

183983

AMENDMENT NO. 2

CONTRACT NO. 38100

Design Services for

EAST LENTS FLOODPLAIN RESTORATION PROJECT

This Contract was made and entered into on the 30th day of June, 2008, by and between Otak, Inc., hereinafter called Contractor, and the City of Portland, a municipal corporation of the State of Oregon, by and through its duly authorized representatives, hereinafter called City, and is being amended herein.

1. This contract is hereby extended through December 31, 2014.
2. Additional compensation is necessary and shall not exceed \$1,247,464. The new not-to-exceed contract amount is \$2,117,070.
3. Exhibit A to the contract is revised as follows:

ATTACHMENTS

The following are a part of this amendment, and are attached.

- Attachment A2 - Revised Design Schedule
- Attachment B2 - Amendment Budget Increase Details
- Attachment C2 - Contract Fee Summary by Task
- Attachment D2 - Contract Fee Summary by Subtask

PURPOSE

The Phase 1 portion of this project is to create flood storage on City-owned property, as well as grading and excavation along Johnson Creek within the regulatory floodway. This results in an increase to the 100-year water surface elevation of Johnson Creek in this area. Improved understanding of flood hydraulics and better topographic data obtained during design has resulted in a better representation of the 100-year flood limits in East Lents. These project elements require the City to work with FEMA on a Letter of Map Revision (LOMR) to revise the flood insurance rate maps for the studied reach of Johnson Creek. The LOMR process includes a Conditional Letter of Map Revision (CLOMR) be submitted with each Phase of Construction.

The East Lents Floodplain Restoration Project is prepared to construct Phase 1. Remaining property acquisition, residential site deconstruction, utility demolition, as well as site clearing and tree salvage will take place during 2010. Major earthwork construction and revegetation is scheduled for 2011. The 2011 construction bid documents need to be updated to include; rough grading for the new road connection between 112th and 108th and to reflect decisions about disposal of contaminated soil media.

The Phase 2 project is scheduled for 2012 and will remove remaining infrastructure in the project limits (roads, bridges, utilities, stream bank armoring), construct additional stream and floodplain restoration measures, provide new roadway access and relocated utility connections to residences south of the project, and construct additional pedestrian amenities required of the project.

The Contractor will assist the City with engineering analysis and preparation of LOMR Applications, and provide design services for continuation of floodplain restoration work in the project area. This requires the scope of work and budgets be amended to cover the additional effort required to complete this project.

UNDERSTANDING

- The City would like to advertise in December of 2010 to construct Phase 1 in 2011, including rough grading of the new road between 112th and 108th.
- The 2011 construction will require a 404 permit for wetland impacts associated with the new road and stormwater facilities. The impacts will be less than 0.5 acres and can be permitted using a Nationwide Permit.
- Mitigation for the anticipated wetland impacts will be constructed within the project limits near SE 110th.
- Corps and DSL Permits are desirable prior to advertisement for construction.
- Permits previously obtained for Phase 1 do not need to be amended or redone due to the discovery of contaminated soils on the project site.
- City permits and Erosion Control permit modifications can be obtained prior to construction in 2011.
- Corps, DSL, DEQ, and City permits for 2012 construction need to be received prior to advertisement for construction.
- Contractor is responsible for the following Landscape Plans:
 - 1) Plantings integral to design of bank stabilization measures.
 - 2) Plantings for proposed water quality treatment facilities that are necessary to function correctly for water quality treatment,
 - 3) Seeding of wetland enhancement/restoration areas, but no plantings or irrigation.
 - 4) Seeding of all disturbed areas for temporary site stabilization until the City's Revegetation Program team installs final plantings,
 - 5) Minimum roadside plantings that accompany sidewalk elements of the project.
- The City is responsible for all other planting plans and for establishment irrigation
- The City will return design review comments within the time allotted in contract amendment Attachment A2.

FINAL SCHEDULE REQUIREMENTS OF WORK

The final design schedule requirements shown on page 2 of Contract Exhibit A are amended as follows:

- Submit final environmental permit applications for 2012 Construction **no later than July 1st, 2011.**
- Submit final Plans, Specifications, and Engineer's Estimate for 2012 Construction **no later than November 15th, 2011.**

Attachment A2 to this amendment is a preliminary design schedule that reflects construction for Phase 2 of this project in 2012.

SCOPE AND BUDGET

Attachment B2 contains two spreadsheets that provide a breakdown of how the amended fee estimate for Otak and its subcontractors was calculated.

Attachment C2 is a summary spreadsheet that includes fee estimate task cost breakdowns; for the original contract, the amendment increases, and the resulting amended contract.

Attachment D2 includes a Fee Schedule for each of the new subconsultants added to the project team.

CONTRACTORS PERSONNEL

Contractor's personnel assignments are amended as follows:

Project Personnel	Firm	Capacity
Russ Gaston, PE	Otak	Principal-in-Charge
Kevin Timmins, PE	Otak	Project Manager (all tasks), Engineering Design
Tim Kraft, PE	Otak	Senior Reviewer, QC Manager
Rose Horton, PE	Otak	Environmental Design
Gary Wolff, PE, D.WRE	Otak	Hydraulic Engineering, Sediment Transport
John Van Staveren, PWS	Pacific Habitat Services	Wetland Scientist, Environmental Permits (lead)
Gregg Lomnický, PhD	Pacific Habitat Services	Fishery Biologist, Habitat Design
Stuart Albright, PE	Ash Creek	Geotechnical Engineering
Amanda Owings, PE	Otak	Subconsultant Coordination, Civil Engineering
Melissa Moncada, PE	Otak	Structures, Retaining Walls
Flaviano Reyes	Reyes Engineering	Roadway Lighting
Kevin Perry	Nevue Ngan	Landscape Architecture
Ben Ngan	Nevue Ngan	Landscape Architecture
Jack Carlson, PLS	Otak	Survey
Greg Thiel, PE	NW Engineers	Civil Engineering
Matt Clemens	NW Engineers	Engineering Designer

In addition to Ash Creek, this amendment adds the following M/W/ESB firms to the contract:

- o NW Engineers – Civil engineers providing design of roads, sidewalks, water line, and coordination with private utilities to identify necessary coordination with others on the plans. NW Engineers will produce plans, specifications, and cost estimates for project elements they design.

- o Nevue Ngan Associates – Landscape architects providing conceptual design of stormwater management facilities and wetland mitigation area, along with preparation of planting plans, specifications, and cost estimates.
- o Reyes Engineering – Roadway lighting analysis, design, and preparation of electrical plans, specifications, and estimates.

The Scope of Work is amended as follows:

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1. Amend the scope of work for Task 1.0 PROJECT MANAGEMENT as shown, and increase the original budget from \$108,702 to \$300,378, a \$191,676 increase:

Add to this Subtask, as shown:

1.1 Project Initiation

To perform this task, Contractor will:

- Work with Project Manager and other stakeholders at the City to define and create an amended scope of work to prepare CLOMR/LOMR Applications and for design of the Phase 2 project elements.
- Create a Project schedule for Phase 2 using Microsoft Project software.
- Create a Draft Work Plan for Phase 2
- Incorporate comments into a Final Work Plan for Phase 2
- Submit the Final Work Plan for Phase 2 to the City

Revise this Subtask, as shown:

1.3 Meetings and Coordination

- Hold ~~thirty-six (36)~~ seventy-two (72) Bi-weekly Design Team meetings at Otak. Each meeting will last 1 hour. City staff will be invited to attend. A meeting summary with action items will be distributed after each meeting in the form of an email.
- Attend ~~eighteen (18)~~ up to forty-five (45) Monthly City Stakeholder Meetings at BES. Each meeting is assumed to last two (2) hours. BES will organize meeting and provide meeting minutes or summary.
- Attend ~~four (4)~~ up to ten (10) two hour coordination meetings at BES by project manager, permitting lead, hydraulic lead, and engineering designer. The date and time are to be determined by the City Project Manager.

Revise the Assumptions:

1.5 Assumptions:

- ~~Project design duration is 18 months~~
- Tracking and Reporting in Task 1.2, and City Stakeholder Meetings and Coordination in Task 1.3 are based upon a duration of 54 months (July 2008 – December 2012)
- Bi-weekly Design Team Meetings in Task 1.3 are based upon project design duration of 36 months for Phase 1 and Phase 2.

Revise the Deliverables:

1.6 Deliverables:

- Draft Work Plan for Phase 2 (in Microsoft Word)

- Final Work Plan for Phase 2 four (4) hard copies, Microsoft Word file and one (1) PDF file)
- Ten (10) ~~Four~~ project coordination meetings

2. Amend the scope of work for Task 2.0 PUBLIC INVOLVEMENT as shown, and increase the original budget from \$15,525 to \$36,925, a \$21,400 increase:

Revise this Subtask, as shown:

2.2 Public Stakeholder Meetings

- Attend ~~two (2)~~ up to five (5) two-hour Public Stakeholder Meetings by Contractor Project Manager and up to two key team members. 3 hours per meeting (1 hour travel, 2 hour meetings).
- Review and/or prepare materials requested by BES for the Stakeholder meetings not to exceed ~~46~~ forty (40) hours total (average 8 hours per meeting).

Add this Subtask, as shown:

2.2.1 Redevelopment Study

To perform this task, Contractor will:

- Research Portland Zoning Code allowances for redevelopment of properties at south end of SE 110th and SE 108th.
- Research Portland Maps zoning and utility information for the same properties.
- Prepare Basemap using aerial photography and available site data in GIS.
- Prepare a color map(s) illustrating potential redevelopment scheme(s) for submittal to BES.
- Prepare a planning level construction cost estimate for the redevelopment site work, including grading, road construction, and utility extensions.
- Prepare planning level estimate of soft costs, including application fees, consultant fees to prepare land division application, and consultant fees to prepare construction plans.
- Prepare brief description of the City of Portland processes and timeframes for those processes.
- Prepare a brief memo describing the redevelopment opportunities and constraints, issues for redevelopment, and summary of costs and schedule.
- Adjust site design, cost estimates, and memorandum based upon input and feedback from City staff involved in property negotiations. Estimate five (5) iterations, not to exceed the budget allocated for this sub-task.

Revise the Assumptions:

2.3 Assumptions:

- ~~Project design duration is 18 months~~
- Six (6) Public Open House Meetings ~~(6)~~ are anticipated to occur at:

PHASE 1	100% Design, Post-Construction
PHASE 2	30% Design, 100% Design, Post-Construction
One as needed.	

Revise the Deliverables:

2.4 Deliverables:

- Attendance at ~~two~~ five (5) Public Stakeholder meetings

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3. Amend the scope of work for Task 3.0 ENGINEERING AND DESIGN SUPPORT as shown, and increase the original budget from \$238,902 to \$363,606, a \$124,704 increase:

Add this Subtask, as shown:

3.1.5 – PHASE 2 Geotechnical Investigations

The purpose of this task will be to provide supplemental geotechnical recommendations for the designs of future phases of the project. These include the potential for new or relocated roadways, culvert or small bridge structures, infiltration rates for stormwater facility design, and general site grading.

To perform this task, Ash Creek Associates will:

- Attend up to six (6) Design Team meetings at Otak.
- Complete a subsurface exploration program consisting of back-hoe test pits and drilled borings.
 - Test pit explorations would be advanced to a depth of up to 12 feet below the ground surface at practical equipment refusal or beyond the excavation of cut areas.
 - Excavation would be halted at shallower depths if effective digging refusal on gravels, boulders or near surface bedrock occurs.
 - Three days of test pits is assumed. One day would be completed within areas proposed for new roadway or structure construction. The remaining two days would be completed in areas where infiltration testing for stormwater disposal is anticipated.
 - Where necessary, the test pit explorations will be supplanted with drilled borings.
- Prepare a Draft Geotechnical Supplement Report. The report will include a description of native and fill soils present on the site and their potential impacts on the proposed project. This report will be prepared as an addendum to the original geotechnical report. The recommendations contained in the report will include:
 - Site preparation including stripping depths and over excavation recommendations;
 - Wet weather and dry weather grading including an evaluation of the suitability of the native soils for use as fills and for stream bed material;
 - Slope stability recommendations;
 - Recommendations for stormwater disposal including infiltration rates;
 - Subgrade preparation recommendations;
 - Erosion protection and control recommendations;
 - Recommendations on approaches to dewatering where necessary; and
 - Recommendations for foundations for new structures (e.g. – retaining walls).
- Prepare a Final Geotechnical Supplement Report that incorporates response to review comments provided by Otak and City.

