Professional Services Agreement

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Project	Larkspur Street Improvements **Project #** 18218
Client	City of Camas
Location and Description	616 NE 4th Avenue, Camas, WA 98607
	Camas, WA
	Professional Services
Date	February 14, 2017, as revised February 15, 2017

Terms and Conditions

1. This Professional Services Agreement ("Agreement") is entered into between Client and the Otak entity specified on the signature line below ("Otak"). Otak agrees to furnish and perform those professional services specified in the attached Exhibit A, Scope of Work dated February 20, 2017.

2. Client agrees to compensate Otak for the professional services provided monthly on a time and materials basis in the amount of $473,511 to be invoiced monthly based on work completed. The estimated fee will not be exceeded without prior written authorization. In-house direct expenses will be invoiced on a cost plus five (5%) percent basis and are included in the contract amount. Out sourced/subconsultant expenses will be invoiced on a cost plus five (5%) percent basis and are included in the contract amount. Copies of expense vouchers are not provided with the invoices.

3. Upon execution of this Agreement, Client shall pay Otak $0.00, to be applied against the last invoice(s).

4. Only those items specifically identified in the attached scope of work are included in the estimated fees. If the project is materially changed, or if Client desires other professional services not already included in this Agreement, then additional compensation shall be paid to Otak, which shall be subject to negotiation by both parties. The terms of the Agreement shall apply to such additional services.

5. All invoices are payable within thirty (30) days of receipt of such invoices. Failure to pay an invoice when due shall constitute default, and interest at eighteen (18%) percent per annum shall be payable on all such invoices from the date such invoices become due. In the event of a default, Otak may elect to suspend all professional services under this Agreement until such invoice is paid in full, and may elect to terminate this Agreement as of the 30th day of default. Otak shall not be liable for any damages or costs, including, but not limited to, direct, indirect, incidental, consequential or exemplary damages, suffered by Client, his subcontractors, agents, employees and assigns as a result of any suspension or termination. In the event of a suspension, Otak may, in its discretion, require an additional deposit in an amount equal to any amount Client has failed to pay as a condition to resuming performance. Any such deposit will be applied as set forth in Paragraph 3 of this Agreement.

6. Client agrees to pay the costs and reasonable attorney's fees and disbursements incurred by Otak in connection with the failure by Client to make any payment in accordance with the provisions of this Agreement, whether or not a legal action is commenced by Otak. The parties agree that in the event action or suit is commenced related to the subject matter of this Agreement, or in the event of any breach of this Agreement, the prevailing party shall have and recover reasonable attorney fees, both at trial and on appeal, together with all other costs and disbursement allowed by law.

7. Either party shall have the right to terminate this Agreement at any time giving ten (10) calendar days written notice. In the event this Agreement is terminated by the Client, payment to Otak will be made based on work performed in accordance with the scope of services up to the date of termination plus termination expenses, such as, but not limited to, reassignment of personnel, subcontract termination costs and related closeout costs. In the event this Agreement is terminated by Otak, payment to Otak will become due upon delivery of all products completed in whole or in part for services performed, through the date of termination.

8. To the fullest extent permitted by law, this Agreement shall be construed according to the laws of the State of Washington. Any litigation between Otak and Client arising under this Agreement or out of work performed under this Agreement shall occur, if in the state court, in Clark County, and if in the federal courts, in the United States District Court for the District of Washington in Clark County, Washington. Client hereby irrevocably and unconditionally submits to the jurisdiction of the state and federal courts with jurisdiction over Clark County. Unless the Project is in the state of Washington, the terms of this paragraph shall not apply to any lien foreclosure proceedings instituted by Otak in the appropriate court where the Project is located.

   As a condition precedent to arbitration or litigation, any claim arising out of or related to this Agreement shall be subject to mediation before a single mediator as agreed by the parties, or in the absence of agreement, in accordance with the current

Construction Industry Mediation Rules of the American Arbitration Association. The mediator's fee and filing fees shall be shared equally by the parties. The parties shall use their best efforts in good faith to resolve disputes in mediation.

9. If the project is idle more than sixty (60) days, the estimated fees and scope of work will be reassessed. A revised estimate of fees and scope of work will be submitted for approval if such need arises.

10. Subject to the public record laws of the state of Washington, all original documents prepared by Otak in performance of this Agreement, including, but not limited to, original maps, plans, drawings, electronic media and specifications, are the property of Otak, and Otak retains all applicable rights in such documents, including, but not limited to copyrights, unless otherwise agreed in writing. All original and quality reproducible record copies, excluding electronic media unless otherwise agreed to in writing, of such documents shall be provided to Client, at Client's expense, upon request. Any such documents and copies thereof are for use only in connection with this project, and Client shall not use those documents or copies for other projects or for future additions to this project, unless otherwise agreed in writing.

11. The standard of care for all professional services performed or furnished by Otak under this Agreement will be the skill and care used by members of Otak's profession practicing under similar circumstances at the same time and in the same locality. Otak makes no warranties, express or implied, under this Agreement or otherwise, in connection with Otak's services.

12. To the fullest extent permitted by law, the following shall apply to Otak and Client:

    Client shall defend, indemnify and hold harmless Otak and its related companies, and their respective representatives, officers, directors, shareholders, principals, agents, employees and subcontractors from and against all claims including damages, losses, expenses and reasonable attorney fees and costs, arising out of or relating to the following: (a) development of this project where such claims, damages, losses, or expenses are based solely on the negligence or willful misconduct of Client and/or its principals, agents, employees, representatives and subcontractors; (b) Client's use of documents prepared by Otak for projects other than the project which is the subject of this Agreement, without Otak's involvement or written consent; (c) existence of hazardous substances at or adjacent to the project; and (d) any certificate in connection with the project executed by Otak at the request of a governmental entity, lender or other third party, except to the extent claims arising from such certificate are the result of the negligence or intentional misconduct of Otak.

    Otak shall defend, indemnify and hold harmless Client and its respective representatives, officers, directors, shareholders, principals, agents and employees from and against all claims made by third parties including damages, losses, expenses, and reasonable attorney fees and costs arising out of or relating to the development of this project where such claims, damages, losses, or expenses are based solely on the negligence or willful misconduct of Otak, and/or its principals, agents, employees, representatives, or subcontractors in performing its and/or their services as provided in the scope of services per paragraph 1.

    In no event shall Otak be liable for special, indirect or consequential damages, including, but not limited to, loss of use of equipment or facility, lost profits, etc. The limits of liability throughout this Agreement will apply whether the liability of Otak arises under breach of contract or warranty; tort, including negligence; professional negligence; strict liability; statutory liability; or any other cause of action, except for willful misconduct or gross negligence and shall apply to Otak's related companies and its and their officers, directors, shareholders, employees and subcontractors.

    Notwithstanding anything to the contrary herein, no shareholder, principal, member, officer, director, partner, employee or other representative of Otak shall have any personal liability to Client, or any other party arising out of or relating to this Agreement.

