Council Meeting Date: January 28, 2019 **Agenda Item:** 7(d)

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Authorizing the City Manager to Execute a Professional Services Contract with Perteet Inc. in the Amount of $1,483,824.00 for the N 175th Street - Stone Avenue N to Interstate 5 Project
DEPARTMENT:	Public Works
PRESENTED BY:	Tricia Juhnke, City Engineer
ACTION:	____ Ordinance ____ Resolution __X_ Motion ____ Discussion ____ Public Hearing

PROBLEM/ISSUE STATEMENT:

The 2019-2024 Capital Improvement Plan, adopted by Ordinance No. 841, identifies a project along N 175th Street from Stone Avenue N to Interstate 5. The project is intended to maintain level of service and promote safety by widening the roadway, constructing multi-modal improvements along the full length of the corridor, revising traffic channelization, and improving sight distance at the west end of the corridor.

Consultant services are needed to perform analysis, design, assistance in community outreach/stakeholder engagement, preparation of cost estimates, and identification and procurement of right-of-way. Perteet Inc. has been selected to support the City with this project through construction, but the initial scope of this contract is limited to preliminary design including community outreach and stakeholder engagement. Tonight, Council is being requested to authorize the City Manager to execute a contract for these services with Perteet Inc.

RESOURCE/FINANCIAL IMPACT:

The 2019-2024 Capital Improvement Program includes $4,050,000.00 for this project, of which 86.5 percent is funded by a federal grant and 13.5 percent is funded with Transportation Impact Fees. An additional $50,000 is included in the 2018 budget and is expected to be carried over to 2019. The budget shown below is for the design phase of the project.

EXPENSES	
Staff and Other Direct Expenses	$400,000
Perteet Inc. Preliminary Design Contract	***$1,483,824***
Final Design Contract	$1,500,000
Contingencies	$716,176
Total Project Cost	**$4,100,000**
REVENUE	
WSDOT Surface Transportation Program	$3,546,500
Transportation Impact Fees	$553,500

Total Project Revenue	**$4,050,000**

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a professional services contract with Perteet Inc. in the amount of $1,483,824.00 for the N 175th Street - Stone Avenue N to Interstate 5 Project.

Approved By: City Manager ***DT*** City Attorney ***JA-T***

BACKGROUND

The N 175th Street - Stone Avenue N to Interstate 5 Project will provide mobility and safety improvements to pedestrians, cyclists and drivers using this corridor. Planned improvements may include reconstruction of the existing street to provide two traffic lanes in each direction; a center lane with two-way left turn areas; medians and turn pockets; bicycle lanes (integrated into the sidewalk); curb, gutter, and sidewalk with planter strip where feasible; illumination; landscaping and retaining walls. Intersections with high accident rates will also be improved as part of this project.

In 2014, staff applied for a $3,546,500 federal grant to fund the design phase of the project. Although it did not receive funding in the 2014 county-wide competition, the full amount requested was awarded to the City from the project's position on the contingency list in 2016 when additional funding became available. Insufficient federal funding levels subsequently resulted in delaying funding and the start of the project until 2018. On June 4, 2018, Council authorized the City to enter into an agreement with Washington Department of Transportation (WSDOT) to accept the federal grant funds for this project. The staff report for this Council action can be found at the following link: http://cosweb.ci.shoreline.wa.us/uploads/attachments/cck/council/staffreports/2018/staffreport060418-7d.pdf.

This project is designated as one of seven growth projects in the City's Transportation Master Plan and is eligible to utilize Transportation Impact Fees (TIF) for local match against the grant funds. The full TIF funding amount of $553,500 is currently available.

DISCUSSION

In September 2018, the City issued a Request for Qualifications for this project. Six firms submitted Statements of Qualification (SOQs) which were all reviewed by staff. Three firms were subsequently interviewed and one firm, Perteet Inc., was selected as the most qualified for this project.

The scope of work for Perteet Inc. is attached to this staff report as Attachment A. Work performed under this scope includes preliminary design of all improvements, assistance in community outreach/stakeholder engagement, and estimates for the right of way acquisition and construction costs. Upon completion of this work, a contract amendment may be approved to authorize Perteet Inc. to proceed with final design.

COUNCIL GOAL(S) ADDRESSED

This project supports Council Goal 2: "Improve Shoreline's infrastructure to continue the delivery of highly-valued public service."

RESOURCE/FINANCIAL IMPACT

The 2019-2024 Capital Improvement Program includes $4,100,000 for this project, of which 86.5 percent is funded by a federal grant and 13.5 percent is funded with Transportation Impact Fees. This budget is for the design phase of the project.

EXPENSES	
Staff and Other Direct Expenses	$400,000
Perteet Inc. Preliminary Design Contract	***$1,483,824***
Final Design Contract	$1,500,000
Contingencies	$716,176
Total Project Cost	**$4,100,000**

REVENUE	
Surface Transportation Program (Federal Funds)	$3,503,250
Transportation Impact Fees	$546,750
Total Project Revenue	**$4,100,000**

RECOMMENDATION

Staff recommends that Council authorize the City Manager to execute a professional services contract with Perteet Inc. in the amount of $1,483,824 for the N 175th Street - Stone Avenue N to Interstate 5 Project.

ATTACHMENTS

Attachment A: Perteet Inc. Contract Scope of Services

Scope of Services

175th Street – Stone Avenue to I-5 Improvement Project

January 2019

City of Shoreline

2707 COLBY AVENUE, SUITE 900
EVERETT, WA 98201
800.615.9900 | 425.252.7700

EXHIBIT A

Scope of Services
175th Street – Stone Avenue to I-5 Improvement Project
City of Shoreline

INTRODUCTION

The City of Shoreline has secured funding of the design phase for the 175th Street – Stone Avenue to I-5 Improvement Project. This Agreement will bring the project up to the preliminary design phase. Included will be development of concept and preliminary 30% design; NEPA environmental documentation; public outreach, stakeholder coordination, right-of-way plans, and preliminary right-of-way planning. The agreement will review roadway operations and make design recommendations between SR99 on the west and I-5 on the east including the operation of the interchange. The project currently includes local and FHWA funding.

Future project phases may include the preparation of right-of-way acquisition documents and negotiations for the roadway improvements, further development of the PS&E and a Construction Engineering Services phase. The scope and extent of these services will be determined at the discretion of the City of Shoreline.

SCOPE OF SERVICES PURPOSE

The overall purpose of this Scope of Services is to have the Consultant provide for the necessary management oversight of the development of the project's design, prepare conceptual and preliminary design, prepare the right-of-way plan acquisition documents, prepare NEPA environmental documentation, lead utility coordination, lead and participate in community engagement undertakings, and coordinate with

WSDOT for approval of the environmental documents. The following major tasks will be included in this Scope of Services and completed by the Consultant:

Task 1 – Project Management

Task 2 – Community Engagement

Task 3 – Survey and Mapping

Task 4 – Geotechnical Investigations

Task 5 – Conceptual Design and Alternatives

Task 6 – Landscaping and Urban Design

Task 7 – Stormwater Design and Technical Information Report (TIR)

Task 8 – Structural Engineering for Retaining Wall TS&L

Task 9 – Environmental Documentation and Coordination Support

Task 10 – Franchise Utility Design and Coordination

Task 11 – Right-of-Way Plans and Preliminary Costs

Task 12 – 30% Design and Design Memorandum

The Consultant's services shall be limited to those expressly set forth herein. If the service is not specifically identified herein, it is expressly excluded. The Consultant shall have no other obligations, duties or responsibilities associated with the project except as expressly provided in this Agreement.

DETAILED SCOPE OF SERVICES

Task 1 – Project Management

Development of this project will be based on the requirements of the corridor, City of Shoreline Street Design Guidelines, Comprehensive Plan, Community Development Guide, Standards Specifications and Details, and their supporting

technical documents. The project will also meet Federal grant standards. The Consultant's project manager will be responsible to the City to the extent possible ensure that the design is completed on schedule, is technically competent, and meets the City's needs including requirements for Federal funding.

1.1 Coordination with City of Shoreline

Consultant will coordinate with the City of Shoreline on a regular basis to keep the City's project manager informed about project progress, project issues and schedule. Regular communication with the City will occur on a weekly basis, including a weekly email summary of work completed and anticipated work the next week. The Consultant will prepare a Work Plan to be distributed at the project kickoff meeting. This work element will also include preparing an Action Items Log and a Record of Decision and keeping these updated throughout the duration of the project.

The Consultant will attend one (1) project kickoff meeting with the City and up to eighteen (18) project status meetings at the City. These meetings under this work element will include the following participation by the Consultant team:

- Up to twenty (28) meetings attended by the Consultants with up to three (3) staff from the Consultant team. Monthly, the second half of the meeting will include up to 3 technical staff.
- Kickoff meeting will include up to three Perteet staff, subconsultants, WSP (up to three [3 staff), HWA GeoSciences (up to two [2] staff), EnviroIssues (one [1] staff), HBB (up to two [2] staff), 1-Alliance Geomatics (up to one [1] staff) Universal Field Services (up to two [2] staff).
- Subconsultant attendance at meetings related to design work will be included under those individual design tasks.
- The Consultant will prepare agendas and meeting notes/action items and distribute to attendees.

1.2 Project Schedule, Budget, and Team Management

The Consultant will develop an overall project schedule, which will include a detailed schedule by task, for the project phases, through bid advertisement for the full project. The Consultant will prepare a draft and final schedule for the City review, and then the Consultant will prepare two (2) schedule updates as the project progresses, when requested by the City. The Consultant will also manage the Consultant budgets, monitor staff and subconsultant, manage change and prepare amendments, and monitor work progress under this work element.

1.3 Progress Reports, Invoices, Underutilized Disadvantaged Business Enterprise (UDBE) Reporting

As part of the project, the Consultant will prepare monthly progress reports that describe the work items and percentage of work items that were accomplished during a given month, as well as a forecast of work to be completed over the following month. Progress report will include a status of budget, spent, and remaining for each individual task. The monthly progress reports will also identify other issues or problems that may occur in any given month, if any. The Consultant will submit these monthly progress reports to the City's Project Manager with the monthly invoices. The monthly invoices will bill by individual tasks. The Consultant Project Manager will notify City's Project Manager, in writing (memo format), of any out of scope and/or budgetary issues that are inconsistent with this Scope of Services.

Each month, the Consultant will prepare a report showing the status progress towards meeting the UDBE goals and submit this to the City with the monthly progress report and invoice.

Assumptions:

- This contract duration shall be no longer than fourteen (14) months.
- Project kickoff meeting will be held at City of Shoreline Office.
- Maximum of two (2) project schedule updates will be prepared.
- Meetings between Consultants will be conducted under other Scope tasks.