3.1.6 – Deliverables

- Meeting Attendance at six (6) Design Team meetings at Otak.

- Draft Geotechnical Supplement Report
- Final Geotechnical Supplement Report

Add scope to this Subtask, as shown:

3.8 No-Rise analysis

- Modify “Existing Conditions” and “Proposed Concept” HEC-RAS models created under Task 3.4 to simulate 100-year flood conditions.
- Use Modified models to evaluate changes in 100-year flood conditions.
- Use the modified model as the basis for analysis required to complete CLOMR/LOMR Process in Task 13.

Add scope to this Subtask, as shown:

3.9 – Hydraulic Report

- Update hydraulic report for Phase 1 to reflect Final design and publish Final Draft for review and comment
- Produce Final Phase 1 Hydraulics Report to incorporate review comments
- Produce Draft Phase 2 Hydraulics Report to reflect 60 percent design and submit to City for Review and comment
- Produce Final Phase 2 Hydraulic Report that incorporates review comments on Draft, as well as changes that reflect the 90 percent design and submit to City for review and comment.
- Produce Final Phase 2 Hydraulic Report to incorporate review comments.

Add to the Deliverables, as shown:

3.9.1 Deliverables:

- Final Phase 1 Hydraulic Report
- Draft Phase 2 Hydraulic Report
- Final Phase 2 Hydraulic Report

Revise this Subtask, as shown:

3.12 – Utility Coordination

- Schedule and attend up to ~~three~~ (3) ten (10), 2-hour meetings to be held at the City of Portland for the purpose of Coordination with Private Utility Companies or the Water Bureau.
- Provide Water Bureau with information they need to design water line decommissioning relocation.

Revise the Assumptions:

3.12.1 Assumptions:

- Contractor will design new water main connection between SE 112th and SE 108th.
- Contractor will coordinate with Portland Water Bureau (PWB) on requirements for new water main.
- All other water system modifications will be designed or specified by PWB.

- City will not be paying for utility vaults and conduit and will not be requiring private utilities to locate underground
- Design of new or modified private utility lines will be the responsibility of the utility owner.
- Contractor will coordinate with utilities on location of new utilities between SE 112th and SE 108th.
- Contractor's design will include new sanitary sewer lateral connections to edge of right-of-way for properties accessing new roadway between SE 112th and SE 108th.

Revise the Deliverables:

3.12.2 Deliverables:

- Attendance at ~~three~~ ten (10) Utility Coordination meetings
- Composite AutoCAD Utility Basemap of available information.

Add this Subtask, as shown:

3.13 Hydraulics – PHASE 2

The purpose of this task is to evaluate changes under the proposed PHASE 2 design alternative(s) using the unsteady-flow HEC-RAS models from Phase 1 to not only characterize hydraulic conditions within the project reach, but to also quantify the potential changes in storage that could affect flows in downstream reaches.

To perform this task the Contractor will:

- Complete up to two (2) site visits during major flooding events to observe conditions and record observations using photographs and video.
- Perform hydraulic evaluation using HEC-RAS model for up to six (6) alternative variations of the Phase 2 project to develop the Phase 2 design recommendations.
- Develop new unsteady flow model for the "Phase 2" project conditions that reflect significant design features that are likely to have a hydraulic effect on the project. This will be based on revisions to the proposed design concept and revisions to the "Phase 1" project model
- Simulate performance of the Phase 2 design concept for 2007 flood hydrograph, 2009 Flood Hydrograph, 10-year Flood Hydrograph, and 100-year Flood Hydrograph.
- Refine the "Phase 2" Design project condition HEC-RAS model to match the 30 percent Design.
- Revise HEC-RAS model for 60 percent Design
- Finalize HEC-RAS model based upon 90 percent Design

3.4.1 Assumptions:

- No changes to "existing conditions" model
- Only one "project conditions" model for Phase 2 will be carried forward after 30 percent design.
- Only minor changes to "project conditions" models after 60 percent Design
- No changes to models after 90 percent Design
- Geometry data in HEC-RAS models will be geo-referenced to COP datum.

3.4.2 Deliverables:

- Electronic files from HEC-RAS models

4. Amend the scope of work for Task 6.0 60 PERCENT DESIGN PHASE as shown, and increase the original budget from \$114,196 to \$124,216, a \$10,020 increase:

Add scope to this Subtask, as shown:

6.2 – 60 Percent Design Calculations

- Identify trees to be impacted by Phase 1 design
- Place ID tag on impacted trees and inventory in a spreadsheet
- Using inventory, identify which trees need to be salvaged and indicate where they are to be re-used.
- Update AutoCAD basemap of existing conditions to include tree ID's

5. Amend the scope of work for Task 7.0 90 PERCENT DESIGN PHASE as shown, and increase the original budget from \$51,764 to \$89,168, a \$37,404 increase:

Add scope to this Subtask, as shown:

7.2 – 90 Percent Construction Document Plans

- Update tree impacts
- Place ID tags on impacted trees that were not identified at 60 percent design
- Update inventory spreadsheet to include new trees and revisions to salvage and re-use.
- Update AutoCAD basemap of existing conditions to include tree ID's
- Design rough grading for new road between 112th and 108th based upon 30 percent design of Phase 2 project
- Incorporate new sheets to plan set for placement of fill to accommodate new road and for Removal and Salvage of Trees not taken down by 2010 construction efforts (see Table 2 for assumed sheets).
- Modify existing plan sheets (indicated in Table 2) to incorporate revisions for the following:
 - Cover sheet with new data
 - Existing Conditions to reflect work performed during 2010 construction efforts
 - Erosion control and Temporary Water Management plans based upon comments from DEQ
 - Profile elevation of new sidewalk along SE 110th Drive/SE 112th Avenue based upon CLOMR modeling efforts.
- Modify all sheets with; changes to dates, sheet counts, PE Stamps, cross referencing, match line reference, etc. so new complete set of plans are ready to re-bid for 2011 construction.

Add to the Assumptions, as shown:

7.7 Assumptions

- New sheets and sheets to be modified to Re-bid the project in 2011 are shown in Table 2.

Table 2: Sheet Count Assumptions for East Lents Floodplain Restoration Project (PHASE I Re-Bid)			
SHEET TITLE	# of Sheets	Submittal	
		NEW	Modified**
Cover Sheet/Index Sheet	1		X
GENERAL			
Existing Surface Conditions Plan	1		X
Existing Utilities Plan	1		X
Tree Removal and Salvage Plan	1	X	
TEMPORARY EROSION AND SEDIMENT CONTROL			
Erosion Control Cover Sheet, Notes, and Index Key	2		X
Erosion Control Clearing and Demolition	1		X
Erosion Control Grading and Utility Construction	5		X
Erosion Control Details	1		X
Temporary Water Management	4		X
Temporary Water Management Details	1		X
Erosion Control Final Stabilization	5		
STREAM AND FLOODPLAIN GRADING			
Excavation and Grading Plans	12		
Berm Profiles, Cross Sections, and Details	1		
106 th Street Cross Sections	2		
108 th Street Cross Sections	1		
Streambank Treatment Details	3		
Log Jam Details	2		
Habitat Details	1		
ROADWAY AND UTILITIES			
Return Flow Culvert Plan and Details	5		
Roadway Plan, Profile & Details (SE 110 th Drive/SE 112 th)	3		X
Roadway Plan, Profile & Details (New Road 108 th -112 th)	3	X	
Total =	56	4	20
** All sheets to be replotted on Mylar because sheet count will change and PE Stamps need to have new expiration date shown.			

6. Amend the scope of work to repeat Task 8.0 100 PERCENT DESIGN PHASE for re-bid of the construction documents, and increase the original budget from \$34,948 to \$48,886, a \$13,938 increase.

7. Amend the scope of work to repeat Task 9.0 FINAL DESIGN PHASE for re-bid of the construction documents, and increase the original budget from \$15,386 to \$18,910, a \$3,524 increase.

8. Amend the scope of work by Replacing Task 13.0 LOMR with the following, and increasing the previously amended budget for this Task from \$2,200 to \$166,244, a \$164,044 increase.

13.1 Determine Need for CLOMR/LOMR:

To perform this task, Contractor will:

- Advise the City of the need to complete a CLOMR and LOMR
- Review CLOMR and LOMR Applications

13.2 CLOMR for Phase I:

A Conditional Letter of Map Revision (CLOMR) is required to construct the Phase 1 project due to rises in base-flood elevations (100-year water-surface elevations) in the southwest portion of the project area and along the channel in the vicinity of SE 106th Avenue. The purpose of this task is to carry out the additional hydraulic modeling and to prepare the application forms and documentation for submitting a CLOMR application to FEMA.

To perform this task, Contractor will:

- Coordinate with FEMA and the FEMA contractor responsible for review to determine the information to be submitted with the CLOMR application and to streamline the review process as much as possible.
- Run the U.S. Army Corps of Engineers (USACE) HEC-RAS model created for the Effective Flood Insurance Study (FIS) to create a "Duplicate Effective Model" to be used in the CLOMR application. This may require adjustments to the model to run on the latest version of the HEC-RAS software.
- Tie the Otak existing conditions HEC-RAS geometry file into the USACE model upstream and downstream of the Otak modeled reach.
- Run the extended Otak existing conditions HEC-RAS unsteady-flow model for the 10-year, 50-year, 100-year, and 500-year hydrographs digitized from the US Army Corps of Engineers "Johnson Creek Flooded Area Update" report (1999). This model forms the "Corrected Effective Model" as well as the "Existing Conditions Model" for the CLOMR application.
- Update the Otak project conditions model to reflect any design changes from the model created for 60 percent design.
- Run the Otak project conditions model in unsteady flow mode for the 10-, 50-, 100-, and 500-year flood hydrographs. Make adjustments to the final design so that increases in water-surface elevations are limited to the southwest portion of the project area and along the channel in the vicinity of SE 106th Avenue.
- Tie the Otak project conditions HEC-RAS geometry file into the USACE model upstream and downstream of the Otak modeled reach.
- Run the extended project conditions HEC-RAS model for the 10-, 50, 100, and 500-year events using the hydrographs developed for existing conditions. This model forms the "Post-Project Conditions Model" for the CLOMR application.
- Perform hydraulic calculations to estimate the 100-year and 500-year flood boundaries for the area north of Harold Street that drains towards Holgate Lake.
- Using the results of the hydraulic modeling map the boundaries of the 100-year and 500-year floodplains for both existing conditions and project conditions.
- Create a "certified topographic map" following the requirements set forth in the CLOMR application.

- Modify the Existing Conditions and Proposed Conditions models to perform a floodway analysis under both scenarios
- Using the results of the hydraulic modeling map the boundaries of the floodway for both existing conditions and project conditions.
- Fill out the CLOMR application forms including the "Overview and Concurrence Form", the "Riverine Hydrology and Hydraulics Form", and the "Riverine Structures Form".
- Create backup data for the CLOMR application including electronic hydraulic model files and documentation and explanations of the hydraulic modeling.
- Coordinate with the BES regarding information for property notifications
- Participate in up to ten (10) phone coordination meetings with City and/or FEMA two-hour Stakeholder review meeting at BES.
- Submit CLOMR application to FEMA.
- Respond to requests for additional information from FEMA.

13.3 CLOMR for Phase 2:

To perform this task, Contractor will:

- Repeat the scope of work defined in Task 13.2 for Phase 2 of the project.

13.4 LOMR:

The purpose of this task is to prepare a Letter of Map revision Application for submittal to FEMA so that the Flood Insurance Rate Maps can be revised/updated to reflect better information gathered during this project, as well as changes resulting from construction of this project.

