

RESOLUTION NO. 2238

A RESOLUTION OF THE CITY OF WILSONVILLE AUTHORIZING THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) TO SIGN A PROFESSIONAL SERVICES AGREEMENT WITH OBEC CONSULTING ENGINEERS INC. TO PROVIDE PROFESSIONAL (ENGINEERING) SERVICES FOR THE PRELIMINARY ENGINEERING AND ENVIRONMENTAL PERMITTING PHASE OF THE KINSMAN ROAD EXTENSION (BARBER STREET TO BOECKMAN ROAD) AND THE BARBER STREET EXTENSION (KINSMAN ROAD TO COFFEE LAKE DRIVE) PROJECTS.

WHEREAS, the Capital Improvement Program for the City includes a FY 2009/10 appropriation of \$79,800 to fund the local match portion of the Freight Mobility funding (federal) to perform the preliminary engineering and environmental permitting for the extension of Kinsman Road from Barber Street to Boeckman Road (Project No. 540.950.45030.00000.4004); and

WHEREAS, the Capital Improvement Program for the City includes a FY 2009/10 appropriation of \$162,450 to fund the local match portion of the Earmark funding (federal) to perform the preliminary engineering and environmental permitting for the extension of Barber Street from Kinsman Road to Coffee Lake Drive (Project No. 540.950.45030.00000.4116); and

WHEREAS, the Capital Improvement Program for the City includes a FY 2010/11 appropriation of \$201,780 to fund the local match portion of the Freight Mobility funding (federal) to perform the preliminary engineering and environmental permitting for the extension of Kinsman Road from Barber Street to Boeckman Road (Project No. 540.950.45030.00000.4004); and

WHEREAS, the Capital Improvement Program for the City includes a FY 2010/11 appropriation of \$121,410 to fund the local match portion of the Earmark funding (federal) to perform the preliminary engineering and environmental permitting for the extension of Barber Street from Kinsman Road to Coffee Lake Drive (Project No. 540.950.45030.00000.4116); and

WHEREAS, the City Council passed Resolution #2168 authorizing the City to enter into Intergovernmental Agreements 24,186 Kinsman Road: SW Boeckman Road – SW Barber Street and 24,185 Barber Street: Coffee Lake Drive – Kinsman Road with ODOT on March 16, 2009 to obligate federal funds for said projects; and

WHEREAS, the City Engineer seeks the services of an engineering firm to provide professional services for the referenced project; and

WHEREAS, the City, through ODOT, solicited proposals to accomplish the professional services for the referenced project and five proposals were received; and

WHEREAS, the five proposals were reviewed by a panel consisting of both ODOT and City staff and subsequently ranked, with the top two consultant firms proceeding to interviews; and

WHEREAS, from the two firms that participated in the interview, selective process based on qualifications, OBEC Consulting Engineers, Inc. was selected as the consultant firm that was best qualified to provide the certain professional services for the referenced project; and

WHEREAS, after selecting OBEC Consulting Engineers, Inc. as the best qualified firm to provide the requested professional engineering services, staff and ODOT negotiated the scope and hours of the proposal with OBEC Consulting Engineers, Inc. in accordance with requirements for federally funded projects; and

WHEREAS, OBEC Consulting Engineers, Inc. proposed to accomplish the professional engineering services for a fee not to exceed \$990,847.04; and

WHEREAS, staff and ODOT has determined that the fees, as proposed by OBEC Consulting Engineers, Inc. are fair and reasonable.

NOW, THEREFORE, THE CITY OF WILSONVILLE RESOLVES AS FOLLOWS:

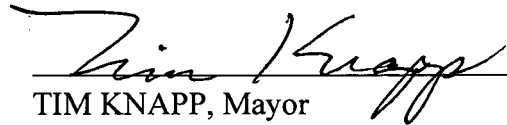
1. The City Council hereby authorizes ODOT to enter into a contract with OBEC Consulting Engineers, Inc. to perform the preliminary engineering and environmental permitting phase of the projects as indicated on the attached Exhibit "A":
2. Subject to final completion of all tasks specified in the Work Order Contract and any supplementary changes, the City Engineer is authorized to certify the required engineering services complete and make local match payments.
3. The City Engineer is authorized to approve change orders to this contract so long as total project costs do not exceed the budgeted amounts.

4. The City Council hereby authorizes the expenditures for this contract from the Fiscal Year 2009-10 and Fiscal Year 2010-11 budget as follows:


<u>ACCOUNT</u>	<u>FY</u>	<u>AMOUNT</u>
540.950.45030.00000.4004	09/10	\$79,800
540.950.45030.00000.4116	09/10	\$162,450
540.950.45030.00000.4004	10/11	\$201,780
540.950.45030.00000.4116	10/11	\$121,410

5. This resolution is effective upon adoption.

ADOPTED by the Wilsonville City Council at a regular meeting thereof this 7th day of June, 2010, and filed with the Wilsonville City Recorder this date.


TIM KNAPP, Mayor

ATTEST:


Sandra C. King, MMC, City Recorder

SUMMARY OF VOTES:

Mayor Knapp	Yes
Councilor Kirk	Yes
Councilor Núñez	Yes
Councilor Ripple	Excused
Councilor Hurst	Yes

List of Exhibits

Exhibit "A" – OBEC Consulting Engineers, Inc. Statement of Work

[Text that is highlighted in yellow provides instructions or guidance. Delete all highlighted instruction language prior to WOC execution.]

[Areas with blue highlight should be reviewed and revised or deleted as necessary for the project. Green highlighted areas include language related to ARRA stimulus funding (delete if not applicable).]

[The expiration date on page 1 should include project construction, if any, and through completion of post-construction and warranty work, if required for the project.]

[The SOW must be created within the scope of services identified in the PA/RFP. Define acronyms and terms in table in section A if there are many used throughout the document. Use a standardized, DOJ approved SOW template if one is available for the Services needed (check here: <http://www.oregon.gov/ODOT/CS/OPO/sow.shtml>) and include a schedule for delivery. If using a DOJ approved SOW template, keep in mind that inclusion of tasks that have not been reviewed and approved by DOJ or substantive revisions to the task and deliverable descriptions as contained in the template, will remove the WOC from the class exemption and the WOC will require legal sufficiency approval if it exceeds thresholds stated in OARs. If standardized templates are used, do not revise the task numbering used in the template.]

[Standardized Section Headings. The section headings throughout the WOC are standardized. Please do not change order or Section heading names (including the assigned alpha-formatting). For example, Section H should always be "Compensation", even if it is determined that some of the earlier sections are not needed. If there are sections that are not applicable to your WOC, delete the provisions of the section but leave the main section heading and enter "RESERVED" following the heading. Subheadings in sections may be deleted or revised per project-specific needs.]

Delete instructions throughout the document before executing WOC as follows:

- o From the "Edit" menu select "Replace";
- o With cursor in the "Find what" field, click "More" button, then "Format" then "Font", then in the font field select "Arial" text;
- o Leave the "Replace with" field blank;

Click "Replace All". This will delete all yellow highlighted text.]

**WORK ORDER CONTRACT # _____ PRICE AGREEMENT ("PA")/ATA # 25313
Architectural, Engineering and Land Surveying and Related Services**

Project Name/Location: Barber Street Extension/Kinsman Road Extension Development Project

This Work Order Contract ("WOC") is entered into by and between the Oregon Department of Transportation ("Agency" or "ODOT") and OBEC Consulting Engineers ("Consultant" or "Contractor"). This WOC incorporates by this reference:

- a. all of the Terms and Conditions contained in Part II of the above referenced PA/ATA;
- b. the provisions from all PA/ATA Exhibits [OR] with the exception of: _____
- c. the attached Statement of Work and Delivery Schedule;
- d. the Breakdown of Costs (BOC) and Appendix 1-WOC Rate Matrix; (Except for Fixed-Price, File copy only)

WOC EXPIRATION DATE: When Consultant has completed all Services and submitted all deliverables required under the WOC (including all warranty or corrective work, if any) or on **December 31, 2011**, whichever is later.

Does this WOC include federal funds? Y X N <input type="checkbox"/>		DBE Goal (Fed funded only) <input type="checkbox"/> % or N/A
MWESB Aspirational Target (for State or Fed funded where WOC will exceed \$1,000,000, including as amended): <input type="checkbox"/>		
Expenditure Account (EA) # <input type="checkbox"/>	Fed Aid #: <input type="checkbox"/> or N/A	ODOT Key # 14058/14429
A. The Total Not-to-Exceed ("NTE") amount for this WOC. [This total includes \$48,999.31 for contingency tasks, each of which must be separately authorized by Agency! [see section H.4, line 7]		\$990,847.04
[The following table is optional for customer use on full-service A&E projects. Delete if not applicable.]		
B. Total Project Budget (includes PE, CE, R/W & construction costs)		\$ <input type="checkbox"/>
C. Percentage of Total Project Budget (A ÷ B × 100) Thru current phase		<input type="checkbox"/> % Cumulative

No Payment shall be made for Services that are performed before all necessary governmental approvals have been obtained, the WOC is fully executed, and Notice-To-Proceed has been issued by Agency.

Certification: Any individual signing on behalf of Consultant hereby certifies under penalty of perjury:

(1) Consultant has read, understands and agrees to comply with the requirements set forth in the PA and in all Exhibits and other documents incorporated by reference in the PA/ATA. **Consultant understands and agrees that any exhibits or other documents not physically attached to the PA that are incorporated by reference have the same force and effect as if fully set forth herein. The full text of any exhibits or other documents incorporated by reference and not physically attached to the PA is available at the following Web address:**

<http://www.oregon.gov/ODOT/CS/OPO/AE.shtml#Price Agreement Contract Docs>

(2) (a) Consultant and its Associates are in compliance with and have no disclosures required per the ODOT Conflict of Interest Guidelines (available at the following Internet address:

<http://www.oregon.gov/ODOT/CS/OPO/AE.shtml#Misc>), or (b) Consultant has made all required disclosures per the ODOT Conflict of Interest Guidelines and, if determined necessary by Agency, a mitigation plan has been approved by Agency

(3) (a) Consultant's correct taxpayer identification number is listed in the above-referenced Price Agreement; (b) Consultant is not subject to backup withholding because (i) Consultant is exempt from backup withholding, (ii) Consultant has not been notified by the IRS that Consultant is subject to backup withholding as a result of a failure to report all interest or dividends, or (iii) the IRS has notified Consultant that Consultant is no longer subject to backup withholding; (c) s/he is authorized to act on behalf of Consultant, s/he has authority and knowledge regarding Consultant's payment of taxes, and to the best of her/his knowledge, Consultant is not in violation of any Oregon tax laws. For purposes of this certification, "Oregon tax laws" means a state tax imposed by ORS 401.792 to 401.816, ORS Chapters 118, 314, 316, 317, 318, 320, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Oregon Department of Revenue under ORS 305.620; (d) Consultant is an independent Consultant as defined in ORS 670.600; (e) if required by 40CFR1506.5(c), Consultant has no financial or other interest in the outcome of the project; and (f) in the event that Consultant is a general

partnership or joint venture, that Consultant signature(s) on this WOC constitute certifications to the above statements pertaining to the partnership or joint venture, as well as certifications of the above statements as to any general partner or joint venturer signing this WOC.

CONSULTANT: _____
Name & Title Date

LEGAL SUFFICENCY: (Approved by _____ via email dated _____) or (Not required per _____)

AGENCY: _____
Approved by ODOT Procurement Office Manager or designee Date

Approved by Branch/Region Manager or designee Date

Approved by Director / Deputy Director or designee Date

**STATEMENT of WORK and DELIVERY SCHEDULE
for
WOC # [REDACTED] under PA/ATA # 25313**

Project Name: Barber Street Extension/Kinsman Road Extension	Contract Number: 25313
Highway/Roadway Name: Barber Street/Kinsman Road	Work Order Number:
Completion Date: December 31, 2011	Key Number: 14058/14429
Location: Clackamas County, Oregon	EA Number:
Owner: City of Wilsonville	Federal Aid #: 8082(003) PE/ 2880(004) PE

	Agency's Project Manager ("APM")		Consultant's Project Manager ("PM")
Name:	Tom Weatherford	Name:	Jerry Lane
Address:	123 NW Flanders Street Portland, OR 97209	Address:	920 Country Club Rd, Suite 100B Eugene, OR 97401
Phone:	503-731-8238	Phone:	541-683-6090
Fax:		Fax:	541-683-6576
Email:	Thomas.l.weatherford@odot.state.or.us	Email:	jdl@obec.com

A. PROJECT DESCRIPTION and OVERVIEW of SERVICES

Agency is contracting with Consultant for Services in connection with the following project (the "Project"):

Barber Street Extension: Based on the 2003 Transportation System Plan (TSP), Barber Street between Kinsman Road and Coffee Lake Drive is a portion of the proposed 2-lane Minor Collector connecting Kinsman Road with Evergreen Drive and Brown Road. The requirement for this road improvement was established by the 2003 Transportation Systems Plan (adopted June 2, 2003 by Ordinance 552). This road extension project adds bike lanes and sidewalks meeting the Community Pathways and Bikeways Priority requirement established by the Bicycle and Pedestrian Master Plan (adopted December 18, 2006 by Ordinance 623). This project will provide enhanced transportation facilities to link with the Tri-Met Commuter Rail project and the Villebois development both currently under construction.

The proposed extension will begin at the intersection of Barber Street and Kinsman Road and head west crossing a Bonneville Power Administration (BPA) transmission line easement, the south tributary of Coffee Lake Creek and Coffee Lake Creek/Seely Ditch before connecting with Coffee Lake Drive in the Villebois development. Coffee Lake iCreek and the surrounding wetlands are within the City's Significant Resource Overlay Zone (SROZ) and the 100 YR flood plain. Approximately five (5) non-city tax lots will be affected.

The extension includes an extension of an 18" waterline, a new 56' wide bridge crossing of Coffee Lake Creek/Seely ditch (approximately 310' in length), a new 105' long 4'X6' box culvert for wildlife access, and the addition of bike lanes, sidewalks, street lighting, and landscaping.

Kinsman Road Extension: Based on the 2003 Transportation System Plan, the Kinsman Road Extension is a portion of the proposed 2-lane Minor Collector connecting Barber Street to a proposed project north of Boeckman Road. The requirement for this road improvement was established by the 2003 Transportation Systems Plan (adopted June 2, 2003 by Ordinance 552). This project will also provide intersection improvements at the intersection of Boeckman Road. This road extension project adds bike lanes and sidewalks meeting the Community Pathways and Bikeways Priority requirement established by the Bicycle and Pedestrian Master Plan (adopted December 18, 2006 by Ordinance 623). This project will provide enhanced transportation facilities to link Boeckman Road with the Commuter Rail project and the Villebois development currently under construction.

The proposed extension will begin at the intersection of Barber Street and Kinsman Road and head north crossing the south tributary of Coffee Lake Creek, parallel with a BPA transmission line easement, and end at the intersection of Boeckman Road and Kinsman Road. The road alignment will travel along the east side of Coffee Lake Creek and the surrounding wetlands are within the City's Significant Resource Overlay Zone (SROZ). Approximately eight (8) non-city tax lots will be affected.

