Appraisal Group of the Northwest.

4.12 Rights of Entry (ROE).

Consultant will coordinate and obtain rights of entry to support field surveys, arborist activities, and utility exploration, up to 75 rights of entry.

5.0 Phase 1 Contract Drawings

This final design task progresses the design from 60 percent design level to 90 percent contract drawings for review, and 100 percent drawings for review, and FINAL (bid ready) contract drawings. See Attachment A for sheet list by Discipline. In addition to preparing the contract drawings, the CONSULTANT will maintain design documentation including design calculations. Quantity take-offs will be performed for each discipline under this task, to be compiled in Task 6, Cost Estimating.

5.1 General Plans

5.1.1 General Plans

The CONSULTANT will prepare a cover sheet in accordance with CITY standards and an index of drawings. The list of plan sheet titles in the indices will exactly match the titles as they appear on the plan sheets. See Appendix A for preliminary list of the contract drawing sheets.

The CONSULTANT will prepare a vicinity map showing the project limits in accordance with CITY standards. The vicinity map will include the beginning and ending of construction, stations, major cross streets, waterways, and critical areas.

The CONSULTANT will prepare a sheet layout index for each scale used showing the sheet layout for the various disciplines. The CONSULTANT will prepare general notes, abbreviations, and symbols sheet.

A summary of quantities depicting bid items quantities will not be included in the plan set.

5.1.2 Survey Control, Alignment, and Right of Way Plans

The CONSULTANT will prepare a Survey Control, Alignment, and Right of Way Plan that will show monumentation, alignment information, right of way, and survey control.

5.1.3 Construction Sequence and Traffic Control Plans

The CONSULTANT will develop construction staging plans at a scale sufficient to show the project limits on five plan sheets, with the sheets repeated for assumed three stages of construction. The plans will include staging notes describing contractor requirements for maintaining traffic lanes, access to parcels,

and maintenance of a safe work zone. The plans will also delineate specific areas of concern such as interfaces with other construction contracts, critical access requirements for individual properties, commitments made to adjacent property owners and businesses, and CITY and other agency requirements. The CONSULTANT will coordinate with KC Metro, Seattle Fire/Life Safety, and CITY Traffic to identify requirements for closures, detour and/or relocation of facilities for any transit route or facilities and specific roadways and will include these requirements in the Construction Staging plans. The construction staging plans prepared by the CONSULTANT will serve as the basis for the contractor to prepare detailed construction staging and maintenance of traffic plans. Locations for Contractor staging and laydown areas will be identified on the plans.

The CONSULTANT will develop a Detour Plan to depict the circulation and routing of traffic around construction areas during construction. The Detour Plan will include the placement of detour signs including variable messaging signs (VMS).

Public communication materials and graphics for the construction staging and detour will be developed under Task 10 Community Engagement.

5.1.4 Site Preparation and Temporary Erosion Control

The CONSULTANT will define the demolition activities, including items to be abandoned, salvaged, recycled or removed, and identify facilities that need to be protected during construction. Site Prep and TESC plans will include surface feature items, such as pavements (by type), sidewalk, curbs, walls, building structures and foundations and miscellaneous structures. Demolition required for utilities, drainage features, signing, striping, signalization and illumination will not be included in these drawings and will be shown on the relevant discipline drawings. Building remodeling is not included in the demolition drawings, these items will be addressed in the real estate agreements with the necessary modifications completed by the property owner before acquisition.

Private property fencing and gates will not be included.

The CONSULTANT will prepare erosion control measures and details which show temporary erosion and sedimentation controls measures to be used for this project.

Task 5.1 Deliverable(s):

- plans described in Tasks 5.1.1 through 5.1.4 and as listed in Attachment A: Sheet List by Discipline

5.2 Roadway Plans

The CONSULTANT will prepare plans, profiles, cross-sections, and details for the roadway improvements.

5.2.1 Typical Roadway Sections

The CONSULTANT will prepare typical roadway cross-sections denoting roadway widths, sidewalks, medians, amenity zones, and traffic lanes.

5.2.2 Paving and Grading

The CONSULTANT will prepare roadway modification plans that will show dimensions for roadway outlines and sidewalks. The plans will also show curb returns, tapers, intersection layouts, proposed driveway access, and other pertinent surface features. Property conform limits will be developed and shown in the form of cut-and-fill lines and property reconstruction limit. The CONSULTANT will perform property interface design to existing terrain, including driveway grading, and identify retaining wall

location and grading to match existing. Property interface design will be shown on the roadway modification plans. The location of preliminary driveway access for the properties impacted by the selected alternative will be determined based on property access requirements and City of Seattle standards. Existing driveways might be combined, or their location changed to maintain/improve traffic operations and account for safe operations. Driveway modifications will be shown on the paving and grading plans.

The CONSULTANT will prepare vertical profile drawings for the main roadways and cross streets within the project area. Cross-slope diagrams will be included on the profiles. Cross-sections will be prepared denoting roadway widths, sidewalks, medians, landscaping and traffic lanes.

The CONSULTANT will prepare paving details for non-standard construction item details, such as non-standard curbs and driveway aprons.

5.2.3 Intersection Grading

Intersections in the project area will be prepared at 1 inch = 10 feet scale showing number of lanes, turn pockets, and curb return data for each leg of the intersection including tables with gutter elevations at PC, PT, quarter; grades, radius and length of curve. Lane width and therefore the overall footprint of each major intersection will be essentially known and can be used to ascertain right-of-way impacts. Roadway contour grading for intersections will be prepared. Vehicle turn simulation figures, at 1 inch = 40 feet scale, will be updated as necessary.

5.2.4 Curb Ramp Plans

Curb ramps will be detailed at 1 inch = 10 feet scale showing dimensions and grading information to construct curb ramps. Curb ramps and sidewalks will be designed to meet ADA guidance to the maximum extent feasible (MEF). Designs that do not meet full ADA guidance will be documented in an MEF memorandum developed under Task 12.1.3

Task 5.2 Deliverable(s):

- Roadway plans described in Tasks 5.2 and as listed in Attachment A: Sheet List by Discipline

5.3 Drainage and Utility Plans

5.3.1 Drainage Plans and Details

The CONSULTANT will prepare plans and details for the drainage design, including plan views of drainage pipes and structures, connections to the existing stormwater systems, stormwater treatment and flow control facilities, and nonstandard drainage details. These storm system layouts will include elevations on all inverts, catch basin and manhole locations, and the details required to describe the stormwater facilities. Pothole locations will be identified on the plans.

5.3.2 Drainage Profile Plans

These plans will include profiles for drainage lines required within the project limits. Pipe size, length, and type as well as drainage structures will be included on the plans. Profiles of the stormwater facilities will also be included. Existing and proposed utility crossings will be depicted.

5.3.4 Drainage and Hydraulic Modeling

Prepare a Final Hydraulic Report following WSDOT format to document that level of design. The report shall include discussion and supporting calculations for the conveyance elements (pipes), water quality and flow control facilities. City comments on the Draft Hydraulic Report will be addressed in the Final Hydraulic Report. A single report will be prepared for review by the City, WSDOT and City of Seattle.