To perform this task, Contractor will:

- Update models and analysis performed under task 13.3 using as-built survey data provided by the City.
- Prepare Draft LOMR Application and supporting information.
- Submit Draft LOMR application
- Attend two hour Stakeholder review meeting at BES.
- Review comments and revise LOMR Application.
- Submit Final LOMR Application.
- Respond to requests for additional information from FEMA

13.5 Assumptions:

- City will identify property owners that need to be notified of map changes based upon results provided by Otak and send required notification letters.
- City will provide As-built survey data required for the LOMR

13.6 Deliverables:

- Written correspondence advising the City of need to complete CLOMR and LOMR
- CLOMR Application and supporting documentation for Phase 1
- CLOMR Application and supporting documentation for Phase 2
- As-built survey of project elements in hydraulic model (cross-sections, storage areas, lateral weirs, hydraulic structures, etc.)
- Draft and Final LOMR Application and supporting documentation
- CLOMR and LOMR Correspondence with City, FEMA, and FEMA Contractor.
- Attendance at BES Stakeholder Review Meeting
- ~~Review comments on Applications~~

9. Amend the scope of work to include all of the following Tasks (14 through 20) along with the budgets indicated for each Task. This adds \$663,086 to the amended contract budget.

Task 14 – 30% DESIGN OF PHASE 2 [\$148,789]

The purpose of this task is to develop design documents to a 30 percent level. This level of design allows the City to review and confirm design concepts before proceeding to more detailed designs.

14.1 30 Percent Design Calculations

To perform this task, Contractor will:

- Develop an initial stream and floodplain grading plan to illustrate concepts depicted in the “Full Build Out” Concept Illustration.
- Work with hydraulic models to refine the grading plan. These refinements will focus on specific elements of the stream and floodplain concept design, including:
 - Locations for removal of existing bank armoring and new stream bank design resulting in creation of a new channel cross-section.
 - Locations for additional floodplain benching along Johnson Creek within the Project Limits.
 - Bank elevation at which flood storage should be engaged.
 - Height of ground along south side of Foster Road.
 - Creation of flood storage between SE 110th Drive and SE 110th Avenue.
- Prepare a revised illustration showing recommended Stream and Floodplain Design Concept to advance through 30 percent design.
- Identify trees to be impacted by 30 percent design.
- Place ID tag on impacted trees and inventory in a spreadsheet.
- Conduct a field reconnaissance of proposed roadway alignment and prepare photo log the project area.
- Conduct a field reconnaissance to investigate, identify, and photograph potential sites to construct vegetated stormwater management facilities.
- Create and maintain a *Basis of Design Memorandum* that tracks various technical criteria and design directions made regarding roadway and utility design directions received from other bureaus and private utilities for this project.
- Perform preliminary stormwater design calculations for management of stormwater from SE 112th, from the new road between SE 112th and SE 108th, and from the existing outfall to Johnson Creek at SE 110th Avenue (including conveyance and water quality).
- Prepare Draft Stormwater Technical Memorandum.

14.2 30 Percent Construction Document Plans

To perform this task, Contractor will:

- Produce preliminary horizontal and vertical alignments for the new roadway connecting SE 112th with SE 108th and pedestrian improvements (sidewalk, curb returns, and ramps) along SE 112th to connect new roadway with the pedestrian bridge across Johnson Creek. The preliminary plans will show the roadway features, curb line, curb ramps, and sidewalks.
- Prepare a plan to show location and extent of stormwater management facilities.
- Create Base Maps and set up the sheets for the construction documents.
- Identify/resolve utility conflicts.
- Prepare plan to show proposed location for utility services (water, sewer, storm, and private utilities).

- Prepare AutoCAD drawings to a 30 percent design stage.
- Design drawings to be included in this plan set will depict site grading, roadway plan and profile, location of proposed drainage facilities, location of proposed new utilities, and demolition of existing structures. A cover sheet will be prepared indexing all anticipated drawing sheets to be in the final plan set. Table 3 identifies the anticipated plan sheets to be submitted at the 30 percent level.
- Develop stormwater management facility design concept for providing conveyance and treatment of stormwater runoff from existing conveyance system along SE 112th from the south.
- Develop stormwater management concept for providing conveyance and treatment of stormwater runoff from the new road between SE 112th and SE 108th.
- Develop wetland mitigation design concept.
- Prepare preliminary planting plans for stormwater facilities and wetland mitigation area that indicate planting zones and plant list associated with each planting zone.
- Design drawings to be included in this plan set will depict site location of proposed drainage facilities and location of wetland mitigation area.

14.3 30 Percent Cost Estimate

To perform this task, Contractor will:

- Prepare a preliminary bid item list.
- Estimate quantities for each bid item.
- Estimate costs for each bid item using recent PBOT Estimate Master Forms and ODOT Average Bid Item Prices.
- The cost estimate will include a 30 percent contingency for design unknowns.

14.4 Internal (Otak) Design Review

Internal design review will follow the quality management plan prepared for the project. At this design stage, it is expected that the following review will take place:

- 30 percent design will be reviewed by the project manager and by the QA/QC lead prior to submittal to the City.
- 30 percent cost estimate will be reviewed by the QA/QC lead.

14.5 Stakeholder (City Staff) Design Review

To perform this task, Contractor will:

- Prepare 30 percent design technical memorandum that summarizes the project design elements included in the Phase 2 project.
- Assemble plans, cost estimates, and technical memorandums for delivery to the City.
- Attend a two (2) hour design meeting with stakeholders at BES to discuss 30 percent design review comments. Provide summary notes.

14.6 Assumptions:

- All properties within the project limits will be owned by BES.
- Project may not increase peak flows to downstream reaches of Johnson Creek.
- Preliminary roadway section and preliminary sizing of stormwater facilities will be based upon assumptions made from existing available data sources and may need to be revised after 30 percent based upon additional geotechnical information obtained for this phase of the project.
- New roadway design to be coordinated with Portland Bureau of Transportation (PBOT).
- New water line design to be coordinated with Portland Water Bureau (PWB).

- New sanitary and storm sewer design to be coordinated with Bureau of Environmental Services (BES).
- Location for private utilities to be coordinated with private utility companies.
- Otak is NOT designing infrastructure for private utilities.
- Sidewalk on one side of SE 112th.
- New roadway from SE 112th to SE 110th is minimum pavement section (20 feet) with sidewalk on one side.
- New roadway from SE 110th to SE 108th is gravel road section (20 feet) with no designated sidewalk.
- Public and private utility connections to be located along new road corridor connecting SE 112th to SE 108th.
- New roadway from 112th to 108th will require street lighting.
- Tree Inventory is for trees greater than 6-inches DBH and will be formatted similarly to that prepared in Phase 1 of the project.
- Stormwater detention facilities are not required for runoff from new roadway since the project will be removing existing roadways and managing flooding from Johnson Creek.
- CAD drawings will be provided for the planning-level designs.
- City will organize the design submittal meeting.
- City will provide timely review of submittal.
- City will consolidate all reviewer comments into a single "Comment Tracking Table" document that identifies the reviewer, the comment, and leaves a column for Otak to provide a response.

14.7 Deliverables:

- Basis of Design Memorandum.
- Stream and Floodplain Concept Design Illustration (1) to be submitted as PDF file.
- Draft Stormwater Technical Memorandum.
- Preliminary Tree Inventory Spreadsheet.
- Two (2) two hour design meetings with stakeholders and summary notes.
- Ten (10) 11"x17" paper copies, AutoCAD file, and three (3) 22"x34" paper copies of 30 percent Construction Plans. Plan sets will not be bound.
- Ten (10) hard copies of 30 percent Cost Estimate, and spreadsheet and calculations in Excel file.
- Ten (10) copies, electronic file of 30 Percent Design Technical Memorandum.

Task 15 – 60% DESIGN OF PHASE 2 [\$188,585]

The 60 percent level will address comments from review of the 30 percent plans, and prepare drawings to a level that allows submittal of permit documents. A customized set of 60 percent plans that shows project impacts and mitigation areas will be prepared to support the permitting efforts.

15.1 Respond to 30 Percent Review Comments

To perform this task, Contractor will:

- Review comments provided in the tracking table that lists the comment, reviewer, and how it was addressed.
- Prepare a response to address comments in the tracking table.

15.2 60 Percent Design Calculations

To perform this task, Contractor will:

- Perform design calculations to demonstrate the stability of large woody debris included in the project.

- Perform design calculations to develop material gradation and Project Special Provisions for stream channel construction.
- Revise typical roadway sections based upon results of geotechnical investigations.
- Perform retaining wall design calculations.
- Design street transitions for grinding and paving and incorporate into the construction plans.
- Revise stormwater management design calculations based upon results of geotechnical investigations.
- Design a new water main on new road between 112th and 108th.
- Revise and submit Final Stormwater Technical Memorandum.
- Update Basis of Design Memorandum.
- Update Tree Removal Inventory.
- Discuss roadway lighting design requirements with PBOT and establish the Basis of Design for this project.
- Utilize AGI lighting analysis software to demonstrate average light levels, uniformity ratios, and veiling luminance (glare) standards are met per national guidelines (IES RP-8-00). Results of this lighting analysis will be used to determine luminaire spacing, luminaire mounting heights, and luminaire wattages.
- Coordinate with utilities to avoid conflicts in the field and to identify power sources for the lighting system.
- Prepare a short Draft Roadway Lighting Technical Memorandum to summarize the design recommendations. The memorandum should include the Basis of Design discussed with PBOT, the analysis performed, alternatives considered, and recommended design. Preference should be for the design with the lowest life cycle cost.
- Submit the technical memorandum to City of Portland for review, comment, and to seek concurrence with the design recommendation.
- Respond to review comments and incorporate responses into a Final Roadway Lighting Technical Memorandum.
- Prepare preliminary plans for the roadway lighting system.

15.3 60 Percent Construction Document Plans

To perform this task, Contractor will:

- Review the tracking table for comments related to the design drawings.
- Address comments related to the design.
- Complete drawings not included in the 30 percent set that will be required for permitting. Table 3 lists the sheets that will be included.
- Complete and assemble 60 percent construction plan set.
- Revise stormwater management facility designs based upon revised stormwater calculations due to results of geotechnical investigations.
- Update planting plans to reflect revised design.
- Prepare roadway planting plans for planter strip areas between sidewalk and Foster Road, along New Road, and along new SE 112th sidewalk.

15.4 60 Percent Cost Estimate

To perform this task, Contractor will:

- Review the tracking table for comments related to the bid item list and cost estimate.
- Revise the bid item list and cost estimate. Estimate quantities for new bid items.
- The 60 percent cost estimate will include a 20 percent contingency for design unknowns, and an 8 percent yearly escalation for construction cost increases.

15.5 Draft Specifications

To perform this task Contractor will:

- Develop draft Project Special Provisions.
- Review the bid item list and verify that the bid items match with the Project Special Provisions. Include in the Project Special Provisions a payment schedule table listing bid items, how they will be paid (EA, CY, LS, etc.), where payment is described (in what document) and the page number for the description.

15.6 Internal Design Review

Internal design review will follow the quality management plan prepared for the project. At this design stage, it is expected that the following review would take place:

- 60 percent design will be reviewed by the project manager and by the QA/QC lead prior to submittal to the City.
- 60 percent cost estimate and bid items will be reviewed by the QA/QC lead.

15.7 Stakeholder Design Review

To perform this task Contractor will:

- Assemble plans, cost estimates, and draft Project Special Provisions for delivery to the City.
- Attend a two (2) hour design submittal meeting with stakeholders at BES to discuss 60 percent design review comments.

15.8 Assumptions:

- The design is essentially complete at 60 percent and plans include significant design details and notes.
- City will organize the design submittal meeting.
- City will provide timely review of submittal.
- City will consolidate all reviewer comments into a single "Comment Tracking Table" document that identifies the reviewer, the comment, and leaves a column for Otak to provide a response.