Deliverables:

- Kickoff Meeting Agenda and Summary of Meeting Notes/Action Items
- Work Plan
- Project Schedule (Microsoft Project format) and up to two updates
- Project Meeting Agendas for up to eighteen (18) meetings and notes/action items
- Invoices and Progress Reports
- UDBE Status Report

Task 2 – Community Engagement

2.1 Communications Plan

The Consultant will develop a **communications plan** that defines the City's process for working with and engaging key stakeholders, adjacent property owners and tenants, and the broader community in the preliminary design for 175th Street. The plan will include community engagement goals, affected stakeholders and organizations, preliminary key messages (including information about the City's process for working with potentially affected property owners), and an engagement timeline. The plan will also include strategies for leveraging existing City resources for project notification and information distribution, including social-media platforms, *Currents* newsletter, ShorelineAlerts. The communications plan will remain a living document that can be updated to include additional or new audiences and/or outreach strategies identified during the early information gathering phase.

At project initiation, the Consultant will attend and facilitate a **community engagement kickoff meeting** of key team members that will support the outreach process to review the draft communications plan, demographics analysis (provided by the environmental lead) and key messaging, including the property owner coordination process. The purpose of the kickoff meeting will be to define roles and responsibilities for the community engagement process and the key milestones for engagement during the preliminary design phase.

2.2 Stakeholder Interviews and Briefings

The Consultant will support City staff to schedule, develop questions and materials for, conduct, and document **stakeholder interviews and briefings**. The purpose of initial stakeholder interviews and follow-up briefings will be to further understand community interest, concerns and priorities related to 175th Street and how the community would like to stay informed and engaged during the preliminary design phase. The interviews and briefings provide an opportunity for key stakeholders to share their unique perspectives on corridor issues and potential solutions they would like to see considered prior each round of broader community outreach. The interviews and briefings also provide an opportunity for the City to get ahead of and/or proactively address stakeholder concerns and questions prior to broader community engagement.

Initial stakeholder interviews will be conducted during the information gathering phase at project initiation and prior to the first round of broader community engagement. The team will focus on gathering input from corridor stakeholders, including the Shoreline School District, Meridian Park Elementary School, Edwin Pratt Early Learning Center, Shorewood High School, Evergreen School, Aurora Church of the Nazarene, Park Board, neighborhood associations (i.e. Meridian Park, Richmond

Highlands, Ridgecrest, North City), Shoreline Chamber of Commerce and local business interests, emergency response providers, bike and pedestrian organizations and environmental groups, and briefings with organizations that represent historically underrepresented populations present in the project area.

Two (2) rounds of **follow-up briefings** will be conducted with the same or similar group of stakeholders prior broader community engagement events related to design concept options and the preferred design concept.

2.3 Property Owner and Tenant Outreach

The Consultant will support City staff to proactively reach out to adjacent and potentially affected property owners and tenants. The purpose of this early property owner outreach is to provide an early overview of the 175th Street Project, provide information about the City's process for engaging adjacent and potentially affected property owners and tenants, the timeline for decisions regarding the corridor design, and opportunities for property owners to stay engaged throughout the preliminary design phase and beyond.

The Consultant will develop and support the City to send an **initial mailing and two** (2) **follow-up mailings** to all adjacent property owners and tenants to inform them of the City's initiation of the 175th Street Project, the project timeline, and how to get in contact with the City for more information related to their property and/or to request a one-on-one briefing and invite property owners and/or tenants to attend a series of property owner drop-in sessions.

The Consultant will support the City to host a series of three (3) **property owner and tenant drop-in sessions**. The first round of drop-in sessions will be offered during the early information gathering phase and prior to the first round of broader community engagement. The second round of property owner drop-in sessions will

be held to share preliminary design concepts. The third and final round of property owner-drop-in sessions will be held to preview the preferred preliminary design. Two (2) drop-in sessions will be held each round to provide alternative times of the day and/or days of the week to accommodate participant schedules.

2.4 Public Events

Public events provide an opportunity for the broader community to meet in-person with project staff and offer meaningful input at key decisions points as a part of the preliminary design phase. Three (3) **public events** are planned for this project:

- **Public Event #1 April 2019 (Information Gathering, Existing Conditions and Project Goals/Objectives/Criteria)**: The initial meeting will be held to present information about existing conditions along the corridor, input received to date from key stakeholders and adjacent property owners, the City's draft goals and objectives for the project, and the draft evaluation criteria that will be used to evaluate design concepts. The public will have the opportunity to share their current experience using the corridor and weigh in on the goals, objectives and design criteria.
- **Public Event #2 September 2019 (Design Concepts and Evaluation)**: The second public event will be held to share potential corridor design concepts and how they were evaluated. The public will have the opportunity to provide feedback on the design concepts and evaluation results.
- **Public Event #3 January 2020 (Preferred Design Concept):** The third and final public event will be held to share the preferred preliminary design for the corridor. The public will have the opportunity to provide feedback on the preferred concept for the corridor before the team completes 30% design.
- No public event will be held to share the 30% design once it is complete. Alternatively, the Consultant will support the City to share the 30% design with key stakeholders and the broader community through a traveling display,

the project webpage, a *Currents* article, ShorelineAlerts email update and other local avenues of communication.

The Consultant will develop a meeting plan, materials (i.e., comment form, sign-in sheets, handouts, and display boards) and agendas for each public meeting. The Consultant will also set-up, staff, and facilitate all public meetings. Support will also include scheduling, leading meeting logistics, determining room layout, providing event equipment and supplies, and documenting input received. The Consultant will also collaborate with the City to provide interpretation services and child care, as requested, provide refreshments and host in-person events in venues accessible by transit, to increase participation of historically represented populations if identified in the project area.

To complement each of the three (3) in-person public events, the Consultant will develop **online open houses** to share the same content that will be displayed at each in-person event and solicit feedback from the community via an online survey. This tool is particularly helpful 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. 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.

2.5 Outreach Materials

The Consultant will develop a **project look-and-feel**, including a logo, branding (standards for material color, font, etc.), and document templates.

The Consultant will develop content and provide graphic design support for **project materials and notifications** and provide updates as the project progresses and/or key milestones are reached. Materials will include the development of a project fact sheet, frequently asked questions (FAQ) document, youth activity, displays and presentation materials for public meetings, and a traveling display (i.e. kiosk and/or information board) to place at local gathering places. The Consultant will also develop content for the City to post on the project webpage. Notifications will include the development of on-site project signage. Material content can also be provided to local organizations and media sources, neighborhood associations, and key stakeholders to use in their own independent avenues for communicating with the community.

If identified, the Consultant will also support the City to proactively **translate materials** into languages spoken at home for populations who are limited-English speaking in the project area.

2.6 Outreach Summary Report

The Consultant will prepare two **interim outreach reports** to inform staff reports for City management and leadership based on the first two rounds of outreach. The Consultant will also prepare a **final outreach report** at the conclusion of the preliminary design phase that includes an overview of the outreach approach and methods to inform the corridor design and key themes of what was heard from the community and how input influenced he preliminary design, and an evaluation of the outreach process with recommendations to inform engagement for future design and implementation phases.

Assumptions:

- Fourteen (14) months of outreach support beginning in February 2019 through March 2020.
- Initial and follow-up stakeholder interviews and/or briefings will be held via phone when possible and/or in combined groups for stakeholder groups with similar interests. One outreach staff will attend each of the stakeholder interviews and/or briefings along with a City representative and a technical team member.
- The mailing list for adjacent parcels will be requested from the King County Assessor's office for both taxpayer and physical address.
- One outreach staff will attend the first round of property owner drop-in sessions. Two outreach staff will be available to attend the second and third rounds of property owner drop-in sessions.
- City staff will provide timely and coordinated review of all draft strategies and materials to streamline production and team efficiency with revisions.
- The City will collaborate with the Consultant to develop a contact list for key stakeholders and community groups/organizations to support stakeholder interviews and briefings.
- The City will identify and provide contact information (email, mail, and phone) for project point of contact at the City to include on all outreach materials.
- The City will monitor any established project email inbox and/or phone line and keep the outreach and technical team informed of public questions, comments or inquiries received by the City outside of outreach events.
- City staff will meet with property owners and/or tenants one-on-one, as requested, in addition to offering the drop-in sessions. . City staff will determine additional team members to attend one-on-one property owner meetings, including technical team members, and/or the right-of-way lead.
- For public meeting materials, City staff and Consultant team leads will provide public-friendly maps and data for to incorporate into meeting displays with minimal graphic changes.

- The Consultant will coordinate printing and translation services, as needed, and the City will pay for printing and translation costs directly.
- The City will coordinate any request for interpretation services at in-person public events through the City's identified interpretation service provider.
- The City will lead any outreach and/or tabling opportunities at local fairs and festivals.
- The City will take the lead in developing content for and distributing any information to the media, and via *Currents* newsletters, ShorelineAlerts system emails and/or City social media platforms.
- The City will take the lead role on any proactive media outreach and media response for the project.
- The City and technical team will track project contacts, communications and/or commitments made during the preliminary design phase.

Deliverables:

- Communications plan – one (1) draft and one (1) final
    - Key messaging – initial draft and up to two (2) updates
    - Community engagement kickoff meeting agenda (1) and attendance/facilitation
- Scheduling and attendance of twelve (12) initial stakeholder interviews and two (2) rounds of twelve (12), or twenty-four (24) total follow-up briefings
    - One (1) draft and one (1) final set of stakeholder interview questions
    - Three (3) stakeholder interview/briefing packets
    - Attendance at twelve (12) initial interviews and twenty-four (24) follow-up briefings
    - One (1) draft and one (1) final initial stakeholder interviews summary
    - Two (2) drafts and two (2) final follow-up stakeholder briefings summaries

- Coordination and staff support (2 staff and 1 facilitator) for up to six (6) property owner and tenant drop-in sessions (i.e. to provide alternative times/days of the week over three [3] rounds of drop-in sessions)
    - One (1) mailing list for both the physical and taxpayer address for adjacent parcels and three (3) property owner and tenant letters
    - Three (3) property owner drop-in session plans
    - Three (3) drafts and three (3) property owner and tenant drop-in session summaries
    - Interpreter coordination for six (6) drop-in sessions
- Coordination of and staff support and/or facilitation (two [2] staff and one [1] facilitator) for up to three (3) public meetings
    - Three (3) public meeting plans
    - Three (3) public meeting agendas
    - Three (3) facilitation guides/annotated agendas
    - Three (3) comment forms and logistics materials (i.e. sign in sheets and directional signage)
    - Three (3) public meeting summaries
    - Three (3) team preparation meetings
- Three (3) online open houses, three (3) surveys and related comment exports and analytics
- Materials and notifications (one [1] draft and one [1] final of each)
    - Look-and-feel for materials
    - Fact sheet (initial and three [3] updates)
    - FAQ (initial and three [3] updates)
    - One (1) youth activity/coloring sheet
    - Display boards (ten [10] per public meeting, or up to thirty [30] total)
    - One (1) traveling display, including placement at local gathering places

- Presentation (initial and two [2] updates)
- Content for City project webpage (initial and three [3] updates)
- On-corridor signage (initial and two [2] updates), including placement along the corridor
- Translation coordination for up to ten (10) printed pieces in up to three (3) languages each

- Up to two (2) interim outreach reports for City management/leadership
- One (1) draft and one (1) final outreach summary report for the preliminary design phase

Task 3 – Survey and Mapping

3.1 Survey PM, Admin, QA/QC

This task includes the survey project management, administrative duties, and quality control required for a project of this complexity and magnitude. Depending on the project requirements, 1 Alliance will assign a Survey Project Manager, Assistant Project Manager, and Survey Quality Leader for this project.