5.3.3 Stormwater Pollution Prevention Plan

The CONSULTANT will prepare a stormwater pollution prevention plan (SWPPP). The SWPPP will include a narrative describing the pollution prevention strategy. The SWPPP will incorporate by reference the Erosion Control Plans and details in Task 5.2.4. The plan will contain sections describing sources of pollutants, the project's water quality protection strategies, erosion prevention and managing activities, and spill prevention. A draft SWPPP will be prepared for CITY review, and a final draft SWPPP will address CITY comments. The final SWPPP will be prepared by the Contractor.

5.3.4 Utility Design

The CONSULTANT will prepare utility plans that show existing utilities (type, size, and location) and information related to proposed relocations. Seattle City Light undergrounding will be depicted on the plans including plans and details for trenching and locations of conduit and vaults. Telecommunications joint trench and undergrounding design will be shown on the plans and details. Relocation data will also be depicted in a table format. Public and private utility systems will be identified, shown on the plans, and coordinated with the various utility companies. The CONSULTANT will design the water line relocations per SPU standards and include plan layout of the water lines, hydrant locations, valve locations, and connections. Profiles of proposed water lines will also be included. Design of all other utility relocations will be prepared by the utility owner and will be coordinated by the CONSULTANT.

For coordination purposes, the Utility plans will include the street lighting poles, traffic signal poles, conduit runs, and junction box locations as designed in Task 5.4, Traffic Plans. Pothole locations will be identified on the plans. Locations of utilities will also be coordinated with project elements designed by the Landscape and Irrigation discipline.

Vibration monitoring is required by SPU for protection of the existing water main. The CONSULTANT will prepare plans, details, and specifications to address vibration monitoring per SPU requirements. Specifications will be prepared in Task 7.

Assumptions

1. Coordination meetings with utility providers are conducted under Task 12.4
2. Upgrades for water lines and sanitary sewer lines are not included in this scope.
3. Cathodic protection is not included in the scope.

Task 5.3 Deliverables:

- Drainage Plans and Utility plans as noted in Task 5.3 and as listed in Attachment A: Sheet List by Discipline
- Erosion Control plans at the 90 percent, 100 percent, and Final (bid ready) levels
- Draft SWPPP based on 90 percent design submittal.

- Draft Final SWPPP based on 100 percent design submittal.
- Final Hydraulic Report

5.4 Traffic Plans

5.4.1 Channelization and Signing

The CONSULTANT will prepare plans and details for the channelization, including lane and edge stripes, stop bars, pavement markings, crosswalks, and geometry of striped medians and turn pockets. Limits of channelization will match paving limits and extended beyond paving limits to match extent of channelization modified due to construction staging and temporary traffic control.

Signing plans will show proposed signs, sign structures, and sign relocations and removals. The sign schedule will be updated and included in the Signing Plans.

5.4.2 Traffic Signal Design:

The CONSULTANT will prepare traffic signal plans and wiring diagrams. The CONSULTANT will prepare signal plans for the First Avenue NE and Corliss Ave N.

The CONSULTANT will prepare 90% traffic signal plans based on the 60% design review comments from CITY, SDOT, and WSDOT. The plans will include the type and location of control equipment, signal poles and supports, signal heads, conduit runs, type of detection, phasing diagram, wiring diagram, pole schedule, and other equipment required for improving and revising the traffic signal system. The plans will also include location of push buttons and curb ramps, vehicular and pedestrian signal head locations, stop bar and crosswalk locations, detection locations, service point location, and interconnect/fiber communication locations.

Signal design will also include wiring diagrams for the new signal as well as a pole schedule for the proposed luminaries. Agency coordination and documentation for agency approval is included in Task 12. The traffic signal will be designed for installation and construction that provides new signal equipment and the minimum interruption of service. The design assumes that existing signal equipment will not be reused.

Deliverable(s):

- Traffic signal plans as listed in Attachment A: Sheet List by Discipline

5.4.3 ITS, Communications and Signal Interconnect

The CONSULTANT will prepare design plans for the project corridor that includes ITS and signal interconnect.

Intelligent Transportation System Design

The final design will include a communications network to support the existing or relocated CCTV, traffic signals, and system detection and connection to the City of Seattle and WSDOT systems. Detailed design drawings will be developed for fiber routing, fiber splicing, and hardware networking. The design will include the identification of junction box locations and types, splice locations and splice details, communications electronics (e.g., modems, encoders, transcoders multiplexers, TMC requirements), communications cabinet(s), interface with WSDOT fiber (if appropriate), and fiber storage locations.

The signal interconnect system for the project corridor will be installed to interact with other existing traffic signals in the City of Seattle interconnect system. System interconnection will be coordinated with SDOT, CITY, King County, and WSDOT. Signal design will be coordinated with channelization, signing, illumination, and utility designs.

Deliverable(s):

- ITS design depicted on the Traffic Signal plans

5.4.4 Illumination Design:

The CONSULTANT will prepare illumination plans. Illumination plans will establish lighting spacing, height, mast arm length, luminaire type and location per the design option identified in Task 5. Lighting poles will be verified and coordinated with the signal pole and sign locations. This scope of work for illumination will include the compatibility for power and light-fixture placement for the ultimate configuration of a five lane cross-section along 145th Street from Aurora Avenue to I-5.

Deliverable(s):

- Signing and Illumination plans (90 percent, 100 percent, and Final)
- Illumination Calculation package

5.5 Structures Design and Retaining Wall Plans

This task will involve final design of the retaining walls and miscellaneous minor structures, including detention vaults, drainage structures, and signal and illumination pole foundations to produce 60 percent, 90 percent, 100 percent, and Final (bid-ready) plans.

5.5.1 Retaining Wall Plans and Structure Details

The CONSULTANT will prepare detailed design drawings for bidding and construction of the retaining walls and miscellaneous minor structures. These drawings will include plans, profiles, typical sections, and details for the walls. The details will include wall barrier design details, form liner finish details, foundation details, pedestrian safety rail details, luminaire mounting details, and sloping and shoring requirements. Pedestrian safety rail details to be coordinated with urban design elements including lighting pavement treatments and form liner finishes.

The CONSULTANT will prepare detailed structural calculations for the analysis and design of the retaining walls and miscellaneous minor structures. A structural integrity check, plans check, and constructability check will be completed on the 90 percent retaining wall designs.

Task 5.5 Deliverable(s):

- Retaining wall and miscellaneous minor structures plans at the 90 percent, 100 percent and Final (bid-ready) levels

5.6 Landscaping, Irrigation and Urban Design

Assumptions:

- Wayfinding and signage design are not included.
- Parklet and public space design is not included in this scope of work. Design of parklets in the Phase 1 project area will be designed with Phase 2 scope of services.

- Art specific drawings will be provided by the artist working directly with the CITY, HBB will coordinate with planting, irrigation and urban design.

5.6.1 Meetings

To accomplish this work, there will need to be meetings (shown below) that allow for sharing ideas, information, criteria and data. These will be “internal” in nature, involving the CONSULTANT team, other possible consultants, and CITY staff. The following is a list of the meetings that are anticipated:

Meeting Types	Urban Design and Landscaping SUBCONSULTANT
City of Shoreline Coordination Meetings	monthly
Design Team Coordination Meetings	weekly
Art Coordination Meetings	3, 2-hour meetings

Deliverable(s):

- Meeting notes

5.6.2 Landscape Architecture & Urban Design Construction Documents

The CONSULTANT will develop 90 percent, 100 percent, and final bid construction documents for planting, irrigation, and the urban design elements.