The extension includes an extension of a 48" high pressure waterline, upsizing of an existing 21" and 27" sanitary sewer main, a new 160' long 4'X6' box culvert for wildlife access, signalized intersection at Boeckman Road, and the addition of bike lanes, sidewalks, street lighting, and landscaping.

Project Phasing

This Project is divided into three (3) phases:

- Phase 1: Preliminary Engineering (PE) and Design
- Phase 2: Final Design and Bidding Assistance
- Phase 3: Construction Engineering (CE)

This statement of work ("SOW") addresses Phase 1 of the Project. Each subsequent phase is optional and, at Agency's discretion, may be added via amendment(s) to this WOC.

Construction Budget

The estimated construction contract price for the project described in this WOC is \$ 21,446,000.

Acronyms and Definitions

Agency – Oregon Dept. of Transportation	NTP – Notice to Proceed
APM – Agency's Project Manager	ODOT – Oregon Department of Transportation
BOC – Breakdown of Costs	ORS – Oregon Revised Statute
CPFF – Cost Plus Fixed Fee	PA – Price Agreement
DAP – Design Acceptance Package	PM – Project Manager
DBE – Disadvantaged Business Enterprise	SOW – Statement of Work
FP – Fixed Price	T&M – Time and Materials
MWESB – Minority, Women & Emerging Small Businesses	WOC – Work Order Contract
NTE – Not to Exceed	

B. STANDARDS and GENERAL REQUIREMENTS

The standards and general requirements applicable to this WOC are stated in the parent PA/ATA.

C. REVIEW, COMMENT and SCHEDULE OVERVIEW

- Consultant shall coordinate with Agency staff as necessary and shall revise draft deliverables to incorporate Agency draft review comments.
- Consultant shall incorporate comments within 10 business days from receipt by Agency and return the Final to Agency staff, unless a different timeframe is specified for specific tasks or otherwise agreed to in writing by Agency.

D. FORMAT REQUIREMENTS

- Consultant shall submit draft deliverables in electronic format via email (and hard copy if requested).
- Consultant shall also submit all graphic files accompanying reports separately in .jpg or .tif formats unless specified differently by Agency.
- Each draft and final text-based or spreadsheet-based deliverable shall be provided in MS Office file formats (i.e., MS Word, Excel, etc.) and must be fully compatible with version used by Agency.
- Additional format requirements may be listed with specific tasks/deliverables throughout the SOW or in the PA.

E. TASKS, DELIVERABLES and SCHEDULE

Unless the WOC is terminated or suspended, Consultant shall complete all tasks and provide all deliverables (collectively, the "Services") included in this WOC and in accordance with the performance requirements and delivery schedules included in this WOC. The delivery schedule is listed under each task.

TASK 1 - PROJECT MANAGEMENT AND COORDINATION

Consultant shall provide management and coordination for all tasks included in this WOC. Consultant shall manage work performed by Consultant's staff and sub-consultants. Consultant shall also coordinate with Agency and the City on work tasks performed by others. Consultant shall provide quality assurance such that deliverables submitted to the Agency and the City have been peer reviewed prior to submittal. Consultant shall submit written progress reports of professional service activities monthly. Consultant shall prepare monthly progress reports and progress billings in a format approved by the Agency.

Task 1.1 Overall Project Management

Consultant shall schedule and coordinate Work Tasks within this WOC and shall maintain liaison and coordination with the Agency and City. Consultant's Project Manager (PM) shall communicate with Agency and City regarding the status of work being performed and to discuss issues or concerns that may impact the Project.

Consultant shall monitor the WOC budget and expenditures.

Consultant's Project Manager shall be the primary point of contact.

Consultant shall maintain a Project file to include engineering computations, assumptions, meeting agendas and minutes, working drawings, correspondence and memoranda.

Task 1.1 Deliverables

Consultant shall provide:

- Project files containing elements mentioned above must be delivered within thirty (30) calendar days of request by Agency.

Task 1.2 Project Schedule

Consultant shall submit a detailed Project schedule to Agency and City using MS Project 2000 for the Consultant's tasks. The Project schedule when submitted must have, as a minimum, the following milestones with associated submittal dates:

- Notice to Proceed (NTP)
- Submittals (each task/product)
- Draft and Final DAP completion dates
- Draft and final Design Exception and Design Concurrence Request Letter due dates, if required
- Agency and City review periods
- Meeting dates

Task 1.2 Deliverables

Consultant shall provide:

- One (1) electronic copy and one (1) hard copy (11" x 17") of the Microsoft Project schedule submitted to the Agency and City within fourteen (14) calendar days after the written NTP.
Target Date: June 18, 2010

Task 1.3 Monthly Invoices and Progress Reports

Consultant shall prepare monthly billing invoices in a format approved by the Agency at the time of NTP, which invoices shall, at a minimum, contain information and utilize formatting consistent with approved practices under Price Agreement 25313. The monthly billing invoices must include a Project status report that summarizes the activities completed that month. The invoice must compare the budget with the actual amount spent to date and percent complete during each billing invoice period.

Consultant shall provide a breakdown of the expense costs and copies of expense receipts.

Consultant shall submit monthly billing invoices (electronic copy) to the Agency's Region 1 Technical Center; (region1TCCContractInvoices@odot.state.or.us); and ODOT Procurement Office (OPO) (OPOInvoicing@odot.state.or.us) no later than the 20th of each month.

Task 1.3 Deliverables

Consultant shall provide:

- Up to eighteen (18) electronic monthly progress reports and billing invoices including a breakdown of expenses to be submitted to the Agency by the 20th of each month.

Task 1.4 Project Kickoff Meeting

Consultant shall organize and conduct one (1) Project kick-off meeting within twenty one (21) days of NTP. The Agency, City and lead personnel from each discipline of the Consultant's team shall attend the meeting. The meeting will be held at Wilsonville City Hall. The City will provide a meeting room and include appropriate City staff for attendance. For estimating purposes, it is assumed up to eight (8) Consultant staff (PM, Roadway Designer, and Project Assistant, and subconsultant discipline leads) shall attend the four (4) hour (includes travel time) Kickoff meeting.

Task 1.4 Deliverables

Consultant shall provide:

- Agenda two (2) days prior to the meeting
- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of meeting minutes to attendees within seven (7) days after the meeting

Task 1.5 Bi-Monthly Project Team Meetings

Consultant shall organize and conduct up to nineteen (19) project meetings with the Agency, City, and project design team. The Project Manager and Lead Roadway Designer shall attend all project meetings. Other discipline lead personnel from the Consultant's team shall attend the following number of project team meetings; traffic lead 4 meetings, hydraulics/stormwater lead 4 meetings, utility design lead 10 meetings, landscape lead 2 meetings, environmental lead 4 meetings, geotechnical lead 10 meetings, archaeological/historic lead 1 meeting, noise lead 1 meeting. The meeting will be held at Wilsonville City Hall. The City will provide a meeting room and include appropriate City staff for attendance. For estimating purposes, it is assumed up to eight (8) Consultant staff (PM, Roadway Designer, Project Assistant, and subconsultant discipline leads) shall attend the three (3) hour (includes travel time) Kickoff meeting

Task 1.5 Deliverables

Consultant shall provide:

- Agenda two (2) days prior to the meeting
- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of meeting minutes to attendees within seven (7) days after the meeting

Task 1.6 Public Open House

The Consultant shall prepare materials for and participate in two (2) public open-house meetings. The City will have overall responsibility for public involvement functions of the Project. The Consultant shall provide four staff members and a public involvement specialist to attend the meeting and shall provide comment sheets and exhibit materials for display. Exhibit materials shall consist of aerial mapping, and project plan sheets and details. The City will be responsible for producing and distributing newsletters, flyers and fact sheets required for a public involvement program. The Consultant will be

responsible for documenting comments and providing any responses to public comments. The City will be responsible for organizing, scheduling and Consultant shall be responsible for facilitating the public open houses. It is estimated the open houses will involve four (4) hours (including travel time).

Task 1.6 Deliverables -

Consultant shall provide:

- Attendance and participation at two (2) public open house meetings.
- Meeting refreshments at two (2) public open house meetings
- Two (2) draft and final aerial exhibits approximately 36" x 48" mounted and laminated on foam core board. Due twenty one (21) days after request by the City
- Six (6) project plan sheets approximately 36" x 48" mounted and laminated on foam core board. Due twenty one (21) days after request by the City
- Open House Comment Sheets (8-1/2" x 11"), 100 comment sheets estimated
- One (1) hard copy (8-1/2" x 11") and one (1) electronic copy (pdf) of written summary of each open house
- One (1) hard copy (8-1/2" x 11") and one (1) electronic copy (pdf) of written response to comments

Task 1.7 Council Meetings

The Consultant shall prepare materials for and participate in four (4) City Council meetings. It is anticipated there will be two (2) meetings for Barber Street and two (2) meetings for Kinsman Road. The Council meetings will be part of a regularly schedule Council work session. For estimating purposes, it is assumed up to three (3) Consultant staff (PM, Roadway Designer, Project Assistant) shall attend the four (4) hour (includes travel time) Council meeting Exhibit materials shall consist of aerial mapping, and project plan sheets and details. The City shall be responsible for scheduling and documenting the Council meetings.

Task 1.7 Deliverables

Consultant shall provide:

- Attendance and participation at four (4) council meetings.
- Two (2) draft and final aerial exhibits approximately 36" x 48" mounted and laminated on foam core board. Due twenty one (21) days after request by the City
- Six (6) project plan sheets approximately 36" x 48" mounted and laminated on foam core board. Due twenty one (21) days after request by the City

Task 1.8 Design Acceptance Workshop

Consultant shall attend one (1) Design Acceptance Workshop (DAW) to be held approximately twenty (20) working days after submittal of the Draft DAP. The purpose of the DAW is to reach final resolution to comments compiled from Agency and City reviews and reach consensus on the proposed design for the Project. The meeting will be held at Wilsonville City Hall. The City will provide a meeting room and include appropriate City staff for attendance. Agency will include appropriate Agency staff for attendance. For estimating purposes, it is assumed up to eight (8) Consultant staff (PM, Roadway

Designer, and Project Assistant, and subconsultant discipline leads) shall attend the five (5) hour (includes travel time) DAW meeting.

Task 1.8 Deliverables

Consultant shall provide:

- Agenda two (2) days prior to the meeting
- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of meeting minutes to attendees within seven (7) days after the meeting

Task 1.9 Provide Exhibits, Maps and Figures

The Consultant shall provide exhibits, maps and figures to the City, as required, throughout the length of the project. These exhibits, maps, and figures shall be prepared from existing project design files, other readily available project mapping and photographs and are for internal distribution to City staff and City Council for review and comment.

Task 1.9 Deliverables

Consultant shall provide:

- Two (2) hard copies (sizes variable) of exhibits, maps and figures to the City within twenty-four (24) hours of request

TASK 2 - LOCATION SURVEYING AND MAPPING

Consultant shall complete the surveying needs for the Project as described in the project description and overview of services. Consultant's surveying shall include establishing a control network, topographic surveying, and Centerline Resolution Horizontal Control and Recovery Survey. Consultant shall follow Agency Standards Manuals: Control, Recovery and Retracement Surveys 2008 Ed, Right of Way Monumentation Surveys 2008 Edition, Contract Plan Development Guide 2005 Edition and Route Surveying Manual 1998 Edition. This is an English unit Project (International Feet).

All Consultants' deliverables shall be reviewed and approved by Consultant's Professional Land Surveyor (PLS), registered in the State of Oregon. The limits of the survey are as follows:

New Kinsman Road: Start 150 feet south of the intersection of SW Kinsman Road and SW Barber Street. Topographic survey will extend 50 feet east and west of the existing centerline of SW Kinsman to the North R/W SW Barber Street; Then going North from the North R/W of SW Barber to the existing curb returns along SW Boeckman Road the topographic survey will extend Westerly to the BPA transmission lines and Easterly for 100 feet east of the proposed centerline. At the intersection of SW Boeckman Road and the proposed Kinsman Road the topographic survey will extend East and West for 200 feet and be within the right of way of SW Boeckman Road.

New Barber Street: Start 150 feet east of the intersection of SW Kinsman Road and SW Barber Street. Topographic survey will extend 100 feet North and South of the existing and proposed centerline of SW Barber Street to the West to East end of the existing Barber Street in the Legend at Villebois subdivision.

Task 2.1 Horizontal and Vertical Control Network

Consultant shall establish horizontal and vertical control network points according to Agency or County standards, and shall set survey control points to tie (survey) found monuments within the Project limits. Consultant shall use the Oregon State Plane Coordinate System – North Zone NAD83 (91) for the horizontal datum and shall use the NAVD 88 for the vertical datum. Consultant shall establish primary geodetic control monuments, (5/8" iron rod with plastic cap) and maintain line of sight throughout the entire Project limits. Consultant shall place these control monuments in locations such that they can be utilized during construction.

Consultant shall run digital level loops to control points that are utilized in preparing the Digital Terrain Model (DTM). Consultant shall use strategic points to develop survey DTM in non-critical areas that are no more than one (1) "shot" out from a network control point.

Consultant shall show the control network on the Centerline Resolution, Horizontal Control and Recovery Survey filed with the County Surveyor (see task 2.3). The published Geodetic Control used to control the Project horizontal network coordinates must be Local Datum Plane (LDP) and be relative to the Oregon State Plane-North Zone Coordinate System.

Task 2.1 Deliverables**Consultant shall provide:**

- Horizontal and vertical control network incorporated into Task 2.2

Task 2.2 Location Survey, Base Map, and Digital Terrain Model (DTM)

Consultant shall perform a topographic survey for the bridge and roadway work or other areas where Consultant's design engineers request information. Consultant's staff shall determine location and extent of surveying necessary to complete the design work.

Consultant shall survey existing surface features per the ODOT Route Surveying Manual and Base Map Standards, including but not limited to: face of buildings, fences, utilities, ditches, driveways, structures, culverts, trees, and signs within areas selected for topographic surveys. Consultant shall survey the existing centerline and edge of pavement with elevations consistent with the Project vertical datum. Consultant shall tie trees 6-inch or larger in diameter at chest height.

Consultant shall gather the field data necessary to show utility locations in the base mapping for the roadway design. Consultant shall request underground utilities to be marked in the field (known as "field locates") within the immediate Project area as identified. Consultant shall use the statewide "One-call" utility notification system and submit a "pre-survey" locate request. All utility operators with buried facilities subscribe to the One-Call system (OUNC-Oregon Utility Notification Center). When surveying marked lines, Consultant shall record in the field notes the utility ownership when describing the line data points. Consultant shall tie all non-tangent markings, i.e. survey shots shall be of sufficient frequency to accurately record each facility's alignment and deviation. Consultant shall indicate aerial line alignments by rotating cell elements for poles, such that, the small line that bisects the square or round symbol is arranged to the wire alignment.

Consultant shall measure vertically the lowest wires that cross street or road intersections, and shall calculate a true elevation of those wires. Consultant shall note this in the field notes.