15.9 Deliverables:

- Stakeholder meeting.
- Review Comment Tracking Table with response to 30 percent comments.
- Ten (10) 11"x17" paper copies, AutoCAD file and three (3) 22"x34" paper copies of 60 percent Construction Plans. Plan sets will not be bound.
- Ten (10) copies of the 60 percent Cost Estimate.
- Ten (10) copies of the Draft Project Special Provisions.
- Excel spreadsheet of 60 percent cost estimate.
- Word document of 60 percent Project Special Provisions.
- Draft and Final Roadway Lighting Technical Memorandum.

Task 16 – 90% DESIGN OF PHASE 2 [\$103,062]

The 90 percent level will address comments from review of the 60 percent submittal and prepare the first complete set of construction documents.

16.1 Respond to 60 Percent Review Comments

To perform this task, Contractor will:

- Review comments provided in the tracking table.
- Prepare a response to address comments in the tracking table.

16.2 90 Percent Construction Document Plans

To perform this task Contractor will:

- Review the tracking table for comments related to the design drawings.
- Address comments related to the design.
- Complete drawings not included in the 60 percent set. Table 3 lists the sheets that will be included.
- Assemble 90 percent construction plan set.
- Prepare final planting plans and details for stormwater facility landscaping.
- Prepare final planting plans and details for roadway landscaping.
- Prepare final construction plans and details for street lighting.

16.3 90 Percent Cost Estimate

To perform this task, Contractor will:

- Review the tracking table for comments related to the bid item list and cost estimate;
- Revise the bid item list and cost estimate;
- Update quantities to reflect 90 percent design. The 90 percent cost estimate will include a 10 percent contingency for design unknowns, and an 8 percent yearly escalation for construction cost increases.

16.4 90 Percent Specifications

To perform this task Contractor will:

- Review the bid item list and verify that the bid items match with the Project Special Provisions.
- Prepare special provisions for bid items that require them.
- Prepare front end documents, such as Invitation to Bid, Instructions to Bidders, Bid Forms, and Bid Bond Forms.

16.5 Internal Design Review

Internal design review will follow the quality management plan prepared for the project. At this design stage, it is expected that the following review would take place:

- 90 percent design will be reviewed by the project manager and by the QA/QC lead prior to submittal to the City.
- Bid item quantities will be reviewed by two persons, one associated with the design, and one person not associated with the design. These two persons will prepare separate quantity estimates and compare and resolve differences between the two estimates.
- 90 percent cost estimate will be reviewed by the QA/QC lead.
- 90 percent Project Special Provisions will be reviewed by the QA/QC lead.

16.6 Stakeholder Design Review

To perform this task, Contractor will:

- Assemble plans, cost estimates, and 90 percent Project Special Provisions for delivery to the City.
- Attend a two (2) hour design submittal meeting with stakeholders at BES to discuss 90 percent design review comments.

16.7 Assumptions:

- Contract language and all other front end Project Special Provisions documents will be provided by the City of Portland. The Contractor will edit to conform to this project.
- City will organize the design submittal meeting.
- City will provide timely review of submittal.
- City will consolidate all reviewer comments into a single "Comment Tracking Table" document that identifies the reviewer, the comment, and leaves a column for Otak to provide a response.

16.8 Deliverables:

- Stakeholder meeting.
- Review Comment Tracking Table with response to 60 percent comments.
- Ten (10) 11"x17" paper copies, AutoCAD file and three (3) 22"x34" paper copies of 90 percent Construction Plans. Plan sets will not be bound.
- Ten (10) copies of the 90 percent Cost Estimate.
- Ten (10) copies of the 90 percent Project Special Provisions.
- Excel spreadsheet of 90 percent cost estimate.
- Word document of 90 percent Specifications.

Task 17 – 100% DESIGN OF PHASE 2 [\$68,963]

The 100 percent level will address comments from review of the 90 percent submittal and prepare the final, full-size, sealed set of construction documents.

17.1 Respond to 90 Percent Review Comments

To perform this task, Contractor will:

- Review comments provided in the tracking table.
- Prepare a response to address comments in the tracking table.

17.2 100 Percent Construction Document Plans

To perform this task, Contractor will:

- Review the tracking table for comments related to the design drawings.
- Address comments related to the design.
- Assemble 100 percent construction plan set.

17.3 100 Percent Cost Estimate

To perform this task, Contractor will:

- Review the tracking table for comments related to the bid item list and cost estimate.
- Revise the bid item list and cost estimate.

18.4 100 Percent Specifications

To perform this task, Contractor will:

- Review the tracking table for comments related to the Project Special Provisions.
- Revise the Project Special Provisions to address comments.

17.5 Internal Design Review

Internal design review will follow the quality management plan prepared for the project. At this design stage, it is expected that the following review would take place:

- 100 percent drawings will be reviewed by the project manager and by the QA/QC lead prior to submittal to the City.
- 100 percent Project Special Provisions will be reviewed by QA/QC lead.
- 100 percent cost estimate will be reviewed by the QA/QC lead.

17.6 Assumptions:

- Design submittal meeting with Stakeholders is not necessary for 100 percent submittal.
- City will provide timely review of submittal.
- City will consolidate all reviewer comments into a single "Comment Tracking Table" document that identifies the reviewer, the comment, and leaves a column for Otak to provide a response.

17.7 Deliverables:

- Review Comment Tracking Table with response to 90 percent comments
- Ten (10) 11"x17" paper copies, AutoCAD file, and three (3) 22"x34" copies of 100 percent Construction Plans. Plan sets will not be bound.
- Ten (10) copies of the 100 percent Cost Estimate.
- Ten (10) copies of the 100 percent Project Special Provisions.
- Excel spreadsheet of 100 percent cost estimate.
- Word document of 100 percent Project Special Provisions.

Task 18 – FINAL DESIGN OF PHASE 2 [\$21,015]

The Final Design Phase will address comments resulting from review of the 100 percent submittal during routing of construction documents for final approval and signature by BES management.

18.1 Final Construction Documents

To perform this task, Contractor will:

- Address comments related to the construction documents.
- Assemble final, sealed 22"x34" construction plan set.
- Submit Final bid item list and cost estimate.
- Submit Final sealed Project Special Provisions.

18.2 Internal Design Review

Internal design review will follow the quality management plan prepared for the project. At this design stage, it is expected that the following review would take place:

- Final Construction Documents will be reviewed by the project manager and by the QA/QC lead prior to submittal to the City to be sure requested changes have been incorporated.

18.3 Stakeholder Design Review

To perform this task, Contractor will:

- Assemble required quantities of plans, cost estimates, and Project Special Provisions for delivery to the City.
- Attend a two (2) hour design submittal meeting with stakeholders at BES to discuss 100 percent design review comments.

18.4 Assumptions:

- Minimal changes are anticipated from this review process but may result in reprinting of a few plan sheets from the drawing set to be re-signed and re-submitted to BES.
- Review comments received at this point are expected to result in specific changes to the construction documents and would not require use of the Review comment tracking table.

18.5 Deliverables:

- Stakeholder meeting.
- One (1) 22"x34" vellum of sealed Final Construction Plans to be routed for City signatures and one 11"x17" copy of sealed original plans, AutoCAD file. Plan set will not be bound.
- One (1) PDF of the Final Cost Estimate.
- One (1) PDF of the sealed Construction Project Special Provisions.
- Excel spreadsheet of final cost estimate.
- Word document of final Project Special Provisions.

Table 3: Sheet Count Assumptions for East Lents Flood Mitigation Project (PHASE 2)				
SHEET TITLE	# of Sheets	Submittal		
		30%	60%	90%
Cover Sheet/Index Sheet	1	X	X	X
GENERAL				
Existing Surface Conditions Plan	1	X	X	X
Existing Utilities Plan	1	X	X	X
Tree Removal and Salvage Plans	6		X	X
TEMPORARY EROSION AND SEDIMENT CONTROL				
Erosion Control Cover Sheet	1		X	X
Erosion Control Demolition and Grading Construction	2		X	X
Erosion Control Road and Utility Construction	6		X	X
Temporary Water Management	4		X	X
Erosion Control Final Stabilization	6		X	X
Erosion Control Details	2		X	X
Temporary Water Management Details	2		X	X
STREAM AND FLOODPLAIN GRADING				
Grading Plans	10	X	X	X
Grading Sections and Profiles	4	X	X	X
Demolition Plan	2		X	X
Bank Stabilization Details	2		X	X
Large Woody Debris Details	2		X	X
Habitat Details	1		X	X
Wetland Mitigation Details (New Road Between 108 th -112 th)	1		X	X

ROADWAY				
Roadway Plan & Profile (New Road Between 108 th -112 th)	2	X	X	X
Roadway Section and Details (New Road Between 108 th -112 th)	2		X	X
Sidewalk & Drainage Plan & Profile (112 th)	1	X	X	X
Sidewalk Plan & Profile (Foster Road south side)	4		X	X
Sidewalk Sections and Details	1		X	X
Intersection Details (112 th and Brookside Drive)	1		X	X
Intersection Details (112 th and New Road)	1		X	X
Intersection Details (New Road and 110 th Ave)	1		X	X
Intersection Details (New Road and 108 th Ave)	1		X	X
Street Lighting Plan and Details (New Road)	2			X
UTILITIES				
Drainage Details (New Road Between 108 th -112 th)	2		X	X
Drainage Details (112 th)	1		X	X
Drainage Details (110 th Outfall)	1		X	X
Utility Plan and Profile (New Road Between 108 th -112 th)	2		X	X
Water Line Details	1		X	X
Sanitary Sewer Details	1		X	X
LANDSCAPE				
Stormwater Facility Planting Plans and Details	3	X	X	X
Roadway Planting Plans and Details	3		X	X
Total =	84	20	84	84

Task 19 – PERMIT SUPPORT SERVICES FOR PHASE 2 [\$60,249]

Although the project will be an overall benefit to the environment, it will impact wetlands and waters of the United States/State, habitat used by threatened salmonids and environmental zones mapped by the City. As such, the project will require state and federal permits, approval from the National Marine Fisheries Service and an Environmental Review.

Otak will coordinate and support the permit application services, but will subcontract a majority of the Scope of Work described under task 20.0 to Pacific Habitat Services, Inc. (PHS).

19.1 – Supplemental Wetland Delineation Report

To perform this task, Contractor will:

- Field verify and collect new data for supplement to match new study area limits (wetlands impacted by new road, ditches along SE 112th, location of stormwater facilities).
- Update HGM Assessment.
- Coordinate with Otak surveyors on survey of wetland flagging.
- Write Draft and Final Wetland Delineation Report.
- Facilitate review by DSL.

19.2 Prepare and file Joint Permit Application

The flood mitigation project will alter the Johnson Creek channel and impact wetlands. As such, it will require permits from the Oregon Department of State Lands (DSL) and the US Army Corps of Engineers (Corps). It may also require 401 WQ Certification from DEQ.

The application will be filed when the plans are 60 percent complete and will include specific information about the project (e.g., volumes of removal/fill), a detailed project description, an alternatives analysis, an erosion control plan, and a plan to compensate for any impacted wetlands. The agencies may also want to discuss the treatment of stormwater within the project area, though we realize that impervious surfaces are not to be added.

To perform this subtask, PHS will:

- Attend up to three (3) meetings at BES with the streamlining committee to review the project prior to it submitting the application.
- Attend one (1) onsite pre-application meeting with the permitting agencies to review the project.
- Identify potential mitigation opportunities within the study area.
- Review the opportunity sites to determine where it is feasible to create or enhance wetlands. It may also be possible to restore wetlands if fill can be removed from a historic wetland in the study area. In determining the location for a mitigation area, we will look at existing vegetation, hydrology and soils. The amount of mitigation will be balanced with the amount of wetland that will be removed when the site is excavated. We will bring additional areas to enhance and restore wetlands to the City's attention, so that this can be incorporated into the current design if the budget allows or can be identified for a future project the City can accomplish when funding is available.
- Prepare a wetland mitigation plan to compensate for any loss of wetlands. This will require the creation or enhancement of wetlands within the study area. There may also be an opportunity to restore wetlands through removal of roads that may have one time filled wetland areas.
- Submit a grading plan, a planting plan (which will be prepared by the City's revegetation team) and an assessment of the functions to be gained by the proposed mitigation plan. The functional assessment will follow HGM.
- Prepare permit graphics using base files provided by Otak. The assumed list of graphics is identified in Table 1.
- Complete a joint permit application.
- File the application with DSL and the Corps.
- Respond to agency review comments in a timely manner.