Landscaping shall include planting and irrigation plans, enlargements, details and may include Green Stormwater Infrastructure per stormwater design recommendations. Design includes development of back of sidewalk restoration as required to support the roadway design. Tree protection recommendation to be provided by arborist and will be shown on civil drawings. Tree mitigation will include on-site and off-site locations. The CONSULTANT will coordinate with off-site location and quantity needed.

A Final Arborist Report shall be prepared, addressing review comments of the Draft Arborist Report submitted at 60% milestone.

Construction documents for off-site tree mitigation location (planting and irrigation) are not included.

Irrigation will be designed for plant establishment. Back of sidewalk planting and irrigation will meet and match existing conditions. Back of sidewalk irrigation restoration will be by Force Account.

Urban design includes the following elements:

- Retaining wall finish treatment (assume custom pattern)
- Fall protection/railing (assume custom railing/paneling)
- Accent paving at shared-use sidewalk
- Transit stop design including elements like benches, trash receptacles, bike racks, and shelters.

Materials board will be compiled with samples of urban design treatments of custom elements (paving patterns, wall treatment, railing) to be created. All structural details including footings and attachment details required for the urban design elements will be provided and reviewed by structural design in Task 5.5.

Deliverable(s):

- Landscape & Irrigation construction documents, including plans and details for planting, irrigation and urban design elements.
- Final Arborist Report
- Materials board with urban design treatments.

5.7 Supplemental Design

The CONSULTANT will support the City as directed to address design changes requested by the City. This task includes roadway design, stormwater design, utilities, traffic signals, and other disciplines as needed to support design changes. The City may direct the CONSULTANT to revise design based on an update to the Engineering Design Manual (EDM). This task includes supplemental design to address changes to the EDM.

- Review and analysis of design options for Side Streets
- Stormwater facility relocation

Deliverable(s):

- Supplemental design elements will be included as part of 90% design submittal PS&E package.

5.8 Submittals (90 Percent, 100 Percent, and Final Bid-Ready)

See assumptions in general sections for the number of copies to be submitted.

5.8.1 90 Percent Submittal

The 90 percent submittal will include electronic files in PDF format; 90 percent plans, special provisions and supplemental technical specifications; and updated cost estimates at the 90 percent complete design level for project design review.

Calculations will be completed and checked in accordance with established QC procedures and submitted electronically in PDF format. Drawings will be nearly complete (90 percent) and will have incorporated or resolved all comments made during the 60 percent design review and other informal reviews. The cost estimate will be formatted to reflect the bid item breakdown.

5.8.2 100 Percent Submittal

The 100 percent submittal will include electronic files in PDF format; special provisions and supplemental technical specifications; and updated cost estimates at the 100 percent complete design level for project design review.

Drawings will have incorporated or resolved all comments made during the 90 percent design review and other informal reviews. Unless otherwise agreed, the CONSULTANT'S final list of proposed contract

bid items and quantities will be submitted. The cost estimate will be formatted to reflect the bid item breakdown.

5.8.4 Final Submittal

The Issue for Bid (100 Percent) Submittal will include electronic files in AutoCAD and PDF formats; special provisions and supplemental technical specifications; and bid item list ready for bidding of the work. Drawings will be stamped and signed by the appropriate CONSULTANT team professional licensed in the State of Washington. Final drawing check prints (prepared in accordance with established QC procedures) will be submitted to the City. Final sealed original calculations (properly indexed) and cost-estimating back-up will be submitted.

Cost Estimating

6.1 Engineer's Estimate

The CONSULTANT will calculate quantities and prepare an engineer's estimate for the project at the 90 percent, 100 percent, and final levels of completion. The estimates will be prepared using the summary of quantity sheets with documented unit costs, lump-sum prices, and back up. The CONSULTANT will submit unit price documentation for nonstandard work items. The estimates will be submitted in electronic format (Excel and PDF).

6.2 Cost Estimating Support

The CONSULTANT will develop cost estimates and analysis to support decision making, coordination with developers, grant support, and project communications.

Deliverable(s):

- One 90 percent design level estimate with quantity and unit cost back-up and documentation.
- One 100 percent design level
- One final bid-ready design level estimate with quantity and unit cost back-up and documentation.

Specifications

7.1 Specifications

The CONSULTANT will use of the *WSDOT APWA Standard Specifications 2020* in preparing the contract documents as applicable to the project design. The CONSULTANT will modify the standard specifications by preparing contract specifications. The CONSULTANT will review any proposed changes to the standard specifications with CITY and *receive CITY's concurrence* before preparing the contract specifications. In addition, the CONSULTANT will prepare new specification sections with contract specific requirements when the standard specifications do not cover a certain work element.

The CONSULTANT is responsible for the preparation of all divisions including federal divisions 0 and 1. CITY will provide a current boilerplate example for Divisions 0 and 1 specifications.

7.2 Annual Updates as Requested

The *WSDOT APWA Standard Specifications 2020* shall be used in preparing the contract documents as applicable to the project design. The CONSULTANT will modify the project specifications as directed by

the CITY in accordance with annual updates to the *WSDOT APWA Standard Specifications*. One update is assumed for this task.

Deliverable(s):

- Contract specifications: 90 percent, 100 percent, and final bid-ready submittals

Permitting

8.1 NPDES Permit

Assumptions:

- CITY will be responsible for all permit fees
- CITY will be responsible for all newspaper ad fees
- The Public Notice will be published in one newspaper, the Seattle Times.
- The Stormwater Pollution Prevention Plan (SWPPP) will be prepared by the CONSULTANT under Task 4.3.3 of this Scope of Work
- CONSULTANT will prepare Public Notice for newspaper publication
- A Public Hearing will not be requested during permit review and approval.

The CONSULTANT will prepare an NPDES Notice of Intent (NOI) for submittal to the Washington Department of Ecology. The draft NOI will be submitted to the CITY for review and comment prior to CITY submittal to Ecology. The NOI will be submitted on or before the first Public Notice (see below) and at least 60 days prior to discharge of stormwater from construction activities.

CONSULTANT will prepare a draft Public Notice for CITY review. CONSULTANT will revise the Public Notice and will arrange for newspaper publication. The Public Notice will be published in the newspaper once a week for two consecutive weeks.

Deliverable(s):

- NPDES Notice of Intent
- Public Notice

8.2 WSDOT Discharge Permit

Assumptions:

- CITY will be responsible for all permit fees

The CONSULTANT will prepare a WSDOT Discharge Permit for submittal to the Washington Department of Transportation (WSDOT). The draft Discharge Permit will be submitted to the CITY for review and comment prior to submittal to WSDOT.

8.3 Utility Service Permits

8.3.1 SPU Irrigation Service Permit

The CONSULTANT will prepare a water service permit submittal to the SPU. This task includes coordination with SPU to achieve permit approval.

8.3.2 Electrical Service Permits

The CONSULTANT will prepare up to four (4) electrical service permit submittals to the SCL for service connections for new traffic signal at Corliss Ave, illumination, and irrigation power service. This task includes coordination with SCL to achieve permit approval.