3.2 Survey Control

This task includes the establishment of survey control, or the recovery of existing survey control, as required for the project. Typically, survey control will be set, found, or referenced utilizing Real Time Kinematic (RTK) GPS (GNSS) and the Washington State Reference Network (WSRN) in conformance with industry standards. This survey control is then typically propagated, as required, utilizing standard terrestrial total station measurements. For this project, it is anticipated that both geodetic (coordinate system) and cadastral (public domain) survey control will be

required. Both types of control will be coincident. Vertical control will be NAVD88datum.

3.3 Field Surveying and Mapping

This task includes the field surveying and mapping required for this specific effort. It is anticipated that 3D laser scanning will be utilized to collect a lot of the topographic information and that traditional technologies will be used to complete or fill in the remainder.

3.3.1 Topographic

Approximately 3300 linear feet along N 175th Street as shown in Exhibit A. The topographic surveying will extend from 50 to 75-feet on either side of the proposed alignment, for a total width of between 100 and 150 feet. The Consultant shall locate and map visible features necessary for the creation of an engineering design basemap within and, in places, beyond the right-of-way as shown in Exhibit A. Typical features include:

- Topographic and Planimetric, including ditches and culverts
- Edge of Pavement, gravel, grass, concrete, etc.
- Curb and sidewalk, including curb cuts and ADA ramps
- Signs and signals
- Trees and significant vegetation
- Walls, rockeries, and other structures (or faces of)
- Ground measurements will be captured sufficient to generate a digital terrain model (DTM) at one-foot contours
- Visible improvements situated within the described mapping limits
- Trees with trunk diameters of four inches or greater as measured 3.5 feet dbh

3.3.2 Planimetric

Approximately 4000 linear feet along 175th Street and 300 linear feet north and south along Meridian . The planimetric only section will require the two-dimensional mapping of roadway channelization only.

3.4 Utility Surveying and Potholing Services

This task includes the mapping of utilities throughout the survey limits, including within the roadway. It also includes potholing services.

3.4.1 Underground 'Conductible' Utility Locates

The Consultant shall arrange for underground 'conductible' utility locating, typically by means of a third-party utility locate service. This service shall locate utilities within the project corridor limits. The Consultant will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the utility locating service. Franchise utilities are typically marked by the franchise. Underground utilities to be mapped include: power, natural gas, water, cable TV, telephone, and traffic. Fiber optic lines are typical marked in the field by the owner. Potholing of potential conflicts will be done in the subsequent phase of work.

3.4.3 Surface Observable Utilities

To include: power poles, vaults, risers, fire hydrants, water valves, water meters, gas valves, traffic signal and traffic control boxes, and overhead utility lines.

3.4.4 Stormwater Structures

Catch basins and storm drain manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest drainage structure outside the mapping limits will also be collected. Work will include surveying the culverts entering Ronald Bog and surveying the ordinary highwater mark of the bog.

3.4.5 Sanitary Sewer Structures

Sewer manholes. Pipe size, material, and invert elevations will be obtained, if possible, at each structure. Nearest structure outside the mapping limits will also be collected.

3.5 Office Processing

This task includes the office processing of the collected survey data, data extraction, field book note reductions, CADD drafting, and other duties required for the generation of the deliverable(s).

For 3D laser scanning efforts, sub-tasks include the registering of point clouds; evaluating the registrations; exporting the point cloud data to Civil3D 2014; creating or picking of appropriate points in Civil3D; linework and layering, and standard CADD drafting of the deliverables, as required.

3.6 Right-of-Way and Boundary Resolution(s)

3.6.1 Right-of-Way

Right-of-way will be resolved along the projects limits corridor. Available public records and state ROW plans will be compiled and researched to aide in the identification of the ROW lines affected by this project. Complete title guarantees

with supporting documents will be provided by City shall also be used to aid in the identification of the right-of-way lines and individual parcel lines. Monumentation local to the site will be tied into to the project control network to aide in locating the ROW in the project area.

3.6.2 Parcel Resolution

It is anticipated that thirty-one (31) parcels will have some level of impact and will require various levels of resolution.

3.6.3 Easements

Legal 'Land' descriptions and Exhibit maps will be addressed in a future phase.

Assumptions:

- Traffic control, if required, to be provided by Law Enforcement Officers hired by 1 Alliance.
- Measurement of tree driplines/canopies are not a part of these services.
- Tree Tags are not a part of the scope of services.

Deliverables:

- Topographic Survey with one-foot contour intervals (electronic copy)
- Supplemental survey and corresponding updates
- AutoCAD Surfaces (DTM Files) (electronic copy)
- Copy of field survey books (hard copy)
- ASCII file of control points

Task 4 – Geotechnical Investigations (HWA)

Geotechnical exploration will be done to support the project improvement that may include: roadway widening, pedestrian improvements, signalization improvements, lighting improvements, stormwater upgrades, retaining walls, and compressible soils mitigation. Based on our understanding of the project objectives, the Consultant proposes the following geotechnical engineering services as the first phase of the project to support the 30% design and alternative development. Subsequent geotechnical information may need be collected to further design as more details of the project are determined. The proposed work will include the following tasks:

4.1 Geotechnical Project Setup

- **Collect and Review Available Geotechnical Data:** HWA will review readily available geotechnical information along the project corridor. This review will include online geotechnical databases, geologic maps and HWA library.

4.2 Phase 1 and 2 Geotechnical Explorations

- **Perform Geotechnical Site Reconnaissance:** HWA will conduct a geotechnical site reconnaissance of the project corridor. This reconnaissance will be used to identify geotechnical challenges and to assist in planning the geotechnical exploration program.
- **Plan Phase 1 and 2 of the Geotechnical Field Exploration Program:** HWA will plan and coordinate Phase 1 and 2 of the geotechnical exploration program for the project. Phase 1 of the exploration program will consist of conducting FWD testing and pavement coring to evaluate the condition of existing pavement and pavement subgrades. Phase 2 of the exploration program will consist of drilling a series of borings to provide data for conceptual design of retaining walls, luminaire and signalization foundations, and screening for stormwater infiltration potential.
- **Conduct Phase 1 and 2 Utility Locates:** HWA will mark the proposed exploration locations and arrange for utility locates using the Utility Notification Center. HWA will make additional site visits to verify that the

proposed locations of the pavement cores and borings are clear of utilities prior to finalizing the exploration plans and mobilizing the equipment.

- **Develop Traffic Control Plans for Phase 1 and 2 Geotechnical Explorations**: HWA will coordinate with the City and design team and develop site specific traffic control plans for FWD testing, pavement coring, and each proposed geotechnical exploration.
- **Generate Phase 1 and Phase 2 Geotechnical Exploration Work Plan Memo**: HWA will prepare a Geotechnical Work Plan Memoranda for the proposed Phase 1 and 2 exploration programs. The work plan will be submitted to the design team and the City for review and approval. The work plan will detail the type, location, and extent of proposed field explorations along with logistics necessary to perform the work such as traffic control plans and staging areas. The work plans will also be used for utility locating clearances and for permitting that may be necessary to access the exploration locations. We assume the City or Perteet will provide any required permits or rights of entry at no cost to HWA.
- **Conduct Phase 1 FWD Testing:** HWA will perform FWD testing along the travel lanes in each direction (approximately 10,000 feet of testing). Testing will be performed at intervals of approximately 100 feet. FWD testing sequence to consist of three (3) drops at each test location (6k, 9k and 12k). Traffic control will require flagger controlled one-lane closures along the entire alignment. We expect FWD testing will take two (2) days to complete.
- **Conduct Pavement Coring:** HWA will core the pavement at ten (10) locations along the project alignment. Cores will be performed in distressed areas to assess the depths of cracking as well as in non-distressed areas. Coring will be performed using a 6-inch-diameter, diamond-tipped core barrel. At each core location hand borings will be excavated through the core holes to depths of about two (2) to three (3) feet, in order to evaluate pavement layer thicknesses and subgrade soil conditions. Core holes will be patched with rapid-setting Portland cement concrete. Single lane closures and Flaggers will

be required for all coring operations. We expect that pavement coring will take three (3) days to complete.

- **Conduct Phase 2 Geotechnical Explorations:** HWA will conduct a series of up to thirteen (13) geotechnical borings along the project corridor to assess the subsurface soil and groundwater conditions along the alignment, in support of developing the 30 percent plans.

  One (1) boring will be drilled at each quadrant of the intersection of Meridian Avenue N. Each of these four (4) borings will be drilled to a depth of 20 to 30 feet below ground surface to provide soil and groundwater information in support of signal pole foundation design.

  Four borings will be drilled to a depth of 30 feet below ground surface within close proximity to Ronald Bog Park to determine the extent of the anticipated peat deposits within the area.

  Five borings will be drilled to a depth of 20 to 30 feet below ground surface in support of luminaire foundation design, infiltration screening and retaining wall concept design. These borings will be spaced out approximately 300 to 500 feet to cover the remainder of the project alignment.

  Each boring will be drilled with a track mounted limited access drill rig. HWA will attempt to locate each of these borings within the planter areas adjacent to the road or sidewalks to minimize impact on vehicular traffic. However, we anticipate that at some areas the boring locations may have to be shifted onto the road shoulder to traffic lanes due right-of-way restrictions and/or underground utility conflicts.
  Traffic control for borings that will be drilled behind or within sidewalks will be limited to sidewalk closure and/or pedestrian guidance around the work area. Traffic control for borings that have to be located on the road shoulder

or traffic lanes will be include shoulder and single lane closures. Any anticipated lane closures will not require flaggers' assistance.