13. Otak shall be free from any liability for delay or failure of providing the services contemplated by this Agreement which arise from any acts of God or any actions outside of Otak's control and without it's fault or negligence. Such causes include without limitation: strikes, lockouts, or labor troubles of any kind, accidents, fire, earthquake, civil commotion, war or consequences of war, government acts, restrictions or requisitions, failure of manufacturers or suppliers, suspension of shipping facilities, any act or default of a carrier. In such a situation, if the services contemplated by this Agreement are not provided during the period contracted for, Client shall accept the services and pay for the same when provided so long as a mutually acceptable revision is made to the scope of services and compensation.

14. Due to the potential for modification of information set forth in electronic data transfer, Otak has retained copies of the transmitted data with file name, size, date and time. If the received data is modified, Otak requires the Client and/or Client's authorized recipient to remove all indication of Otak's ownership and/or involvement from such modified data.

    Unless otherwise agreed to in writing, Client and/or Client's authorized recipient shall be responsible for determining the compatibility of Otak's data with Client and/or Client's authorized recipient's software and for the interception and elimination of any computer virus. Otak makes no warranty of data compatibility with Client and/or Client's authorized recipient's software.

    Distribution of the electronic data to others by Client and/or Client's authorized recipient, whether or not electronic data is modified, is prohibited without the express written consent of Otak.

To the fullest extent permitted by law, Otak shall not be liable for any damages, including without limitation, direct, indirect, incidental, or consequential damages to any party resulting from the following: (a) the use of electronic data which is modified by any party other than Otak; (b) either the incompatibility of Client and/or Client's authorized recipient's software with Otak data or the existence of any computer virus which is transmitted with Otak's data; or (c) the unauthorized use of Otak's electronic data.

To the fullest extent permitted by law, Client and Client's authorized recipient agree to defend, indemnify and hold harmless Otak, its related companies and its and their principals, officers, directors, shareholders, agents, employees and subcontractors from and against any claims arising out of the unauthorized use or modification of Otak's electronic data.

All electronically transferred data from Otak will contain Paragraph 14. It is expressly understood and agreed that any use of the electronic data is conditioned upon the acceptance of the terms stated in Paragraph 14. Client and/or Client's authorized recipient agrees to be bound by these terms.

15. Otak shall have no responsibility for, or control over, the safety precautions employed by others in the development or construction of this project, nor shall Otak have responsibility for, or control over, the manner, methods and techniques employed by others in any development or construction relating to this project unless otherwise agreed in writing.
16. To the extent Otak's duties under this Agreement include project site observation and/or visitation, Otak shall visit the site at intervals appropriate to become generally familiar with the quality and progress of the project. Otak shall not be required to make continuous or exhaustive inspections to check the quality or quantity of the work being done on the project, unless otherwise agreed in writing.
17. Any causes of action between the parties to this Agreement arising out of any damages or losses caused by the negligent performance of, or failure to perform under, this Agreement, shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than the date of substantial completion of the project.
18. Otak shall have no fiduciary responsibility to Client. Nothing in this Agreement shall be construed as creating contractual obligations between Otak and any third parties, including, but not limited to, Client's consultants, contractors and clients.
19. The parties hereto each bind themselves, their partners, successors, assigns, and legal representatives of such other party in respect to all terms of this Agreement. Neither party shall assign the contract as a whole without written consent of the other.
20. This Agreement constitutes the entire agreement between the parties and supersedes all prior agreements, written and oral, courses of dealing, or other understandings between the parties. No modification of this Agreement shall be binding unless in writing and signed by both parties. The term "Agreement" as used herein includes this document (entitled "Professional Services Agreement"), and Exhibit A, Scope of Work dated February 20, 2017 attached hereto.
21. Except to the extent of its gross negligence or willful misconduct, Otak has no liability or responsibility for any hazardous material handling, dispensation, mitigation or otherwise.

This Agreement entered into this _____ day of February, 2017.

Otak, Inc.	**City of Camas, Washington**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
	Federal Tax ID No. or SS #: _____

Exhibit A

Larkspur Street Improvements

OTAK Inc.

Scope of Work

February 20 2017

Introduction/Project Understanding

The City of Camas has solicited civil engineering services from Otak and associated subconsultants to provide improvements to NW Larkspur Street between Lake Road and its current terminus at a barricade approximately 1,300 feet north of Lake Road. The proposed roadway will be designed to city arterial standards (or an alternative roadway configuration approved through the city) and match up with the roadway being constructed with new developments to the north.

The City's standard section includes a right- of-way width of 74 feet with an improved asphalt roadway width of 46 feet curb-to-curb. The ultimate cross-section will include 3-lanes with access control via raised medians, a new sidewalk on the west side (maintaining the existing sidewalk on the east side), bicycle lanes, planter strips, and street lighting. An alternatives analysis will be conducted to review alternatives to this section that may reduce right-of-way needs.

There are 11 driveways along this section of NW Larkspur Street. Alternatives to be reviewed will take into consideration direct access for these properties to this new arterial, with the goal of providing as much access as can be safely provided on this new arterial.

The grade of Larkspur Street is very steep as it approaches NW 60th Avenue and the right turn onto NW 60th Avenue can be very challenging due to these steep grades. The scope includes a review of options to improve this intersection by potentially flattening out the slope of NW Larkspur Street as it goes through the intersection with NW 60th Avenue.

Stormwater, water and sewer utilities will be provided to each lot on the west side to allow for future development, and stormwater management will include water quality treatment and conveyance only. Stormwater from the east side of the road will continue to be conveyed to the existing stormwater detention and treatment facility built for the subdivisions on the east side.

It is anticipated that this scope of work goes through completion of the design in February of 2018, with bidding and construction management services to potentially be provided by the design team through a separate contract.

Our design team includes the following:

Firm	Responsibilities
Otak	Project management, Survey, Stormwater, utility coordination and design, roadway alternatives and design, environmental permitting, construction document preparation, public involvement support.
Hart Crowser	Geotechnical Engineering
AAR	Historic and Cultural Resource services
Universal Field Services	Real Property services
Global Transportation Engineering	Signal, Traffic, and lighting
JLA Public Involvement	Public involvement and outreach

Scope of Work

The scope of work for this project is as follows:

Task 1 – Project Management

1.1 Project Management and QA/QC

The Project Team will plan, manage, and execute the tasks described herein in accordance with the schedule, budget, and quality expectations that are established. This project management task includes the following work activities:

- Quality assurance/quality control (QA/QC) plan.
- Communication plan.
- Scope change management procedures
- Decision making protocol.
- Coordinate between tasks and team members. Document meeting decisions and action items, assign activities to team members, and follow up to ensure timely resolution.
- Manage the quality control review of all work activities and project deliverables.

- Preparation and ongoing maintenance of a comprehensive design schedule with individual task milestones and task durations.
- Creation and management of an action item list.