8.3.1 SDOT ITS Service Connection Permit

The CONSULTANT will prepare an ITS Service Connection permit submittal to the SDOT. This task includes coordination with SDOT to achieve permit approval.

Geotechnical Investigations

9.1 Supplemental Geotechnical Investigation and Analysis

9.1.1 Supplemental Geotechnical Investigation

The geotechnical work includes subsurface explorations and development of geotechnical design parameters for drainage facilities and traffic signal poles.

Subsurface Exploration and Data Report. The CONSULTANT will perform site reconnaissance, limited subsurface exploration, and laboratory testing to produce information for geotechnical design of the project elements.

Obtain and review existing subsurface information, coordinate and plan access and restoration for test holes, and identify features that affect other geotechnical design work elements.

The subsurface exploration will consist of up to 7 borings with continuous standard penetration test sampling to a depth described below. Visual inspection and documentation of the existing pavement condition as part of the pavement rehabilitation assessment.

- *2 borings at stormwater facility location – at depth 20' below bottom of vault (40-45' depth) in case groundwater is there. Install piezometer at each location.*
- *3 borings for deep conveyance from vault to ditch outlet, to confirm no groundwater is there. Install piezometer at each location.*
 - 1) *1 for 112-6 CB (30' deep)*
 - 2) *1 for 115-1 CB (20' deep)*
 - 3) *1 for between 112-7 and 115-1 (20' deep)*
- 1 boring at 1st Ave intersection at depth of 15' for signal pole foundation design
- 1 boring at Corliss Ave intersection at depth of 15' for signal pole foundation design

The CONSULTANT will check the piezometers 3 times, at an interval of every couple months, one in the low time of year and one in high time of year (winter).

Potholing will be performed at each signal pole location to confirm no conflicts with existing utilities. Eight (8) potholes will be performed.

9.1.1 Supplemental Geotechnical Analysis

The CONSULTANT will update the Geotechnical Data Report containing a map of the sample locations and laboratory test results. The data report will also contain applicable logs and laboratory test results

from previous geotechnical or hydro-geological explorations in the project vicinity, as well as published descriptions of site geology. It is intended that the Geotechnical Data Report, containing the un-interpreted subsurface data from subsurface explorations, will become part of the construction contract documents.

Assumptions:

General geotechnical issues and assumptions for the project are discussed below.

- *This scope of work does not include an environmental assessment or exploration to define contamination; the site is assumed to be free of soil and groundwater contamination*
- *The extent of the subsurface exploration program to be implemented will be reviewed and discussed with the CITY to obtain CITY endorsement that the appropriate level of subsurface exploration is performed to reasonably manage project risks.*
- *The site is underlain by primarily granular soils and calculations of consolidation settlement and liquefaction susceptibility are not required. Granular soils are also assumed to be non-aggressive from a corrosion standpoint.*
- *Borings will be drilled with hollow stem auger and groundwater depths will be noted at the time of drilling only. Groundwater monitoring wells will not be installed.*
- *Explorations will be within City-owned or controlled property*
- *Traffic control will be required for all borings and cores.*
- *The CONSULTANT will obtain all permits for work with the right of way, the City will pay for the permit fees directly.*
- *The soils are uncontaminated.*
- *Soil samples will not be retained past the final completion of the Geotechnical Data Report.*
- *The CONSULTANT will record soil sample locations with a handheld GPS.*
- *Cultural resource monitoring is not required.*

Deliverable(s):

- Final Geotechnical Data Report

Community Engagement

10.1 Community Outreach Support

Outreach to local residents, business owners and tenants, property owners, and groups affected by changes to this corridor will continue throughout the final design and right-of-way acquisition phase. Agencies with jurisdiction and interest in this corridor will also be included, such as transit providers, resource agencies, WSDOT, and all related City of Seattle departments.

Public involvement tasks include updating a Public Involvement Plan (PIP) and conducting community outreach activities throughout the next phase of the design process, which are described in the remainder of this section.

10.1.1 Public Involvement Plan

The CONSULTANT will update the project public involvement plan (PIP) for review by the CITY. The PIP will reflect progress made to date on the project to complete the planning, environmental and preliminary design phase, including what the team has learned to date regarding corridor stakeholders

and preferred outreach methods. The PIP will remain a working document throughout the duration of this project.

The updated PIP will include refreshed public involvement goals, objectives, individual work tasks, key messages, stakeholder groups, team roles and responsibilities, and a schedule of the work activities for the final design and right-of-way acquisition phase. The CONSULTANT will coordinate with Community Services group at the City. Two coordination meetings with Community Services are assumed. The CONSULTANT will work closely with CITY staff in implementing the plan.

Deliverable(s):

- Draft PIP (electronic copy)
- Final PIP (electronic copy)

10.1.2 Newsletter

The CONSULTANT will develop newsletters that describe the selected alternative, the remaining design process and schedule, and ways to stay involved as the CITY approaches the construction phase for the project. It is anticipated that these newsletters will be prepared at pre-construction project milestones. The newsletter will also be available at the final design/pre-construction public event (See TASK 10.1.3).

Deliverable(s):

- Project newsletter (1)

10.1.3 Public Events

Public Event

One round of broader public outreach will be held in an online format to share the final design, schedule and what to expect during upcoming construction. It is anticipated that this round of outreach will be held once final design is complete for the corridor and prior to construction.

The CONSULTANT will coordinate with CITY to develop a meeting plan that describes the proposed agenda and format, roles and responsibilities, materials, and schedule. The CONSULTANT will organize all logistics for the meeting, develop the open house sign-in sheets, and coordinate meeting staff. CITY will rent and pay any fees for the meeting facility.

For the online public event, the CONSULTANT will prepare displays and presentation materials, which will include display boards to graphically depict project information, and produce additional information displays, agendas, and comment forms as needed. The CONSULTANT will also convene and lead an all-team preparation meeting prior to the public event.

The CONSULTANT will attend the meeting to facilitate the presentation, convey project information, seek public input, record public comments, and encourage use of comment forms. The CONSULTANT will also coordinate with the CITY to provide interpretation services, as requested by the community.

The CONSULTANT will document the public's feedback and outcomes of the public event in a meeting summary. It is expected that the CITY will make the meeting summary report available to the public on the CITY's project website and may include responses to comments received during the comment period. The CONSULTANT will also work with CITY to prepare the responses to the comments received during the meetings.

Deliverable(s):

- Meeting plan and agenda and annotated facilitators agenda
- Meeting sign-in sheets, comment forms and other logistics support materials
- Meeting displays and other public information materials
- Team preparation meeting
- Meeting summary

Online Open House

To complement the in-person public event, the CONSULTANT will develop an online open house to share the same content that will be displayed at the in-person event. The online open house will include a public survey to solicit feedback from the community. The online open house tool is particularly effective to solicit broader public input from those who are unable to attend the in-person meeting yet still have a desire to provide their input on the project and share their concerns prior to construction. The online open house includes use of a custom sub-domain website that will be seamlessly linked from the City's website, have a project-specific customized layout, station tabs to match in-person meeting station materials, fully responsive design (i.e. for smart phones, tablets, etc.), integration with Google Translate and social share, and a full report of comments submitted. All content developed for the public meetings will be used to populate the online open house, minimizing independent content development effort needed to specifically support the online open house.