HWA will install two-inch diameter groundwater monitoring piezometers within four (4) of the proposed borings to monitor and assess the groundwater fluctuation during the wet season. Data logging transducers will be installed in the monitoring piezometers to record water levels. The water level information collected will be used in geotechnical analyses to developing recommendations for infiltration potential and possible dewatering and construction impacts.

Due to access limitations and the presence of overhead utilities, most borings will be drilled with limited access equipment. Each of the above described geotechnical explorations will be logged by an HWA geologist. Samples will be screened visually and with a Photoionization detector for signs of contamination. All non-contaminated drilling spoils will be drummed and transported off site for disposal by the driller.

- **Generate Boring Logs and Assign Laboratory Testing**: HWA will prepare summary boring and pavement core logs and perform laboratory testing to evaluate relevant physical properties of the site soils. Laboratory testing will include moisture content, hydrometers, grain-size distribution, one dimensional consolidation, and Atterberg Limits.
- **Conduct Groundwater Monitoring**: HWA will install groundwater monitoring transducers in each monitoring well. These transducers will be set to take groundwater elevation readings every half an hour for one (1) year. HWA will make periodic site visits to download and process the groundwater data. This data will be used to provide the designer and prospective contractors with seasonal groundwater variations across the site.

4.3 Geotechnical Design Services

- **Evaluate Field and Laboratory Data**: Based on the borings and the laboratory test results on selected samples, HWA will generate estimates of the soil strength and other properties needed to evaluate the effects the subsurface conditions will have on the proposed improvements.
- **Develop Geologic Cross-Sections:** HWA will construct geologic cross-sections, as needed, for the project. These cross-sections will show near surface soil conditions and will be provided in a geotechnical report.
- **Generate AASHTO seismic design parameters**: Based on the soils encountered along the alignment, HWA will determine the Site Class for seismic design. The design spectral acceleration parameters will then be selected in accordance with the AASHTO Specifications for Road and Bridge.
- **Evaluate Liquefaction Potential**: HWA will evaluate the susceptibility of the subsurface soils to liquefaction along the corridor and assess the potential impacts to the proposed improvements.
- **Evaluate FWD Data and Provide Subgrade Data to Perteet for Pavement Design**: HWA will evaluate the FWD and pavement core data and provide subgrade resilient modulus information to Perteet for pavement design. We assume that HWA will provide the subgrade data and Perteet will complete the pavement design analysis. HWA will provide recommendations associated with pavement subgrade preparation.
- **Develop Concept Level Retaining Wall Recommendations**: HWA will provide recommendations for concept level design of retaining structures. We expect that proposed retaining walls will consist of soldier pile and lagging walls, SEW walls, or gravity block walls.
- **Conduct Signal Pole and Luminaire Foundation Design:** HWA will provide geotechnical recommendations for design and construction of the signalization and luminaire improvements. We assume that signalization

improvements and luminaire foundations will be designed based on WSDOT standard plans and procedures.

- **Conduct Infiltration Screening Analyses and Provide Recommendation:** HWA will evaluate grain size analyses data obtained during exploration of the near surface soils to determine if onsite infiltration of stormwater is reasonable.
- **Compressible Soils Mitigation:** HWA will work with the design team to develop conceptual options for mitigating the assumed presence of compressible soils along the corridor. Final design of a chosen mitigation alternative will be completed as part of a future scope of work.
- **HWA QA/QC:** All design calculations and recommendations will be reviewed by a senior principal prior to distribution to the design team or the City of Shoreline.
- **Project Coordination Meetings:** HWA will participate in up to twelve (12) project coordination meetings at Perteet's, WSP's, or the City of Shoreline's Offices.
- **Prepare Draft Geotechnical Engineering Report**: HWA will prepare a draft geotechnical report for the project. This report will contain the results of the explorations and analyses performed during Phases 1 and 2, including descriptions of surface and subsurface conditions; a site plan showing exploration locations and other pertinent features; summary coring and boring logs; and laboratory test results. The report will provide geotechnical recommendations for each of the proposed improvements.

Assumptions:

- Thirteen (13) geotechnical borings will be completed in support of development of the 30 percent design for the corridor. Additional geotechnical explorations may be required to support final design development.

- No explorations will be conducted within WSDOT right-of-way.
- Stormwater infiltration screening will be limited to grain size analysis. Infiltration field testing will be completed in future phases of work if required. No PIT tests or EPA falling head (percolation) tests will be completed as part of this scope of work.
- Draft geotechnical report will be revised and finalized as necessary during future phases of work.
- All pavement cores and geotechnical borings conducted through the roadway will be patched with rapid-setting concrete. No saw cuts and hot mix asphalt patches will be required.
- The subsurface explorations will not be used to assess site environmental conditions. However, visual and/or olfactory observations regarding potential contamination will be noted. Analysis, testing, storage, and handling of potentially contaminated soil and groundwater (either sampled or spoils from drilling) are beyond this scope of services. If contaminated soils and/or ground water are encountered, the material will be properly contained on-site for disposal as mutually agreed upon without additional cost to HWA.
- All non-contaminated drilling spoils and related debris will be drummed on site and transported off site for disposal by the drilling subcontractor.
- A hazardous materials screening is not considered to be a Phase I ESA that adheres to the American Society for Testing and Materials (ASTM) standards. If the hazardous materials screening analysis reveals issues that could impact the project area or result in property acquisition liability, further investigations which may include Phase I ESAs or Phase II ESAs may be recommended. If further investigation is recommended, a scope of work and cost estimate will be provided at that time.
-
- The borehole locations will be surveyed by others.

- Soil samples will be collected from the borings using the Standard Penetration Test (SPT) at intervals of 2.5 feet.
- The four wells installed as part of this investigation will be maintained throughout design and abandoned in accordance with WAC requirements by the Contractor during construction.

Deliverables:

- Phase 1 and 2 Geotechnical Work Plan Memorandum
- Hazardous Material Screening Technical Memo
- Draft Geotechnical Engineering Report

Task 5 – Conceptual Design and Alternatives

The Consultant will perform research and analysis to support concept development and alternatives assessment process. This task will be coordinated with Task 2 Community Engagement and Task 9 NEPA Environmental Documentation and will result in the selection of a preferred alternative to carry forward into the 30% design stage.

5.1 Information Gathering

In preparation of the series of community engagement and outreach activities, the Consultant will gather information regarding existing conditions and future local/regional plans to determine existing constraints and operations as well as future planned development over the next 20 years in the area. Information gathering will include:

- Traffic Data and Existing Conditions Analysis
    - Bus routes and frequencies (on 175th and connecting arterials)

- Turning movement traffic counts at up to six (6) intersections during AM and PM peak: 175th Street/Ashworth Avenue, 175th Street/Wallingford Avenue, 175th Street/Meridian, 175th Street/I-5 SB Ramps, 175th Street/I-5 NB Ramps, and one additional intersection to be determined (including pedestrian and bicycle counts at each)
- Existing intersection operations analysis of up to six (6) intersections using Synchro for both AM and PM peak hour based on the traffic counts. Results will be provided in Delay, LOS and queue lengths.
- Future plans for Trails Along and Rails and projected usage (if available)
- Future student forecast from Shoreline School District for Meridian Park Elementary and Early Learning Center
- Existing and future school bus volumes to Meridian Park Elementary

- Roadway
  - Existing sight distance evaluation
  - Existing cross-sections
- Drainage (see Task 7)
- Environmental Factors (see Task 9)
- Utilities (see Task 10)

This information will help inform the project goals and objective as well as educate the community.

5.2 Concept Alternatives Development

Based on the information gathered regarding existing condition and future development in addition to feedback from the first series of stakeholder meetings and open house, the Consultant will develop up to three (3) cross-section solutions, two (2) vertical alignment solutions and two (2) horizontal alignment solutions, which can be interchangeable. This will include up to two (2) team working sessions. The

solution will be presented to the City, at Stakeholder meetings and at an open house. It is assumed that there will be minor modifications to each of these solutions after each set of meetings.

In support of the concept development, the following tasks will also performed:

- Traffic Analysis:
    - Future traffic projections for up to six (6) intersections reflecting up to two (2) horizon years (i.e., 2025 and 2040). The latest PSRC traffic demand model will form the basis of traffic projections.
    - Pedestrian Warrants
    - Design year intersection analysis for AM and PM peak for up to six (6) intersections using Synchro/SimTraffic to develop proposed solutions for intersections. Up to 3 intersections (Meridian, Wallingford, and Ashworth) will also be analyzed for roundabouts using Sidra.
    - Qualitative assessment of pedestrian and bicycle connectivity and crossing
    - Qualitative assessment of suitability for transit use.
- Roadway:
    - Assessment of ROW needs help direct solutions
- Drainage (see Task 7)
- Wall TS&L (see Task 8)
- Environmental Factors (see Task 9)
- Utilities (see Task 10)

5.3 Preferred Alternative (10-15%)

Based on the feedback from the second series of stakeholder meetings and an open house, the Consultant will develop the preferred alternative which may consist of a combination or hybrid of alternatives from the previous step. The design elements

will be reassessed or progressed based on the preferred alternative. A sample plant/amenities pallet (see Task 6) will be developed to present with the preferred alternative.

5.4 I-5 Interchange Evaluation

Based on traffic counts provided by the City at the I-5 Interchange intersection, the Consultant will evaluate existing conditions and well as a high-level evaluation of potential improvements to the I-5 Interchange intersections. Improvement would be limited to revisions in channelization or signal timing only. This is a level of effort task. Effort beyond what is included in the budget would require additional funds. All work will be discussed with the City prior to commencement.

Assumptions:

- AM Peak is assumed to be 7am-9am and PM Peak is assumed to be 4pm-6pm.
- Existing signal timing information (including ramp meter rates) will be provided by the City of Shoreline.
- Syncho files for existing intersections at 175th/Meridian and 175th/Midvale will be provided to the consultant.
- Project Goals and Objectives Meeting will be held at City of Shoreline office with up to six (6) Consultant staff.
- Team working session will be held in Perteet's office with up to six (6) Consultant staff.