Assumptions:

- Contract is complete by March 1, 2018.
- Up to three schedule updates will be provided.

1.2 Project Meetings

This task includes:

- A project kick-off meeting to introduce the city and the consultant team, and to discuss roles and schedule.
- Project design team meetings at Otak's office or by phone throughout the project duration at appropriate intervals based upon design activities (Scope assumes 12 meetings).
- Project update meetings with the client project manager. Assume bi-weekly meetings through the duration of the project (Scope assumes 24 meetings).
- Up to four (4) workshops with city staff to review designs.

Assumptions:

- Contract is complete by March 1, 2018.

Deliverables:

- Meeting minutes from each meeting.

1.3 Monthly Invoice

This task includes hours to produce a monthly invoice and report that includes details on work done to date for the project. This includes a spreadsheet detailing costs spent to date and costs remaining.

Assumptions:

- Assumes up to 13 months of invoicing for project.

Deliverables:

- Monthly invoice and project update.

Task 2.0 – Surveying and Mapping

This task is to provide right of way and topographic base maps to be utilized in the engineering design of infrastructure improvements. The limits of survey are as follows:

- Field topographic survey on NW Larkspur Street from NW Parker Street to its north terminus. Limits of mapping will be the east right of way line and 100 feet west of the centerline.
- Field topographic survey of the intersection with Lake Road/NW Parker Street, including 100' east and west of NW Larkspur on Lake Road and 100' on Parker Street south of Lake Road.
- Field topographic survey along NW 59th Circle and NW 61st Circle 100' east of the intersection with NW Larkspur Street.
- Field topographic survey along NW 60th Avenue 150' east of the intersection with NW Larkspur Street.

2.1 Topographic Survey and Mapping

This task will include the following:

- Review utility as-built information and contact One-Call and request locations of underground facilities.
- Establish survey control network throughout project site.
- Establish 3 site bench marks in locations outside planned construction.
- Tie the horizontal location of existing utilities which have been marked or can be seen above ground.
- Field topo of the following:
    - Manholes, catch basins and curb inlets.
    - Top and bottom face of curbs and type (curb and gutter vs. vertical curb).
    - Maximum of a 50-foot grid between shots and significant breaks along existing streets.
    - Physical features such as curbs, pavement, walkways, signs, mailboxes, driveways, drainage facilities, striping, and illumination.
    - Face of all structures adjacent to project corridor.
    - Trees over 4-inches in diameter.
    - Striping and signs.
    - Other utilities such as electrical, communication, telephone, gas, water, and related facilities.
- Prepare base maps in AutoCAD 2016 format, at 1"= 20' scale.
- Prepare digital terrain model, and generate contours at 1-foot maximum intervals.
- Field check base mapping.

Assumptions:

- The One Call Notification Center (1-800-553-4344) will be contacted by Otak a minimum of two working days prior to tying utilities.
- The datum for the surveys provided by Otak will be shown in Washington State Plane coordinates, South zone, NAD 83(91) horizontal and Clark County vertical datum, US survey feet units. The Washington State Plane Coordinates will be converted to project datum using appropriate scale factors.

Deliverables:

- AutoCAD electronic files (surface, geometry and DWG).
- Digital terrain model of project area.

2.2 Right of Way and Boundary Research

- Perform thorough research of all surveys, plats, deeds, road establishments, and easements on or abutting the project site.

Deliverables:

- PDF copies of all documents used.

2.3 Right-of-Way Development

- Locate and tie existing monumentation within project corridor to allow for right of way resolution.
- Locate and tie survey monuments outside the project area as necessary to support resolution of the right of way lines.

Deliverables:

- AutoCAD base map of existing right of way lines, existing center lines, side lot lines.

2.4 Right of Way Plan/Acquisition Support/WAC 332-120-030 Conformance

- Prepare a pre-construction record of survey showing right of way resolution and all survey monuments found within project limits.
- Prepare "Application for Permit to Remove or Destroy a Survey Monument" and file same with the WA Department of Natural Resources Public Land Survey Office.
- Prepare 5 temporary construction easements, and 5 right of way acquisition legal descriptions/sketch exhibits.

Assumptions:

- Contractor will install monument boxes if required.

Deliverables:

- Pre-construction Record of Survey.
- Copy of approved "Application for Permit to Remove or Destroy a Survey Monument".
- Legal Descriptions and accompanying sketch exhibits.

Task 3 – Geotechnical Analysis

Hart Crowser will provide geotechnical engineering services to evaluate pavement, retaining wall, and earthwork design and construction considerations. Specifically, Hart Crowser will complete the following scope of work.

- Conduct a reconnaissance of the site to identify geotechnical relevant features, such as fills, seeps, pavement distress, soil/rock outcrops, etc.
- Review readily available subsurface soil and groundwater information, geologic and hazard maps, and other available information provided by the City of Camas (City) (e.g., nearby geotechnical reports).
- Consult with the design team during the preliminary design (up to 30 percent) regarding geotechnical considerations for various design alternatives.
- Complete a subsurface exploration to characterize soil, rock, and groundwater conditions, including:
    - Marking the locations of the proposed explorations and notifying the "One-Call" service for public utility locates.
    - Drilling 1 boring to a depth of 15 feet at the intersection of NW Lake Road and NW Larkspur Street near the location of a potential traffic signal relocation.
    - Drilling up to 3 borings to depths of 15 to 30 feet in areas of proposed retaining walls (The borings will likely be located outside of the existing City right-of-way at the tops of existing slopes on the western side of the roadway).
    - Excavating up to 11 test pits to depths of 5 to 10 feet in areas of proposed roadway widening, excavations, fill placement, and retaining walls (The test pits will be excavated in unpaved portions of the alignment, generally just off the western side of the roadway).
    - Completing up to 6 pavement cores to determine existing asphalt and aggregate base thicknesses (Collect soil subgrade samples to a depth of 3 feet below asphalt grade.);

  - Conducting dynamic cone penetrometer test soundings below the 6 pavement cores to evaluate *in situ* base aggregate and soil subgrade strength.
  - Observing the explorations, log the subsurface conditions, collect representative soil samples, and transport the samples to our laboratory for further visual examination and testing.
  - Restoring boreholes and coreholes with asphalt cold patch. Restore test pit excavations by backfilling with soil spoils and lightly tamping with excavator bucket. Spread straw and grass seed over disturbed areas.