Consultant shall record all visible utility identifications in the field notes. Such numbers shown on power and/or telephone poles, vault tags, telephone pedestals (also known as risers), cabinets, meters, fences or screened enclosures for gas regulators, and sanitary sewer pump stations are examples of what is needed for Agency or Consultant to communicate with the utility operator, as to what facility may be in conflict with the Project.

Consultant shall create a Digital Terrain Model (DTM) of the project site. Consultant's DTM shall depict the actual surface shape in each section. Consultant shall gather topographic data for this Project by techniques consistent with preparing a DTM and National Mapping Standards Accuracies. Consultant shall use a combination of survey data at break lines, features, and spot locations to develop the DTM model. Consultant shall perform the topographic survey to establish the configuration of the ground and the location of natural and man-made objects.

Consultant shall collect confidence points in accordance with Agency's "Route Surveying Procedures Manual" from the Survey Operations Unit current edition, with the intent to verify surface modeling within triangles created during development of the DTM surface, striving for intervals of no greater than 200-feet. Consultant shall collect confidence points over the DTM at approximately two-percent (2%) to five-percent (5%) of total points.

Consultant shall produce confidence report to Agency's standards.

Task 2.2 Deliverables

Consultant shall provide:

Project files submitted to the City and Agency within thirty (30) days of Project completion in a ring-bound notebook with CD of all files:

- One (1) copy of field notes
- Copy of the electronic CADD Files Location Base Map with DTM
- All files for the network control points in electronic (ASCII) format
- Electronic field files
- Electronic files of all listing kits
- Electronic files of all survey research
- Electronic files of all tax maps
- Confidence Point Report
- Control Point Worksheet with Project Local Datum Plane (LDP) coordinate system relationships and descriptions of monuments found and set LDP Coordinates with conversion factor to convert to Oregon State Plane - North Zone Coordinate System on all Geodetic Control points set
- Copy of "Centerline Resolution, Horizontal Control and Recovery Survey"

Task 2.3 Centerline Resolution, Horizontal Control and Recovery Survey

Consultant shall perform a search of survey records on file with the Agency and County, to reestablish the existing centerlines and rights-of-way.

Consultant shall research deeds and surveys of record, including, but not necessarily limited to, all property surveys, county road surveys, original county road resolutions, section corner surveys, and Department of Land Conservation (DLC) surveys. Consultant shall provide tax assessor maps, property deed search and copies of all pertinent deeds used to reestablish the existing right-of-way lines.

Consultant shall keep all copies of the research data collected, including but not limited to, surveys, deeds, assessors' maps, county road maps, government corner surveys, etc., in the Project file.

Consultant shall survey found property corners, property line fences and the existing edge of pavement to establish the existing road centerlines and rights-of-way. Consultant shall tie at least one (1) Public Land Survey System (PLSS) corner as necessary to show a relationship to the road centerlines. Consultant shall provide at least one (1) PLSS corner tie for right-of-way descriptions and the filing of the survey. Consultant shall tie these monuments to the control network.

Consultant shall show adjacent property lines and existing rights-of-way on the Location Base Map using surveys, deeds and assessor's maps in order to represent property boundaries.

Consultant's survey map format shall conform to the latest version of the Agency's "Survey Filing Maps Standards – Control, Recovery and Retracement Surveys"

Task 2.3 Deliverables

Consultant shall provide:

- Final "Centerline Resolution, Horizontal Control and Recovery Survey" in hard copy and electronic format must be included with the deliverables for Task 2.2

Task 2.4 Environmental Lines, Hydraulic Cross Sections, and Geotechnical Borings

Consultant shall provide cross section data for hydraulic analysis of the Seely Ditch channel. Consultant's Cross Section locations shall include: 3 (three) upstream from the proposed bridge at a point 1, 2 and 3 bridge lengths, one (1) on each side of proposed bridge, two (2) downstream from the proposed bridge at a point 1 and 2 bridge lengths downstream. Consultant shall extend Cross Sections lengths to an elevation above the 100-year flood elevation on both banks and include the channel bottom.

Consultant shall incorporate the data collected in this Task into the final Location Base Map under Task 2.2. Consultant's survey shall also tie delineated wetland, ordinary high water (OHW) and geotech bore holes performed by sub consultants.

Task 2.4 Deliverables

Consultant shall provide:

- Stream channel mapping, wetland delineations and geotech bore holes incorporated into final Location Base Map for Task 2.2

Task 2.5 Right of Way Base Map

Consultant shall prepare the R/W base map using field survey data, vesting deeds, land sales contracts, County assessor plats, subdivision plats, General Land Office plats, existing County R/W drawings, County surveys, road dedications, and road vacations. Consultant shall create coordinate correct mapping features in the "Design" model. The R/W base map must include the existing property lines, General Land Office lines (GLO), property owners names with deed recording numbers, the R/W centerline, R/W boundaries, access control lines, Project design centerlines, survey monuments, reference points. Consultant shall show the names of any features such as subdivisions, roads, streets, or rivers in the file. Consultant shall label each survey monument with a description and its coordinates or referenced in a table. Each centerline must include Engineer's Stationing, curve data, bearings, and coordinates.

The R/W base map should have the existing topography model referenced into it using a logical name containing "exist" or "shade". This existing topography (buildings, structures, edges of pavement, existing utility lines and facilities, cultural features, and natural features) must be visible to check the proper R/W layout to see if there are any areas of concern such as an easement line going through a current building, which triggers the need for special language to be included in a description.

Task 2.5 Deliverables

Consultant shall provide:

- One (1) electronic copy of R/W Base Map to the City during the Active stage of the Project.
Target Date: July 30, 2010

Task 2.6 Descriptions and Exhibit Maps

Consultant shall prepare right-of-way files and/or easements and exhibit maps for 13 parcels to be acquired.

Task 2.6 Deliverables

Consultant shall provide:

- One (1) hard copy (8 1/2" x 11") of legal right-of-way descriptions and right-of-way exhibit maps for acquisition to the City (thirteen (13) parcels assumed). **Target Date: August 26, 2011**

Task 2.7 Staking for Acquisition

Consultant shall provide staking of right-of-way or easements for acquisition viewing – one (1) time only. The staking shall be immediately before the Right of Way Agent starts the actual negotiations with the property owners.

Task 2.7 Deliverables

Consultant shall provide:

- Field book notes and electronic data points due upon request from the City or within 30 days of project completion, whichever comes first.

TASK 3 - ENVIRONMENTAL DOCUMENTATION AND PERMITS

Consultant shall provide the City and Agency environmental documentation and permits required for completion of this Project in Clackamas County, Oregon. The environmental documentation and permits to be completed by Consultant for this Project shall include:

- Wetland Delineation Report
- Ordinary High Water (OHW) Determination
- No Effect Memorandum
- Essential Fish Habitat Documentation
- Aquatic and Wildlife Habitat Inventory Memorandum
- Rare Plant and Noxious Weed Survey Memorandum
- Biological Assessment (Contingency Task)
- Fish Passage Plan
- Corps/Division of State Lands (DSL) Joint Permit Application
- Phase I Hazardous Materials Corridor Assessment
- Historic Resource Survey
- Phase 1 Archaeology Survey
- Noise Study

Wetland Delineation

Task 3.1 Conduct Wetland Delineation Fieldwork

Consultant shall conduct a wetland delineation using the required criteria and methodologies detailed in the Corps of Engineers Wetlands Delineation Manual (January 1987) and the Western Mountains, Valleys, and Coast Supplement (Corps of Engineers, 2008). These manuals provides the guidelines and methodology for defining the limits of wetlands and waters. All wetland and waters boundaries will be flagged in the field so they are clearly identifiable to the surveyors. The delineation shall be conducted only on the portions of the project site not previously delineated. Consultant shall reconcile wetland delineation with previous delineation within project limits.

Task 3.1 Deliverables

Consultant shall provide:

- Conduct field work within four (4) weeks from NTP. **Target Date: July 2, 2010**

Task 3.2 Wetland Delineation and Function and Values Assessment Report/Determine Wetland Impacts

Consultant shall prepare a wetland delineation and Function and Values Assessment report suitable for review by the DSL and COE. The report must include information on the soils, hydrology, and vegetation of the project site. Graphics must depict the topography of the project site, soils mapped by the Natural Resources Conservation Service (formerly Soil Conservation Service), National Wetlands Inventory information, and the locations of the wetland and waters boundaries delineated by Consultant. The appendix must include data sheets documenting the findings in the field.

The assessment of the quality of the wetlands shall be conducted using the reference-based method in the appropriate Hydrogeomorphic Method (HGM) guidebook for Oregon wetlands or the Oregon Rapid Assessment Protocol (ORWAP), as required by DSL. The wetland assessment data sheets should be included in the report's appendix.

Consultant shall determine wetland impacts both in acreage and functions to aid in the assessment of various alignments. The results shall be included in a Wetland Impact Memorandum.

Task 3.2 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Draft Wetland Delineation and Assessment Report. Two (2) copies to City and one (1) copy to Agency three (3) weeks after the wetland boundaries have been mapped. **Target Date: August 22, 2010**
- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Final Wetland Delineation and Assessment Report. Two (2) copies to City and one (1) copy to Agency two (2) weeks after receiving final comments on the Draft Wetland Delineation and Assessment Report.
- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Wetland Impact Memorandum. Two (2) copies to City and one (1) copy to Agency three (3) weeks after the wetland boundaries have been mapped. **Target Date: August 22, 2010**

Task 3.3 Submit Report to Department of State Lands

Consultant shall submit the Final Wetland Delineation Report to the DSL with a completed Wetland Determination Request form. Consultant shall also submit Final Wetland Delineation Report to COE with a request for a jurisdictional determination.

Task 3.3 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy of the Wetland Determination Request Form to DSL and one (1) copy of a jurisdictional determination request to COE within two (2) weeks upon receipt of review comments on the draft Wetland Delineation and Assessment Report from the City and Agency

Aquatic and Wildlife Habitat Inventory

Task 3.4 Aquatic and Wildlife Habitat Field Survey

Consultant shall complete field work for an aquatic and wildlife habitat inventory for each recommended alignment. Consultant shall utilize City's existing 2003-2005 Fish and Aquatic Habitat Survey, 2001 Natural Resources Plan, data collection for the Boeckman Road Extension project (to be provided by City), and shall identify and document existing habitat conditions, including species occurrence, critical habitat, and wildlife movement corridors .

Assumptions:

Consultant is not expected to conduct an assessment of fish presence using equipment such as an electroshocker.

Task 3.4 Deliverables

Consultant shall provide:

- Conduct field work for the aquatic and wildlife habitat inventory within four (4) weeks after receiving NTP. **Target Date: July 2, 2010**

Task 3.5 Draft Aquatic and Wildlife Habitat Inventory Memorandum

Consultant shall prepare a Draft Aquatic and Wildlife Habitat Inventory Memorandum for each recommended alignment. The presence of sensitive, threatened and endangered species shall be documented, and recommendations prepared for avoiding or reducing the impact to these species and other local wildlife. The assessment shall be used to determine the potential impacts associated with the construction of the proposed project and recommendations for potential wildlife crossing locations. The inventory and assessment results shall be incorporated into the Joint Permit Application.

Task 3.5 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Draft Aquatic and Wildlife Habitat Inventory Memorandum. Two (2) copies to City and one (1) copy to Agency three (3) weeks after Consultant completes Task 3.4. **Target Date: July 23, 2010**

Task 3.6 Final Aquatic and Wildlife Habitat Inventory Memorandum

Consultant shall prepare a Final Aquatic and Wildlife Habitat Inventory Memorandum for each recommended alignment. The presence of sensitive, threatened and endangered species will be documented, and recommendations prepared for avoiding or reducing the impact to these species. The assessment will be used to determine the potential impacts associated with the construction of the proposed project. The inventory and assessment results will be incorporated into the Joint Permit Application.

Task 3.6 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Final Aquatic and Wildlife Habitat Inventory Memorandum. Two (2) copies to City and one (1) copy to Agency within three (3) weeks upon receipt of review comments from the City and Agency on the Draft Aquatic and Wildlife Habitat Inventory Memorandum.

Rare Plant and Noxious Weed Survey

Task 3.7 Conduct Rare Plant and Noxious Plant Survey

Consultant will conduct a field survey of the project area for the presence of suitable habitat for protected and sensitive plant species, as well as for the presence of noxious weed species. A single field visit shall be conducted. If the site visit is conducted outside the flowering times for listed rare species, the Consultant shall determine whether habitat is present that could support listed species.

The project area shall also be reviewed for the presence of invasive plants; in particular those listed as noxious weeds by the Oregon Department of Agriculture. In some cases, depending on their listing status, immediate control measures may be required.

Task 3.7 Deliverables**Consultant shall provide:**

- Field survey within four (4) weeks after receiving NTP. **Target Date: July 2, 2010**

Task 3.8 Draft Rare Plant and Noxious Plant Survey Memorandum

The Consultant shall prepare a draft Rare Plant and Noxious Plant Survey Memorandum summarizing findings from the plant survey of the project area. The report must list non-native plant species encountered within the study area, determine which species are considered noxious and in need of control, and if necessary, describe appropriate methods of control. If protected plant species are found within the project site, this information shall be included in a Biological Assessment, to be completed under Contingency Task 3.16. If protected species or their habitat are not present within the project area, the consultant's findings shall be included in a No Effect Determination to be prepared under Task 3.11.

Task 3.8 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Draft Rare Plant and Noxious Plant Survey Memorandum. Two (2) copies to City and one (1) copy to Agency three (3) weeks after Consultant completes Task 3.7. **Target Date: July 23, 2010**

Task 3.9 Final Rare Plant and Noxious Plant Survey Memorandum

The Consultant shall prepare a Final Rare Plant and Noxious Plant Survey Memorandum summarizing findings from the noxious plant survey of the project area. The report must list non-native species encountered within the study area, determine which species are considered noxious and in need of control, and if necessary, describe appropriate methods of control. If protected plant species are found within the project site, this information shall be included in a Biological Assessment, to be completed under Contingency Task 3.16. If protected species or their habitat are not present within the project area, the consultant's findings shall be included in a No Effect Determination to be prepared under Task 3.11.

Task 3.9 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Final Rare Plant and Noxious Plant Survey Memorandum. Two (2) copies to City and one (1) copy to Agency within three (3) weeks upon receipt of review comments from the City and Agency on the Noxious Plant Survey Memorandum.

No Effect Memorandum/SLOPES IV Compliance Documentation

Task 3.10 Agency Coordination

Preliminary Project scoping indicates that the Project will require documentation outlining how the Project will not result in any effects on wildlife and botanical species listed under the Federal and State ESA. Based on information gathered under Task 3.4 and Task 3.7, Consultant shall confirm that Federal or State listed species do not occur in or use the Project Study Area

Based on preliminary project scoping and on past requirements of the adjacent Boeckman Road Extension project, Upper Willamette River Chinook ESU do not occur in or use the PSA. However, water quality treatment may not be sufficient to achieve a No Effect determination and Essential Fish Habitat (EFH) coordination, as established by the 1996 reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA or Magnuson-Stevens Act) and the Department of Commerce's EFH consultation regulations (50 CFR 600.905 - 930), will be required. To address potential water quality impacts and EFH coordination, the project may need to comply with SLOPES IV (Roads, Culverts, Bridges and Utility Lines). Consultant shall confirm project's compliance with ESA based on telephone communication with National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS).