Deliverables:

- Materials for Community Engagement #1 – preliminary (for City review), draft (shared at stakeholder meetings), and final (used for open houses)
    - Strip map identifying any pertinent information along the corridor

  - Up to four (4) boards with information regarding existing conditions and future development
- Project Goals and Objectives Meeting with City (Agenda, Discussion, and Meeting Notes)
- Materials for Community Engagement #2 –preliminary, draft, and final
  - Cross-Sections (up to three [3]) –
  - Strip Maps Plans – up to two [2]
  - Strip Map Elevations – up to two [2]
  - Up to eight (8) board illustrating additional information such as traffic operations, etc
- Preferred Alternative Materials – preliminary, draft, and final
  - Strip Maps Plan
  - Strip Map Elevation
  - Up to four (4) boards illustrating additional information such as , traffic operations, etc.
- Model files in native format (Sychro/SimTraffic/Sidra) for all alternatives

Task 6 – Landscaping and Urban Design

In coordination with the conceptual design and public engagement, the landscape and urban design concepts will be developed to support the street design. These elements may include gateway and pedestrian enhancement area opportunities along corridor and amenities that identify this corridor as unique to the neighborhood and the City. Proposed landscape and urban design improvements may include special sidewalk paving treatments, street trees, planting areas, pedestrian crossings, site furnishings, retaining wall finish treatments, and pedestrian and street lighting. Efforts within this work element will be led by qualified subconsultant HBB.

6.1 Information Gathering

Data Collection and Project Background – Review and summarize applicable policies for the 175th Street Corridor from the City's Comprehensive Plan, Vision 2029 report, and any other City identified planning documents. Meet with the City's operations staff to review maintenance practices. Review other agencies' policies and standards for design integration. These agencies include METRO and WSDOT.

Arborist – Work with an ISA certified arborist to determine the aesthetic value and general health of the trees within the corridor and identify trees that may need to be removed based upon the design concepts and right-of-way improvements.

Walk and Talk Site Visit – The Consultant team and City staff will walk the 175th Street corridor to review the existing conditions. During this walk, we hope to learn more about 175th Street through a site analysis; what is working and what is not working. We will identify how 175th Street is being used by the adjacent institutions, property owners, and neighborhood residents. We will review the street with the proposed channelization concept prepared by the design team. We will also discuss gateway, enhancement opportunity areas, and key pedestrian crossings.

Deliverables:

- Photo documentation of existing conditions
- Site analysis plan for the corridor, including summary of arborist findings
- Written summary of comments from the walk and talk
- Landscape and urban design questions for the public meeting

6.2 Concept Design

6.2.1 Charrette

Conduct a design charrette with the Consultant team and City staff to discuss data collection and public meeting comments and how this information will be used to develop concept options for landscape and urban design treatments. Develop design principles and goals that will guide the framework of the landscape and urban design.

6.2.2 Landscape and Urban Design Concepts

Based upon the outcome of the charrette, we will prepare the following:

- Corridor Concept Plan
- This concept plan will include the site analysis, potential gateway and enhancement opportunity areas and key pedestrian crossings. This concept will be a color rendered plan.
- Intersection Plan Enlargements
- Prepare up to three (3) plan enlargement concepts for the 175th and Meridian Avenue N intersection. These concepts will include typical sidewalk treatments based upon the different channelization options. These concepts will be colored rendered plans with one (1) cross-section per concept.
- Gateway and Enhancement Opportunity Plan Enlargements
- Prepare up to six (6) plan enlargement concepts for gateway and enhancement areas. These concepts will be colored rendered plans.
- Amenity Options
- Prepare up to three (3) options for special sidewalk paving, street trees, planting areas, pedestrian crossings, site furnishings, retaining wall finish treatments, and pedestrian and street lighting. The amenity options will be presented on photo boards using examples from other places and recommended site furnishing products.

6.2.3 Opinion of Cost

Prepare landscape and urban design order of magnitude opinion of cost estimates for the intersection, gateway, and enhancement area plan enlargement concepts and the amenity options.

6.2.4 Team Meetings

Attend up to four (4) team meetings to review the direction and design for the landscape and urban design treatments. The concepts will be evaluated against the design principles and goals developed during the charrette. Revisions will be made based upon the results of these team meetings.

6.2.5 Review Meeting

Meet with Consultant team and City staff to review and discuss the design concept options. Revisions will be based upon input received from this meeting.

6.2.6 Public Meeting

Attend a public meeting to answer questions regarding the landscape and urban design concepts. Graphics developed under Task 3 will be used for the public meeting.

Deliverables:

- Documentation and summary of the design charrette
- Corridor concept plan; one (1) plan color rendered
- Intersection plan enlargement concepts with cross-sections; three (3) plans color rendered
- Gateway and enhancement opportunity plan enlargements; six (6) plans color rendered

- Photo boards with amenity options: three (3) photo boards, one (1) with sidewalk paving and pedestrian crossings options, one (1) with street trees, planting, and site furnishings, and one (1) with retaining wall treatments and lighting options
- Opinion of Cost
- Written summary of the design team and City review meetings

6.3 Preferred Concept Refinement

6.3.1 Preferred Concept

Merge the concepts into a preferred concept based upon feedback received from the public meeting. Revise the corridor concept plan to reflect the gateway treatment areas, opportunities for pedestrian enhanced areas, and pedestrian crossing areas. Revise the intersection, gateway, and enhancement area concept enlargements. Revise the photo boards to reflect the preferred sidewalk paving, pedestrian crossings, retaining wall treatments, street trees and planting, site furnishings, and lighting options.

6.3.2 Team Meetings

Attend up to two (2) team meetings to review the preferred concept for the landscape and urban design treatments. The concepts will be evaluated against the comments received during the public meeting. Revisions will be made based upon the results of these team meetings.

6.3.3 Review Meeting

Meet with Consultant team and City staff to review and discuss the preferred design concept corridor plan, gateway treatments, enhanced pedestrian areas and crossings, and photo boards. Revisions will be based upon input received from this meeting.

6.3.4 Cost Estimates

Prepare landscape and urban design cost estimates based upon the preferred concept in a per square foot format.

6.3.5 Public Meeting

Attend a public meeting to answer questions regarding the landscape and urban design preferred concept.

Deliverables:

- Corridor concept plan; one (1) plan color rendered
- Intersection plan enlargement with cross-section; one (1) plan color rendered
- Gateway and enhancement opportunity plan enlargements; two (2) plans color rendered
- Photo boards with amenities: two (2) photo boards, one (1) with sidewalk paving, retaining wall treatments, and pedestrian crossings, and one (1) with street trees and planting, site furnishings and lighting
- Cost estimate
- Written summary of the design team and City review meetings

6.4 30% Design

6.4.1 Refine Preferred Concept

Revise the preferred concept based upon the feedback received from the public meeting.

6.4.2 Planting and Urban Design Plans

Planting Plans and Urban Design plans will include:

- Planting plans and photo cut sheets for street trees, shrubs, and groundcover
- It is assumed all landscape areas will receive irrigation
- Urban design plans, enlargements, and details to include sidewalk paving patterns and locations, and site furnishing products and locations.

6.4.3 Opinion of Cost

Prepare landscape, irrigation, and urban design opinion of cost.

6.4.5 Architectural Illustration

HBB will work with an architectural illustrator to prepare a bird's-eye perspective of the corridor with emphasis on a gateway or intersection area.

Deliverables:

- Planting plans (1" = 20' full size)
- Urban design plans (1" = 20' full size)
- Architectural illustration

Assumptions:

- Does not include Boards, Commissions, or City Council briefings or special presentations.

- Does not include 30% construction documents and cost estimates for street and pedestrian lighting, retaining wall finish treatments, pedestrian crossing treatments, and special sidewalk paving.
- Site furnishings are off the shelf products and do not include custom design elements.
- Does not include art or coordination with an artist.
- Arborist task assumes survey drawings will be available that show existing trees inside and outside the Street ROW.

Task 7 – Stormwater Design and Technical Information Report (WSP)

The stormwater design shall be conducted in accordance with the 2014 Department of Ecology (Ecology) Stormwater Management Manual for Western Washington (SMMWW), as required by the City of Shoreline stormwater code. The design will be developed based on the available site information, which will include City record drawings and reports, project survey, and field observations. The information gathering effort will be conducted primarily in Tasks 7.1, but may require additional information to be collected in Task 7.2 as the design progresses.

7.1 Conceptual Stormwater Design and Alternatives Development

The conceptual stormwater drainage design included in this task shall be conducted to support the conceptual design and alternatives development described under Task 5. The design efforts will be limited to the following:

- Collection of existing record drawings and reports.
- Review of the existing and proposed stormwater conditions associated with the project area.
- Conduct an offsite stormwater analysis.

- Evaluation of the applicable stormwater requirements based on the concept level design.
- Identify and site the proposed stormwater best management practices (BMPs) based on conceptual sizing criteria.

The collected information, evaluation of applicable requirements, and proposed BMP for managing the stormwater runoff will be documented in the Draft Stormwater Technical Memorandum discussed in Task 7.3.
The concept level designs developed for this task will be shown on the roll plots/strip maps developed under Task 5.

7.2 30% Stormwater Design

The 30% stormwater design will be a further development of the preferred alternative selected in Task 5. The stormwater design, shall include a plan view layout of major required drainage elements, which include pipes, structures, Low Impact Design (LID), and On-Site Stormwater Best Management Practices (BMPs), flow control facilities, and water quality systems, as applicable. In addition, connections to the existing underground stormwater conveyance system and nonstandard drainage elements will also be identified.
The Draft Stormwater Technical Memorandum shall be updated to reflect the project understanding based on the preferred alternative developed in the 30% design and address any City review comments.

The design efforts included in this task will be limited to the following:

- Site Analysis: Analyze Information on Existing Conditions
- Prepare Preliminary Development Layout
- Perform Off-Site Analysis
- Stormwater Requirements Assessment

The stormwater design drawings shall include the following:

- Existing conditions basemapping.
- Proposed storm drainage system structures with their corresponding invert and top elevations, and all connecting storm main and pipes annotated with their length, slopes, and diameters.
- Flow control and water quality facilities and BMPs shall be drawn in plan. Any required utility relocations will be called out on the plans.
- Inlet/catch basin/manhole connections shall be shown on plans.

Assumptions:

- All stormwater systems, LID and On-Site Stormwater BMPs, and design will follow the requirements of the SMMWW (Amended 2014).
- The Construction Stormwater Pollution Prevention Plan is not included in this task, but will be required for later stages of the design.
- The Temporary Erosion Control Plans is not included in this task, but will be required for later stages of the design.
- Pipe profiles will not be included as a design deliverable, but the pipe profiles are required to be evaluated by the designer, to prove the drainage design concept.
- Design detail sheets will not be included in this task, but will be required for later stages of the design.

Deliverables:

- 30% Stormwater Site Plans

7.3 Stormwater Technical Memorandum

A Stormwater Technical Memorandum shall be prepared based on the 30% design that documents the existing and proposed conditions, stormwater requirements, and

preliminary sizing of stormwater management facilities. The Stormwater Requirements will be assessed based on the 2014 SMMWW as required by the City of Shoreline Stormwater Requirements.