19.2.1 Assumptions:

- BES will provide the names and addresses of adjacent landowners.
- BES will obtain the signature of a City planner.
- The construction drawings for the grading plan will be stamped by a registered engineer from Otak.
- BES will provide the base for the planting plan, which will be placed in a graphic and described by PHS in the application.
- The planting plan will be stamped by a registered landscape architect.
- The City will consolidate all review comments onto a single copy of the draft joint permit application before returning to PHS.
- Wetland Impacts will be less than 0.5 acres and can be permitted by the Corps using a Nationwide Permit.

- The following agencies and contacts will be involved in review of the permit application and mitigation plan:

Agency	Contact	Position
Corps of Engineers	James Holm	Permit Coordinator
Department of State Lands	Mike McCabe	Permit Coordinator
DEQ	Corey Saxon	Water Quality Specialist
Oregon Dep. of Fish and Wildlife	Tom Murtaugh	Biologist

PHS will be allowed to maintain direct contact with the permitting agencies to help facilitate issuance of permits in a timely manner. PHS will keep Otak and BES informed of contact purpose and outcome via email.

19.2.2 Deliverables:

- Attendance at three (3) streamlining team meetings.
- Attendance at one (1) pre-application meeting on-site.
- Compensatory Wetland Mitigation Plan.
- Draft joint permit application (six copies).
- Final joint permit application (original and six copies).
- Electronic copy of Word and AutoCAD files of permit applications.

19.3 Biological Assessment or SLOPES Documentation

Coho salmon, Chinook salmon and steelhead trout live in Johnson Creek within the study area. These fish are listed as threatened under the federal Endangered Species Act (ESA). As such, any project that impacts their habitat needs approval from the National Marine Fisheries Service (NMFS). This approval may be through SLOPES IV or through formal consultation, which requires the preparation of a Biological Assessment (BA).

The BA needs to comply with Section 7(c) of the 1973 ESA, as amended. Section 7 assures that, through consultation (or conferencing for proposed species) with NMFS, federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species, or result in the destruction or adverse modification of designated or proposed critical habitat.

The BA must also address the Sustainable Fisheries Act of 1996 (Public Law 104-267), which amended the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to establish new requirements for "Essential Fish Habitat" (EFH) descriptions in Federal fishery management plans and to require Federal agencies to consult with NMFS on activities that may adversely affect EFH. As defined in Magnuson-Stevens Act, "Essential fish habitat means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The Pacific Fisheries Management Council (PFMC) has recommended an EFH designation for the Pacific salmon fishery that would include those waters and substrate necessary to the production needed to support a long-term sustainable fishery (i.e., properly functioning habitat conditions necessary for the long-term survival of the species through the full range of environmental variation).

If the project is reviewed through SLOPES, we assume that only the Corps will be the reviewing agency. If this is the case, we will not need to prepare a detailed assessment of how the project

impacts listed fish, but generally describe how we are complying with the SLOPES criteria. Having the project approved under SLOPES will be an easier and quicker process.

If the project does not fit under the SLOPES criteria, we will have to prepare a BA. A BA is prepared for "major construction activities" considered to be Federal actions (i.e., the fact that the City needs federal approval).

To perform this subtask, PHS will:

- Prepare a BA to determine the effect of the project on the two species listed under ESA and the State of Oregon's ESA. The BA will also address both ESA and EFH requirements.
- Prepare a detailed discussion of the proposed project, a discussion of the life stages of the fish likely to be effected by the project, and conclusions as to whether the project will adversely affect the continued survival of the protected species.
- Coordinate with the project team to describe the anticipated methods of construction.

19.3.1 Assumptions:

- PHS will be allowed to maintain direct contact with NMFS so that the approval is issued in a timely manner.
- The City will consolidate review comments onto one copy of the draft BA before returning to PHS.

19.3.2 Deliverables:

- Draft Biological Assessment (six copies).
- Final Biological Assessment (original and six copies).
- Electronic copy for final in Word format.

19.4 Environmental Review

The flood control mitigation project will impact portions of the Environmental Conservation overlay zone (C Zone) and Environmental Protection (P Zone) overlay zone. Although the project will be an enhancement, the City will likely still require that BES submit an Environmental Review (ER) that includes an assessment of the resources and functional values identified in the local resource protection plan.

To perform this subtask PHS will:

- Document and assess the existing conditions of the wildlife habitat and vegetation, and identify potential impacts.
- Prepare a mitigation/landscape plan to offset impacts. The landscape plan will identify proposed enhancement and/or mitigation areas, suggested methodologies for removing invasive plant species and a discussion of native plant installation.
- Prepare a Maintenance Plan that identifies dates and methods for the survival of native plantings and continued control of invasive species throughout the maintenance period (a minimum of three years).
- Coordinate with BES regarding plant acquisition, installation, and maintenance.
- Prepare an Environmental Review.

19.4.1 Assumptions:

- PHS will prepare the ER and BES will be the applicant.
- PHS will be allowed to maintain direct contact with the City staff so that their approval is issued in a timely manner.

- The City will consolidate all review comments into one copy of the draft ER before returning to PHS.

19.4.2 Deliverables:

- Draft Environmental Review (six copies).
- Final Environmental Review (original and six copies).
- Electronic copy of final document in Word format.

19.5 Erosion Control Permit (1200-C)

The channel and floodplain improvements require that National Pollutant Discharge Elimination System (NPDES) permits be obtained for construction activities, including clearing, grading, and excavation, that disturb one (1) or more acres of land. DEQ has developed NPDES Stormwater Discharge General Permit No. 1200-C to cover these activities.

To perform this subtask PHS will:

- Prepare a 1200-C erosion control plan application for review and approval by DEQ.
- Submit the application after the final construction documents are submitted.
- Maintain regular contact with DEQ while permit is in for review.

19.5.1 Assumptions:

- Erosion control BMPs make use of City of Portland standards (in place at time of project).
- Final Construction Plan Set will include Erosion Control Plan, stamped and signed by Registered Engineer from Otak.

19.5.2 Deliverables:

- Draft 1200-C application (three copies).
- Final 1200-C application (original and three copies).
- Electronic copy of final application.

19.6 Internal Application Review

Internal design review will follow the quality management plan prepared for the project. Permit applications will be reviewed by the Otak project manager prior to submittal to the City.

TASK 20: DESIGN SERVICES DURING CONSTRUCTION [\$72,423]

The Construction Documents are assumed to be complete and include adequate detail for a contractor to construct without field direction. The purpose of this task is to provide supporting design services during advertisement and construction of the project, and be available to the City's Construction Management team for consultation on non-standard design elements and those elements of the project that are critical to the hydraulic performance of the project.

To perform this task, Contractor will:

- Repeat the scope of work defined in Task 11: During Construction for Phase 2 of the project.

20.1 Assumptions:

- BES will be performing Construction Administration, Construction Management, and Construction Inspection.

20.2 Deliverables:

- Meeting attendance at pre-bid meeting, pre-construction conference, and five (5) progress meetings. Design changes, as requested and within the hours identified in the scope of work. Submittal review as needed.

All other terms and conditions shall remain unchanged and in full force and effect.

OTAK, INC.

By: _____ Date: _____

Name: _____

Title: _____

CITY OF PORTLAND

By: _____ Date: _____
Elected Official

Approved as to Form:

By: _____ Date: _____
Office of City Attorney

East Lents Floodplain Restoration, Phase 1
Attachment B2 - CONTRACT FEE SUMMARY BY TASK
Otak, Inc. & Subconsultants
Otak Project # 14781

183983

Task	Description	Original Budget by Task	Amendment 01 Budget by Task	Amendment 02 Budget by Task	Total Budget by Task
1.0	PROJECT MANAGEMENT	\$95,508	\$13,194	\$191,677	\$300,378
2.0	PUBLIC INVOLVEMENT	\$10,517	\$5,008	\$21,400	\$36,925
3.0	ENGINEERING AND DESIGN SUPPORT	\$167,530	\$71,372	\$124,704	\$363,606
4.0	SUPPLEMENTAL SURVEY	\$15,902	\$38,120		\$54,022
5.0	30 PERCENT DESIGN PHASE	\$39,325	\$38,216		\$77,542
6.0	60 PERCENT DESIGN PHASE	\$81,206	\$32,990	\$10,020	\$124,216
7.0	90 PERCENT DESIGN PHASE	\$51,764		\$37,404	\$89,168
8.0	100 PERCENT DESIGN PHASE	\$34,948		\$13,938	\$48,886
9.0	FINAL DESIGN PHASE	\$15,386		\$3,524	\$18,910
10.0	PERMIT APPLICATION SUPPORT SERVICES	\$45,458	\$6,965		\$52,423
11.0	DESIGN SERVICES DURING CONSTRUCTION	\$55,720			\$55,720
12.0	EFFECTIVENESS MONITORING PLAN	\$30,172			\$30,172
13.0	LOMR	\$35,426	(\$33,226)	\$164,044	\$166,244
14.0	30 PERCENT DESIGN OF PHASE 2			\$148,789	\$148,789
15.0	60 PERCENT DESIGN OF PHASE 2			\$188,585	\$188,585
16.0	90 PERCENT DESIGN OF PHASE 2			\$103,062	\$103,062
17.0	100 PERCENT DESIGN OF PHASE 2			\$68,963	\$68,963
18.0	FINAL DESIGN OF PHASE 2			\$21,015	\$21,015
19.0	PERMIT SUPPORT SERVICES FOR PHASE 2			\$60,249	\$60,249
20.0	DESIGN SERVICES DURING CONSTRUCTION			\$72,423	\$72,423
	Total Labor Cost	\$678,861	\$172,640	\$1,229,797	\$ 2,081,298
	Direct Expenses (Drill Rig Subcontracts)	\$6,500		\$2,900	\$9,400
	Direct Expenses (Laboratory Testing)	\$4,600		\$1,200	\$5,800
	Subconsultant Administration (5%)	\$5,827	\$1,177	\$13,566	\$20,569
	Project Total	\$695,788	\$173,816	\$1,247,463	\$ 2,117,067

PHASE 1	\$695,788	\$173,816	\$	272,852	\$1,142,457
PHASE 2				\$956,945	\$956,945

183983

East Lents Floodplain Restoration, Phase 1
Attachment C2 - CONTRACT FEE SUMMARY BY SUBTASK
Otak, Inc. & Subconsultants SUMMARY
Otak Project # 14781