- Implement traffic control measures during the field exploration. Prior to start of the field work, Hart Crowser will submit a traffic control plan to the City for review and approval. Hart Crowser will also obtain an "encroachment permit" for work in the City ROW.
- Conduct laboratory testing on select soil samples. The specific tests conducted will depend on actual conditions encountered; however, we anticipate our testing will include moisture content, particle gradation, and Atterberg limits testing in accordance with appropriate American Society for Testing and Materials standards.
- Evaluate slope stability and geologic hazards per the Camas Municipal Code 16.59 – Geologically Hazardous Areas.
- Evaluate slope seepage and develop recommendations to contain seepage.
- Conduct engineering analyses to evaluate seismic hazards, shallow foundation and retaining wall design parameters, pavement design (new and overlays), signal pole foundation design, and earthwork guidelines.
- Prepare a geotechnical report (draft and final versions) addressing design and construction issues, including:
  - Site and exploration location plans.
  - Description of subsurface conditions.
  - Geologic hazards.
  - Seismic design parameters.
  - Pavement design parameters.
  - Traffic control structure foundation design parameters.
  - Retaining wall alternative discussions and design parameters.
  - Subsurface drainage recommendations.
  - Earthwork recommendations, including trench excavation, fill placement criteria, reuse of native soils for embankment construction, and temporary slope stability; and

  - Other construction considerations.

- Provide geotechnical project management and support services, including coordination of subcontractors and Hart Crowser staff, and consulting with project team members.
- Attend up to five project meetings.

Assumptions:

In preparing our geotechnical scope of work and fee estimate, we have made the following assumptions.

- Washington State prevailing wages are applicable to subcontractors.
- Coordinating right-of-access to private properties will be conducted by others.
- *In situ* infiltration testing is not included or required for this scope of work.
- We will perform our work in general accordance with the standard of care of our profession, which means generally accepted professional practices, in the same or similar localities, related to the nature of the work accomplished, at the time the services are performed.

Deliverables:

- Draft geotechnical report in electronic (PDF) format.
- Final geotechnical report in PDF format and three hard copies.

Task 4 – Cultural and Historic Resources (AAR)

This project is funded by the Washington State Transportation Improvement Board (WSTB) and as such is considered a capital improvement project and will need to comply with Executive Order (EO) 05-05, which requires that the City take into account the effects its project may have on cultural resources. To assist the City in its compliance with EO 05-05, AAR will or may conduct a variety of cultural resource management tasks. This scope of work (SOW) describes the tasks that will or may be required for EO 05-05 compliance.

4.1 Phase 1: Literature/Record Review and Archaeological Survey

At a minimum, compliance with EO 05-05 (and the applicable parts of Title 16 of the Camas Municipal Code [CMC]) will require a review of literature and records related to previous archaeological studies in and near the project area and a field survey. The purpose of the review will be to identify any recorded archaeological resources in the project area and to gather information useful in assessing its potential to contain undocumented cultural resources.

Following that, a surface and subsurface survey of the area to be disturbed by the road widening project will be required to search for prehistoric or historic-era artifacts. The level of effort will be similar to that of an archaeological resource survey as opposed to a predetermination survey (see

CMC 16.31.020 for definitions of the two types of surveys). The survey would include the excavation of shovel test probes. If cultural artifacts are found, they would be analyzed in the field and not collected. Recording the artifacts as a cultural resource would be required.

The Phase 1 project deliverables will include draft and final versions of reports. The report will be in a format acceptable to the WSTB and the Washington State Department of Archaeology and Historic Preservation (DAHP). It will include a description of the results of the Phase 1 tasks and will describe and discuss any cultural resources identified within the project area and include recommendations for the further treatment, as appropriate. It will also include as an appendix, copies of documentation forms for cultural resources found during the survey. The report will each include a project area vicinity map, a site map for any specific area(s) where artifacts are found, and photographs showing the conditions of the project area at the time of the investigation.

Deliverables:

- Draft and final Cultural Resource report.

4.2 Contingency Tasks

Task 4.2 identifies specific deliverables that the city at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 4.2 and the identified deliverables if written (email acceptable) Notice to Proceed (NTP) is issued by the city's Project Manager. The Not to Exceed (NTE) amount for completing this contingency task is only billable if authorized.

Because a prehistoric archaeological site (45CL527) is known to be located on either side of the current alignment of NW Larkspur Street, it is likely that EO 05-05 compliance will not be complete after the Phase 1 study. This section describes the tasks that will or may be required in the event that an archaeological resource is identified in the road expansion project area.

There are basically two outcomes in the event that an archaeological resource is identified during the Phase 1 study. In one, sufficient information is collected during the Phase 1 effort to demonstrate that additional fieldwork would not lead to additional artifact recovery or the acquisition of new information. In such an event, and assuming that the archaeological site is prehistoric (there are different rules for historical sites), following review of AAR's report and concurrence with the recommendations in it (i.e., no additional treatment necessary), the site in the project area can be impacted. However, the site can be impacted only under a permit issued by the DAHP. Also, the DAHP may or will require that an archaeologist monitor project-related earthwork within the site. Also, a report will be required that describes the results of the monitoring. AAR would apply for the permit which would include standalone monitoring and inadvertent discovery plans.

In the second outcome, the Phase 1 study may result in the identification of archaeological site that requires additional treatment. If the site cannot be avoided by project activity, it would be tested to determine if it represents a source of important information about the past. The testing can be done

only under a permit issued by the DAHP. Please note that even after testing, the DAHP may require an archaeological monitor during project-related earthwork at the site. For this reason, in AAR's permit applications we will request that permit cover site testing and monitoring.

Testing would entail formal excavations in units that would measure 50 by 50 centimeters or 1 by 1 meter, or some combination of both. Artifacts recovered during testing project would be collected. They would be processed, analyzed, and prepared for curation. The long term curation of recovered materials would likely occur at the Burke Museum located on the campus of the University of Washington. Testing projects often include specialized analyses such as radiocarbon dating of organic material or geochemical sourcing of obsidian.

Following the fieldwork and analysis of artifacts and any specialized analyses, a testing report would be prepared. The report would include a statement of goals and objectives, historical and prehistoric context statements, a description of field and laboratory methods, data analysis and interpretations, and recommendations. The report would be illustrated with figures and/or photographs and supplemented with tables and appendices as appropriate. The report would describe the results of any testing to be done in advance of the project and of cultural resource monitoring. An updated site documentation form for the site would be included in it.

If after testing, a site is assessed as a significant source of information, further actions may be required for EO 05-05 compliance. These could include additional study of a site, avoidance, or protection in place. Post-testing studies are designed to mitigate impacts to a significant archaeological site through data recovery. As a technique, data recovery is like an intensified testing program in which a sample of a site's important cultural deposits is removed archaeologically. The idea behind this type of mitigation is that through in-depth study, the significant information at a site is preserved in an artifact collection and the records of the excavations and analyses. Other options could include redesigning the road project to avoid the site or protecting the site by capping with clean fill material.

Deliverables:

- DAHP Permit Application.
- Draft and final Cultural Resource testing report.

Task 5 – Preliminary Design

5.1 Roadway Alternatives

This task is for the review of alternative roadway configurations, including roadway widths, bike lanes, and sidewalks and/or a multi-use pathway. The roadway improvements will need to consider a number of issues, including impacts to private properties, tie in with the intersection at Lake Road, and coordination and tie-in with the extension being built by the developments to the north.