The Consultant shall coordinate with the City of Shoreline during development of the 30% design to ensure compliance with the manual.
The Final Stormwater Technical Memorandum will include the following sections:

- Introduction
- Existing Conditions
- Proposed conditions
- Stormwater Requirements
- Proposed Stormwater Management
- References

The Consultant shall determine the Minimum Requirements for stormwater management for the 175th Street – Stone Avenue to I-5 Improvement Redevelopment Project based on existing impervious coverage, new and replaced hard surfaces, and pre-existing land cover.

The Consultant shall evaluate the minimum requirements as defined in the SMMWW and determine their applicability to the project and document the Final Stormwater Technical Memorandum.

The following tasks are required to complete the 30% Stormwater Technical Memorandum:

- Off-Site analysis – This work will provide additional detail on how runoff from adjacent upstream properties will be collected within the proposed project, and support the calculations in the report.

- On-Site Stormwater Management Evaluation – Determine which On-site Stormwater Management BMPs are applicable to the project in accordance with the project thresholds, standards and lists to infiltrate, disperse, and retain stormwater runoff on-site to the extent feasible without causing flooding or erosion impacts.
- Runoff Treatment Evaluation – Surface water runoff for applicable hard and pervious surfaces must be treated as defined in the manual. Applicable LID and water treatment facilities, basic treatments facilities and enhanced treatment facilities, if applicable, will be identified and sized per the requirements of the SMMWW.
- Flow Control Analysis and Design – The project must provide flow control to reduce the impacts of stormwater runoff from hard surfaces and land cover conversions. The flow control requirements will be assessed and any flow control facilities required will be sized, designed, and located and per the requirements of the SMMWW.

Deliverables:

- Draft Stormwater Technical Memorandum (submitted with Task 5 deliverables)
- Final Stormwater Technical Memorandum (submitted with Task 7.2 deliverables)

Task 8 – Structural Engineering for Retaining Wall TS&L (WSP)

Structural engineering for this phase include walls design and structural solutions to support the roadway in portions of the project where compressible peat soils are present. Structural design for miscellaneous structures will be include in the post 30% design.

Wall Type Technical Reports

For structural walls, the Consultant shall prepare a draft Wall Type Technical Report identifying wall options (including pros and cons), cost estimates, constraints (such as available ROW and soil conditions), and the basis for selection of each wall required for the proposed alignment. This information will help support the concept alternatives development as well as be refined for the preferred alternative. The final report will be completed in the next project phase.

Structural Solution for Compressible Soil Mitigation

The structural team will coordinate with the Geotechnical Engineer to identify limits of compressible soils within the project corridor and will develop a preliminary structural solution within these limits to adequately support the project elements. 30% plans will be provided identifying the selected structural system along with a preliminary cost estimate.

30% Structural Plans

30% Submittal Retaining Wall Plans and Details

- Wall profile sheets shall show approximate wall locations in plan view and vertical wall limits in the profile/elevation view for each wall (excluding the embedment depth)
- Wall types will be designated on drawings based on the findings of the Wall Type Technical Report
- Wall detail design shall be consistent with wall type to be used
- Wall profile to include back of wall elevations for bottom and top of wall
- Wall profile to include wall wraps at driveways/intersections
- Elements that will not be included as part of the 30% submittal:
    - Wall underdrain system and connections to storm system

- Summary of quantities table, including wall face, approximate excavation quantity, and approximate fill quantity

Task 9 – Environmental Documentation and Coordination Support

The Consultant team will prepare environmental documentation.

A WSDOT CE form will be completed with supporting information obtained from technical memoranda (as scoped in subtask items). The environmental review process will focus on meeting the requirements of the National Environmental Policy Act (NEPA) for a Categorical or Documented Categorical Exclusion (CE or DCE) under WSDOT/FHWA administrative authority. The proposed project action and NEPA environmental context has been preliminarily evaluated in preparing this scope based upon readily available information. Efforts and deliverables under this scope have been approximated based upon our experience with similar projects and similar features and WSDOT involvement. Scoped efforts and deliverables are assumed to meet the likely project conditions and analysis levels to facilitate WSDOT CE review and approval. Work elements for this task include:

9.1 Background Information Review and Analysis (Perteet)

The Consultant will obtain project and resource information on the environmental context of the project action, inclusive of resource agency database review of available information on historical/cultural resources, ecology facilities, priority/threatened/endangered species, and information from the design team relevant to the environmental context to begin document preparation or exclusion documentation.

9.2 WSDOT Early Coordination with City (Perteet)

A Categorical Exclusion (CE) form will be preliminarily drafted and a site meeting will be scheduled by the Consultant with the City and WSDOT to consider categorical exclusions and the extent of any requested supplemental documentation for: hazmat review, air and noise, environmental justice, cultural resources, endangered species, and other CE classification categories under WSDOT NEPA CE review.

Assumptions:

- One (1) site meeting will be attended with WSDOT staff, City staff, and Consultant staff (assumed to include the project manager or lead engineer, the environmental planning lead, and the right-of-way consultant).
- The meeting may occur at or before the 30% deign level and project guidance will be based on preliminary design knowledge.

Deliverables:

- Meeting notes provided to City via email after site meeting

9.3 NEPA CE Form (Perteet)

The Consultant will prepare a preliminary and final CE form for submittal to WSDOT (preliminary assumed to occur at 30% design level and final assumed to occur prior to starting the 60% design level) inclusive of discipline memos.

Assumptions:

- Coordination will occur with WSDOT after the preliminary CE submittal to respond to review comments. One (1) revision to the CE form is assumed to addresses comments from the preliminary submittal for final WSDOT review.
- Once WSDOT agrees the final CE form and other supporting documents under this task are complete, they will request the CE be signed by the City for final submittal.

Deliverables:

- Draft and final CE form to City and WSDOT with attachments
- Review correspondence via email

9.4 Cultural Resources Area of Potential Effect Memo (APE Memo) and Subsequent Cultural Resources Assessment (CRA) (Perteet)

The Consultant team will prepare a draft and final APE for consultation with WSDOT. The APE will be developed in GIS and will include areas of direct and indirect effects from the project. A Perteet cultural resources specialist will draft a memo describing the APE for submittal to WSDOT.

The team will prepare a cultural resources assessment which is likely to be required by WSDOT. The assessment will include background research, a field survey, and subsequent reporting. Background research will help develop the field methods and expectations for survey. The field survey may include subsurface shovel tests to identify buried cultural resources within the APE. The field survey may also include assessment of historical buildings on adjacent parcels. The report will summarize the background research and results of field survey and will include recommendations for any additional study of the APE that may be necessary.

Assumptions:

- City will provide one (1) review on the draft APE prior to being finalized by the Consultant team for WSDOT submittal.
- The CRA will be completed once the APE has been finalized and will undergo one (1) round of consolidated review from the City.

Deliverables:

- Draft and final APE GIS shapefiles
- Draft and final APE letter text
- Draft and final CRA and CRA coordinated with WSDOT
- Correspondence via email

9.5 Environmental Justice (EJ) Screening Memo (WSP)

The Consultant team will conduct environmental justice analysis to support the preparation of the NEPA and SEPA environmental documentation. This analysis will evaluate potential construction and operation impacts to environmental justice communities, including low-income and racial and ethnic minorities and community facilities and services supporting these groups.

The initial analysis of existing conditions shall define a study area comprised of whole census track block groups adjacent to 175th Street (an area defined by 5th Avenue NE west to Dayton Avenue N and N 165th Street north to N 185th Street). This study area will be coordinated with the City's equity and inclusion lead. Census data from the 2016 American Community Survey (2012-2016) will be used to identify low-income and minority populations within the study area and King County (benchmark). A brief memorandum describing the basic demographics of the study area will identify low-income and minority populations and the primary languages spoken within the study area. This memorandum will be prepared at the beginning of the study to assist the development of the communications plan (See Task 2.1), i.e., provide information on any translation and/or interpretation needs for the outreach process and strategies for engaging historically underrepresented populations (i.e. communities of color, limited English speaking populations and/or low-income populations).

The environmental justice analysis will determine if potential disproportionate adverse effect would occur, including analysis of the availability of potential replacement property for any required full acquisitions. The level of analysis will be

appropriate for the anticipated NEPA CE review process and shall summarize the number and types of events and comments received concerning the proposed project from the various community outreach activities focusing on those from environmental justice communities. Following the completion of the conceptual engineering plans, including the anticipated right-of-way and construction zone plan sheets, the Consultant will prepare a Draft Environmental Justice Technical Memorandum. After receiving the City consolidated review comments, the Consultant will prepare the Final Environmental Justice Technical Memorandum.

Assumptions:

- To assist the environmental justice analysis, the engineering team will provide a list of parcels affected by needed property acquisition, including parcel number, square foot parcel size, square foot amount of required acquisition, determination of full and partial acquisition, and number and type of structures to be displaced.
- To assist in the environmental justice analysis, the community outreach team will maintain a database of community outreach activities (see Task 2.6 Database and Comment Tracking).
- The City will provide one (1) consolidated review on the draft Environmental Justice Technical Memorandum prior to being finalized by the consultant team for WSDOT submittal.

Deliverables:

- Brief memorandum on the demographic characteristics of the study area
- Draft Environmental Justice Technical Memorandum
- Final Environmental Justice Technical Memorandum
- Correspondence via email

9.6 Noise Evaluation (WSP)

The Consultant will prepare an Initial Noise Review Technical Memorandum for the 175th Street – Stone Avenue to I-5 Improvement Project. The objective of the Initial Noise Review Technical Memorandum is to: (1) identify noise-sensitive land uses located within the noise study area and review distances from project improvements; (2) review existing and projected traffic volumes; (3) review project improvements to determine WSDOT Project Type. The Initial Noise Review Technical Memorandum will be prepared for review following WSDOT preliminary CE review to confirm the level of effort of the traffic noise study.

- If required for the 175th Street – Stone Avenue to I-5 Improvement Project, a traffic noise study will be prepared in accordance with 23 CFR 772 and WSDOT's 2011 Traffic Noise Policy and Procedures in support of NEPA and SEPA documentation for this project. This would be considered extra effort and is not included in this scope.

Deliverables:

- Draft and Final Initial Noise Review Technical Memorandum Screening

9.7 Air Quality (WSP)

Air quality will be addressed to evaluate potential impacts to air quality during construction and operation of the project. The discussion will describe the air pollutant concentrations measured near the project area, common sources of air pollution from roadway projects, construction activities, and best management practices to minimize construction emissions.