		Original Contract					Amendment 01				Amendment 02									
Task	Description	Otak	Pacific Habitat Services	Ash Creek	Total Hours	Original Budget by Task	Otak	Pacific Habitat Services	Total Hours	Amend 01 Budget by Task	Otak	NW Engineers	Pacific Habitat Services	Nevue Ngan	Reyes	Ash Creek	Total Hours	Amend 02 Budget by Task	Total Budget by Task	Sub-totals by Major Task
1.0	PROJECT MANAGEMENT																			\$300,378
1.1	Project Initiation																			
	Review Existing Information	8			8	\$1,080											16	\$1,760	\$1,080	
	Create MS Project Schedule	13			13	\$1,527					16						16	\$2,155	\$3,287	
	Prepare Draft Work Plan	21			21	\$2,545					16						16	\$2,155	\$4,700	
	Incorporate Comments and Distribute Final Work Plan	9			9	\$987					9						9	\$1,082	\$2,069	
	Develop Amended Scope of Work						86		86	\$10,590	206						206	\$24,906	\$35,496	
1.2	Tracking and Reporting																			
	Maintain Project Schedule	44			44	\$4,332					88						88	\$9,360	\$13,692	
	Weekly Project Status Reports	136			136	\$11,660					184						184	\$16,080	\$27,740	
	Monthly Progress Report and Invoice	130	40		170	\$18,183					188	24	72	12			296	\$32,416	\$50,599	
1.3	Meetings and Coordination																			
	Manage Design Team and Subconsultants	36			36	\$4,860					100						100	\$15,000	\$19,860	
	Respond to Correspondence through letters & Email	40			40	\$5,400					80	40		20			140	\$18,800	\$24,200	
	Bi-weekly Design Team meetings at Otak	180	36		216	\$22,471		20	20	\$2,604	194	36	68	42			340	\$37,792	\$62,868	
	Monthly Stakeholder Meetings at City	54			54	\$7,290					121	36	14	12			183	\$23,229	\$30,519	
	Twelve, two-hour Coordination Meetings at City	36	12		48	\$6,050					72						72	\$9,096	\$15,146	
1.4	Final Design Report																			
	Draft of Final Design Report	64			64	\$6,638													\$6,638	
	Final Design Report	26			26	\$2,484													\$2,484	
2.0	PUBLIC INVOLVEMENT																			\$36,925
2.1	Public Open Houses																			
	Attend six (6) three hour meetings	24	24		48	\$6,365													\$6,365	
	Prepare Materials for Public Meetings	28			28	\$2,340													\$2,340	
	Coordinate Illustrations w/ BES LA	20			20	\$1,812													\$1,812	
2.2	Public Stakeholder Meetings																			
	Attend five (5) two hour meetings						18		18	\$2,544	27						27	\$3,978	\$6,522	
	Meeting preparation						16		16	\$2,464	24						24	\$3,600	\$6,064	
2.2.1	Redevelopment Study										138						138	\$13,822	\$13,822	
3.0	ENGINEERING AND DESIGN SUPPORT																			\$363,606
3.1	Geotechnical																			
3.1.1	Preliminary Investigations			38	38	\$5,421													\$5,421	
3.1.2	Subsurface Explorations			125	125	\$13,824											71	\$8,124	\$13,824	
3.1.5	PHASE 2 Geotechnical Investigations																71	\$8,124	\$8,124	
3.2	Geomorphic Investigation																			
	Review Existing Data	12			12	\$1,360													\$1,360	
	Field Reconnaissance and Sample Collection	72			72	\$8,408													\$8,408	
	Document Observations	32			32	\$3,512													\$3,512	
3.3	Hydrology																			
	Review Existing Data	2			2	\$280													\$280	
	Flow duration analysis	4			4	\$560													\$560	
	Develop timeseries data for Un-steady Hydraulic model	8			8	\$1,120													\$1,120	
3.4	Hydraulics																			
	Review Existing Models and Technical Memorandum	16			16	\$2,076													\$2,076	
	Create New Existing Conditions Model	180			180	\$20,960	108		108	\$11,180									\$32,140	
	Create New Pre-Design Project Conditions Model	144			144	\$14,280	80		80	\$7,300									\$21,580	
	Reconstruct Existing Ground TIN						124		124	\$10,740									\$10,740	
	Review Data of 2009 flood						32		32	\$4,092									\$4,092	
	Model January 2009 flood						100		100	\$14,000									\$14,000	
	New Revised project condition models						120		120	\$12,900									\$12,900	
	Model of 30% Design	92			92	\$10,008													\$10,008	
	Update Model for 60%	64			64	\$6,416													\$6,416	
	Update Model for 90%	48			48	\$4,504					40						40	\$5,680	\$10,184	
3.5	Sediment Transport Investigation																			
	Sediment Continuity - Existing	24			24	\$3,032													\$3,032	
	Sediment Continuity - Proposed	20			20	\$2,636													\$2,636	
3.6	Bank Stability Analysis																			
	Field Reconnaissance and in-situ testing	24			24	\$2,376													\$2,376	
	Bank Stability modeling and calculations	60			60	\$5,940													\$5,940	
3.7	Fish Passage Investigation																			
	Model Fish Passage flow rates using Hydraulic model	4			4	\$560													\$560	
	Compare Hydraulic Conditions against Fish Passage criteria	8			8	\$1,120													\$1,120	
3.8	No-Rise Analysis																			
	Verify Published Base Flood Elevation	32			32	\$4,032													\$4,032	
	Create Base Flood Model	40			40	\$4,256													\$4,256	
	Create No-Rise Model	40			40	\$4,256													\$4,256	
	Compare Results and Prepare No-Rise Certification	8			8	\$1,120													\$1,120	
	Grand Total	120			120	\$14,560					120						120	\$14,560	\$14,560	

East Lents Floodplain Restoration, Phase 1
Attachment C2 - CONTRACT FEE SUMMARY BY SUBTASK
Otak, Inc. & Subconsultants SUMMARY
Otak Project # 14781

Task	Description	Original Contract					Amendment 01				Amendment 02								Total Budget by Task	Sub-totals by Major Task
		Otak	Pacific Habitat Services	Ash Creek	Total Hours	Original Budget by Task	Otak	Pacific Habitat Services	Total Hours	Amend 01 Budget by Task	Otak	NW Engineers	Pacific Habitat Services	Nevue Ngan	Reyes	Ash Creek	Total Hours	Amend 02 Budget by Task		
	Evaluate changes in 100-year flooding										64						64	\$6,608	\$6,608	
3.9	Hydraulic report																			
	Draft Report	136			136	\$14,608					136						136	\$13,800	\$28,408	
	Flood Inundation Map	40			40	\$4,280					50						50	\$4,916	\$9,196	
	Final Report	52			52	\$5,508					62						62	\$6,524	\$12,032	
3.10	Habitat Assessment		127		127	\$13,269													\$13,269	
3.11	Review of Phased Implementation																			
	Attend Meeting	16	4		20	\$2,289													\$2,289	
	Compile Summary Table	4			4	\$272													\$272	
	Phased Implementation Memo	28	16		44	\$5,248													\$5,248	
3.12	Utility Coordination																			
	Private Utilities						40		40	\$4,200	80						80	\$8,000	\$12,200	
	Portland Water Bureau						40		40	\$4,200	40						40	\$4,000	\$8,200	
	Utility Coordination Meetings						24		24	\$2,760	32						32	\$3,672	\$6,432	
3.13	Hydraulics - PHASE 2										460						460	\$48,820	\$48,820	
4.0	SUPPLEMENTAL SURVEY																			\$54,022
4.1	Topographic Data																			
	Review Existing survey	14			14	\$1,610													\$1,610	
	Survey in Brookside Park	33			33	\$2,647													\$2,647	
	Cross-section survey	92			92	\$7,190													\$7,190	
	Brookside Cross-section survey	55			55	\$4,455													\$4,455	
	Stream x-sections downstream of 106th						46		46	\$3,523									\$3,523	
	SE Foster Road						48		48	\$3,640									\$3,640	
	SE 110th Drive/SE 112th Avenue						58		58	\$4,603									\$4,603	
	Freeway Land property						88		88	\$6,560									\$6,560	
	Missing Brookside Park survey						70		70	\$5,343									\$5,343	
	Commercial properties at intersection of 11th and Foster						28		28	\$2,180									\$2,180	
	Other Missing Private Properties						90		90	\$6,803									\$6,803	
	Wetland flagging						32		32	\$2,540									\$2,540	
4.2	Approximate Boundary Determination						29		29	\$2,928									\$2,928	
5.0	30 PERCENT DESIGN PHASE																			\$77,542
5.1	Culvert design for SE 108th Ave and SE 110th Avenue	72			72	\$7,080	72		72	(\$7,080)										
5.2	30 percent Construction Document Plans	216	30		246	\$22,113	72		72	\$7,080									\$29,193	
	30 percent Roadway Design						66		66	\$6,750									\$6,750	
	30 percent Stream/Flood Mitigation Design						240		240	\$21,480									\$21,480	
	30 percent Wetland Restoration Design						95		95	\$9,986									\$9,986	
5.3	30 percent Cost Estimate	36			36	\$3,516													\$3,516	
5.4	Internal (Otak) Design Review	16			16	\$2,312													\$2,312	
5.5	Stakeholder (City staff) design review	36			36	\$4,304													\$4,304	
6.0	60 PERCENT DESIGN PHASE																			\$124,216
6.1	Respond to 30 percent Review Comments	24			24	\$2,494													\$2,494	
6.2	60 percent Design Calculations	32			32	\$3,456					120						120	\$10,020	\$13,476	
6.3	60 percent Construction Document Plans	580	32		612	\$57,396	296	34	330	\$30,490									\$87,886	
6.4	60 percent Cost Estimate	48			48	\$4,776	8		8	\$1,000									\$5,776	
6.5	Draft Specifications	64			64	\$6,368	12		12	\$1,500									\$7,868	
6.6	Internal Design Review	40			40	\$5,780													\$5,780	
6.7	Stakeholder Design Review	8			8	\$936													\$936	
7.0	90 PERCENT DESIGN PHASE																			\$89,168
7.1	Respond to 60 percent Review Comments	16			16	\$1,618													\$1,618	
7.2	90 percent Construction Document Plans	316	26		342	\$32,214					324						324	\$28,920	\$61,134	
7.3	90 percent Cost Estimate	36			36	\$3,768					30						30	\$2,912	\$6,680	
7.4	90 percent Specifications	72			72	\$7,448					32						32	\$2,988	\$10,436	
7.5	Internal Design Review	40			40	\$5,780					8						8	\$1,200	\$6,980	
7.6	Stakeholder Design Review	8			8	\$936					12						12	\$1,384	\$2,320	
8.0	100 PERCENT DESIGN PHASE																			\$48,886
8.1	Respond to 90 percent Review Comments	14			14	\$1,482													\$1,482	
8.2	100 percent Construction Document Plans	248	8		256	\$23,782					104						104	\$9,460	\$33,242	
8.3	100 percent Cost Estimate	32			32	\$3,228					15						15	\$1,456	\$4,684	
8.4	100 percent Specifications	40			40	\$4,144					26						26	\$2,422	\$6,566	
8.5	Internal Design Review	16			16	\$2,312					4						4	\$600	\$2,912	
9.0	FINAL DESIGN PHASE																			\$18,910
9.1	Final Construction Documents	132	8		140	\$13,074					36						36	\$3,524	\$16,598	
9.2	Internal Design Review	16			16	\$2,312													\$2,312	

East Lents Floodplain Restoration, Phase 1
Attachment C2 - CONTRACT FEE SUMMARY BY SUBTASK
Otak, Inc. & Subconsultants SUMMARY
Otak Project # 14781