Deliverable(s):

- One (1) online open house and one (1) associated survey
- One(1) comment export and online open house analytics report

Meeting Notification Materials

The CONSULTANT will also coordinate with and support the CITY with event notifications. Support will include writing, designing and/or placing advertisements announcing the public event, its location, and date. The CONSULTANT will develop a notification schedule and coordinate with the CITY on key deadlines for notification development and distribution. The CITY will draft any press releases, *Currents* articles and/or social media to advertise the public event. The CONSULTANT will draft content for flyers, posters, display advertisements, on-corridor signage, website notifications and/or key stakeholder emails/letters to be distributed by the CITY. Notification materials will include in-language information regarding requests for translation and/or interpretation services at public events. The CITY will maintain a project e-mail (through the ShorelineAlerts system) contact list to send notifications to individuals or groups that have requested project updates.

Deliverable(s):

- Notification development schedule
- Review of press releases, *Currents* articles and/or social media
- Flyer
- Poster
- Display advertisement(s)
- On-corridor signage

- Email
- Letter

10.1.4 Outreach Materials

Assist the CITY with the preparation of various outreach materials and project communication materials, including project maps, cross sections, schedule graphics, fact sheets, FAQ's, property owner brochures, website updates. The CONSULTANT will prepare public communication graphics for the detour routing during construction. The CONSULTANT will prepare Project presentation graphics. These materials will be prepared on an as needed basis, pending CITY, key stakeholder, community and/or property owner information requests. All support materials will be prepared in clear, understandable terminology, with maximum use of graphics to enhance clarity. The CONSULTANT will also coordinate with the CITY to produce translated versions of outreach materials using the CITY's approved translation provider. The CITY will manage and make any updates required to the project website using content from the CONSULTANT. The CITY will utilize these outreach materials for any city-wide outreach efforts, including at other project public events and/or local events, fairs and festivals. Any additional or unanticipated outreach materials needs that may arise during this phase will be applied toward this task.

Deliverable(s):

- Updated project roll plot (1 assumed)
- Typical sections (3)
- Plan view graphics (3)
- Project schedule graphic (1)
- Public communication graphics for detour information (2)
- Fact sheets (1)
- FAQs (1)
- Website updates (2)
- Additional infographics and/or community outreach materials, as identified (up to 4 assumed)

10.2 City Council Support

Support the CITY staff at CITY Council meetings. Develop supporting reports and/or documentation for the City Council Meetings. These reports may include a summary of public input received to date and/or graphics to illustrate design elements.

Deliverable(s):

- Supporting documentation for City Council Meetings

10.3 Property Owner Meetings

Assist the CITY in meetings with property owners and/or tenants. The meetings will be working meetings to discuss and present property interface designs. Collect and compile the comments from the property owner meetings and enter them into the project interface design notebook. Attend meetings and provide handouts and sketches for each property.

Deliverable(s):

- Property interface design sketches including plan, cross section, and driveway profile

12.0 Agency Coordination, Documentation and Approvals

The CONSULTANT will coordinate with applicable stakeholder agencies to develop and provide the necessary documentation for agency approvals.

12.1.1 WSDOT Coordination Meetings

The CONSULTANT will support the CITY in coordination with WSDOT. The CONSULTANT will prepare for, attend, and participate in up to four (4) meetings with WSDOT staff. The CONSULTANT will prepare meeting notes. These meetings include documents approval coordination meetings, comment resolution meetings, and project update briefings.

The CONSULTANT will prepare for and participate in monthly meetings with the WSDOT Development Services lead. Up to two (2) consultant staff will attend these meetings.

12.1.2 WSDOT Channelization Plans for Approval

The CONSULTANT will prepare and submit WSDOT Channelization Plans for CITY review and then WSDOT review. The Channelization Plans will be prepared per WSDOT Northwest Region Chan Plan Checklist. It is anticipated that the Chan Plans will be at 1"=40" for 11x17 plots. Coordination with WSDOT will be performed under this task. Revisions to the Channelization Plans and development of the Project Analysis will be performed under this task as well. Draft Chan Plan Submittal was developed under 60% Design Scope. This task assumes one additional draft submittal and one final submittal.

12.1.3 Design Documentation

The CONSULTANT will prepare and submit Design Documentation as required for approval by WSDOT. WSDOT coordination meetings for Design Documentation including an initial meeting to confirm documentation requirements are included in task 12.1.1. The following documents are included:

- Design Analyses
- Access Control – Evaluation of Manage Access
- Roadside Safety Analysis – Clearzone Memo
- Signal Permits
- ADA Maximum Extent Feasible Document
- Workzone Mobility and Safety Report

Task 12.1 Deliverable(s):

- WSDOT Coordination Meeting agendas and meeting notes (6)
- DRAFT WSDOT Channelization Plans for Approval (1)
- FINAL WSDOT Channelization Plans for Approval (1)
- DRAFT WSDOT Design Documentation Package (2)
- FINAL WSDOT Design Documentation Package (2)
- Workzone Mobility and Safety Report

12.2 City of Seattle

The CONSULTANT will coordinate with the City of Seattle by attending coordination meetings, design submittal review meetings, and other general coordination. Seattle has determined that the Project would be reviewed through a Street improvement Permit (SIP), and therefore SIP submittals and coordination will be required by the Project team.

12.2.1 Seattle Coordination Meetings

The CONSULTANT will support the CITY in coordination with the City of Seattle including SDOT, SCL, SPU, and Seattle IT. The CONSULTANT will prepare for, attend, and participate in up to nine (9) meetings with City of Seattle agencies. The CONSULTANT will prepare agendas and meeting notes.

The CONSULTANT will support the CITY in coordination with the City of Seattle with participating in bi-weekly meetings with SDOT leadership. Twenty (20) additional meetings are assumed for one (1) Consultant team member.

12.2.2 Design Review and Resolution

The CONSULTANT will prepare responses to design comments and participate in SIP coordination to resolve design comments from SDOT, SPU, SCL, and Seattle IT. Three meetings with ten consultant staff are assumed.

12.2.3 SIP Permitting Support

Seattle is requiring that the Project be permitted through the Street Use Street Improvement Permit (SIP). The CONSULTANT shall provide permitting support to prepare SIP permit submittals at 90% Design, including 90% submittal and responses to 90% comments.

Task 12.2 Deliverable(s):

- Meeting agendas and meeting notes
- Responses to comments
- SIP submittal packages (90%)

12.3 King County Metro

12.3.1 Transit Coordination

The CONSULTANT will coordinate transit elements with King County Metro to obtain approvals necessary for improvements impacting the existing transit infrastructure. The CONSULTANT will develop and coordinate the following items with King County Metro.

- Stop amenities and standards
- Maintenance of bus zone amenities
- Accommodating micro-mobility at bus zones

Task 12.3 Deliverable(s):

- Meeting agendas and meeting notes

12.4 Utilities

12.4.1 Utility Coordination

The CONSULTANT will coordinate with utility companies within the project area to incorporate design of utilities that require relocation. The CONSULTANT will provide technical assistance to the CITY in support of the CITY's relocation agreement negotiations with the applicable utility companies.