The project is in an area that is designated by EPA as in attainment of all the federal National Ambient Air Quality Standards. As outlined in the Final Transportation Conformity Rule (40 CFR Parts 51 and 93), the project is not subject to

transportation conformity requirements. Mobile source air toxics (MSAT) will be discussed per FHWA's Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. Based on these references, this project is considered to have low potential MSAT effects because the design year traffic on 175th Street is projected to be less than 140,000 AADT.

Assumptions:

- Air Quality evaluation will only occur after the initial WSDOT preliminary CE review to confirm the extent and need for this documentation.
- Project-level conformity analysis is not required.
- Quantitative MSAT analysis is not required.
- Discussion of pollutant emissions during project construction and operation will be qualitative.

Deliverables:

- Air quality section to be included in environmental document

9.8 Energy (WSP)

Energy effects will be addressed in terms of operational and construction energy consumption, as well as operational and construction greenhouse gas (GHG) emissions. Effects during construction and maintenance energy consumption and greenhouse gas emissions will be calculated using FHWA's Infrastructure Carbon Estimator (ICE) spreadsheet tool, which incorporates project features and construction traffic delays to calculate CO2e emissions and energy consumption from construction equipment, materials, and routine maintenance. Operational effects of energy and GHG emissions will be addressed qualitatively, based on the change in vehicle miles traveled (VMT) and speed due to the project.

Assumptions:

- Energy evaluation will only occur after the initial WSDOT preliminary CE review to confirm the extent and need for this documentation.
- Energy consumption and GHG emissions due to construction and routine maintenance will be determined using the ICE model for one scenario based on lane miles and projected average daily traffic.
- Operational effects will be discussed qualitatively based on changes in VMT and vehicle mix.

Deliverables:

- Energy section to be included in environmental document
- Copy of ICE model file that shows input and output data

9.9 Biological Assessment No Effect Letter (Perteet)

Species Database, and will be calibrated to include both State and Federal listed specs within ½ mile of the project action area. Database results and the project action will be evaluated for effect considerations on listed federal species for NEPA review. This information will be summarized in a memo formatted consistent with WSDOT standards and information from this memo will also be summarized on the CE form for the effect consideration. Due to the lack of terrestrial listed species in this area, and since no in-water work is proposed with relevance to listed fish, a no-effect determination is assumed.

Assumptions:

- City will provide one (1) consolidated review on the draft BA no-effect letter prior to being finalized by the Consultant team for WSDOT submittal.

Deliverables:

- Draft and final BA no-effect letter
- Correspondence via email

9.10 Hazardous Material Investigation Technical Memo (HWA)

In support of the required environmental documentation for the project, the Consultant proposes to complete the work required to generate a hazardous material screening technical memorandum for the N 175th Street corridor.

This work will include the following subtasks:

- **Review Regulatory Databases:** The Consultant will review federal, state, and local agency environmental regulatory databases for the project corridor area and adjoining properties focusing on the identification of any record of the presence of hazardous substances, underground storage tanks (USTs), or hazardous substance spills.
- **Review of Historical Documentation:** The Consultant will review the following relevant documentation.
    - Historical aerial photographs
    - Sanborn Insurance Maps, if coverage is available
    - Reverse city directories for the streets included in the project area
- **Ecology File Review**: Review of existing reports documenting previous investigations for sites considered a potential concern (if readily available from Washington State Department of Ecology and/or the City of Shoreline).
- **Geoenvironmental Site Reconnaissance**: The Consultant will conduct a geoenvironmental site reconnaissance from public rights-of-way or publicly accessible public properties.
- **Geoenvironmental Reporting:** The Consultant will prepare draft and final Hazardous Materials Screening Technical Memorandum.

Assumptions:

- A hazardous materials screening is not considered to be a Phase I ESA that adheres to the American Society for Testing and Materials (ASTM) standards.

If the hazardous materials screening analysis reveals issues that could impact the project area or result in property acquisition liability, further investigations which may include Phase I ESAs or Phase II ESAs may be recommended. If further investigation is recommended, a scope of work and cost estimate will be provided at that time.

Deliverables:

- Draft and Final Hazardous Material Screening Technical Memo

9.11 4(f)/6(f) Evaluation and Documentation (Perteet)

During the 30% design phase, the Consultant will evaluate the potential for right-of-way acquisition to occur along the north parcel boundary of Ronald Bog Park and the potential need for documentation for 4(f) and 6(f) evaluations along with WSDOT consultation. Section 4(f) of the US Department of Transportation Act is broader in scope than Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) and the two sections are governed by two different federal laws. Section 4(f) protects publicly owned parks and recreational areas, waterfowl and wildlife refuges, and historic sites considered to have national, state, or local significance. Section 6(f) resources are protected by specific regulations applying to recreational areas acquired or developed with LWCFA funds. Section 4(f) applies only to programs and policies undertaken by the US Department of Transportation, while Section 6(f) applies to programs and policies of any federal agency. The Consultant will prepare a summary memo of findings related to 4(f)/6(f) impacts.

Assumptions:

- The potential use of Land and Water Conservation Fund Act (LWCFA) and funded through the State of Washington pursuant to the RCO program will be evaluated for Ronald Bog Park for 6(F) consideration or exemption. Use of the De Minimis (4f) Exemption will also be evaluated and reasonable and

appropriate measures to minimize harm to Section 4(f) lands will be described in the memo for inclusion in the project. City will provide one (1) consolidated review on the draft 4(f)/6(f) evaluation memo prior to being finalized by the Consultant team for WSDOT submittal.

- No recreational improvement/mitigation design is budgeted in this scope/fee at this time and is not anticipated to be required at this time. If recreational improvement mitigation is required by WSDOT/FHWA, this effort would require a supplemental scope and fee once impacts and mitigation opportunities are identified with the City.

Deliverables:

- Draft and final 4(f)/6(f) evaluation memo
- Correspondence via email

9.12 Critical Areas Report

The project corridor crosses two streams and occurs near wetlands (Ronald Bog). Thornton Creek occurs in a 36-inch diameter pipe on the west side of Meridian Avenue N, which crossing N 175th Street (flowing south). Once on the south side, the system turns east and downsizes to a 24-inch diameter pipe that crosses under Meridian Avenue N. Outside of the ROW, the system downsizes to an 18-inch diameter SD pipe a short distance before discharging directly to Ronald Bog. Boeing Creek occurs in a 24-inch diameter storm pipe (flowing south) on the east side of Midvale Avenue N where it crosses N 175th Street. Disturbing the stream culverts or channels (and triggering related in-water permitting) is assumed to be avoided. A critical areas report will be prepared to meet City of Shoreline critical areas standards as well used for NEPA review.

Assumptions:

- Wetland delineation will occur to current federal standards cited in the Shoreline Municipal Code and ratings will be conducted to the updated 2014 Ecology Wetland Rating System for Western Washington pursuant to cited standards in the Shoreline Municipal Code.
- Steam typing will follow City resource information and formal stream typing with WSDNR will not be necessary.
- The Consultant will evaluate and avoid potential stream and wetland impacts within the project limits during project design. The project footprint will be evaluated in the context of the identified streams, wetlands, and buffers. Impacts to buffers that cannot be avoided will be identified (e.g. permanent or temporary) and quantified.
- No direct project impacts to wetlands or streams are assumed. Wetland buffer impacts are assumed for the wetland associated with Ronald Bog to construct the corridor improvements.
- We assume any buffer impacts will be mitigated through on-site restoration of temporary impacts to native vegetation and may include enhancement of adjacent native vegetation.
- The Critical Areas Study will be prepared to meet applicable critical areas requirements of the Shoreline Municipal Code.
- A 404 permit from the Corps or an HPA from WDFW is not assumed at this time due to avoidance of wetland fill and instream work.
- If additional impact or mitigation analysis for the Critical Areas Study beyond this scope for is required by Corps/Ecology/tribes or for local review, such work will be considered as an additional service beyond this scope of work and may necessitate a supplemental scope and fee.
- Planting restoration or enhancement plans for buffer impacts (if necessary) will be provided in the Final PSE.
- Review comments on the Critical Areas Report will be combined into a single correspondence effort by the City.

- WSDOT review of critical areas impacts will be discussed with WSDOT in the context of other WSDOT review items. It is not assumed WSDOT will take an active interest in critical areas permitting, as they have not on similar projects.
- No additional or special meeting attendance or testimony are assumed for this task.
- No impacts to the current FEMA 100-year floodplain will occur.

Deliverables:

- Draft and Final Critical Areas Study in electronic format

9.13 SEPA Checklist (Perteet)

The Consultant will prepare a draft and final SEPA checklist form for City use at upon approval of the NEPA CE. The SEPA will be inclusive of NEPA discipline memos and related project documents under this scope of work as supporting information.

Assumptions:

- City will provide one (1) consolidated review on the draft checklist prior to being finalized by the Consultant.
- SEPA determination will result in a DS or MDNS.
- The SEPA determination will not be appealed.

Deliverables:

- Draft and final SEPA checklist
- Correspondence via email

9.14 Permitting Plan for 30% to Final including project phasing

The Consultant will prepare a summary memo of remaining permitting and documentation needs post 30% design for future completion.

Assumptions:

- The plan will summarize future permitting and documentation efforts and assumed timelines to complete such items prior to project construction. This will be provided for City use in a technical memo format.
- Anticipated permit/documentation needs to be described may include, NPDES NOI, City grading permit or similar, and other relating findings or necessary future permit actions discovered during the work elements of the Environmental Documentation and Coordination Support task.
- Future permitting efforts are not included in this scope or fee at this time.
- City will provide one (1) consolidated review on the Permitting Plan (memo).

Deliverables:

- Draft and final Permit Plan

Task 10 – Franchise Utility Design and Coordination

10.1 Utility Contacts and Data Collection

The Consultant will coordinate with the effected utilities in the corridor to identify where conflicts arise between the proposed corridor improvements and existing utilities. This task will include the following services by the Consultant:

- Establish contacts for each utility. Maintain and update a utility coordination log (Excel-based spreadsheet)
- Coordinate with franchise utilities to collect record drawings, confirm locations, and verify ownership of the utility facilities.

10.2 Relocation Coordination, Design, PS&E

Overhead power on the north side of 175th Street will need to be relocated as result of this project. The overhead line poles will be relocated and stay above ground. The Consultant shall coordinate with the other respective utility regarding location, requirements and design details. It is anticipated that other utilities in the corridor will need to be relocated due to project design conflicts and the Consultant will include coordination with other franchise utilities in the corridor.