Options will take into account TIB requirements, right-of-way needs, and access concerns for driveways along the roadway.

This alternatives analysis review and development will occur in concert with city staff. Bi-weekly meetings will be held to review options and move the alternatives analysis forward.

Review options will include:

- The collector/arterial roadway section included in the TIB grant.
- The alternative roadway section being used by the developments to the north, with either an 8-foot or 10-foot sidewalk on the east side.
- Up to three other configurations that focus on alternatives to controlling and managing access to the eleven properties that directly access NW Larkspur Street. Options to review will include installing an extra lane on the east side and on-site turn-arounds.
- This task also reviews options for revising the intersection with Lake Road. The focus of the analysis will be to accommodate widening of the street at this intersection, mostly through the addition of bike lanes. This analysis will review configurations and restriping that may be necessary to accommodate the changes. One option will consider the addition of a right turn lane.
- Options for addressing the steep transition when turning from NW Larkspur Street to NW 60th Avenue, including one that flattens the grades out through the intersection.
- This task includes up to 5 meetings with city staff to review options and select a preferred alternative.

Assumptions:

- All options will meet city collector/arterial standards and TIB grant obligations.

Deliverables:

- Roadway layout and cross-section options for review and approval by the City.

5.2 Retaining Wall Alternatives

This task includes hours for developing retaining wall alternatives along the west side of NW Larkspur Street. It is anticipated that walls will be required in front of the Ponce property and the north Tupikov property. Walls may also be needed on the east side, north and south of NW 60th Street if the intersection redesign requires them.

Wall alternatives will be selected based upon anticipated cost, right-of-way impacts, and suitability for use based upon the required height. Otak will review these alternatives with the City for approval to move forward to 30% design with the preferred option.

Assumptions:

- Additional ROW needs are to be minimized when reviewing wall options.

Deliverables:

- Three alternative wall types with a typical cross section for each.

5.3 Roadway Illumination Analysis

This task is for the development of the roadway illumination design along Larkspur Street. Included under this task is the roadway lighting analysis for roadway illumination utilizing lighting design software.

The roadway illumination analysis will follow WSDOT minimum lighting standard guidelines and the IESNA Roadway Lighting RP-08-14 guidance. City standard luminaires and light poles will be used in the analysis and design.

The results of the analysis will be summarized in a brief technical memorandum identifying the luminaire being utilized, mounting height, pole spacing, and achieved light levels based on the modeling. The lighting analysis will be provided to the City for review and approval. A final technical memorandum will be developed addressing City comments.

Assumptions:

- The analysis will be conducted using City standard luminaires and light poles for the roadway illumination analysis.
- Alternative lighting options (luminaires and poles other than City Standard) will not be developed under this task.

Deliverables:

- Draft Roadway Illumination Technical Memorandum.
- Final Roadway Illumination Technical Memorandum.

5.4 Traffic Signal Modifications Analysis

Under this task, turn lane requirements, signal phasing and traffic signal modification requirements will be identified for the NW Lake Road/Larkspur Street intersection. These modifications are necessary due to the new Larkspur Street roadway alignment and connection of Larkspur Street to the north with future development.

A review of existing documentation will be conducted to identify turn lane requirements at the NW Lake Road/Larkspur Street intersection. Documentation to be reviewed will include the City's 2012 Traffic Impact Fee Update and any in-process development/transportation studies developed after the 2012 Traffic Impact Fee Update. Based on the currently available information, a Synchro

Analysis for the PM peak period, along with turn lane warrants, left turn lane phasing warrants, and a queuing analysis will be conducted for the year 2035.

Additionally, field reviews will be conducted under this task to identify utility and other conflicts that may be present and affect the relocation or design of new traffic signal equipment.

This task includes a review of the current traffic signal controller and software in use at the intersection and the current state of the fiber optic interconnect system. Coordination with the City on upgrade opportunities to the traffic signal controller and software will be conducted and research on modification needs for the fiber optic interconnect system will be identified.

Based on the review of the available information and coordination with the City, a recommendation on lane geometry, traffic signal phasing, traffic signal controller upgrade option and interconnect modification needs at the intersection will be developed and summarized in a brief technical memorandum.

New mast arm poles will be necessary as part of the traffic signal modifications. Location of soil borings will be identified and coordinated with the geotechnical engineer for determining the appropriate traffic signal mast arm pole foundations.

Assumptions:

- New traffic counts or coordination with RTC is not included nor anticipated as part of this task. All traffic data will come from historical studies.

Deliverables:

- Draft Technical Memorandum.
- Final Technical Memorandum.
- Identification of boring locations for mast arm pole foundations.

5.5 Prepare 30% Plans and Estimate

This task includes hours to develop the 30% plans and estimate in accordance with the City of Camas design and CAD standards. The 30% plans will be delivered by 11x17 PDFs for City review. A list of plan sheets for this deliverable is attached in Appendix A.

The tasks associated with this work include:

- Refine horizontal layout using selected alternative and develop proposed horizontal alignments, including engineering stationing, horizontal curve control points, and horizontal curve data.
- Develop proposed vertical alignments, including engineering stationing, grades, vertical curve control points, and vertical curve data.
- Develop proposed lane lines.

- Develop intersection layout at Lake Road showing coordination with lanes on all four legs.
- Develop revised intersection design at NW 60th Avenue.
- Prepare drawing showing traffic signal improvements. Above ground components only to be shown.
- Prepare drawings showing roadway illumination requirements. Pole location and hardware selection only.
- Prepare drawings showing striping requirements including turn pockets lengths and taper requirements to accommodate anticipated queues.
- Develop 30% Design Plans for submittal to City.
- Meet with City to review 30% Design and discuss comments.

Assumptions:

- The City will provide one set of comments within two weeks of submittal. These comments will be logged and tracked for the 60% submittal.

Deliverables:

- 30% plan sheets as described in Appendix A and a construction estimate with 25% contingency applied to it.

5.6 Quality Review

This task includes hours to perform a QA/QC review prior to the deliverable submittals. This will include reviews of the sub-consultants deliverables as well.

Assumptions:

- Quality review team will spend approximately 6-8 hours reviewing submittal documents for the project.

Deliverables:

- Quality deliverables with minimal comments.

Task 6 – Real Property (UFS)

This task will be conducted by UFS and shall include labor, equipment and materials to acquire up to five properties for the City. R/W activities will confirm to the standards contained in the Uniform Act of 1970 and amendments, the laws of the State of Washington and City Policies and Procedures.

6.1 Preliminary Title Reports

UFS will obtain preliminary title reports for each property acquisition. The consultant will review

each preliminary title report for encumbrances, liens, or defects.

Assumptions:

- 5 property acquisitions.

Deliverables:

- 5 title reports.

6.2 Preliminary Owner Meetings

UFS, along with the City will meet with each of the impacted property owners to explain the right of way process and present the preliminary design of the project.