Task 3.10 Deliverables

Consultant shall provide:

- Compile information and conduct telephone surveys within eight (8) weeks after receiving NTP.
Target Date: July 30, 2010

Task 3.11 Draft No Effect/SLOPES IV Compliance Documentation

Consultant shall prepare a Draft No Effect Document following the latest outline developed by Agency. The document must clearly describe the Project location, the proposed action, and other information required to complete the latest No Effect Document. In addition, the document must also include any recommendations for timing of vegetation clearing or demolition activities to increase the probability of Project compliance with the Migratory Bird Treaty Act (MBTA).

If NMFS confirms SLOPES IV compliance is sufficient for the Project, Consultant shall prepare a draft SLOPES IV Compliance Document describing how the project complies with SLOPES IV terms and conditions.

Task 3.11 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Draft "No Effect" Document and three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of SLOPES IV Compliance Document. Two (2) copies to City and one (1) copy to Agency three (3) weeks after Consultant completes Task 3.10. **Target Date: August 26, 2011**

Task 3.12 Final No Effect/SLOPES IV Compliance Documentation

Consultant shall prepare a Final "No Effect" Document following the latest outline developed by Agency. The document must clearly describe the Project location, the proposed action, and other information required to complete the latest "No Effect" Document. In addition, the document must also include any recommendations for timing of vegetation clearing or demolition activities to increase the probability of Project compliance with the Migratory Bird Treaty Act (MBTA).

If NMFS confirms SLOPES IV compliance is sufficient for the Project, Consultant shall prepare a draft SLOPES IV Compliance Document describing how the project complies with SLOPES IV terms and conditions.

Task 3.12 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of a Final "No Effect" Document and three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Final SLOPES IV Compliance Document. Two (2) copies to City and one (1) copy to Agency within three (3) weeks upon receipt of review comments from the City and Agency on the Draft "No Effect" Document and Draft SLOPES IV Compliance Document.

CONTINGENCY TASKS

Task 3.13 identifies specific deliverables that Agency at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 3.13 and the identified deliverables if written (email acceptable) NTP is issued by Agency. The Not-to-Exceed (NTE) amount for completing this contingency task is \$19,651.73 and is only billable if authorized and after Agency acceptance of Deliverables.

Task 3.13 Wetland Mitigation Plan (CONTINGENCY TASK)

If on-site mitigation is a viable and practicable option, the Consultant shall identify a wetland mitigation location in consultation with the City and shall collect required data on existing vegetation, hydrology, and other factors critical to achieving mitigation success. Consultant shall determine mitigation ratios and will consult with COE, DSL and ODFW, as necessary. Consultant shall prepare a draft compensatory wetland mitigation plan (CWMP) and develop conceptual grading and planting plans illustrating design options and planting palette recommendations for the mitigation area as appropriate.

Consultant shall prepare a final grading plan and a final planting plan illustrating the proposed mitigation. Consultant shall also prepare a final Mitigation Plan following OAR 141-085-0680 through

141-085-0715. All mitigation documentation and graphics must be included as an appendix to the draft JPA.

Assumptions:

- The mitigation area will be located within the Coffee Lake Creek Wetlands area

Task 3.13 Deliverables

Consultant shall provide:

One (1) electronic copy and one (1) hard copy of the Draft Wetland Impact Assessment, Wetland Function and Values Assessment and Compensatory Wetland Mitigation Plan to the City and Agency for review. **Target Date: August 26, 2011**

One (1) electronic copy and one (1) hard copy of the Final Wetland Impact Assessment, Wetland Function and Values Assessment and Compensatory Wetland Mitigation Plan to the City and Agency three (3) weeks after receiving comments.

Task 3.14 Draft Joint Permit Application

Consultant shall prepare a draft Joint Permit Application (JPA) for the COE and DSL to authorize work within the jurisdictional wetlands and waters within the proposed project area.

Consultant shall provide pre-submittal coordination with representatives of the COE and DSL to confirm permitting requirements and application procedures. This coordination shall include pre-application correspondence in the form of telephone calls, e-mail, and memorandums to document permit needs. If necessary, Consultant shall arrange for a brief pre-application meeting in the field or at the Portland or Salem offices of the COE and DSL to review the Project plans and to assess initial agency comments on the Project. In conjunction with any pre-application meeting, Consultant shall also coordinate with the Project engineers to assemble the appropriate plans, drawings, memorandums, details, and specifications to support the permit application. Consultant shall ensure that features and impacts are correctly identified for the permit applications. Consultant shall prepare all necessary drawings, maps, and photographs for inclusion in the permit applications. Consultant engineers shall prepare engineering drawings, impact figures and project description information for inclusion in the JPA, with assistance from Consultant biologist. Consultant shall also prepare brief narratives and descriptions on Project purpose and need, potential impacts, and Project alternatives using information provided by Agency/City staff as necessary to complete the JPA.

If impacts to identified regulated wetland resources will be compensated for by purchase of wetland mitigation credits from a mitigation bank, the appropriate mitigation documentation will be included in the JPA.

Assumptions:

- The Preferred Design for the Project will be selected prior to the preparation of the JPA.

- A Pre-application meeting with COE and DSL will be limited to Portland or Salem offices of these agencies or in the field, and be limited to one (1) separate meeting with each agency.
- Consultant engineers shall provide all engineering plans, concept drawings, site plan details and Project description information, as necessary to quantify and document wetland and waters impacts for the JPA.

Task 3.14 Deliverables

Consultant shall provide:

- One (1) electronic copy of the Draft JPA. **Target Date: August 26, 2011**

Task 3.15 Final Joint Permit Application

Consultant shall prepare a Final Joint Permit Application (JPA) for the COE and DSL to authorize work within the jurisdictional wetlands and waters within the proposed project area. All mitigation documentation and graphics must be included as an appendix to the draft JPA. . Consultant shall provide a complete copy of the JPA and Stormwater Management Report to DEQ for the purpose of Section 401 Certification in accordance with DEQ and COE procedures.

Following the submission of the JPA, Consultant shall respond to questions or comments raised by the agencies during their review of the permit application. Consultant shall assist Agency and City staff in developing appropriate responses to questions regarding the information submitted to the agencies on this Project. This task may include correspondence and clarification of the JPA in the form of telephone calls, letters, or e-mails, and related tasks as necessary to clarify regulatory agency concerns and to facilitate the issuance of the COE and DSL permits for this Project.

Assumptions:

DSL will require a permit fee, depending on the type of authorization required and the amount of fill or excavation to be performed in wetlands or waters. Permit fees will be the responsibility of City.

Task 3.15 Deliverables

Consultant shall provide:

- One (1) electronic copy of the Final JPA, with the Final Mitigation Plan within two (2) weeks upon receipt of review comments from the City and Agency

CONTINGENCY TASKS

Task 3.16 identifies specific deliverables that Agency at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 3.16 and the identified deliverables if written (email acceptable) NTP is issued by Agency. The Not-to-Exceed (NTE) amount for completing this contingency task is \$21,035.79 and is only billable if authorized and after Agency acceptance of Deliverables.

Task 3.16 Biological Assessment (BA) (CONTINGENCY TASK)

The project may require Biological Assessments (BA) for listed fish or plants with the National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS), respectively. Consultant shall prepare a Biological Assessment (BA) for the Project that follows the Agency template for proposed or listed threatened and endangered species under the Federal ESA. The BA must identify impacts to species and habitat from the Preferred Alternative and a mitigation plan to offset the impacts.

In preparing the BA, Consultant shall:

- Provide services and recommendations to Agency on the determination of effects, identifying appropriate mitigation measures, and must coordinate with Agency prior to contacting the regulators.
- Obtain Agency approval on all written materials that will be shared with the regulators prior to distribution.
- Contact Agency Environmental staff who must attend all meetings with state and federal regulators scheduled by Consultant.
- Attend up to three (3) meetings with Agency to discuss project elements, identify and develop appropriate mitigation measures, or prepare for meetings with state and federal regulators.
- Coordinate and schedule up to two (2) meetings each with NMFS, USFWS, and Oregon Department of Fish and Wildlife (ODFW) concerning the project design, species and habitat impacts and mitigation concepts.

Agency Responsibilities

Agency and City shall review Draft Biological Assessment and coordinate with the regulating agency to obtain a review of the Draft Biological Assessment and provide feedback to Consultant.

Consultant biologist shall provide an electronic copy of the Draft BA to Agency and City for review. After a two (2)-week comment period, Consultant shall incorporate the comments and submit the Final BA to Agency and City.

Assumptions:

No additional site visit will be required for the BA. Site information for BA preparation will be obtained during fieldwork under Task 4.2.1 and Task 4.3.1.

- A Federal nexus will be established for this Project, triggering Section 7 ESA consultation requirements.
- The Project BAs will be submitted with the Project Joint Permit Application.

Task 3.16 Deliverables

Consultant shall provide:

- Two (2) 8-1/2" x 11" hard copies and one (1) electronic copy of the draft Biological Assessment to the Agency and City eight (8) weeks after receiving NTP for this contingency task
- Two (2) 8-1/2" x 11" hard copies and one (1) electronic copy of the final BA to the Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

Phase I Hazardous Materials Corridor Assessment

The Consultant shall perform a Phase I Hazardous Materials Corridor Assessment (Phase I HMCA) for the Barber Street and Kinsman Road Extension Project Development. The objective of the Phase I HMCA is intended to identify potential Recognized Environmental Conditions (RECs) and Environmental Features of Concern (EFOC) within and/or near the project site. An REC is defined by the American Society for Testing and Materials (ASTM) standard E 1527-05 as a substance or petroleum product on a property under conditions that indicate an existing release, past release, or a material threat of release into structures on the property or into the ground, groundwater, or surface water of the property. An EFOC is a known or suspected contaminant source that is close enough to a project area to warrant additional investigation to evaluate the condition's potential to materially affect a project site. Examples of EFOCs include RECs such as leaking underground storage tanks (LUSTs), transformers, undocumented fill material, drycleaners, auto repair/maintenance facilities, and hazardous materials spills. The Phase I HMCA shall be performed in accordance with the Agency HazMat Program Procedures Guidebook for a HazMat Corridor Study.

Consultant shall prepare a draft Phase I HMCA report summarizing the information obtained through the Tasks listed below. Consultant shall complete the Phase I HMCA according to generally accepted environmental procedures as outlined in the "Hazardous Waste Guide for Project Development" (1990), by the American Association of State Highway and Transportation Officials (AASHTO) Special Committee on Environment, Archaeology and Historic Preservation by completing the following scope of work:

Task 3.17 Physical Setting Source

Available sources shall be reviewed to obtain physical information about the project area. The physical setting sources shall include (when available) a current U.S. Geological Survey (USGS) 7.5-minute topographic map and geologic, hydrologic, and soil information.

Task 3.17 Deliverables

Consultant shall provide:

- A description of the physical setting shall be included in the Phase I HMCA Report prepared in Task 3.21

Task 3.18 Environmental Data Base Search

Consultant shall review available Federal and State environmental records for identified hazardous waste sites using government web-based databases or by using a commercial database search report. The Consultant shall use the search radii set forth below. Consultant shall review DEQ files to determine known concentrations and extent of contamination.

Database Record	Search Radius
Federal RCRA Generators List	Site and Adjoining
State-Equivalent NPL List (ECSIS)	1.0 mile
State Fire Marshal's Spill Response List	0.5 miles
Oregon Permitted Landfill List	0.5 miles
State Leaking LUST List	0.5 miles

Database Record	Search Radius
State Certified UST List	Site and Adjoining

Task 3.18 Deliverables**Consultant shall provide:**

- A summary of the environmental data base search shall be included in the Phase 1 HMCA Report prepared in Task 3.21

Task 3.19 Site Reconnaissance

Consultant shall conduct a visual reconnaissance that shall consist of systematically traversing the project area and viewing adjacent properties from roadways and public access areas. Photographs documenting reconnaissance observations shall be provided with the report. The reconnaissance shall be used to identify potential sources of contamination that could impact the proposed project during construction or that could result in Agency acquiring contaminated property. The Consultant will not enter private property or contact the property owners or occupants without a permit of entry supplied by the Agency.

Task 3.19 Deliverables**Consultant shall provide:**

- A summary of the site reconnaissance shall be included in the Phase 1 HMCA Report prepared in Task 3.21

Task 3.20 Historical Research

Consultant shall conduct historical research to identify past uses of the Project Corridor and adjacent properties. Such research shall include one or more of the following:

- Sanborn Fire insurance Maps
- Aerial Photographs
- Reverse City Directories
- Historic property ownership/occupancy records or building permits

The resource (or combination of resources) selected must, if possible, provide historic information regarding land use back at least 50 years at 10 year intervals, or the Consultant must demonstrate that such information is not readily available.

Task 3.20 Deliverables**Consultant shall provide:**

- A summary of the historical research shall be included in the Phase 1 HMCA Report prepared in Task 3.21

Task 3.21 Phase I HMCA Report

Consultant shall prepare a draft Phase I HMA report summarizing the information obtained through Work Tasks 1 through 4. The report shall include field observations, environmental database information, historic land use, a scaled map showing the location of all identified potential sources of contamination, photographs, copies of historic data, copies of State and Federal databases, copies of relevant portions of the Oregon Department of Environmental Quality files for sites which may impact Project construction, an AASHTO Initial Site Assessment Checklist (a single page document) and other relevant documentation. The report shall include opinions and conclusions about the conditions observed at the properties that comprise the project area. The report shall also include recommendations for a Phase II Environmental Site Assessment (ESA) investigation if appropriate. The report and opinions shall be based solely on the services described. The final report shall be developed based upon the Agency's review comments.

Assumptions:

- The scope of services is neither an evaluation of site conditions for the presence of wetlands nor a geotechnical engineering study.
- The Project Site can be treated as a single property.
- The Phase I HMA will not include:
 - Field sampling of soil, water, air or other media.
 - Laboratory analysis of any material.
 - An inspection for asbestos, lead-based paint, or any other hazardous building material.
 - An evaluation of the presence of radon gas.
 - A chain of title.

Task 3.21 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Draft Phase I HMA Technical Report with Appendices to Agency and City for review. **Target Date: July 30, 2010**
- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Final Phase I HMA Technical Report with Appendices within two (2) weeks upon receipt of review comments from the City and Agency

Historic/Archaeological Survey**Task 3.22 RESERVED****CONTINGENCY TASKS**

Task 3.23 identifies specific deliverables that Agency at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 3.23 and the identified deliverables if written (email acceptable) NTP is issued by Agency. The Not-to-Exceed (NTE) amount for completing this contingency task is \$3,745.84 and is only billable if authorized and after Agency acceptance of Deliverables.