10.2.1 Franchise Utility Design Coordination

The Consultant will coordinate with the franchise utilities in the corridor to determine utility relocation needs. The Consultant will coordinate with the utilities to determine locations, design and installation requirements, and to discuss other relocation needs. The Consultant will attend up to three (3) meetings, and will be attended by up to two (2) Consultant staff members per meeting, for design coordination. This includes coordination by email and telephone regarding design questions, coordination of items during the preliminary design process. The Consultant will set-up meeting times and locations, prepare meeting agendas, and prepare meeting minutes.

Assumptions:

- Franchise utilities will provide a record drawing to the Consultant, and the Consultant will prepare plan sheets, special provisions, and opinion of costs for the contract documents.
- Franchise utilities will provide pole, vault, hand hole/junction box specifications for inclusion into the project documents.
- Design coordination with franchise utilities is for conduit space in the JUT and for location of vaults and junction boxes/hand holes. Actual franchise utility relocation is by the franchise utility.

Deliverables:

- Meeting Agenda for coordination meetings, submitted via e-mail
- Meeting Minutes from coordination meetings, submitted via e-mail in PDF format

10.3 Conflict Identification and Potholing

The Consultant will identify utility conflicts and provide the following services:

- Identify potential utility conflicts and potential pothole locations to be investigated in the future design phase, and prepare utility conflict exhibits.

Deliverables:

- Utility conflict exhibits and resolution log

Task 11 – Right-of-Way Plans and Preliminary Costs

The objective of this task is to evaluate potential real property acquisition impacts, offer support, and provide recommendations to help minimize impacts to assist towards the City's selection of a preferred roadway design.
There are federal funds in the pre-design phase. Additionally, it is understood the City intends to secure federal funds for subsequent phases, including right-of-way acquisition tasks. Therefore, to preserve eligibility for future federal funds, all right-of-way assessment and feasibility support services will be completed in consideration of the City's WSDOT approved right-of-way acquisition procedures, including WSDOT's LAG Manual, Section 25 – Right-of-Way Procedures, and the Federal Uniform Relocation Assistance and Real Property Acquisitions Policies Act. It is assumed there are up to thirty-one (31) separate tax parcels potentially impacted by the project. One parcel is owned by the City of Shoreline known as Ronald Bog Park. Additional parcels will require an amendment to this scope of work and related

estimate. Work within this element will be performed by qualified subconsultant Universal Field Services (UFS)

11.1 Parcel/Ownership Research

It is assumed up to thirty (30) separate tax parcels may be impacted by the project which excludes the Ronald Bog Park parcel. The Consultant will develop a Parcel Summary Spreadsheet based on current King County Assessor's records. The spreadsheet to include, at a minimum: tax parcel numbers, ownership, zoning, current use, and size.

In this early phase of the project and in lieu of ordering title reports, the Consultant will research online public records for last deeds of conveyance of each tax parcel.,. This will further confirm ownership as at times the county assessor may list the taxpayer which can be different than the owner.

Deliverables:

- Develop Parcel Summary Spreadsheet to include up to thirty (30) tax parcels
- Research online public records for thirty (30) last deeds of conveyance

11.2 Right-of-Entry Agreements

Right-of-Entry (ROE) Agreements will be necessary to access private property and conduct various tasks such as Land Survey, Geotechnical Investigation, Environmental Research, etc., to further support project design, development of cost estimates, and schedule of completion for the project. It is assumed non-compensable ROE Agreements may be required from up to thirty (30) tax parcels.

UFS will provide a basic sample boilerplate ROE Agreement for the City's review. The design team (Perteet) and the City will provide and approve special use language for each agreement prior to UFS contacting each property owner.

General Sub-Tasks:

a) Populate tax parcels, ownerships and address information into an excel worksheet from public online records (County assessor's website) and City input if available.
b) Research mailing and telephone contact information from online records and from City staff.
c) Develop a draft ROE agreement for the City's review and approval for use.
d) Prepare one (1) ROE agreement for each tax parcel.
e) Deliver each ROE agreement to property owners by US Mail with a return postage paid envelope. PDF copies from owners will be acceptable.
f) Follow-up with a telephone call to each property owner within 3 calendar days of mailing to discuss the purpose of the ROE Agreement.
g) Meet with each property owner one (1) time onsite.

Deliverable:

- Secure and deliver one (1) ROE Agreement from owner(s) of those certain tax parcel as shown in Table A below.

11.3 Property Owner Meetings

The right-of-way consultant will attend early "one-on-one" meetings with property owners as part of a vetting process to integrate concerns and issues with the design team. At times, it may be necessary for the design team or City staff to attend depending upon relationships, severity of impacts, and the understanding of an owner's known concern. It is assumed one (1) meeting may be needed with the owner of each tax parcel.

Deliverables:

- Attend thirty (30) "one-on-one" meetings with property owners
- Summarize owner concerns in writing for City and Design Team use

11.4 Assessment of Right-of-Way Needs

As the City's conceptual design develops, the right-of-way consultant will assist the design team by recommending the types of permanent and temporary real property rights to be acquired that would be sufficient to adequately construct, operate, and maintain the public roadway improvements in perpetuity. Many of the various real property rights needed may include: fee simple, permanent slope easement, permanent access easements, permanent utility easements, temporary construction easements, temporary construction permits, lease agreements, etc.

Deliverables:

- Provide assessments and recommendations of the real property rights to acquire

11.5 Preliminary Right-of-Way Acquisition Cost Estimate

Based on advanced design of the roadway and upon direction by the City and design team, the Consultant will complete a right-of-way cost estimate to include related itemized costs similar to a True Cost Estimate per WSDOT's LAG Manual Section 25 – Right of Way Procedures. Estimates of related costs will include just compensation to individual property owners; appraisal and appraisal fees; acquisition negotiation service fees; relocation assistance service fees; relocation costs; title and escrow fees; property management (if any); statutory evaluation allowance; and incidental expenses (condemnation, etc.). We will also consult with a WSDOT approved appraiser for research of comparable land sales and input relating to damages of a property's remaining use if any.

It is assumed the thirty-one (31) separate tax parcels shown in Table A will be included in the estimate.

Deliverables:

- One (1) Preliminary Right-of-Way Acquisition Cost Estimate

11.6 Preliminary Right-of-Way Acquisition Schedule

Based on advanced design of the roadway and upon direction by the City, the Consultant team will develop a Preliminary Right-of-Way Acquisition Schedule. The schedule will assume federal funds in the ROW Phase and include major tasks comprising completion of: Right-of-Way Plan (*Design Team input*); Project Funding Estimate (PFE) or True Cost Estimate (TCE); Relocation Plan (if necessary); NEPA (*Design Team input*); FHWA Obligation to use Federal Funds for ROW; Appraisals, Appraisal Reviews; Acquisition Negotiations, Relocation Assistance (if necessary); and ROW Certification.

Deliverable:

- One (1) Preliminary Right of Way Acquisition Schedule

Task 12 – 30% Design and Design Memorandum

Once the project configuration and footprint have been confirmed as identified in Task 3 has been completed and the City has confirmed the preferred project footprint, the Consultant will develop the preliminary design and prepare 30% level Plans, Opinion of Construction Costs (Estimate), and the Design Memorandum.

12.1 Design Memorandum

The Consultant will prepare a Design Memorandum that will document and summarize preliminary design information of the proposed improvements. The Design Memorandum will identify the project's design criteria on elements such as, but not limited to, lane widths, design and posted speeds, sidewalk configuration,

and stormwater criteria. The Design Memorandum will be prepared with the 30% design phase.

The Design Memorandum will include:

- Executive Summary succinctly describing proposed improvements
- Design Criteria Table (example elements include design year, posted and design speeds, design vehicle and geometric features, cycle track criteria, pedestrian criteria)
- LAG Manual Design Matrix Reconstruction Checklist
- Brief summary of alternatives considered, including the exhibits that were used for decision making in the preliminary design phase
- Pavement design results
- Summary of utility impacts and issues
- Description of Proposed Improvements, including:
    - Proposed roadway section
    - Proposed roadway pavement section
    - Pedestrian facilities
    - Bicycle facilities
    - Illumination – the following documents will be provided in the Appendix:
        - Design light levels and areas
        - Results of lighting analysis
        - Recommended light pole locations (60% plan sheets)
    - Traffic signal modifications – supporting traffic analysis will be provided in the Appendix
- Sight distance (sight triangles) at crossings
- Sight distance (sight triangles) at roundabouts for the purpose of identifying areas requiring low-growth landscaping

- If pedestrian warning beacons are used, provide justification of need
- Considerations for final design

Assumptions:

- Stormwater analysis and design information will be prepared in a separate Stormwater Technical Memorandum and will not be included in the Design Memorandum.

Deliverables:

- Draft and Final Design Memorandum, submitted via e-mail in PDF format

12.2 30% Design

The Consultant will prepare and submit to the City Preliminary (30%) Design plans set for the preferred project footprint, based on Task 5 and approved by the City. The plan set will include:

- Plan/Profile with proposed channelization
- Structural (see task 8)
- Drainage (see task 7)
- Signal Modifications
- Lighting
- Landscaping/Urban Design (see task 6)

This task will include preparing roadway cross-sections, cut every 25-feet for the length of the project. The cross-sections will be provided on 11"x17" sheets and a PDF of these sheets will be provided to the City. Cross-sections will show existing and/or proposed ROW limits as applicable, and cut/fill lines.

Assumptions:

- It is assumed that the City will provide one (1) set of City review comments to the Consultant, reflective of all City staff comments, for the plans and opinion of cost estimate.

Deliverables:

- 30% plans, at a scale of 1-inch = 40-feet, in PDF format and two (2) hard copies
- Roadway cross-sections, cut every 25-feet for the length of the project, provided on 11"x17" sheets in PDF format

12.3 30% Opinion of Construction Costs

This work element will include the preparing 30% level quantities and Opinion of Construction Costs.

12.4 Construction Sequencing Memorandum

During the 30% design phase, the Consultant will evaluate potential construction sequencing options to take into consideration different maintenance of traffic options during construction. The memorandum will consider the trade-offs between two (2) construction sequencing options. The memorandum will document anticipated construction durations of each approach by developing a critical path construction schedule for each, and an anticipated cost differential for each approach. The Consultant will prepare graphic exhibits that will identify the various phases for each option, and these will be included in the Memorandum. It is also anticipated that these exhibits can be used for information purposes as a presentation or exhibit boards at public open houses. The options will be presented to the City for review and selection of a preferred option. The preferred option will be used as the basis for the Construction Sequencing and Traffic Control Plans in the contract documents.

12.5 Preliminary Design and PS&E QA/QC of Deliverables

An internal Consultant quality assurance/quality control review of deliverables will be conducted, as well as confirmation that comments received have been addressed. A record of comments received will be maintained. Response to each comment received will be tracked to confirm that they have been addressed.