Assumptions:

- 5 property owner meetings.

6.3 Right of Way Cost Estimate

UFS will complete a right of way cost estimate.

Assumptions:

- 5 property acquisitions.

Deliverables:

- One (1) True Cost Estimate.

6.4 Appraisal

UFS will use Washington Department of Transportation approved appraiser. The consultant shall provide one real estate appraisal for each ownership.

Appraiser shall provide written notice to owners of a planned appraisal inspection and shall provide the property owner or designated representative, if any, an invitation to accompany the appraiser on any inspection of the property for appraisal purposes.

Appraisal shall conform to the Uniform Standards of Professional Appraisal Practice (USPAP).

Assumptions:

- 5 appraisals.

Deliverables:

- 5 appraisals.

6.5 Acquisition

UFS will conduct negotiations, on behalf of the City. This will include researching the ownership status of the parcel and any existing conditions impacting the parcel. UFS will provide potential courses of action for obtaining clear title for the City.

UFS will compile and/or prepare all essential documents to be submitted to owners using City approved documents. These include, but are not limited to project information letters, acquisition and relocation brochures, offer-benefit letters, acquisition summary statements, copy of the valuation, map of acquisition, and instruments of conveyance. Universal shall make all offers in person or by certified mail.

UFS shall provide all property owners with a complete copy of the valuation that just compensation is based upon at the initiation of negotiations.

UFS will prepare and maintain written diaries of negotiator contacts with property owners and tenants to document:

- Efforts to achieve amicable settlements.
- Owners' suggestions for changes in plans.
- Responses to owners' counterproposals, etc.

UFS will make every reasonable effort to acquire the ROW expeditiously by negotiation. Property owners must be given reasonable opportunity to consider the offer and present material the owner believes is relevant to determining the value of the property.

Assumptions:

- City will pay closing and recording costs.

Deliverables:

- 5 completed negotiation packet with document for recording.

6.6 Relocation (Personal Property)(Contingency)

Task 6.6 identifies specific deliverables that the city at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 6.6 and the identified deliverables if written (email acceptable) Notice to Proceed (NTP) is issued by the city's Project Manager. The Not to Exceed (NTE) amount for completing this contingency task is only billable if authorized.

Upon approval of the City UFS will conduct relocation activities, on behalf of the City.

Relocation activities shall confirm to the standards contained in the Uniform Act of 1970 and amendments, the laws of the State of Washington and City Policies and Procedures.

Assumptions:

- One personal property relocation.

Deliverables:

- 1 completed relocation file.

Task 7 – Stormwater Analysis

7.1 Project Site Hydrologic Analysis/ Stormwater Facility Sizing

Hydrologic models will be developed for estimating flow rates for each runoff treatment and LID facility proposed for the project site. All facilities, including on-site stormwater management BMPs and LID if applicable, will be designed to meet the requirements of the Camas Stormwater Design Standards, the Stormwater Management Manual for Western Washington (SMMWW) and the Highway Runoff Manual where applicable. Specifically, the tasks in this section include:

- Evaluate existing drainage conditions, structures, and facilities.
- Delineate catchment and Threshold Discharge Area (TDA) boundaries for each facility.
- Develop existing conditions hydrologic models for each TDA using the WWHM or an equivalent hydrology model.
- Develop proposed conditions models for each TDA.
- Determine design flow rates for sizing treatment facilities.
- Size each treatment facility and determine the approximate land area requirements.

Assumptions:

- This site drains to a flow control exempt water body and flow control facilities are not required.
- Up to three treatment facilities will be located within the existing road right-of-way or new right-of-way associated with the street improvements.
- LID and water quality facilities will be designed per the City of Camas Engineering Design Standards Manual, Ecology's 2014 Stormwater Management Manual for Western Washington, and the Highway Runoff Manual where applicable.
- Runoff treatment facilities will be designed to treat for phosphorus.
- Documentation of the facility designs will be provided in the Stormwater Report.
- No more than two revisions to facilities will be required as part of project development.
- Runoff from the existing roadway will continue to drain to the existing detention facility.

7.2 Corridor Stormwater Conveyance Analysis

Stormwater collection and conveyance systems will be designed to meet the requirements of the City of Camas Stormwater Designs Standards Manual. The scope of work in this task includes:

- Delineation basins tributary to each collection system.
- Calculation of flow rates for the 10-year, 25-year, and 100-year storm at each collection point using a single event hydrologic model or the Rational method.
- Size conveyance systems in accordance with the Camas Stormwater Design Standards Manual.
- Design of inlets and lateral connections consistent with requirements of the Camas Stormwater Design Standards Manual.

Assumptions:

- Conveyance systems will need to convey the 25-year design storm in an open channel flow regime. The 100-year storm can be exceed the gravity flow capacity of the pipe system but the hydraulic grade line (HGL) will be checked to verify that it does not exceed the top of manholes or grate elevations for catch basins.
- Stormwater conveyance pipes will be stubbed to the lower end of each property on the west side of the street.

7.3 Stormwater Report

A draft and final stormwater report will be prepared describing the analysis in Tasks 7.1 to 7.2. The report will include the following:

- An introduction describing the contents and summary of the analyses.
- Separate sections with narratives for each analysis completed.
- Tables that summarize the data and the results.
- Exhibits depicting conveyance and treatment facility layout.
- Identification of additional research required.
- Recommendations.
- Supporting calculations.

The draft report will be submitted to the City for review. Revisions will be made, and a final report will be delivered to the City.

Assumptions:

- Only one review of the report will be required.
- Report sections are anticipated to include pavement drainage, on-site conveyance, and runoff treatment facility sizing.

- Flow control is not required.

Deliverables:

- An electronic copy and two hard copies will be provided to the City for both the draft and final copies.

Task 8 – Utility Coordination

This Task includes work to coordinate project impacts to private utilities.

8.1 Identify Utility conflicts/relocations

This task includes hours for identifying existing utility conflicts and developing a relocation plan if required. Coordination with the local utilities is included in the following task. Potholing is anticipated to determine utility conflicts and will be added as a third party expense.

Assumptions:

- Otak will provide a subcontractor to pothole utilities at select locations.
- Issues regarding conflicts will be identified and a plan will be developed to resolve them.
- No more than five potholes will be needed.

Deliverables:

- One pothole plan will be developed showing requested pothole locations, based on potential utility conflict areas.
- The pothole data will be compiled, and a composite plan will be prepared and distributed to utilities and to the pothole vendor.

8.2 Utility Impact Coordination

This task is to coordinate with utility companies as follows:

- Conceptual Utility Coordination Meeting - Conduct one meeting with utilities to discuss 60% Plans and identify utility conflicts to be resolved. Prepare and distribute meeting notes.
- Deliver 90% plans to each utility and contact them to review questions and coordinate potential proposed improvements to utilities on NW Larkspur Street.
- Individual Coordination – Resolve conflicts individually with the utility companies that cannot be resolved at the meeting. Provide potential conflict information to franchise utilities, public utilities, and private property owners, and coordinate for them to remove, relocate, or reconnect their facilities.
- Coordinate with new utilities installed to the north that will connect or run through NW Larkspur Street.