Task 3.23 Prepare Section 106 Determination of Eligibility (DOE) (CONTINGENCY TASK)

Agency has concluded that one (1) historic resource within the Project area may be eligible for listing in the NRHP that will require a DOE form to evaluate the resource. Consultant shall first consult with Agency to determine if the resource will need a DOE. Consultant shall prepare both draft and final DOE Reports for one historic resource that is considered potentially eligible for the NRHP. For the DOE Report, consultant shall include a brief physical description, history, context, map and photographs of the resource and note whether it possess integrity of location, design, setting, materials, workmanship, feeling, and association. For the DOE Report, Consultant shall also prepare a Project Submittal Letter in Agency-approved format. Consultant shall prepare one (1) DOE report as part of this WOC.

Task 3.23 Deliverables**Consultant shall provide:**

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of Draft DOE report and Submittal Letter to Agency and City for review four (4) weeks after receiving NTP for contingency task
- Five (5) 8-1/2" x 11" hard copies and one (1) electronic copy of the Final DOE report and Submittal Letter to Agency within two (2) weeks upon receipt of review comments from the City and Agency

Task 3.24 Prepare Section 106 Finding of Effect (FOE) Report

Section 106 FOE Reports are prepared for historic resources that have been listed or determined eligible for listing in the NRHP. FOE Reports assess the effects of the project on the historic resource including: physical destruction or damage; alteration or rehabilitation; removal; change of setting; introduction of visual, atmospheric or audible elements; neglect of a property; or transfer or sale of ownership.

Consultant shall prepare a Section 106 FOE Report for one Listed or Eligible Resource. Following coordination with Agency staff, Consultant shall prepare a FOE Report for a resource determined eligible for the NRHP and for which a DOE was prepared. Consultant shall prepare one (1) FOE report as part of this WOC.

Consultant's FOE Report shall include a narrative assessment of the potential effects of the Project to the historic resource. Consultant shall include in the FOE Report a discussion of the alternatives to avoid or minimize adverse effects. Upon request from Agency WPM, Consultant shall coordinate with the Project designer or Project team leader to discuss available options to avoid or minimize adverse effects to listed or eligible historic resources. Consultant shall coordinate with Agency and Agency will coordinate with the FHWA and SHPO. Consultant shall include a Project Submittal Letter with the FOE Report.

Task 3.24 Deliverables**Consultant shall provide:**

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of Draft Finding of Effect Report and Submittal Letter to Agency and City for review eight (8) weeks after receiving NTP for contingency task.

- Five (5) 8-1/2" x 11" hard copies and one (1) electronic copy of the Final Determination of Eligibility Report and Submittal Letter to Agency within two (2) weeks upon receipt of review comments from the City and Agency

Task 3.25 Phase 1 Archaeology Survey

The purpose of this Task is to establish the presence or absence of archaeological sites eligible for the NRHP, which may be present within the APE for the proposed transportation project. The Phase 1 Archaeological Survey shall include pedestrian survey and/or sub surface probing. Sub surface probing shall be conducted in areas where ground visibility is low, in high probability areas, or to determine the depth and boundaries of identified archaeological sites. The Consultant shall prepare a Phase 1 Archaeological Field Investigation and Technical Report.

Consultant's Cultural Resources Specialist shall conduct a search of the SHPO database to determine if previously recorded archaeological sites or archaeological field surveys have been done within the project area. A literature review and records search would determine if there is potential for the presence of archaeological resources. This task shall include gathering information at the SHPO, reviewing reports for studies done nearby, and inspecting historic-period maps and General Land Office maps. The proposed project area appears to be a likely location for the presence of prehistoric archaeological resources.

Consultant's Cultural Resources Specialist shall conduct a pedestrian reconnaissance level survey to determine if there is evidence of archaeological sites. The findings of the literature review and pedestrian survey shall be summarized in a draft report to be submitted to Agency for review and comment. The report must describe any additional work that would need to be completed to satisfy the requirements of Section 106. Consultant's Cultural Resource Specialist shall incorporate Agency comments into a final report to be submitted to Agency.

The Agency Archaeologist will be responsible for drafting a concurrence letter to SHPO and for obtaining necessary clearance documents from SHPO.

The Phase 1 Field Investigation and Technical Report required under this task must include:

- A project description and description of the APE with map
- Background information including ethnohistorical information, historical context, and previous archaeological studies
- Field methodology with maps indicating transects and placement of shovel probes
- A section on findings, artifact descriptions, recommendations and a summary that will include a discussion of the site(s) identified and whether or not they meet the NRHP criteria and maintain integrity. Additionally, maps, photos and an artifact catalog are to be provided. (Note that establishing eligibility without testing for prehistoric sites may be difficult; however, this is possible with historic sites if sufficient historic documentation is provided. Please see the SHPO guidelines. Consultant should provide enough information to write a detailed DOE, if required)
- Site forms and isolate forms for newly discovered archaeological sites and isolates
- Site update forms for previously identified archaeological sites
- The Phase 1 Field Investigation and Technical Report shall be prepared in a format acceptable to Agency and SHPO

As part of development of the Phase 1 Field Investigation and Technical Report, Consultant shall conduct:

- A literature review for the project area
- Pedestrian survey with transects spaced 20 meters apart or less for evidence of prehistoric or historic artifacts, using survey standards established by SHPO. The survey will be conducted within the designated APE, as well as in areas where ground will be affected by the construction of access roads, project construction, contractor staging areas, disposal sites, or detours. Waterways are considered sensitive areas for cultural resource sites. In addition, surveys shall be conducted in areas with no record of previously recorded surveys or areas with surveys older than ten (10) years.
- Sub-Surface Probing. Consultant shall be responsible for obtaining all of the necessary excavation permits and for providing copies to the Agency CPM. Field methodology shall be consistent with SHPO guidelines.
 - Probing shall be based on an established research design.
 - Up to 20 probes, minimally 30-centimeters (cm) (12-inches [in]) in diameter will be dug to sterile (at least two levels void of cultural material) or to 50 cm (20 in) below the surface.
 - Material shall be collected and cataloged if the work is done under a SHPO permit.
 - Curation will be identified within the excavation permit obtained by the Consultant.
 - Augering can be used to extend shovel tests and to establish soil stratigraphy or depth of archeological deposits and shall be worked into the appropriate research design.
 - Sediments shall be screened with a ¼-in mesh screen.
 - Use of probes is required in areas of low ground visibility, in areas of high probability (when warranted), and to establish site boundaries.
 - If sites are present and Agency decides to pursue additional investigations, then this WOC will be amended to include an Archaeological Phase 2 Study.

Task 3.25 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of Draft Phase 1 Archaeological Field Investigation and Technical Report to Agency and City for review. **Target Date: August 13, 2010**
- Five (5) 8-1/2" x 11" hard copies and one (1) electronic copy of Final Phase 1 Archaeological Field Investigation and Technical Report to Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

Task 3.26 Pre-Application NMFS & ODFW Fish Passage Review

Pre-application fish passage coordination is recommended by NMFS and ODFW on all Projects and it is a requirement on any Project that does not explicitly meet the conditions set forth in SLOPES IV. Prior to submittal of the SLOPES Compliance, JPA, or ODFW Fish Passage Plan, Consultant shall provide relevant information regarding the Project to NMFS and ODFW. This information shall consist of preliminary Project plans, active channel width measurements, and a memo containing a description of how the Project does and/or does not meet NMFS and ODFW basic fish passage requirements. Consultant shall work with NMFS, ODFW, and Project team to identify solutions and to resolve any concerns. Consultant shall obtain active channel width measurements from Coffee Lake Creek and verify with NMFS and ODFW the average active channel width.

Upon satisfactory resolution of any fish passage issues, Consultant shall incorporate proper information into permit documents, plans, and Project specifications. This task shall also consist of completing an ODFW Fish Passage plan. The Fish Passage Plan shall be submitted in conjunction with the JPA.

Task 3.26 Deliverables

Consultant shall provide:

- Final ODFW Fish Passage Plan shall be submitted with the JPA in Task 3.14

Noise Study

Consultant shall perform a noise study to determine the noise impacts from the proposed project. The noise study shall be based on the Agency's Noise Manual, revised 2007. The proposed project is to extend SW Kinsman Road from SW Barber Street north to SW Boeckman Road, and to extend SW Barber Street west to the planned Villebois development. The City of Wilsonville will provide the status of the planned Villebois development and identify any planned and permitted lots in the development.

It is anticipated that no noise mitigation measures will be required for the project. However, if through the course of the noise study and analysis it is determined that mitigation would be required, a contingency task is included to conduct a cost benefit analysis of potential mitigation measures.

Task 3.27 Site Visit and Noise Monitoring

The Consultant shall conduct an on-site visit to identify noise monitoring locations and to conduct noise monitoring. The Consultant shall perform noise monitoring at up to 3 locations along the project corridor, locations to be determined during the site visit. Short-term noise monitoring shall take place between 3:00 PM and 6:00 PM during a typical weekday. Traffic counts of all major roadways shall be performed during the on-site short-term noise monitoring. The Consultant shall use the short-term measured noise levels to validate the FHWA Traffic Noise Model and establish the existing noise environment. Noise sensitive properties and area land use shall also be identified.

Task 3.27 Deliverables

Consultant shall provide:

- A summary of the noise monitoring results shall be included in the Noise Study Technical Report prepared in Task 3.29

Task 3.28 Impact Analysis

The Consultant shall predict operational noise levels from the project roadway for the existing condition, the no-build condition, and one build alternative. The noise model used for this analysis shall be the latest version of the FHWA Traffic Noise Model (TNM). The noise model shall be validated using traffic counts and noise levels measured during the on-site noise monitoring.

Modeling receivers shall be placed at business along the new northern corridor and at representative locations in the planned Villebois development based on proposed land uses and information from the City. The number of representative receiver locations used in the noise model shall be determined during the on-site inspection phase of the project. Receiver locations shall be modeled using TNM to predict existing, future no-build and future build traffic noise levels. Based on the modeled noise levels, the locations of noise impacts shall be identified.

Task 3.28 Deliverables

Consultant shall provide:

- A summary of the noise impact analysis shall be included in the Noise Study Technical Report prepared in Task 3.29

Task 3.29 Noise Study Technical Report

The Consultant shall prepare a noise study technical report summarizing the findings of the noise study. The contents must include land use, existing noise, methodology, impacts, and recommended mitigation. Construction noise impacts must be discussed. The report must include maps of existing and proposed alignments on a vicinity scale map. Impacts, monitoring locations and sensitive receivers must be shown on area maps at an appropriate scale. Tables must be prepared to aid in the understanding of project impacts and mitigation.

Task 3.29 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of Draft Noise Study Technical Report to Agency and City for review. **Target Date: December 31, 2010**
- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Final Noise Study Technical Report to Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

CONTINGENCY TASKS

Task 3.30 identifies specific deliverables that Agency at its discretion may elect to authorize Consultant to produce. Consultant shall only complete Task 3.30 and the identified deliverables if written (email acceptable) NTP is issued by Agency. The Not-to-Exceed (NTE) amount for completing this contingency task is \$4,565.94 and is only billable if authorized and after Agency acceptance of Deliverables.

Task 3.30 Mitigation Analysis (CONTINGENCY TASK)

Consultant shall conduct mitigation analysis to determine appropriate mitigation measures for noise impacts. Where noise mitigation is considered, the Consultant shall perform a cost effectiveness analysis as required by the Agency. Mitigation measures found to be reasonable and feasible shall be recommended for inclusion in the project. Consultant shall revise the Final Noise Study Technical Report to include the results of the noise mitigation analysis.

Task 3.30 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Revised Final Noise Study Technical Report to Agency and City within four (4) weeks of receiving NTP for this contingency task

TASK 4 - UTILITY LOCATION AND COORDINATION

Consultant shall coordinate with utilities and identify any conflicts or impacts associated with construction of the Project.

Task 4.1 Review Data and On-going Coordination

Consultant shall identify and locate all utilities within the Project limits, initiate contacts with utilities, and identify potential conflicts from construction of the Project. Further details can be found in ODOT booklet, "*Procedures for Utility Relocations/Reimbursement for Federally Funded Local Public Agency Projects*".

This work includes but is not limited to coordinating and collecting utility-provided three-dimensional location of any underground utilities that may be in conflict with the Project work, and coordinating with the utility owners to resolve those potential conflicts.

Task 4.1 Deliverables

Consultant shall provide:

- Existing utility information gathered in Task 4.1 shall be included in the survey base map provided in Task 2.2

Task 4.2 Utility Coordination Meetings

Consultant shall schedule, attend and document on-site meetings with potentially affected utilities. The meeting shall be conducted on the Project site after impacts have been identified.

Note:
Consultant anticipates no more than four (4) site meetings.

Task 4.2 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy of meeting summary or minutes to Agency and City within one (1) week of meeting.

Task 4.3 Utility Conflict Memorandum

Consultant shall prepare a Utility Conflict Memorandum that identifies all utilities within the project limits and utilities that are in potential conflict with the proposed project design. The memorandum must include a discussion of each utility within the project limits, coordination efforts performed to identify conflicts, a summary of the potential utility conflicts, and the proposed resolution of conflicts. The Utility Conflict Memorandum shall be included in the Design Acceptance Package prepared in Task 11.

Task 4.3 Deliverables

Consultant shall provide:

- One (1) 8 ½" x 11" hard copy and one (1) electronic copy of the Utility Conflict Memorandum to Agency and City. **Target Date: April 29, 2011**

TASK 5 - GEOTECHNICAL INVESTIGATIONS

The Consultant shall perform geotechnical field explorations, laboratory testing and engineering analysis, and shall provide preliminary geotechnical recommendations for bridge foundations, culvert installations, retaining walls (including gravity walls and MSE walls), embankments, underground pipeline excavation and placement, and pavement design for the proposed extension of Barber Street and Kinsman Road.

The Consultant shall conduct a total of 18 borings with depths ranging between 15 and 100 feet, on or adjacent to the proposed structures to help characterize subsurface soils. These borings shall also be used for new pavement design and facility design for the extensions of Barber Street and Kinsman Road. The detailed scope of work provided below shall be performed based on the following assumptions.

Assumptions:

- Field explorations on the proposed roadway extensions will be conducted during daytime hours using a track-mounted drill rig. Mobilization and demobilizations for the drilling operations may take place on or near the existing stub-outs for the proposed roadway extension. No traffic control is anticipated.
- The City will negotiate, acquire, and provide all necessary right of entry permits based on the Consultant's Subsurface Exploration Work Plan.
- The City will assist the consultant to remove trees and brushes, and provide the access roads for all drilling locations.
- The subsurface material is not contaminated and no testing will be performed to investigate the possible presence of toxic or hazardous materials and petroleum products.
- The drill cuttings and drilling mud will be collected in sealable steel drums and removed from the site. Drill cuttings will be spread on-site.
- The City and design team will provide locations and depths for two infiltration tests to be completed in existing borings.
- The borings will be abandoned and backfilled according to Oregon Water resources Department regulations.

Task 5.1 Conceptual Geotechnical Assessment

The Consultant shall review available background literature and the proposal plans for the project. The Consultant shall perform a site reconnaissance. The purpose of the site reconnaissance is to observe existing site conditions. Based on the office and field studies the Consultant shall prepare a short letter providing local geologic conditions, expected subsurface conditions, and conceptual opinions for the proposed structures and facilities.