The CONSULTANT will coordinate with each utility company to confirm that their design is consistent and compatible with the roadway design.

The CONSULTANT will attend meetings with utility companies including SCL, SPU, PSE, Lumen, Comcast, Seattle IT, and Zayo. Coordination with SCL, SPU, and Seattle IT is included in task 12.2. Up to six (6) meetings are assumed for two (2) CONSULTANT staff. Following is a breakdown of the number of meetings per agency:

- Puget Sound Energy (PSE – Gas): one
- Private Telecommunications Companies (Century Link, Comcast, Zayo): five

12.4.2 Utilities Task Force Coordination Meetings

The CONSULTANT will support the CITY in coordination with the Utilities Task Force bi-weekly meetings. Fifteen (15) additional meetings are assumed for up to two (2) Consultant team members.

Task 12.4 Deliverable(s):

- Meeting notes

12.5 Maintenance and Operations Coordination Support

The CONSULTANT will support the CITY in coordination with the City of Seattle and WSDOT in developing Maintenance and Operations Agreements. The Consultant will participate in up to six (6) additional meetings with the City and agency partners.

12.6 Additional Agency Coordination Meetings as Directed

The CONSULTANT will support the City as directed with participation in additional coordination meetings with Agency partners. Meeting support includes preparation of agendas, meeting notes, and meeting materials. The level of effort for this task is limited to the budget established in Exhibit D LOE.

13.0 Supplemental Survey

13.1 Supplemental Survey

It is assumed that during the design phase, some level of supplemental survey may be necessary as the design progresses. The CONSULTANT will perform supplemental surveys as needed for purposes such as private property match/conforms, locating additional utility features, structures and elevations, or to obtain features requiring more definition for design purposes. For budgeting purposes this task item has been estimated not to exceed 80-field crew hours. Any costs for performing additional survey beyond 80-field crew hours, will be covered by supplemental agreement.

13.1 Supplemental Survey

Potholing will be conducted at each new signal pole location (8) and coordinated with the various utility owners. It is assumed that the CITY will pay permit fees to perform this work.

14.0 not used

15.0 Art Integration

Assumptions:

- The process and procedures for review and approval will be determined by the Arts Coordinator. No existing process or procedure is currently in place for art coordination, so the effort of establishing these is ongoing.
- Incorporation of public art will be limited to the following project elements prior to construction:
 1. Install a decorative pavement treatment (stamping, embedded letters, decorative treatment) at the NE corner of the intersection of 1st Ave and 145th Street and at the intersection of Corliss Ave and 145th Street.

15.1 Coordination

The CONSULTANT will coordinate with the City's Art Director and a third-party artist to support integration of public art into the project. The Consultant will attend three meetings with three staff participants. This task also includes coordination of Art elements with City project leadership and the project design team.

15.2 Design Renderings

Conceptual design renderings are prepared under 30% and 60% Design scope. For 90% Design, the Consultant will develop refined design renderings. The Consultant will develop plans and details to depict art integration concepts. Three sheets are assumed.

Task 15 Deliverables:

- Design renderings (3) Final

16.0 Bidding Assistance

The CONSULTANT shall provide construction contract procurement assistance for the Project as requested by the CITY. The level of effort for this task is limited to the budget established in Exhibit D LOE. Work areas may include, but are not limited to:

- a. Invitation to Bid document preparation assistance
- b. Prepare draft responses to bidder questions
- c. Assistance in preparing addenda for Invitation to Bid
- d. Bid review assistance
Attend project related meetings

ATTACHMENT A

Sheet List by Discipline

90% & 100% Submittal			
Drawing Title	Scale	No. of Sheets	Comments
General Plans			
Cover sheet, Location and Vicinity Map	N/A	1	
Drawing Index	N/A	2	
General notes, legend, abbreviations	N/A	2	
Survey Control Plans	1 inch = =100 ft	2	
Alignment and Right of Way Plans	1 inch = 40 feet	5	
Construction Sequence and Traffic Control Plans	1 inch = 40 feet	10	
Detour Plan and details	N/A	3	
Site Preparation and TESC Plans	1 inch = 20 feet	5	
TESC notes	N/A	1	
TESC details	N/A	2	
<i>General plans: subtotal</i>		33	
Roadway Plans			
Typical sections	N/A	3	
Paving and Grading plans	1 inch = 20 feet	5	
Roadway profiles	1 inch = 20 feet (height)	4	
Intersection grading plans	1 inch = 10 feet	4	
Curb Ramp Details	1 inch = 10 feet	4	
Roadway details	N/A	3	
<i>Roadway plans: subtotal</i>		23	
Drainage and Utility Plans			
Drainage notes	N/A	1	

90% & 100% Submittal			
Drawing Title	Scale	No. of Sheets	Comments
Utility notes	N/A	1	
Drainage plans	1 inch = 20 feet	5	
Utility plans	1 inch = 20 feet	5	
Drainage profiles	1 inch = 20 feet (height)	5	
Drainage details	N/A	7	
Utility sections and details	N/A	9	
<i>Drainage and Utility plans: subtotal</i>		33	
Traffic Plans			
Channelization and Signing plans	1 inch = 20 feet	5	
Signing Schedule and Details	N/A	4	
Pedestrian Lighting, and interconnect notes	N/A	1	
Illumination plans	1 inch = 20 feet	5	
Pedestrian Lighting pole schedules	N/A	2	
Illumination single line diagrams	N/A	1	
Illumination details	N/A	1	
Traffic signal interconnect and ITS details	N/A	1	
Traffic signal notes	N/A	2	
Signal removal plans	1 inch = 10 feet	1	
Traffic signal plans	1 inch = 10 feet	4	
Traffic signal wiring diagram and terminations	N/A	3	
Traffic signal pole schedule	N/A	3	
<i>Traffic plans: subtotal</i>		33	
Structural Plans			
Retaining wall general notes		1	
Retaining Wall Location Map and Schedule		1	

90% & 100% Submittal			
Drawing Title	Scale	No. of Sheets	Comments
Retaining wall plans and profiles	1 inch = 10 feet	5	
Retaining wall details	N/A	3	
<i>Structural plans: subtotal</i>		10	
Landscaping and Urban Design Plans			
Planting plans	1 inch = 20 feet	6	
Planting schedule	N/A	2	
Planting details	N/A	3	
Irrigation details	N/A	3	
Irrigation Schedule		1	
Irrigation Plans		5	
Urban Design Schedule Notes and Abbreviations		1	
Urban Design Plans	1" = 20'	5	
Urban Design Enlargements	N/A	2	
Urban Design Details	N/A	3	
<i>Landscaping, irrigation, & Urban Design plans: subtotal</i>		31	
TOTAL		163	

City of Shoreline

Exhibit D3 - Fee Estimate / LOE

145th Street Multimodal Corridor Project

CH2M HILL, Inc.