9 – Permits

9.1 SEPA Checklist

This task includes hours to prepare the SEPA checklist for the project. The checklist will be submitted to the City for review and they will forward to appropriate authority for approval. This task includes the following elements:

- Background research of available environmental information
- Compile project impact data and existing conditions environmental data associated with proposed project
- Complete a SEPA checklist form and figure set following City of Camas standards

Assumptions:

- City will lead the review effort and provide consolidated comments.
- Wetlands are not present within the project limits.

Deliverables:

- Draft and Final SEPA checklist.

9.2 Stormwater Pollution Prevention Plan

The NW Larkspur Street project site will likely disturb more than 1 acre of land. Per the Department of Ecology and the City of Camas, a Stormwater Pollution Prevention Plan (SWPPP) will be required. This task includes hours to prepare and submit the Notice of Intent (NOI) to the Department of Ecology in order to obtain the General Construction Stormwater Permit. It also include hours to develop the Stormwater Pollution Prevention Plan (SWPPP) for the project prior to construction. This task includes the following:

- A narrative that documents and justifies the pollution prevention decisions made for the project.
- Seasonal work limitations.
- How each of the 13 elements of ESC as listed in the SMMWW will be met.
- Calculations supporting the design of sediment traps, ponds, or other measures if applicable.

Assumptions:

- One review of the SWPPP will be required.

Deliverables:

- Draft and Final SWPPP
- Paper copy of SWPPP submitted to Contractor at Pre-Construction Conference

9.3 Wetland Review

An initial field review has determined that wetlands are not present within the project site. This task is to perform a site visit to confirm and document these initial findings. This task includes:

- Collecting and reviewing background information, including soil maps, topographic maps, National Wetland Inventory maps, recent and historic aerial photos, and pre-existing wetland assessments or delineations conducted within the area (if obtainable).
- Site visit to review and determine the presence of wetlands within the project site. Field work will be performed in accordance with the criteria and methods described in the 2010 Regional Supplement to the US Army Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (the supplements) and the 1987 US Army Corps of Engineers Wetlands Delineation Manual (1987 Manual).
- Preparation of a site-specific wetland delineation report summarizing the findings of the field investigations. Compile data collected in the field onto wetland data sheets and summarize the results in report form.

Assumptions:

- No wetlands are present on the site.
- The delineation fieldwork will be performed using the Corps routine wetland determination method.

Deliverables:

- Preparation of the draft and final memorandum documenting the field work and findings.

Task 10 – Construction Documents

The purpose of this task is to provide engineering design and production support for developing construction plans, specifications, and cost estimates to an increasing level of completion and in accordance with the City of Camas Design Standards. Preliminary and Final (60% to Bid Plans) will correspond with a submittal to, and review by the City. The final product of this phase will be Construction Plans, Specifications and Estimates (PS&E) ready for bid. This work element includes the following tasks:

- Develop plans through the Final Bid Plan Phase.
- Assemble an outline list of anticipated Special Provisions at the 60% design development stage. Assemble Special Provisions at the 90% design development stage, and update at the 100% stage.
- Assemble or update quantity summaries and unit bid costs for unique items at each stage of design development.

- Prepare Design Deviation requests for design elements that do not meet the required design parameters listed in the City of Camas Design Standards. Design Deviations will be prepared and submitted at the 60% Design Stage. One (1) Design Deviation request package is included in this scope of work.
- Prepare cost estimates at each state. The 60% cost estimate will have a 20 percent contingency, the 90 percent will have a 10 percent contingency, and the final plans will not have a contingency.
- Coordinate design elements with TIB staff and ensure the design meets the requirements in the TIB grant.
- Make copies of and submit the plans and design documents (plans, contract provisions, cost estimates, design modifications) to the City for review.
- Attend review meetings at 60%, 90%, and 100% design development stage.

10.1 60% PS&E

The purpose of this work element is to advance the development of the plans and estimate from the 30% Design to the 60% stage of design development. This task includes development of preliminary Design Plans, Design Deviations, preparing an outline list of special provisions, and development of a cost estimate for the project. The design at this stage will be developed to a level where real property services work can begin. This work element includes the following tasks:

- Update roadway layout based on comments on 30% design
- Finalize locations for proposed retaining walls.
- Develop finished grade templates to model the proposed street section.
- Cut cross-sections through the surface model of existing ground.
- Establish catch points and retaining wall locations to establish project footprint and extent of right-of-way impacts.
- Calculate earthwork quantities using comparison of proposed surface model to the existing ground.
- Develop additional plan sheets as indicated in schedule of plan sheets (see Appendix A) to be included with 60% design.
- Update signing and striping plans.
- Update roadway illumination plans to include conduit routing, junction boxes, wiring, circuits, service panel schematics and light pole detail sheets.

- Update traffic signal modification plans to include conduit routing, junction boxes, wiring, mast arm pole dimensions, traffic signal detail sheets and fiber optic interconnect plan sheets with splice diagrams
- Develop construction quantities for project elements within the limits of the intersection. Otak will maintain a record of quantity calculations and unit cost development to be updated at each subsequent stage of project development.
- Develop Design Deviation request(s) for elements that do not meet the design level indicated in the City of Camas Design Standards.
- Prepare a list of anticipated project special provisions for unique elements within the project limits that are not covered by the Standard Specifications or General Special Provisions. The list will include a short description of the anticipated measurement and payment methods for the covered bid item.
- Submit 60% plans, engineer's estimate, outline special provisions, and cross section plots for review by the city.
- Attend 60% Plan review meeting with City.

Assumptions:

- The City will provide consolidated set of review comments within two weeks of receiving submittal.
- GTEng will coordinate with the local electric utility regarding power source locations for the proposed roadway illumination and traffic signal modifications.
- Signing and striping will be designed to meet City of Camas, WSDOT, and the Manual on Uniform Traffic Control Device.

Deliverables:

- 60% plans with comment log from 30% review; 90% construction estimate and specifications.

10.2 90% PS&E

This task includes hours to address the 60% review comments provided by the City and to develop the 90% plans, specifications and estimate for the project. It will include a comment log that tracks the comments received from the City during the 60% review. The plan sheets will follow the sheet designation listed in Appendix A and be delivered on 11x17 PDFs.

Assumptions:

- The City will provide consolidated set of review comments within two weeks of receiving submittal.

Deliverables:

- 90% plans with comment log from 30% review; 90% construction estimate and specifications.

10.3 100% PS&E

This task includes hours to respond to the 90% review comments and develop the 100% plans, specs and estimate for the project. This will include revising Section 1 of the contract documents based on the standard City front end documents that will be provided by the City. The review comments will be addressed and tracked on a comment log that will be submitted with the final construction documents. The plans and specifications will be stamped and the plans will be provided in both 11x17 PDF and full size hard copies for the City (3 sets).