Task	Description	Original Contract					Amendment 01				Amendment 02								Total Budget by Task	Sub-totals by Major Task
		Otak	Pacific Habitat Services	Ash Creek	Total Hours	Original Budget by Task	Otak	Pacific Habitat Services	Total Hours	Amend 01 Budget by Task	Otak	NW Engineers	Pacific Habitat Services	Nevue Ngan	Reyes	Ash Creek	Total Hours	Amend 02 Budget by Task		
10.0	PERMIT APPLICATION SUPPORT SERVICES																			\$52,423
10.1	Prepare and File Joint Permit Application	6	135		141	\$13,890													\$13,890	
10.2	Biological Assessment or SLOPES Documentation	8	129		137	\$14,095													\$14,095	
10.3	Environmental Review	8	86		94	\$9,345													\$9,345	
10.4	Erosion Control Permit (1200-C)	16	46		62	\$5,816													\$5,816	
10.5	Internal Application Review	16			16	\$2,312													\$2,312	
10.6	Wetland Delineation Report							72	72	\$6,965									\$6,965	
11.0	DESIGN SERVICES DURING CONSTRUCTION																			\$55,720
	Questions During Advertising	8	20		28	\$3,424													\$3,424	
	Addendum to Plans & Specifications	40			40	\$3,864													\$3,864	
	Attend Pre-bid Meeting	6			6	\$702													\$702	
	Pre-Construction Conference	6			6	\$702													\$702	
	Progress Meetings	40			40	\$4,680													\$4,680	
	Review Drawing submittals	16			16	\$2,160													\$2,160	
	Design Revisions	40			40	\$4,008													\$4,008	
	Clarification of Contract Documents	8			8	\$1,080													\$1,080	
	Respond to field inquiries	60			60	\$7,020													\$7,020	
	On-site observation	240			240	\$28,080													\$28,080	
12.0	EFFECTIVENESS MONITORING PLAN																			\$30,172
	Apply Habitat Monitoring Protocols from Brownwood	8	36		44	\$4,338													\$4,338	
	Hydraulic Performance Monitoring Recommendations	10			10	\$1,390													\$1,390	
	Geomorphic Performance Monitoring Recommendations	34			34	\$3,454													\$3,454	
	Longitudinal Stream Profile	29			29	\$2,355													\$2,355	
	Stream Cross-sections	77			77	\$6,395													\$6,395	
	Draft Monitoring Plan	90			90	\$8,240													\$8,240	
	Final Monitoring Plan	48			48	\$4,000													\$4,000	
13.0	LOMR																			\$166,244
	As-built cross-section survey	138			138	\$10,550	-138		-138	(\$10,550)										
	Update and Re-run Hydraulic Model	48			48	\$4,764	-48		-48	(\$4,764)										
	Floodway Analysis	28			28	\$3,264	-28		-28	(\$3,264)										
	FIS Mapping	56			56	\$5,104	-56		-56	(\$5,104)										
	LOMR Documentation	24			24	\$3,360	-24		-24	(\$3,360)										
	Draft LOMR Application	24			24	\$2,784	-24		-24	(\$2,784)										
	Internal Application Review	4			4	\$578	-4		-4	(\$578)										
	Stakeholder Review	4			4	\$560	-4		-4	(\$560)										
	Final LOMR Application	14			14	\$1,662	-14		-14	(\$1,662)										
	Respond to Agency Comments	20			20	\$2,800	-20		-20	(\$2,800)										
13.1	Determine Need for CLOMR/LOMR						16		16	\$2,200							724	\$81,568	\$81,568	
13.2	CLOMR for PHASE 1										408						408	\$46,448	\$46,448	
13.3	CLOMR for PHASE 2										328						328	\$36,028	\$36,028	
13.4	LOMR																			

East Lents Floodplain Restoration, Phase 1
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Otak Project # 14781

		Original Contract					Amendment 01				Amendment 02											
Task	Description	Otak	Pacific Habitat Services	Ash Creek	Total Hours	Original Budget by Task	Otak	Pacific Habitat Services	Total Hours	Amend 01 Budget by Task	Otak	NW Engineers	Pacific Habitat Services	Nevue Ngan	Reyes	Ash Creek	Total Hours	Amend 02 Budget by Task	Total Budget by Task	Sub-totals by Major Task		
14.0	30 PERCENT DESIGN OF PHASE 2																					
14.1	30Percent Design Calculations										352	20					372	\$37,853	\$37,853	\$148,789		
14.2	30 Percent Construction Document Plans																					
	General (6%)										55	4					59	\$5,236	\$5,236			
	Erosion Control (26%)										218	4					222	\$19,541	\$19,541			
	Stream and Floodplain (31%)										262		56				318	\$29,159	\$29,159			
	Roadway and Sidewalk (21%)										40	84					124	\$10,416	\$10,416			
	Drainage and Water Quality (6%)										52	33	32				117	\$10,532	\$10,532			
	Utilities (6%)											45					45	\$3,385	\$3,385			
	Landscape (6%)												52	134			186	\$16,311	\$16,311			
14.3	30 percent Cost Estimate										46	22					68	\$6,111	\$6,111			
14.4	Internal (Otak) Design Review										16						16	\$2,608	\$2,608			
14.5	Stakeholder (City staff) design review										40	32					72	\$7,638	\$7,638			
15.0	60 PERCENT DESIGN OF PHASE 2																					
15.1	Respond to 30 percent Review Comments										30						30	\$2,948	\$2,948	\$188,585		
15.2	60 percent Design Calculations										244	40					284	\$26,888	\$26,888			
15.3	60 percent Construction Document Plans																					
	General										74	4					78	\$6,916	\$6,916			
	Erosion Control										330	4	6				340	\$30,239	\$30,239			
	Stream and Floodplain										404		32				436	\$39,466	\$39,466			
	Roadway and Sidewalk										140	144			48		332	\$28,596	\$28,596			
	Drainage and Water Quality										76	40	16				132	\$11,777	\$11,777			
	Utilities											92					92	\$7,993	\$7,993			
	Landscape												12	80			92	\$7,847	\$7,847			
15.4	60 percent Cost Estimate										54	22		8			84	\$8,072	\$8,072			
15.5	Draft Specifications										64	34		5			103	\$9,817	\$9,817			
15.6	Internal Design Review										24						24	\$4,016	\$4,016			
15.7	Stakeholder Design Review										12	32					44	\$4,010	\$4,010			
16.0	90 PERCENT DESIGN OF PHASE 2																					
16.1	Respond to 60 percent Review Comments										24						24	\$2,368	\$2,368	\$103,062		
16.2	90 percent Construction Document Plans																					
	General										28	4					32	\$2,964	\$2,964			
	Erosion Control										126	4					130	\$11,785	\$11,785			
	Stream and Floodplain										152		26				178	\$16,867	\$16,867			
	Roadway and Sidewalk										40	134			62		236	\$20,596	\$20,596			
	Drainage and Water Quality										36	50	14				100	\$8,945	\$8,945			
	Utilities											74					74	\$5,851	\$5,851			
	Landscape												14	52			66	\$5,928	\$5,928			
16.3	90 percent Cost Estimate										52	19		4			75	\$7,244	\$7,244			
16.4	90 percent Specifications										100	15		5			120	\$11,137	\$11,137			
16.5	Internal Design Review										32						32	\$5,368	\$5,368			
16.6	Stakeholder Design Review										12	32					44	\$4,010	\$4,010			
17.0	100 PERCENT DESIGN OF PHASE 2																					
17.1	Respond to 90 percent Review Comments										24						24	\$2,368	\$2,368	\$68,963		
17.2	100 percent Construction Document Plans										442	62		24	25		553	\$48,919	\$48,919			
17.3	100 percent Cost Estimate										56	29		4			89	\$8,060	\$8,060			
17.4	100 percent Specifications										48	17		2			67	\$6,932	\$6,932			
17.5	Internal Design Review										16						16	\$2,684	\$2,684			
18.0	FINAL DESIGN OF PHASE 2																					
18.1	Final Construction Documents										160	32		14	15		221	\$19,411	\$19,411	\$21,015		
18.2	Internal Design Review										10						10	\$1,604	\$1,604			
19.0	PERMIT SUPPORT SERVICES FOR PHASE 2																					
19.1	Supplemental Wetland Delineation Report										9		80				89	\$8,514	\$8,514	\$60,249		
19.2	Prepare and File Joint Permit Application										17		156				173	\$17,440	\$17,440			
19.3	Biological Assessment or SLOPES Documentation										9		118				127	\$13,018	\$13,018			
19.4	Environmental Review										17		102				119	\$12,316	\$12,316			
19.5	Erosion Control Permit (1200-C)										25		46				71	\$6,562	\$6,562			
19.6	Internal Application Review										16						16	\$2,400	\$2,400			

East Lents Floodplain Restoration, Phase 1
Attachment C2 - CONTRACT FEE SUMMARY BY SUBTASK
Otak, Inc. & Subconsultants SUMMARY
Otak Project # 14781

Task	Description	Original Contract				Amendment 01				Amendment 02								Total Budget by Task	Sub-totals by Major Task
		Otak	Pacific Habitat Services	Ash Creek	Total Hours	Original Budget by Task	Otak	Pacific Habitat Services	Total Hours	Amend 01 Budget by Task	Otak	NW Engineers	Pacific Habitat Services	Nevue Ngan	Reyes	Ash Creek	Total Hours	Amend 02 Budget by Task	
20.0	DESIGN SERVICES DURING CONSTRUCTION OF PHASE 2																		\$72,423
	Questions During Advertising										8		22				30	\$3,761	\$3,761
	Addendum to Plans & Specifications										144						144	\$13,584	\$13,584
	Attend Pre-bid Meeting										12						12	\$1,428	\$1,428
	Pre-Construction Conference										12						12	\$1,428	\$1,428
	Progress Meetings										40						40	\$5,180	\$5,180
	Review Drawing submittals										24						24	\$2,768	\$2,768
	Design Revisions										40						40	\$4,224	\$4,224
	Clarification of Contract Documents										8						8	\$1,200	\$1,200
	Respond to field inquiries										60						60	\$7,770	\$7,770
	On-site observation										240						240	\$31,080	\$31,080
	Total Hours	5605	815	163	6583		1555	221	1776		9289	1264	938	418	150	71	12130		
	Total Labor Cost	\$573,419	\$86,197	\$19,245		\$678,861	\$149,110	\$23,531		\$172,641	\$962,583	\$106,656	\$98,183	\$36,930	\$17,322	\$8,124		\$1,229,798	\$2,081,300
	Direct Expenses (Drill Rig Subcontracts)			\$6,500		\$6,500										\$2,900		\$2,900	\$9,400
	Direct Expenses (Laboratory Testing)			\$4,600		\$4,600										\$1,200		\$1,200	\$5,800
	Subconsultant Administration (5%)	\$5,827				\$5,827	\$1,177			\$1,177	\$13,566							\$13,566	\$20,569
	Project Total	\$579,246	\$86,197	\$30,345		\$695,788	\$150,287	\$23,531		\$173,818	\$976,149	\$106,656	\$98,183	\$36,930	\$17,322	\$12,224		\$1,247,464	\$2,117,069

East Lents Floodplain Restoration, Phase 1

ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details

NW Engineers, LLC - new subconsultant

Otak Project # 14781

183983

Task	Description	Project Manager	Designer	QA/QC	Admin	Total Hours	Total Budget by Task
1.0	PROJECT MANAGEMENT						
1.2	Tracking and Reporting						
	Monthly Progress Report and Invoice	12			12	24	\$2,193
1.3	Meetings and Coordination						
	Respond to Correspondence through letters & Email	40				40	\$4,760
	Bi-weekly Design Team meetings at Otak	36				36	\$4,284
	Monthly Stakeholder Meetings at City	36				36	\$4,284
14.0	30 PERCENT DESIGN OF PHASE 2						
14.1	30Percent Design Calculations	8	12			20	\$1,789
	General	4				4	\$476
	Erosion Control		4			4	\$279
	Roadway and Sidewalk	2	80	2		84	\$6,056
	Drainage and Water Quality	2	30	1		33	\$2,450
	Utilities	4	40	1		45	\$3,385
14.3	30 percent Cost Estimate	4	16	1	1	22	\$1,775
14.5	Stakeholder (City staff) design review	8	24			32	\$2,626
15.0	60 PERCENT DESIGN OF PHASE 2						
15.2	60 percent Design Calculations	12	24	2	2	40	\$3,468
15.3	60 percent Construction Document Plans						
	General	4				4	\$476
	Erosion Control		4			4	\$279
	Roadway and Sidewalk	20	120	4		144	\$11,226
	Drainage and Water Quality	8	30	2		40	\$3,283
	Utilities	30	60	2		92	\$7,993
15.4	60 percent Cost Estimate	4	16	2		22	\$1,830
15.5	Draft Specifications	16	8	2	8	34	\$3,210
15.6	Internal Design Review						
15.7	Stakeholder Design Review	8	24			32	\$2,626