Employee or Category	Hrs.	x	Rate	=	Cost
Senior Consultant	12		\$ 118.47		\$ 1,421.64
QA/QC Lead	193		\$ 103.00		\$ 19,879.00
Project Manager	796		\$ 104.14		\$ 82,895.44
Senior Engineer	493		\$ 89.75		\$ 44,244.29
Environmental Lead	96		\$ 71.99		\$ 6,911.04
Design Engineer	801		\$ 81.84		\$ 65,553.84
Lead Engineer	1286		\$ 68.93		\$ 88,643.98
Design Engineer	1100		\$ 55.08		\$ 60,588.00
Design Engineer	308		\$ 43.79		\$ 13,487.32
Designer	562		\$ 37.55		\$ 21,103.10
Environmental Engineer	10		\$ 52.95		\$ 529.50
Lead CAD Technician	796		\$ 50.88		\$ 40,500.48
CAD Technician	70		\$ 31.13		\$ 2,179.10
Office/ Administration	153		\$ 44.51		\$ 6,810.03
Project Controls	106		\$ 50.24		\$ 5,325.00
Contracts Admin	30		\$ 69.27		\$ 2,078.00
Utilities Lead	270		\$ 74.72		\$ 20,174.00
KaDeena Yerkan	99		\$ 82.69		\$ 8,186.00
Kim Wetzel	100		\$ 55.64		\$ 5,564.00
Tara Callear	124		\$ 39.33		\$ 4,877.00
Camilo Lopez Vargas	16		\$ 72.60		\$ 1,162.00
David Crawford	9		\$ 46.00		\$ 414.00
Drew Fletcher	30		\$ 39.04		\$ 1,171.00
Graphic Designer	109		\$ 48.16		\$ 5,249.00
Total Hrs.	7569				\$ 508,946.76

Direct Salary Cost \$ 508,946.76

Salary Escalation Cost (estimated)
 2022 2% \$ 10,178.94

Total Direct Salary Cost \$ 519,125.69

Overhead Cost @ 103.33% of Direct Labor \$ 536,412.58
Net Fee @ 32.0% of Direct Labor \$ 166,120.22
Total Overhead & Net Fee Cost \$ 702,532.80

Total Labor Cost \$ 1,221,658.49

Direct Expenses	Quantity	Unit \$	Cost
Reports/Copies	0	\$0.05 /each	0.00
Reprographics	0	\$10 /each	0.00
Mail/Deliveries/etc.	0	\$15 /each	0.00
Mileage	0	\$0.580 /mile	0.00
Auto Rental/Gasoline	0	\$85 /day	0.00
Lodging	0	/day	0.00
Equipment Rentals, EDM, GPS	0	/day	0.00
Parking	0	\$15 /each	0.00
Tolls	0	\$5 /each	0.00
			\$0.00

Subcontracts			
LMN			\$0.00
EnviroIssues			\$0.00
Parametrix			\$57,790.67
Alta			\$0.00
HBB			\$124,366.32
RES			\$40,000.00
SOVA			\$25,000.00
Appraisal Group of the Northwest			\$10,000.00
First American Title Company			\$0.00
APS			\$8,000.00
Gregory Drilling			\$16,100.00
TCS (Traffic Control)			\$5,000.00
Hayre McElroy (lab)			\$2,450.00
Urban Forestry Services, Inc			\$4,000.00

Direct Expenses Subtotal \$292,706.99

Total \$1,514,365.48

MANAGEMENT RESERVE AMOUNT \$100,000.00

TOTAL AGREEMENT \$1,614,365.48

Exhibit D3 - Fee Estimate / LOE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	
CH2M HILL, Inc.																											
Task	Task Description	Senior Consultant	QA/QC Lead	Project Manager	Senior Engineer	Environmental Lead	Design Engineer	Lead Engineer	Design Engineer	Design Engineer	Designer	Environmental Engineer	Lead CAD Technician	CAD Technician	Office/Administration	Project Controls	Contracts Admin	Utilities Lead	KaDeena Yerkan	Kim Wetzel	Tara Callear	Camilo Lopez Vargas	David Crawford	Drew Fletcher	Graphic Designer	CH2M Total	
Raw Rates		\$118.47	\$103.00	\$104.14	\$89.75	\$71.99	\$81.84	\$68.93	\$55.08	\$43.79	\$37.55	\$52.95	\$50.88	\$31.13	\$44.51	\$50.24	\$69.27	\$74.72	\$82.69	\$55.64	\$39.33	\$72.60	\$46.00	\$39.04	\$48.16	Total	
		Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs
1.0	Project Management																										
1.1	Project Management Plan		3	8												16	2									29	
1.2	Quality Plan																										
1.3	Project Schedule			20				12																		32	
1.4	Direction and Review			72																						72	
1.5	Document Management							4								36										40	
1.6	Monthly Progress Reports and Invoicing			16											16											32	
1.7	Budget Monitoring and Projections			16												32	8									56	
1.8	Issue and Change Management			52													6									58	
1.9	Subconsultant Management			16												32	8									56	
	Task 1.0 Total		3	200				16							68	66	22									375	
2.0	Project Delivery And Project Coordination																										
2.1	Project Management Team Meetings			110				110																		220	
2.2	Risk Management			12				4																		16	
2.3	Interchange Project Coordination Meetings			32				32																		64	
2.4	Consultant Project Team Meetings			32	32		32	32	32	32			32		24			30								278	
2.5	City of Shoreline Design Coordination Meetings			16	16		16	16																		64	
2.6	Additional Project Coordination Meetings as Directed			16	16		16	16										8								56	
2.7	Constructability Review		44	4	44			4																		96	
	Task 2.0 Total		44	222	108		48	214	32	32			32		24			30	8						794		
3.0	Funding Support																										
3.1	Grant Application Support			16			16							10												42	
	Task 3.0 Total			16			16							10												42	
4.0	Right of Way																										
4.1	Property Owner Coordination Support			12				32	8		22															74	
4.2	Building Demolition Construction Package		12	28	54		50	144	58			10	80					28								464	
4.3	Property Demolition Permitting Support																										
4.3.1	Permit Applications						16								16											32	
4.3.2	Wastewater Permit Applications				8		16																			24	
4.3.3	Critical Areas Worksheets					16	8																			24	
4.3.4	Asbestos/Demolition Notification					16	8										8									32	
4.3.5	Rodent Abatement Plan			16																						16	
4.3.6	Site Plan			4			16						16													36	
4.3.7	SWPPP				4		24																			28	
4.3.8	Historic Property Report					16																				16	
4.4	Property Survey and Basemapping			8				12																		20	
4.6	Appraisals and Appraisal Reviews																										
4.1	Rights of Entry																										
	Task 4.0 Total		12	68	66	48	138	188	66		22	10	96		16		8	28							766		
5.0	Phase 1 Contract Drawings																										
5.1	General Plans																										
5.1.1	General Plans		2				8	8					30													48	
5.1.2	Survey Control, Alignment, and Right of Way Plans		2				12	12	8		24		16													74	
5.1.3	Construction Sequence and Traffic Control Plans	12	4	8			22	22	24		46		20													158	
5.1.4	Site Preparation and Temporary Erosion Control		4		28		20	8	24		28		70													182	
5.2	Roadway Plans																										
5.2.1	Typical Roadway Sections		4					8	12				24													48	
5.2.2	Paving and Grading		18	8			12	72	62		46		60													278	
5.2.3	Intersection Grading		4				18	8	72		54		8													164	
5.2.4	Curb Ramp Plans		4				16	12	82		82		4													200	
5.3	Drainage and Utility Plans																										
5.3.1	Drainage Plans and Details						22	44	52	8			54													180	
5.3.2	Drainage Profile Plans				4		8	20	24				12													68	
5.3.3	Drainage and Hydraulic Modeling				14		40	42		40			12												16	164	
5.3.4	Stormwater Pollution Prevention Plan		2		32				8				16		6											64	
5.3.5	Utility Design		15		12		4	6	120				60	60				88								365	
5.4	Traffic Plans																										
5.4.1	Channelization and Signing		4	2			18	16	60		100		8													208	
5.4.2	Traffic Signal Design		12		36			92		90			32													262	
5.4.3	ITS, Communications and Signal Interconnect		4		6			24		32			24													90	
5.4.4	Illumination Design						68		90				30													188	
5.5	Structures Design and Retaining Wall Plans																										
5.5.1	Retaining Wall Plans and Structure Details		10		16			80		60			40													206	