Task 5.1 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Conceptual Geotechnical assessment letter to the Agency and City within four weeks of receiving the NTP. **Target Date: July 2, 2010**

Task 5.2 Geotechnical Subsurface Explorations**Field Exploration Work Plan**

The information gathered during the site reconnaissance in Task 5.1 shall be used to develop field exploration locations and approaches. The Consultant shall submit one (1) field exploration work plan including health and safety plan. Other permits, including access, environmental, and work within the right-of-way shall be completed by others.

Field Explorations

The Consultant shall perform field explorations consisting of eighteen (18) borings as described in the Field Exploration Work Plan. The Consultant's field exploration work plan must consider geologic, seismic, and groundwater conditions, ground improvement, potential foundation types and construction methods, potential field-testing, and pavement design needs. The summary of the field explorations is presented in the following table:

Summary of Proposed Borings

Proposed Structures	Number of Borings	Depth of Borings (ft)	Total Drilling Footage (ft)
New Bridge and Culvert	5	100	500
New Northern Culvert	1	40	40
Road Extension with 48-in water line – west side	6	25	150
Road Extension with Storm/Sanitary – east side	6	15	90
Total			780

Soil samples shall be obtained at 2.5-foot to 5-foot intervals using either a standard penetration sampler or a Shelby tube sampler. No rock coring is anticipated for the project.

To support the design of new roadway sections the Consultant shall perform up to 5 dynamic cone penetration (DCP) tests. The DCP testing shall be performed at locations of proposed borings. Approximately four (4) tests shall be performed along the Kinsman road alignment and one (1) performed along the Barber Street alignment.

Up to two (2) infiltration tests will be conducted in selected borings at depths and locations necessary to gather data for the design of stormwater facilities. Grain size analysis will be completed on soil samples taken from the locations of the infiltration tests.

Two observation wells shall be installed on City property within the project limits. The location of the observation wells shall be verified with the City. The observation wells shall be 30 feet deep.

Task 5.2 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Field Exploration Work Plan to the Agency and City within two weeks after NTP. **Target Date: June 18, 2010**

Task 5.3 Laboratory Testing

The Consultant shall perform laboratory tests on disturbed and undisturbed soil samples obtained from the explorations to characterize the subgrade soils and to develop soil properties for the bridge foundations, new pavement, retaining walls, and embankment design. The laboratory testing may consist of up to fifty (50) moisture content tests, fifteen (15) Atterberg limits tests, and twelve (12) sieve analysis tests, six (6) consolidation tests, two (2) unconfined compression tests, and two (2) corrosion potential analytical suites.

Task 5.3 Deliverables

Consultant shall provide:

- Results of laboratory testing shall be included in deliverables for Task 5.5 and Task 5.6

Task 5.4 Geotechnical Data Analysis

The Consultant shall complete a geotechnical study and develop design parameters and construction recommendations for the project. The engineering evaluation and analyses shall be performed in accordance with the ODOT *Geotechnical Design Manual* (December 2009), the ODOT Bridge Design and Drafting Manual (2004 with April 2009 revisions), and the AASHTO LRFD Bridge Design Specifications (4th edition with 2008 and 2009 interim revisions). Work to be performed under this task includes, but is not limited to the following:

- Develop recommendations for earthwork including site preparation, excavation, cut and fill slopes, traffic signals and signage, structural fill material, fill placement, stormwater infiltration, culvert installations, and wet weather construction;
- Recommendations for the new bridge foundation shall include:
 - Perform a site-specific seismic hazard evaluations including ground motion, potential liquefaction, and seismic global stability of the bridge abutments; no seismic mitigation measure is planned and scoped;
 - Evaluate drilled shafts and piles for new bridge foundation alternatives; and develop design recommendations for the structural design;

- Evaluate constructability of the bridge foundations.
- Recommendations for retaining walls and embankments shall include:
 - Evaluate global stability, settlement, and bearing capacities for any proposed MSE walls, and develop geotechnical recommendations for the proposed walls;
 - Evaluate global stability, settlement, bearing capacities, and lateral earth pressures for the proposed gravity walls and/or cantilever concrete walls;
 - Evaluate slope stability, settlement, for the proposed embankments, and provide geotechnical design recommendations and construction considerations.
- Recommendations for stormwater infiltration and culverts shall include:
 - Provide field infiltration rates and design recommendations for the locations where infiltration tests are conducted.
 - Evaluate alternatives and provide recommendations for culvert foundations;
 - Evaluate consolidation settlement of the culvert approach fills;
 - Develop culvert construction considerations.
- Recommendations for ground improvement shall include:
 - Evaluate ground improvement alternatives for both static and seismic subsurface conditions;
 - Develop order of magnitude cost estimate for the ground improvements alternatives.
 - Develop preloading recommendations including methods, wick drains, preloading magnitude, schedule, and durations, if needed;
 - Develop stone column recommendations including depth, area and replacement ratio, of improved ground zone, if needed;
 - Develop deep soil mixing recommendations including depth, area and replacement ratio, of improved ground zone, if needed;
- Recommendations for the pavement shall include:
 - Evaluation of suitability of the existing soil for use as roadway subgrade, including mitigation alternative such as cement-soil mixing;
 - Perform and recommend a pavement section based on AASHTO Guide for Design of Pavement Structures (1993) and ODOT Pavement Design Guide (2007).
 - Provide pavement design recommendations for PCC and HMAC roadway pavement sections and bridge approach pavement sections.

Task 5.4 Deliverables

Consultant shall provide:

- Results of geotechnical data analysis shall be included in deliverables for Task 5.5 and Task 5.6

Task 5.5 Draft Geotechnical and Pavement Design Report and Draft Geotechnical (Foundation) Data Sheets

The Consultant shall prepare a draft geotechnical and pavement design report. The geotechnical and pavement design report shall summarize the field investigation and engineering studies, and provide design recommendations for the proposed bridge, ground improvement, traffic signals and signage, culverts, pavement, retaining walls, and embankments. Draft Geotechnical (Foundation) Data Sheets

shall be developed for the proposed bridge, up to two (2) culverts, up to three (3) retaining walls, and one signal pole.

Task 5.5 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the draft Geotechnical and Pavement Design Report within ten (10) weeks of completing the field explorations. **Target Date: August 27, 2010**
- Six (6) Draft Geotechnical (Foundation) Data Sheets shall be provided as an appendix to the Draft Geotechnical and Pavement Design Report. Geotechnical Data Sheets shall be produced at half scale on 11" x 17" paper for inclusion in the report. **Target Date: August 27, 2010**

Task 5.6 Final Geotechnical and Pavement Design Report and Geotechnical (Foundation) Data Sheets

The Consultant shall provide geotechnical engineering support during DAP design phase including a review of applicable plans and specifications. A Final Geotechnical and Pavement Design Report will be developed based upon City and Agency review comments including additional required engineering recommendations. The geotechnical and pavement design report must summarize the field investigation and engineering studies, and provide design recommendations for the bridge foundations, traffic signals and signage, ground improvement, pavement, retaining walls, culverts, and embankments. The Draft Geotechnical (Foundation) Data Sheets shall be modified to incorporate Agency and City comments.

Task 5.6 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the final Geotechnical and Pavement Design Report within two (2) weeks upon receipt of review comments from the City and Agency.
- Six (6) Geotechnical (Foundation) Data Sheets shall be provided as an appendix to the Final Geotechnical and Pavement Design Report. Geotechnical Data Sheets shall be produced at half scale on 11" x 17" paper for inclusion in the report. Geotechnical Data Sheets shall be provided within two (2) weeks upon receipt of review comments from the City and Agency.

TASK 6 - FLOODPLAIN STUDY/STORM WATER MANAGEMENT

Floodplain Study

Consultant shall prepare a floodplain study for the project area and shall utilize the flood plain study from 2007 Boeckman Road Extension project which identified areas to the north and west of the site. The floodplain study shall comply with the Federal Emergency Management Agency (FEMA) requirements for the completion of a Flood Insurance Study (FIS). The Consultant shall provide a study that includes the following requirements:

- Floodplain topographic survey

- Hydrologic analysis
- Floodplain (hydrologic and hydraulic) modeling
- Design of Seely Ditch road crossing for fish passage, if required

Task 6.1 Baseline Hydrology and Hydraulics Report

Consultant shall complete an analysis of the existing hydrologic conditions for the project area. This task will include research of the existing floodplain analysis completed in the area and updating baseline modeling of the project area. This task includes up to two project coordination meetings.

Task 6.1 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Baseline Hydrology and Hydraulics Report to Agency and City. **Target Date: July 30, 2010**

Task 6.2 Draft Hydrology and Hydraulics Report

Consultant shall complete an analysis of the proposed modifications to the hydrology and hydraulics of the basin including floodplain impacts. Analysis shall be completed for up to three alignment options. Results shall be summarized in a Draft Hydraulics Report. This task includes up to two project coordination meetings.

Task 6.2 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Draft Hydrology and Hydraulics Report to Agency and City for review. **Target Date: August 27, 2010**

Task 6.3 Final Hydrology and Hydraulics Report

The Consultant shall prepare a final Hydrology and Hydraulics Report detailing the selected alignment alternative. A floodplain study for the proposed alignment shall be prepared to comply with Federal Emergency Management Agency requirements for the completion of a Flood Insurance Study. Consultant shall provide a FEMA no-rise certification for the proposed improvements. The analysis shall be completed using the existing floodplain model and the proposed road alignment. This task includes one project coordination meeting.

Task 6.3 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of Final Hydrology and Hydraulics Report to Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

Stormwater Management

Consultant shall complete an analysis of the hydrologic conditions for the project area for up to three alignment alternatives. This analysis shall be used to determine the appropriate stormwater controls for the proposed project and potential impacts to basin hydrology. Water quality shall be managed for the road project, coordinated whenever possible with nearby private development, in accordance with the proposed 2010 City of Wilsonville Stormwater Master Plan, and 2006 Public Works Standards. Alternative stormwater management techniques shall be considered, and where feasible, incorporated into the design of the stormwater facilities. The Consultant shall provide services including:

- Hydrologic analysis of the project area compatible with InfoSWMM
- Hydraulic analysis and stormwater facility design
- Creek classification and condition
- Utilize Low Impact Development (LID) techniques, to the extent possible

Task 6.4 Stormwater Alternatives Analysis and Design

The Consultant shall prepare up to three alternatives for management of water quality and quantity for proposed improvements. The alternatives shall include both traditional offline and Low Impact Development facilities to meet the stormwater requirements of both City of Wilsonville and NOAA Fisheries. This task includes up to three project coordination meetings.

Task 6.4 Deliverables:

Consultant shall provide:

- The results of the Stormwater Analysis and Design shall be summarized in the deliverables for Task 6.5

Task 6.5 Draft Stormwater Management Report

The Consultant shall prepare a Draft Preliminary Stormwater Management Report documenting compliance with City of Wilsonville and NOAA Fisheries stormwater standards for the selected design including stormwater facility sizing and design. An analysis shall be completed of the hydraulics of the Seely Ditch crossing for compliance with ODFW fish passage requirements. Stormwater analysis shall be completed using InfoSWMM. Draft Stormwater Facility Plans including facility layout, details, and landscape design shall be prepared. Piping shall be coordinated with the conveyance design. This task includes up to two project coordination meetings.

Task 6.5 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the draft Stormwater Management Report to Agency and City for review. **Target Date: December 31, 2010**

Task 6.6 Final Stormwater Management Report

The Consultant shall prepare a Final Preliminary Stormwater Management Report incorporating all comments received on the draft report and prepare documents for submission to the Agency, City and NOAA Fisheries. The Consultant shall prepare Final DAP stormwater facility plans incorporating comments received on the draft plan. The Final DAP stormwater facility plans shall be included in the final DAP prepared under Task 11. This task includes one project coordination meeting.

Task 6.6 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the final Stormwater Management Report to Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

TASK 7 - UTILITY DESIGN

Water Transmission Main Analysis and Design

The Consultant shall provide complete alternatives analysis and preliminary design services for the proposed 48" water transmission main. Consultant shall produce a technical memorandum and 30% level plans and cost estimates for the proposed waterline. It is anticipated that the proposed waterline route will follow or parallel the proposed extension of Kinsman Road, and will include approximately 2650 linear feet (LF) of new 48" water transmission main, with associated fittings and appurtenances.

Task 7.1 Water Transmission Alternatives Analysis

Consultant shall produce three alternative conceptual (10%) level designs, determine the environmental impacts of each alternative, and prepare a technical memorandum describing the alternatives considered and the environmental impacts of each alternative. The technical memorandum must include discussion of potential pipe materials, geotechnical considerations, right of way considerations, concept design plans with alignments and elevations, and recommended corrosion protection elements. The corrosion protection discussion shall specifically address cathodic protection strategies to discharge induced current from nearby Bonneville Power Administration power lines.

Task 7.1 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Water Transmission Line Technical Memorandum to Agency and City. **Target Date: December 31, 2010**

Task 7.2 Draft DAP Water Transmission Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 20% level, and prepare a draft technical memorandum describing the preferred design alternative and the environmental impacts associated with it. The 20% plans and technical memorandum shall be included in the Draft Design Acceptance Package prepared in Task 11.

Task 7.2 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Draft DAP water transmission plans to Agency and City for review. **Target Date: April 29, 2011**

Task 7.3 Final DAP Water Transmission Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 30% level, and update the draft technical memorandum to incorporate any City and Agency review comments. The 30% plans and technical memorandum shall be included in the Final Design Acceptance Package prepared in Task 11.

Task 7.3 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Final DAP water transmission plans to Agency and City within four (4) weeks upon receipt of review comments from the City and Agency.

Water Distribution Line Analysis and Design

The Consultant shall provide complete alternatives analysis and preliminary design services for the proposed 18" water distribution line. Consultant shall produce a technical memorandum and 30% level plans and cost estimates for the proposed waterline. It is anticipated that the proposed waterline route will follow or parallel the proposed extension of Barber Street and will include approximately 1350 LF of new 18" water main, with associated fittings and appurtenances. There will be two water crossings of Seely Ditch and a tributary.

Task 7.4 Water Distribution Alternatives Analysis

Consultant shall produce two alternative conceptual (10%) level designs, determine the environmental impacts of each alternative, and prepare a technical memorandum describing the alternatives considered and the environmental impacts of each alternative. The technical memorandum must include discussion of potential pipe materials, geotechnical considerations, concept design plans with alignments and elevations, recommended corrosion protection elements, and water crossing options.

Task 7.4 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Water Distribution Line Technical Memorandum to Agency and City. **Target Date: December 31, 2010**

Task 7.5 Draft DAP Water Distribution Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 20% level, and prepare a draft technical memorandum describing the preferred design and the environmental impacts associated

with it. The 20% plans and technical memorandum shall be included in the Draft Design Acceptance Package prepared in Task 11.

Task 7.5 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Draft DAP water distribution plans to Agency and City for review. **Target Date: April 29, 2011**

Task 7.6 Final DAP Water Distribution Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 30% level, and update the draft technical memorandum to reflect any City and Agency reviewer comments. The 30% plans and technical memorandum shall be included in the Final Design Acceptance Package prepared in Task 11.

Task 7.6 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Final DAP water distribution plans to Agency and City within four (4) weeks upon receipt of review comments from the City and Agency.