Assumptions:

- City will be responsible for posting the documents for advertisement.

Deliverables:

- 11x17 PDF Bid Documents and stamped plan sheets for advertisement, and 3 sets of full size stamped drawings.

10.5 Quality Review

This task includes hours to perform QA/QC reviews prior to the 60%, 90% and 100% deliverable submittals. This will include reviews of the sub-consultants deliverables as well.

Task 11 – Public Involvement (JLA)

JLA will work collaboratively with Otak and City staff to develop, coordinate and deliver a public involvement program. The program could include the following types of engagement methods:

11.1Project Mailings:

JLA will coordinate and distribute two project mailings prior to the public open houses to notify area residents about the proposed project and invite them to participate.

Deliverables:

- Up to 2 project mailings to area residents.

11.2 Open houses and Documentation:

JLA will create content for up to two press releases to be distributed by the City prior to each of the public open houses. JLA will schedule, coordinate, attend and document two Open Houses. The purpose of these meetings will be to:

- Open House #1: Introduce the project, present the timeline, share possible design alternatives and collect feedback from the public.
- Open House #2: Present the preferred alternative and share information about the upcoming construction phase.

Deliverables:

- Sign in sheets, comment forms and other materials for 2 open houses.
- Summary report following each open house.
- Content for up to 2 press releases to be distributed by the City.

11.3 Public Involvement Support

This task will be performed by Otak and includes hours to prepare up to four exhibits/displays and to attend a planning meeting for two open houses, along with hours for up to two people to attend and support two open house events.

Deliverables:

- Up to four 22"x34" display boards for each open house.

APPENDIX A

Plan Sheet List

Plan Sheet Description	Sheet Count	30%	60%	90%/100%
Cover Sheet & Vicinity Map	1	X	X	X
General Notes & Legend	1	X	X	X
Typical Road Sections	1	X	X	X
Erosion Control Plans & Details	4			X
Roadway & Utility Details	3			X
Stormwater Facility & Details	2			X
Roadway and Utility Plan & Profile	8	X (Plan only)	X	X
Intersection Plans	2			X
Retaining wall plans, profiles and details	6		X	X
Roadway Illumination Plans and Details	4	X (Plan only)	X	X
Wiring Schematic	1			X
Traffic Signal Modifications				
Modification Plan	1	X	X	X
Wiring Schematic	1		X	X
Cabinet Wire Terminations	1		X	X
Controller Terminations	1		X	X
Traffic Signal Details	2		X	X
Traffic Signal Interconnect Plan	1		X	X
Interconnect Splice Diagrams	1		X	X
Traffic Signal Interconnect Details	1			X
Signing & Striping Plans				
Signing and Striping Plans	2	X	X	X
Sign Removal/Installation Tables	1		X	X
City Standard Signing Details	12			X
Planting and Landscape Plans	6		**X**	X
TOTAL	**63**			

City of Camas - Larkspur Street Improvements
Fee Estimate - February 2017
Summary of Otak, Inc. and all subconsultants
Otak Project # 18218

Task	*Description*	Otak	HartCrowser	Global	JLA	AAR	UFS	*Total Hours*	*Total Budget by Task*
1	**Project Management**								
1.1	Project Management and QA/QC	120	15	18				**153**	**$21,082**
1.2	Project Meetings	136						**136**	**$20,440**
1.3	Montly Invoice	30	11					**41**	**$5,734**
2	**Survey and Mapping**								
2.1	Topographic Survey and Mapping	184						**184**	**$15,420**
2.2	Right-of-way and Boundary Research	6						**6**	**$870**
2.3	Righ of Way Development	44						**44**	**$4,620**
2.4	Right of Way Plan/Acquisition Support/WAC Conformance	60						**60**	**$6,180**
3	**Geotechnical Analysis**								
3.1	Perform Field Exploration		51					**51**	**$6,387**
3.2	Testing and Analysis		31					**31**	**$3,870**
3.3	Prepare Geotechnical Report		39					**39**	**$4,925**
4	**Cultural and Historic Resources**								
4.1	Phase 1: Review and Survey					160		**160**	**$11,678**
4.2	Phase 2: Contingency Tasks					762		**762**	**$47,754**
5	**Preliminary Design**								
5.1	Roadway Alternatives	144						**144**	**$16,784**
5.2	Retaining Wall Alternatives	72						**72**	**$7,880**
5.3	Roadway Illumination Analysis			20				**20**	**$2,600**
5.4	Traffic Signal Modification Analysis			46				**46**	**$5,980**
5.5	Prepare 30% Plans and Estimate	182		74				**256**	**$28,338**
5.6	Quality Reviews	16		6				**22**	**$3,568**
6	**Real Property**								
6.1	Preliminary Title Reports						17	**17**	**$1,389**
6.2	Preliminary Owner Meetings						17	**17**	**$1,389**
6.3	Right of Way Cost Estimate						14	**14**	**$1,253**
6.4	Appraisal						20	**20**	**$1,790**
6.5	Acquisition						206	**206**	**$14,635**
6.6	Temporary Construction Permit						39	**39**	**$2,625**
6.7	Relocation (Contingency)						58	**58**	**$4,181**
7	**Stormwater Analysis**								
7.1	Hydrology and Facility Sizing	48						**48**	**$4,224**
7.2	Corridor Stormwater Analysis	10						**10**	**$900**
7.3	Stormwater Report	44						**44**	**$3,672**
8	**Utility Coordination**								
8.1	Identify Utility Conflicts/relocations	12						**12**	**$1,396**
8.2	Utility Impact Coordination	20						**20**	**$2,156**
9	**Permits**								
9.1	SEPA Checklist	60						**60**	**$6,720**
9.2	Stormwater Pollution Prevention Plan	40						**40**	**$3,600**
9.3	Wetland Review	24						**24**	**$2,688**
10	**Construction Documents**								
10.1	60% PS&E	378		74				**452**	**$47,544**
10.2	90% PS&E	438		74				**512**	**$53,700**
10.3	100% PS&E	144		28				**172**	**$18,054**
10.4	Quality Reviews	44		10				**54**	**$7,936**
11	**Public Involvement**								
11.1	Project Mailings				42			**42**	**$4,142**
11.2	Open Houses and Documentation	8			86			**94**	**$10,241**
11.3	Public Involvement Support	46						**46**	**$4,346**
	Total Hours	**2310**	**147**	**350**	**128**	**922**	**371**	**4228**	
	Total Labor Cost	$249,132	$20,358	$43,540	$12,967	$59,432	$27,262		***$412,690***
	Direct Expenses		$14,942		$2,660	$4,550	$27,984		***$50,136***
	Subconsultant Administration	$10,685							***$10,685***
	Project Total	$259,817	$35,300	$43,540	$15,627	$63,982	$55,246		**$473,511**