East Lents Floodplain Restoration, Phase 1

ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details

NW Engineers, LLC - new subconsultant

Otak Project # 14781

183983

Task	Description	Project Manager	Designer	QA/QC	Admin	Total Hours	Total Budget by Task
16.0	90 PERCENT DESIGN OF PHASE 2						
16.1	Respond to 60 percent Review Comments						
16.2	90 percent Construction Document Plans						
	General	4				4	\$476
	Erosion Control		4			4	\$279
	Stream and Floodplain						
	Roadway and Sidewalk	12	120	2		134	\$10,036
	Drainage and Water Quality	8	40	2		50	\$3,980
	Utilities	12	60	2		74	\$5,851
	Landscape						
16.3	90 percent Cost Estimate	2	16	1		19	\$1,473
16.4	90 percent Specifications	8	4	1	2	15	\$1,478
16.6	Stakeholder Design Review	8	24			32	\$2,626
17.0	100 PERCENT DESIGN OF PHASE 2						
17.2	100 percent Construction Document Plans	20	40	2		62	\$5,408
17.3	100 percent Cost Estimate	4	24	1		29	\$2,269
17.4	100 percent Specifications	4	8	1	4	17	\$1,408
18.0	FINAL DESIGN OF PHASE 2						
18.1	Final Construction Documents	8	24			32	\$2,626
	Total Hours	348	856	31	29	1264	
	Billing Rate	\$119.00	\$69.75	\$119.00	\$63.75		
	Total Labor Cost	\$41,412	\$59,706	\$3,689	\$1,849		\$106,656
	Project Total						\$106,656

East Lents Floodplain Restoration, Phase 1
ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details
Pacific Habitat Services - subconsultant increase
Otak Project # 14781

183983

Task	Description	Project Manager	Fisheries Biologist	Restoration Ecologist	Biologist 1	Wetlands Hydrologist	Graphics Specialist	Technical Editor	Total Hours	Total Budget by Task
1.0	PROJECT MANAGEMENT									
1.2	Tracking and Reporting									
	Monthly Progress Report and Invoice	36						36	72	\$6,863
1.3	Meetings and Coordination									
	Bi-weekly Design Team meetings at Otak	44			24				68	\$8,162
	Monthly Stakeholder Meetings at City	14							14	\$1,823
14.0	30 PERCENT DESIGN OF PHASE 2									
14.2	30 Percent Construction Document Plans									
	Stream and Floodplain	16	8	10	4	10	8		56	\$5,989
	Drainage and Water Quality	8		8	8	8			32	\$3,452
	Landscape	12		12	8	12	8		52	\$5,331
15.0	60 PERCENT DESIGN OF PHASE 2									
15.3	60 percent Construction Document Plans									
	Erosion Control	4					2		6	\$660
	Stream and Floodplain	8	16	4		4			32	\$3,726
	Drainage and Water Quality	4		8		4			16	\$1,755
	Landscape	4		4	2		2		12	\$1,297
16.0	90 PERCENT DESIGN OF PHASE 2									
16.1	Respond to 60 percent Review Comments									
16.2	90 percent Construction Document Plans									
	Stream and Floodplain	6	6	8		4	2		26	\$2,861
	Drainage and Water Quality	6		4		4			14	\$1,581
	Landscape	6		4	2		2		14	\$1,558
19.0	PERMIT SUPPORT SERVICES FOR PHASE 2									
19.1	Supplemental Wetland Delineation Report	16			24	16	16	8	80	\$7,580
19.2	Prepare and File Joint Permit Application	40		20	48	16	24	8	156	\$15,866
19.3	Biological Assessment or SLOPES Documentation	24	20	12	36		18	8	118	\$12,172
19.4	Environmental Review	40			36		18	8	102	\$10,598
19.5	Erosion Control Permit (1200-C)	12		10	2		18	4	46	\$4,348
20.0	DESIGN SERVICES DURING CONSTRUCTION OF PHASE 2									
	Questions During Advertising	8		14					22	\$2,561
	Total Hours	308	50	118	194	78	118	72	938	
	Billing Rate	\$130.20	\$117.80	\$108.50	\$101.40	\$91.45	\$69.75	\$60.45		
	Total Labor Cost	\$40,102	\$5,890	\$12,803	\$19,672	\$7,133	\$8,231	\$4,352		\$98,183
	Project Total									\$98,183

East Lents Floodplain Restoration, Phase 1
ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details
Nevue Ngan Associates - new subconsultant
Otak Project # 14781

Task	Description	Principal	Stormwater Specialist	Landscape Architect	Total Hours	Total Budget by Task
1.0	PROJECT MANAGEMENT					
1.2	Tracking and Reporting					
	Monthly Progress Report and Invoice	12			12	\$1,560
1.3	Meetings and Coordination					
	Respond to Correspondence through letters & Email	4	16		20	\$2,040
	Bi-weekly Design Team meetings at Otak	6	24	12	42	\$3,960
	Monthly Stakeholder Meetings at City		12		12	\$1,140
14.0	30 PERCENT DESIGN OF PHASE 2					
14.2	30 Percent Construction Document Plans					
	Landscape	6	30	98	134	\$10,980
15.0	60 PERCENT DESIGN OF PHASE 2					
15.3	60 percent Construction Document Plans					
	Landscape	2	22	56	80	\$6,550
15.4	60 percent Cost Estimate	2	2	4	8	\$750
15.5	Draft Specifications	4	1		5	\$615
16.0	90 PERCENT DESIGN OF PHASE 2					
16.2	90 percent Construction Document Plans					
	Landscape	2	18	32	52	\$4,370
16.3	90 percent Cost Estimate	1	1	2	4	\$375
16.4	90 percent Specifications	4	1		5	\$615
17.0	100 PERCENT DESIGN OF PHASE 2					
17.2	100 percent Construction Document Plans	2	4	18	24	\$1,990
17.3	100 percent Cost Estimate	1	1	2	4	\$375
17.4	100 percent Specifications	2			2	\$260
18.0	FINAL DESIGN OF PHASE 2					
18.1	Final Construction Documents	4	4	6	14	\$1,350
	Total Hours	52	136	230	418	
	Billing Rate	\$130.00	\$95.00	\$75.00		
	Total Labor Cost	\$6,760	\$12,920	\$17,250		\$36,930
	Direct Expenses (Drill Rig Subcontracts)					
	Direct Expenses (Laboratory Testing)					
	Project Total					\$36,930

East Lents Floodplain Restoration, Phase 1
ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details
Ash Creek Associates - subconsultant increase
Otak Project # 14781

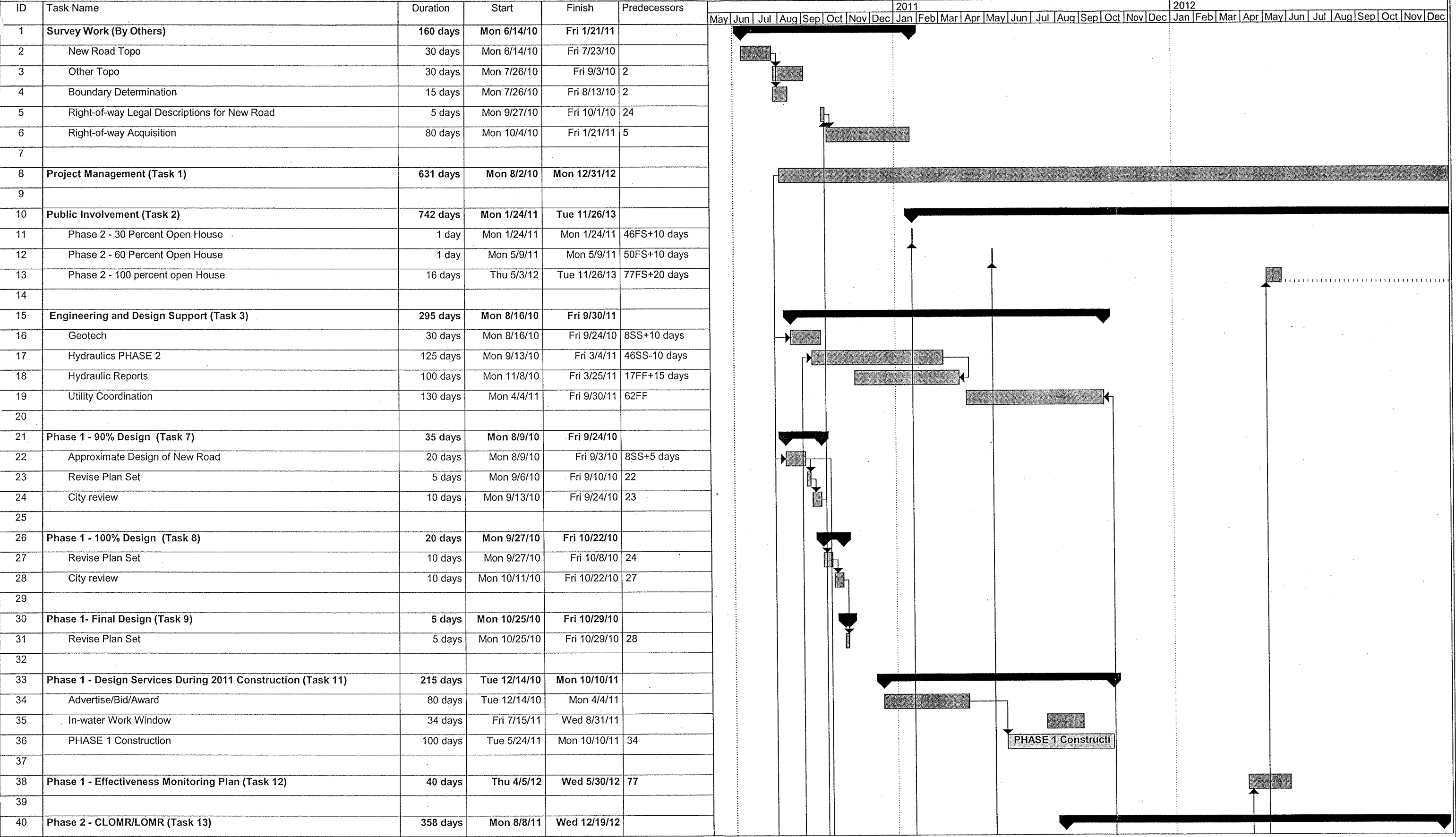
Task	Description	Principal	Senior Project Manager	Senior Staff	Drafting	Administrative	Total Hours	Total Budget by Task
3.0	ENGINEERING AND DESIGN SUPPORT							
3.1	Geotechnical							
3.1.5	PHASE 2 Geotechnical Investigations	20	16	26	5	4	71	\$8,124
	Total Hours	20	16	26	5	4	71	
	Billing Rate	\$178.84	\$105.87	\$89.90	\$64.73	\$48.05		
	Total Labor Cost	\$3,577	\$1,694	\$2,337	\$324	\$192		\$8,124
	Direct Expenses (Drill Rig Subcontracts)							\$2,900
	Direct Expenses (Laboratory Testing)							\$1,200
	Project Total							\$12,224

East Lents Floodplain Restoration, Phase 1
ATTACHMENT D2 - Amendment 02 Fee Estimate Increase Details
 Reyes Engineering, Inc. - new subconsultant
 Otak Project # 14781

<i>Task</i>	<i>Description</i>	Principal	Senior Electrical Designer	Electrical Designer	Electrical CAD	Clerical	<i>Total Hours</i>	<i>Total Budget by Task</i>
15.0	60 PERCENT DESIGN OF PHASE 2							
15.3	60 percent Construction Document Plans							
	Roadway and Sidewalk	8	18	12	8	2	48	\$5,630
16.0	90 PERCENT DESIGN OF PHASE 2							
16.2	90 percent Construction Document Plans							
	Roadway and Sidewalk	8	24	16	10	4	62	\$7,080
17.0	100 PERCENT DESIGN OF PHASE 2							
17.2	100 percent Construction Document Plans	4	10	6	4	1	25	\$2,937
18.0	FINAL DESIGN OF PHASE 2							
18.1	Final Construction Documents	2	6	2	4	1	15	\$1,675
	<i>Total Hours</i>	22	58	36	26	8	150	
	<i>Billing Rate</i>	\$175.00	\$122.00	\$106.00	\$78.00	\$69.00		
	<i>Total Labor Cost</i>	\$3,850	\$7,076	\$3,816	\$2,028	\$552		\$17,322
	<i>Direct Expenses (Drill Rig Subcontracts)</i>							
	<i>Direct Expenses (Laboratory Testing)</i>							
	Project Total							\$17,322

ATTACHMENT E2 - Proposed Design Schedule

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