Sanitary Sewer Main Analysis and Design

The Consultant shall provide alternatives analysis and preliminary design services for the proposed 30" diameter (nominal diameter – pipe sizing to be confirmed by Consultant using flow data provided by City) sanitary sewer system extension. Consultant shall produce a technical memorandum and 30% level plans and cost estimates for the proposed sanitary sewer. It is anticipated that the proposed sanitary sewer route will follow or parallel the proposed extension of Kinsman Road and will include approximately 2650 LF of new sanitary sewer, with associated fittings and appurtenances. Consultant shall use City provided sewer flow data to confirm required diameter of the proposed sewer pipe is in conformance with the relevant master plan. Recommended sanitary sewer alignment shall accommodate the City requirement for 20-ft minimum spacing to the 48" water transmission line.

Task 7.7 Sanitary Sewer Main Alternatives Analysis

Consultant shall produce two alternative conceptual (10%) level designs, determine the environmental impacts of each alternative, and prepare a technical memorandum describing the alternatives considered and the right of way considerations and environmental impacts of each alternative. The technical memorandum must include discussion of potential pipe materials, concept design plans with alignments and elevations, and geotechnical considerations.

Task 7.7 Deliverables:

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the Sanitary Sewer Main Technical Memorandum to Agency and City. **Target Date: December 31, 2010**

Task 7.8 Draft DAP Sanitary Sewer Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 20% level, and prepare a draft technical memorandum describing the preferred design and the environmental impacts associated with it. The 20% plans and technical memorandum shall be included in the Draft Design Acceptance Package prepared in Task 11.

Task 7.8 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Draft DAP sewer plans to Agency and City for review. **Target Date: April 29, 2011**

Task 7.9 Final DAP Sanitary Sewer Plans/Technical Memorandum

Consultant shall develop the preferred alternative design to the approximate 30% level, and update the draft technical memorandum to reflect any City and Agency reviewer comments. The 30% plans and technical memorandum shall be included in the Final Design Acceptance Package prepared in Task 11.

Task 7.9 Deliverables:

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of Final DAP sewer plans to Agency and City within four (4) weeks upon receipt of review comments from the City and Agency.

TASK 8 - TRAFFIC ANALYSIS

Task 8.1 Traffic Analysis

The City of Wilsonville Transportation System Plan recommended future extensions of Barber Street and Kinsman Road north of Wilsonville Road. The Barber Street extension was shown to extend west of Kinsman Road connecting to the existing Barber Street within the Villebois development. The Kinsman extension was shown to extend north of Barber Street to Boeckman Road. The Consultant shall conduct transportation modeling using the updated 2035 Metro Regional Transportation Plan (RTP) model as directed by Agency. Additional modeling (with added detail in the project site vicinity) shall be used to determine future intersection forecasts at the following project intersections:

- Kinsman Road/Barber Street
- Kinsman Road/Utility Vault
- Kinsman Road/Commuter Rail Access
- Kinsman Road/Boeckman Road
- Boeckman Road/Boberg Road
- Barber Street/Boberg Road

- Barber Street/Boones Ferry Road

PM Peak hour traffic counts (4:00 to 6:00 p.m.) will be collected at the following intersections for the traffic analysis:

- Barber Street/Kinsman Road
- Barber Street/Commuter Rail Parking Access (existing commuter rail access traffic volumes)
- Boberg Road/Utility Vault Access (existing access to Boberg)
- Boberg Road/Boeckman Road
- Barber Street/Boberg Road
- Barber Street/Boones Ferry Road

Consultant shall also collect one a.m. peak hour count (7-9 a.m.) at the Commuter Rail Station parking lot access on Barber Street. The a.m. peak hour Commuter Rail traffic volumes will assist in the left turn evaluation for the future Commuter Rail access to Kinsman Road.

Following final determination of 2035 PM peak hour forecasts and alignment selection by the City, the Consultant shall conduct traffic analysis to determine the necessary lane configurations and storage needs for the above study intersections..

A short memorandum shall be prepared summarizing traffic analysis findings of the existing 2010 and future 2035 traffic analysis scenarios. The traffic analysis memorandum must summarize the 2035 necessary lane configurations, storage needs, and operating conditions (lane configurations and storage needs will only be provided at the new study intersection approaches). Consultant shall meet with City staff to discuss the findings of the draft traffic analysis memorandum.

Task 8.1 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of draft Traffic Analysis Memorandum to Agency and City for review. **Target Date: August 27, 2010**
- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of final Traffic Analysis Memorandum to Agency and City within two (2) weeks upon receipt of review comments from the City and Agency

Task 8.2 Traffic Engineering Design/Cost Estimates

The Consultant shall prepare 30% DAP level plans and cost estimates for striping, street lighting and the future traffic signal at Boeckman Road/Kinsman Road. The following plan sheets will be prepared:

- Kinsman Road/Boeckman Road Traffic Signal plan (1"=20')
- Kinsman Road Striping- 3 plan sheets (1"=40')
- Barber Street Striping- 2 plan sheets (1"=40')
- Kinsman Road Lighting- 3 plan sheets (1"=40')
- Barber Street Lighting- 2 plan sheets (1"=40')

A total of eleven (11) plan sheets shall be prepared with submittals provided at the 30% DAP stage consistent with the rest of the design work. All existing and proposed elements including, but not limited

to overhead and underground utilities, roadway striping, curbs, sidewalks, edge of pavement, right-of-way, and traffic signal equipment shall be shown on the project base map. All traffic engineering plans and specifications shall meet City and Agency standards and shall be completed in English units. The limits of the striping and lighting plans shall include Kinsman Road from Barber Street to Boeckman Road (approximately 2,600 feet) and Barber Street from Kinsman Road to the Villebois development (approximately 1,400 feet). Consultant shall with work BPA staff to coordinate the traffic signal design as it relates to the overhead BPA utility lines that run on the west side of the Kinsman Road/Boeckman Road intersection.

Consultant shall conduct detailed photometric analysis using AGI for Kinsman Road and Barber Street to determine the light levels as desired by the City Engineer. The lighting analysis shall be used to determine the street light spacing, mounting height, and light wattage.

Consultant shall prepare cost estimates for traffic signal, street lighting, signing and striping work consistent with the 30% design. The signing costs shall be based on cost comparisons to other similar projects.

Thirty (30%) percent traffic engineering plan sheets shall be included in deliverables for Task 11.

Task 8.2 Deliverables

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of striping, signal, and illumination plans to Agency and City. **Target Date: April 29, 2011**

TASK 9 - PRELIMINARY ROADWAY DESIGN

Consultant shall evaluate the environmental/design constraints and opportunities, and present to the City and Agency those alternatives, which best provide cost-effective, readily constructible solutions. Roadwork and costs conforming to AASHTO, and City standard design policy, as applicable shall be addressed.

Task 9.1 Roadway Alternative Investigation

Consultant shall investigate roadway design alternatives with regard to geometric design standards, staging issues, and environmental impacts. Consultant shall investigate a total of three alternatives during preliminary design. The Consultant shall determine a preferred alternative based on constructability, access control, lighting, right of way, environmental impacts and mitigation, utilities, stormwater control, connectivity with current and future trail systems, and construction cost. Consultant shall evaluate the need for retaining walls to minimize adverse right of way and environmental impacts.

Task 9.1 Deliverables

Consultant shall provide:

- Results of the roadway alternative investigation shall be summarized in the deliverable for Task 9.2

Task 9.2 Draft Roadway Alternative Analysis Technical Memorandum

Consultant shall prepare a draft technical memorandum summarizing the results of the roadway alternative investigation. The memorandum must include a discussion of the alternatives investigated, the features, benefits, and impacts of each alternative, and the construction costs for each alternative. The memorandum must include a recommended alternative.

Task 9.2 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the draft Roadway Alternative Analysis Technical Memorandum to the Agency and City for review. **Target Date: January 28, 2011**

Task 9.3 Final Roadway Alternative Analysis Technical Memorandum

The Consultant shall revise the draft Roadway Alternative Analysis Technical Memorandum based on Agency and City comments. Consultant shall modify the recommended alternative based on Agency and City review comments to arrive at a preferred alternative. The Consultant shall incorporate comments and revisions into the technical memorandum and prepare the final Roadway Alternative Analysis Technical Memorandum.

Task 9.3 Deliverables**Consultant shall provide:**

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the final Roadway Alternative Analysis Technical Memorandum to the Agency and City within three (3) weeks upon receipt of review comments from the City and Agency.

Task 9.4 Prepare Preliminary Roadway Drawings

Consultant shall prepare preliminary roadway drawings for the preferred alternative. The roadway drawings for the preferred alternative shall be included in the Design Acceptance Package prepared under Task 11. The preliminary roadway drawings shall be on 11"x17" sheets and shall include:

- Title Sheet
- Typical sections
- Plan and profile drawings
- Preliminary construction staging
- Preliminary traffic control plans
- Erosion control plans

Task 9.4 Deliverables**Consultant shall provide:**

- One (1) 11" x 17" hard copy and one (1) electronic copy of preliminary roadway drawings to Agency and City. **Target Date: April 29, 2011**

Task 9.5 Design Check/Review

Consultant shall perform an independent design check and Quality Control/Quality Assurance (QC/QA) review of reports, drawings and quantities.

Task 9.5 Deliverables

Consultant shall provide:

- Quality Control documentation shall be maintained in files located at Consultant's corporate office and be available for inspection by the City and Agency, if requested

TASK 10 - PRELIMINARY STRUCTURES DESIGN

Consultant shall provide preliminary DAP-level structure design, site evaluation and alternatives analysis for bridges, retaining walls and box culverts, as described in the following sub-tasks. Structure types, sizes, configurations and locations shall reflect environmental constraints, FEMA 100-year floodway and floodplain encroachment limitations, and right-of-way constraints.

Bridge and box culvert designs shall conform to the 4th Edition AASHTO LRFD Bridge Design Specifications (2007) and the current edition of the ODOT Bridge Design and Drafting Manual (BDDM). Retaining wall design shall conform to the current ODOT Retaining Structures Manual.

Task 10.1 Structure Alternative Investigation

Consultant shall investigate up to three (3) bridge alternatives for the proposed crossing of Coffee Lake Creek / Seely Ditch. Alternatives shall include assessment of bridge type, span configuration, material types, and foundation alternatives. Analysis shall include a preliminary feasibility assessment of construction means and methods, temporary work platform and access requirements, aesthetics, anticipated environmental resource impacts and permit quantities, utility accommodation alternatives and preliminary estimate of construction costs.

It is assumed the proposed bridge may include aesthetically enhanced treatments, such as enhanced bridge rails, concrete finishes and illumination. It is assumed the City will specify all aesthetic requirements to be incorporated into the DAP-level design concepts and will provide standard architectural details for enhanced bridge rails and illumination features.

Consultant shall evaluate the location and extents of retaining walls required to contain the construction footprint and limit impacts to environmental resources and right-of-way boundaries. It is anticipated that retaining walls may be required at the bridge approaches, as well as at various locations along the roadway alignment. Up to two (2) alternative retaining wall types shall be evaluated. Preliminary retaining wall design shall include an assessment of the settlement-tolerance of each wall type and/or the assessment of settlement mitigation measures needed to control excessive short and long-term settlement anticipated at this site.

Consultant shall provide preliminary structural design of up to two (2) wildlife crossing box culverts. It is assumed that box culverts may be rectangular conventionally reinforced concrete or round or oval steel culverts and may include angled, cast-in-place concrete headwalls, if necessary. Consultant shall collaborate with the project biologist to determine the preferred culvert type, minimum culvert dimensions, and other design considerations.

Task 10.1 Deliverables

Consultant shall provide:

- Results of the structure alternative investigation shall be summarized in the deliverable for Task 10.2

Task 10.2 Draft Structure Alternative Analysis Technical Memorandum

Consultant shall prepare a draft technical memorandum summarizing the results of the structure alternative investigation. The memorandum must include a discussion of the bridge, retaining wall and culvert alternatives investigated; the features, benefits, and impacts of each alternative; and an estimated construction cost for each alternative. The memorandum must provide a preliminary recommendation of preferred bridge, retaining wall and culvert alternatives

Task 10.2 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the draft Structures Alternative Analysis Technical Memorandum to the Agency and City for review. **Target Date: January 28, 2011**

Task 10.3 Final Structure Alternative Analysis Technical Memorandum

Consultant shall revise the draft Structure Alternative Analysis Technical Memorandum based on Agency and City review comments and prepare a Final Structures Alternative Analysis Technical Memorandum. Consultant shall modify the bridge, retaining wall and culvert alternatives recommendations to arrive at final preferred bridge, retaining wall and culvert alternatives

Task 10.3 Deliverables

Consultant shall provide:

- Three (3) 8-1/2" x 11" hard copies and one (1) electronic copy of the final Structure Alternative Analysis Technical Memorandum to the Agency and City within three (3) weeks upon receipt of review comments from the City and Agency.

Task 10.4 Prepare Preliminary Structure Drawings

Consultant shall prepare preliminary DAP-level drawings on 11"x17" sheets depicting the following:

- Plan, elevation and typical cross section of each bridge alternative investigated [maximum of three (3) sheets].
- Alignment, elevation view and typical cross section for each retaining wall alternative investigated [maximum of five (5) sheets].
- Plan, cross section and headwall elevation view of each wildlife culvert investigated [maximum of two (2) sheets].

Preliminary structure drawings shall be included in the deliverable for Task 11.

Task 10.4 Deliverables

Consultant shall provide:

- One (1) 11" x 17" hard copy and one (1) electronic copy of preliminary structure drawings to Agency and City. **Target Date: April 29, 2011**

Task 10.5 Design Check/Review

Consultant shall perform an independent design check and Quality Control/Quality Assurance (QC/QA) review of reports, drawings and quantities.

Task 10.5 Deliverables

Consultant shall provide:

- Quality Control documentation shall be maintained in files located at Consultant's corporate office and be available for inspection by the City and Agency, if requested

TASK 11 - PREPARE DESIGN ACCEPTANCE PACKAGE

Consultant shall prepare a Design Acceptance Package (DAP) for the preferred alternative. Consultant shall obtain design acceptance by Agency and City through the submittal and acceptance by the Agency and City of the Final DAP. This task includes preparing a Draft DAP, holding a Design Acceptance Workshop (DAW) with stakeholders, and preparing the Final DAP. The Final DAP must reflect the outcome of the DAW. During the DAW, Consultant shall present the DAP and address review comments received from the Agency on the design. The subtasks and associated deliverables are described below.