CH2M HILL, Inc.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Task	Task Description	Senior Consultant	QA/QC Lead	Project Manager	Senior Engineer	Environmental Lead	Design Engineer	Lead Engineer	Design Engineer	Design Engineer	Designer	Environmental Engineer	Lead CAD Technician	CAD Technician	Office/Administration	Project Controls	Contracts Admin	Utilities Lead	KaDeena Yerkan	Kim Wetzel	Tara Callear	Camilo Lopez Vargas	David Crawford	Drew Fletcher	Graphic Designer	CH2M
Raw Rates		\$118.47	\$103.00	\$104.14	\$89.75	\$71.99	\$81.84	\$68.93	\$55.08	\$43.79	\$37.55	\$52.95	\$50.88	\$31.13	\$44.51	\$50.24	\$69.27	\$74.72	\$82.69	\$55.64	\$39.33	\$72.60	\$46.00	\$39.04	\$48.16	Total
		Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs
5.6	Landscaping, Irrigation and Urban Design																									
5.6.1	Meetings			5			9																			14
5.6.2	Landscape Architecture & Urban Design Construction Documents		4				8						16													28
5.7	Supplemental Design																									
5.7.1	Supplemental Design Submittals (90 Percent, 100 Percent, and Final Bid-Ready)		4	8	15		15	20	18																	80
5.8	90 Percent Submittal																									
5.8.1	90 Percent Submittal		8	12	20			36	20	20			24		5											145
5.8.2	100 Percent Submittal		8	12	20			36	20	20			24		5											145
5.8.3	Final Submittal			24	10			24	10				24		5											97
	Task 5.0 Total	12	113	79	213		300	590	706	270	380		608	60	21			88							16	3456
6.0	Cost Estimating																									
6.1	Engineer's Estimate			16	40		40	40	20		80															236
6.2	Cost Estimating Support			10	10		10	10	10																	40
	Task 6.0 Total			26	50		50	40	30		80															276
7.0	Specifications																									
7.1	Specifications		12	4	40		40		40							40		40								216
7.2	Annual Updates as Requested						32																			32
	Task 7.0 Total		12	4	40		72		40							40		40								248
8.0	Permitting																									
8.1	NPDES Permit					12	4											4								20
8.2	WSDOT Discharge Permit					24																				24
8.3	Utility Service Permits																									
8.3.1	SPU Irrigation Service Permit		1															12								13
8.3.2	Electrical Service Permits		1	2				12																		15
8.3.3	SDOT ITS Service Connection Permit		1				12																			13
	Task 8.0 Total		3	2		36	16	12																		69
9.0	Geotechnical Investigations																									
9.1	Supplemental Geotechnical Investigation and Analysis																									
9.1.1	Supplemental Geotechnical Investigation			2	6		16	2	32						16		16									90
9.1.2	Supplemental Geotechnical Analysis		2	2	4		30	2																		40
	Task 9.0 Total		2	4	10		46	4	32						16											114
10.0	Community Engagement																									
10.1	Community Outreach Support																									
10.1.1	Public Involvement Plan			4			4											12			5					25
10.1.2	Newsletter			2														1			5				3	11
10.1.3	Public Events			8	4													24	40	70					25	171
10.1.3	Online Open House			4														7	23		16	9	30	5		94
10.1.3	Meeting Notification Materials						2											10	27		8				15	62
10.1.4	Outreach Materials			8			8		16			24						16	10	20				40		142
10.2	City Council Support			4			4													15		10			5	38
10.3	Property Owner Meetings						16		24										6		6					52
	Task 10.0 Total			30	4		34		40				24						91	100	124	16	9	30	93	595
12.0	Agency Coordination, Documentation and Approvals																									
12.1	WSDOT																									
12.1.1	WSDOT Coordination Meetings			24				30		6																60
12.1.2	WSDOT Channelization Plans for Approval			6				20	30		80															136
12.1.3	Design Documentation		4	8				50	100																	162
12.2	City of Seattle Coordination																									
12.2.1	Seattle Coordination Meetings			20			9	40											18							87
12.2.2	Design Review and Resolution			8			8	16	16										16							64
12.2.3	SIP Permitting Support			4				16							8											28
12.3	King County Metro Coordination																									
12.3.1	Transit Coordination			6				6																		12
12.4	Utilities Coordination																									
12.4.1	Utility Coordination							12											12							24
12.4.2	Utilities Task Force Coordination Meetings			30															30							60
12.5	Maintenance and Operations Coordination Support			8																						8
12.6	Additional Agency Coordination Meetings as Directed			16			16	16											8							56
	Task 12.0 Total		4	130			33	206	146	6	80				8			84								697

CH2M HILL, Inc.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total
Task	Task Description	Senior Consultant	QA/QC Lead	Project Manager	Senior Engineer	Environmental Lead	Design Engineer	Lead Engineer	Design Engineer	Design Engineer	Designer	Environmental Engineer	Lead CAD Technician	CAD Technician	Office/ Administration	Project Controls	Contracts Admin	Utilities Lead	KaDeena Yerkan	Kim Wetzel	Tara Callear	Camilo Lopez Vargas	David Crawford	Drew Fletcher	Graphic Designer	CH2M Total
Raw Rates		\$118.47	\$103.00	\$104.14	\$89.75	\$71.99	\$81.84	\$68.93	\$55.08	\$43.79	\$37.55	\$52.95	\$50.88	\$31.13	\$44.51	\$50.24	\$69.27	\$74.72	\$82.69	\$55.64	\$39.33	\$72.60	\$46.00	\$39.04	\$48.16	Total
		Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs	Total hrs
13.0	Supplemental Survey																									
13.1	Supplemental Survey				2		12		8																	22
	Task 13.0 Total				2		12		8																	22
15.0	Art Integration																									
15.1	Coordination			4			12																			16
15.2	Design Renderings			3			12						4													19
	Task 15.0 Total			7			24						4													35
16.0	Bidding Assistance																									
16.1	Bidding Assistance			8		12	12	16					32													80
	Task 16.0 Total			8		12	12	16					32													80
TOTALS		12	193	796	493	96	801	1286	1100	308	562	10	796	70	153	106	30	270	99	100	124	16	9	30	109	7569