Task 11.1 Prepare Draft Design Acceptance Package

Consultant shall prepare a Draft DAP for the preferred alternative. The Draft DAP must include design plans and a design narrative that address the following and any other elements of the design:

- Description of the purpose, need, and design solution for the Project
- Summary of existing conditions, (i.e., Project location, highway classification, lanes, ADT, posted speed, and other design standards pertinent to the Project)

- Outline of Project constraints such as topography, geology, hydrology, environmental, permits, R/W, utilities and cost (NOTE: these may be executive summaries prepared by Consultant for other deliverables associated with this Project)
- Summary of alternatives investigated
- Environmental impacts and mitigation measures
- Environmental permitting requirements
- Utility conflicts
- Typical sections
- Roadway preliminary alignment and profile
- Stormwater treatment
- Preliminary utility plans
- Erosion control plans
- Bridge Type, Size, and Location Drawing
- Draft Geotechnical (Foundation) Data Sheets
- Preliminary signal plans
- Signage and striping requirements
- Hydraulic structures and drainage features
- ROW needs
- Construction cost estimate
- Construction staging, and temporary protection and direction of traffic during construction

Consultant shall summarize and reference in the Draft DAP the reports, technical memoranda, and plans/drawings prepared by Consultant. Consultant shall prepare and submit plans/ drawings as an appendix to the Draft DAP. Drawings submitted with the Draft DAP must be marked as "Design Acceptance Plans for Review." Both the Draft DAP and the plans appendix must bear the responsible engineer's seal. Consultant shall prepare the Title sheet in accordance with Agency standards and provide an index to the drawing set. Agency and City will provide comments on the Draft DAP within three (3) weeks of the submittal to Agency and City. Consultant shall compile and address comments as they are received and communicate with Agency and City the disposition of proposed resolution to the comments. Consultant shall attend a Design Acceptance Workshop (DAW) to address resolution to review comments. At least two (2) working days prior to the DAW, Consultant shall provide written response to address review comments received from Agency and City on the design.

Task 11.1 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of the Draft DAP. **Target Date: April 29, 2011**
- Attend DAW, included in Task 1.8
- Written response to Agency and City review comments (2 working days prior to DAW).

Task 11.2 Prepare Final Design Acceptance Package

Consultant shall incorporate into the Draft DAP the results of the DAW (comment resolution) and other feedback provided by Agency and City, and produce the Final DAP. The Final DAP must reflect all final design decisions reached at this stage in the development of the Project. The Final DAP must be submitted to Agency and City within four (4) weeks of receipt of final comments.

Task 11.2 Deliverables

Consultant shall provide:

- One (1) 8-1/2" x 11" hard copy and one (1) electronic copy of the Final DAP within six (6) weeks upon receipt of review comments from the City and Agency

Task 11.3 Prepare Preliminary Cost Estimates

Consultant shall prepare preliminary cost estimates from each element of the Project into one comprehensive Preliminary Project Cost Estimate. The estimate must be based on standard Agency bid items and current average unit cost data. The estimate must include 15% for construction engineering and 15% contingencies at the DAP development stage

Task 11.3 Deliverables

Consultant shall provide:

- Preliminary Cost Estimate shall be included in deliverable for Task 11.1

F. CONTINGENCY TASKS

The table below is a summary of contingency tasks that Agency, at its discretion, may authorize Consultant to perform. Details of the contingency tasks and associated deliverables are stated in the Task section of the SOW. Consultant shall complete only the specific contingency task(s) identified and authorized via written (email acceptable) Notice-to-Proceed ("NTP") issued by Agency's APM. If requested by Agency, Consultant shall submit a detailed cost estimate for the agreed-to contingency Services (within the NTE amount(s) in the Contingency Task Summary Table) within the scope of the contingency task.

If Agency chooses to authorize some or all of these tasks, Consultant shall complete the authorized tasks and deliverables per the schedule identified for each task. The NTP will include the contingency task name and number, agreed-to due date for completion and NTE for the authorized contingency task.

Each contingency task is only billable (up to the NTE amount identified for the task) if specifically authorized per NTP. In the table below, the "NTE for Each" amount for a contingency task includes all labor, overhead, profit, and expenses for the task. The funds budgeted for contingency tasks may not be applied to non-contingency tasks without an amendment to the WOC. The total amount for all contingency tasks authorized shall not exceed the maximum identified in the table below. Each authorized contingency task must be billed as a separate line item on Consultant's invoice.

Contingency Task Summary Table

Contingency Task Description	NTE for Each	Max Quantity	Method of Comp.	Total NTE Amount
C.3.13 Wetland Mitigation Plan	\$19,651.73	1	CPFF	19,651.73
C.3.16 Biological Assessment (BA)	\$21,035.79	1	CPFF	\$21,035.79
C.3.23 Prepare Section 106 DOE	\$3,745.84	1	CPFF	\$3,745.84

C.3.30 Mitigation Analysis	\$4,565.94	1	CPFF	\$4,565.94
Total NTE For All Contingency Tasks:				\$48,999.31

G. ADDITIONAL PROVISIONS FOR WOCs RESERVED

H. COMPENSATION

The method(s) of compensation and payment option(s) selected below are incorporated from Exhibit B to the PA/ATA. For additional detail and requirements regarding compensation methods, payment options, or Agency’s right to withhold retainage, see PA/ATA - Exhibit B, Compensation. No compensation is provided to Consultant for negotiations, preparing or revising cost estimate for Services, or negotiating contracts with subcontractors.

H.1 Non-Contingency Tasks

The method(s) of compensation for non-contingency tasks in this WOC is:

Cost-Plus-Fixed-Fee with not-to-exceed (“CPFF”) - see Section H.3

The dollar amount(s) for non-contingency tasks is entered in Section H.4, Compensation Summary Table.

H.2 Payment Options

The payment option for the Services in the attached SOW is:

Monthly Progress Payments for acceptable and verifiable progress (For costs on CPFF or T&M);

H.3 Fixed Fee (for CPFF).

The total Fixed Fee amount is entered in section H.4, Compensation Summary Table.

The Basis for Payment of Fixed Fee is:

Progress Payments – the Fixed-Fee will be paid for accepted and verified progress based on an estimated percentage of completion of the services and deliverables invoiced.

H.4 Total WOC NTE Amount

[The table below is used to show a summary of costs. Enter “N/A” on any of the line-items that are not applicable. If this is a Fixed Price WOC, travel costs are entered on line 4 only if travel is reimbursed at cost (up the travel NTE) and travel is not in the fixed price amount.]

	Compensation Summary Table	Amount
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1. CPFF NTE Amount (not including Fixed-Fee)	NTE Amount for allowable costs of non-contingency Services in this WOC	\$870,318.28
2. Fixed-Fee Amount	Total of Fixed-Fee amount(s) (for CPFF only)	\$71,529.45
3. Fixed Price Amount	Total of Fixed Price amount(s)	N/A
4. I&M NTE Amount (or) Travel NTE Amount	Total for any non-contingency Services	N/A
5. Price Per Unit NTE Amount	Total NTE for Price Per Unit Costs	N/A
6.	Total Non-Contingency Amount:	\$941,847.73
7.	Total for Contingency Tasks (if any) per Section F above:	\$48,999.31
TOTAL NTE (line 6 plus line 7) This amount includes all direct and indirect costs, profit, Fixed Fee amount (if any) and contingency task costs (if any).		\$990,847.04

[Also enter this amount on row A in the table on page 1 of the WOC.]

H.5 INVOICES

Invoices must be in conformance with PA/ATA requirements. Consultant shall submit invoices electronically via email to POContractInvoices@odot.state.or.us and APM.

WOC ATTACHMENTS

BREAKDOWN OF COSTS FOR SERVICES

The Breakdown of Costs (BOC) dated insert date and Appendix 1-WOC Rate Matrix dated insert date are not physically attached but incorporated into this WOC by this reference with the same force and effect as though fully set forth herein. Copies of the final BOC and Appendix 1 have been provided to Consultant prior to WOC execution.

ENGINEERING DEPARTMENT
STAFF REPORT & RECOMMENDATION

DATE: June 07, 2010

TO: Honorable Mayor and City Councilors

FROM: Gerald Fisher, P.E.
Civil Engineer, Engineering Division

SUBJECT: Recommendation Granting ODOT Permission to Execute Contracts with OBEC Consulting Engineers to Complete the Preliminary Engineering and Environmental Permitting Phase of the Kinsman Rd Extension (#4004)/Barber Street Extension (#4116) Projects.

SUMMARY

City staff has been working with the Oregon Department of Transportation (ODOT) and OBEC Consulting Engineers (OBEC) to finalize a Statement of Work outlining all of the tasks, hours, and associated costs necessary to complete the preliminary engineering and environmental permitting phase of these combined, federally funded projects. The project is broken into 3 phases:

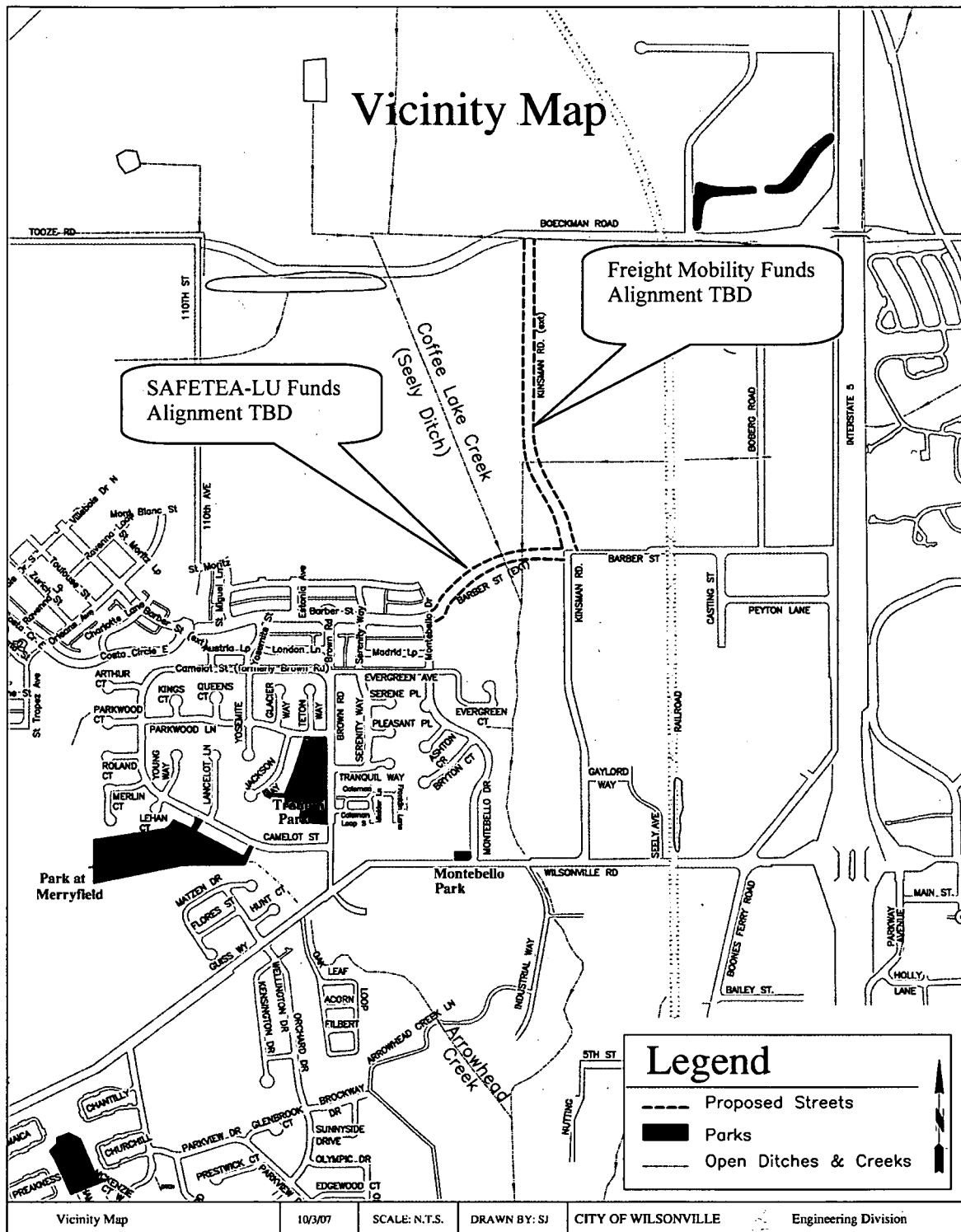
- Phase 1 – Preliminary Engineering and Environmental Permitting
- Phase 2 – Final Design and Right of Way Acquisition
- Phase 3 – Construction and Environmental Monitoring

This Phase 1 of the work will allow the City to secure environmental permits from the Army Corps of Engineers (USACE) and Oregon Department of State Lands (DSL) and is anticipated to take between 12 and 15 months to complete. Once Phase 1 is completed, staff will begin Phase 2 which is estimated to take 9-12 months to complete and then finish with Phase 3 which is estimated to take 18-24 months to complete. City staff is now asking the City Council for approvals that will allow ODOT to execute contracts with OBEC and begin the Phase 1 work of this project.

DISCUSSION

In the fall of 2007, City staff began work with ODOT staff to complete the federal paperwork necessary to obligate federal funds and to draft two Intergovernmental Agreement's (IGA) that would allow Federal Highway Administration (FHWA) to obligate federal Freight Mobility funds for the Kinsman Road Extension (Barber-Boeckman) project and federal SAFETEA-LU¹ Earmark funds for the Barber Street Extension (Kinsman-Coffee Lake Dr) project (see map below).

¹ SAFETEA-LU Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users



During this time staff also met with representatives from the USACE, DSL, and Bonneville Power Administration (BPA) to provide them with project background and to identify potential issues with environmental permitting, utility work, and roadway alignments prior to contracting with a firm to perform the Phase 1 work. Initial review by

USACE and DSL representatives determined that both projects would need to be combined into one permit due to cumulative impacts to the surrounding wetland areas.

From those meetings and the work with ODOT staff, City staff completed a draft Request for Proposals (RFP) identifying potential design and permitting issues. In March 2009, the City Council passed Resolution No. 2168, which authorized the City to enter into IGA's for both Kinsman Rd. and Barber St. projects. Staff continued work with ODOT to integrate the draft RFP into ODOT's Statement of Work (SOW), which is the federal version of our typical RFP. In September of 2009, ODOT advertised the SOW and received proposals from 5 consulting firms. From October to November of 2009, City and ODOT staff evaluated the proposals and two firms were invited to interview. Interviews were held with both firms and OBEC was selected to perform the Phase 1 work. From January to April of 2010, City and ODOT staff met and negotiated with OBEC representatives to determine each task to be performed, the amount of hours required for each task, and the associated costs for all tasks including potential contingency items. Once all parties agreed, OBEC submitted their final SOW in May 2010 with a Not-to-Exceed cost of \$990,847.04. As part of the obligation for receiving federal funding, the City of Wilsonville is required to provide a local match of \$101,759.99 (10.27%) with federal funds covering the remaining balance of the costs.

The following table provides the current City budgets for FY 2009-10 and FY 2010-11. Funding will cover the City's require local match and administrative costs.

<u>ACCOUNT</u>	<u>FY</u>	<u>AMOUNT</u>
540.950.45030.00000.4004	09/10	\$79,800
540.950.45030.00000.4116	09/10	\$162,450
540.950.45030.00000.4004	10/11	\$201,780
540.950.45030.00000.4116	10/11	\$121,410

RECOMMENDATION

Staff respectfully recommends that the City Council adopt the attached resolution that in turn will allow ODOT to execute contracts with OBEC and begin work on Phase 1 of this project.