City of Sherwood Oregon

Home of the Tualatin River National Wildlife Refuge

RESOLUTION 2012-003

A RESOLUTION AUTHORIZING THE CITY MANAGER PRO-TEM TO ENTER IN TO AN IGA BETWEEN THE CITIES OF SHERWOOD AND WILSONVILLE REGARDING TRANSMISSION SEGMENT 3A: REIMBURSEMENT FOR WORK COMPLETED AND OWNERSHIP THEREOF; AND REGARDING TRANSMISSION SEGMENT 3B: PAYMENT BY SHERWOOD TO WILSONVILLE FOR WORK PREVIOUSLY ACCOMPLISHED, EASEMENT ACQUISITION COSTS AND PROCESS, ENVIRONMENTAL PERMITTING, PIPELINE DESIGN SERVICES, AND TERMS OF ADVANCE SHERWOOD FUNDING FOR CONSTRUCTION OF SEGMENT 3B

WHEREAS, it has been recognized and agreed by the parties that the jointly owned transmission line between the plant and the meter vault will not be complete until the last 2500 feet of 48 inch transmission line (Segment 3) is completed; and

WHEREAS, the parties have authority to enter into this agreement pursuant to their applicable charters, principle acts, and ORS 190.003 – 190.030; and

WHEREAS, it is recognized by the parties that it is necessary to enter into this intergovernmental cooperative agreement through ORS Chapter 190 to accomplish the objectives.

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

Section 1. The City Manager Pro-Tem is authorized to enter in to an IGA (attached as Exhibit A) between the Cities of Sherwood and Wilsonville regarding Transmission Segment 3A: reimbursement for work completed and ownership thereof; and regarding Transmission Segment 3B: payment by Sherwood to Wilsonville for work previously accomplished, easement acquisition costs and process, environmental permitting, pipeline design services, and terms of advance Sherwood funding for construction of Segment 3B.

Section 2. This Resolution shall be effective upon its approval and adoption.

Duly passed by the City Council this 17th day of January 2012.

Keith S. Mays, Mayor

Attest:

Sylvia Murphy, CMC, City Recorder

AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITIES OF SHERWOOD AND WILSONVILLE REGARDING TRANSMISSION SEGMENT 3A: REIMBURSEMENT FOR WORK COMPLETED AND OWNERSHIP THEREOF; AND REGARDING TRANSMISSION SEGMENT 3B: PAYMENT BY SHERWOOD TO WILSONVILLE FOR WORK PREVIOUSLY ACCOMPLISHED, EASEMENT ACQUISITION COSTS AND PROCESS, ENVIRONMENTAL PERMITTING, PIPELINE DESIGN SERVICES, AND TERMS OF ADVANCE SHERWOOD FUNDING FOR CONSTRUCTION OF SEGMENT 3B

This Agreement ("Agreement") is made and entered into this ___ day of _____, 2011, by and between the City of Sherwood, an Oregon municipal corporation ("Sherwood"), and the City of Wilsonville, an Oregon municipal corporation ("Wilsonville"), referred to collectively as ("the Parties").

RECITALS

The Parties agree upon the following Recitals:

A. **WHEREAS**, originally Tualatin Valley Water District ("TVWD") and Wilsonville partnered to construct and own undivided ownership shares in the Willamette River Water Treatment Plant ("WRWTP") and appurtenances thereto from the raw water intake in the Willamette River through Segment 1 of the finished water 63-inch water transmission line ("Supply Facilities"). The treatment plant portion of the WRWTP has a current designed capacity of 15 mgd. Subsequently, based on certain conditions Wilsonville consented to Sherwood's purchasing certain interests in the WRWTP Supply Facilities from TVWD's interests, which included a capacity purchase from TVWD of TVWD's 1/3 or 5 mgd of the 15 mgd capacity, while Wilsonville owns 2/3 or 10 mgd of WRWTP capacity. In addition, Wilsonville and TVWD own larger capacity interests in other appurtenant facilities.

B. **WHEREAS**, Sherwood and Wilsonville entered into agreements whereby Wilsonville had constructed or would construct and Sherwood would purchase capacity in Segments 2, 4, and 5A of 48-inch diameter water transmission lines within Wilsonville, which in conjunction with the WRWTP and other facilities will jointly serve both cities with a permanent

potable water supply. All these segments are now constructed and capacity purchased under the terms of the agreements. Together these already constructed transmission facilities are 8,183 lf in length and represent a present joint investment of $7,313,838. Sherwood and Wilsonville each own 1/2 of the capacity of Segment 2. Sherwood owns 2/3 of the capacity of Segments 4 and 5A, while Wilsonville owns the remaining 1/3 capacity of each.

C. **WHEREAS**, Sherwood has constructed and owns 18,000 lf of 48-inch diameter transmission (Segments 6-9) from a point connecting to the Tooze Road Meter Vault described herein and continuing to a recently constructed Sherwood Reservoir (Snyder Park - 4 mgd capacity) which is also owned by the City of Sherwood. The cost of the construction of these Sherwood transmission facilities, not including the cost of the Snyder Park Reservoir, is estimated to be in excess of $11,630,000. Completion of construction of these transmission segments had been estimated to occur in the spring of 2011 by Emery & Sons Construction, Inc. ("Emery"), Sherwood's General Contractor. Actual completion occurred in December 2010. In order for Sherwood to accept these new transmission facilities, the facilities needed to be pressure tested and flushed, and then maintained and refreshed with a required maximum amount of potable water (400 gpm). The source of this water is from the WRWTP and the Water Distribution System of the City of Wilsonville. A Temporary Water Supply Agreement was negotiated between the parties for the 400 gpm water supply to permit pressure testing, flushing, and line maintenance. An Agreement reflecting those negotiations was adopted by the Parties on January 11, 2011.

D. **WHEREAS**, the Parties have also successfully negotiated the construction of the Tooze Road Meter Vault facility and appurtenant small segment of 48-inch diameter transmission line ("Segment 5B"), collectively referred to as the Meter Vault Project. The Meter Vault Project links previously constructed Transmission Segments 5A and 6, provides required metering and flow control facilities for water flowing to Sherwood, and houses pressure reducing valves and transmission lines to serve existing and planned Wilsonville's distribution and reservoir systems. The Parties adopted the Tooze Road Meter Vault Agreement authorizing the construction of these improvements on January 11, 2011. Sherwood advanced its proportionate share of the Project, as well as advance funding and construction of the extension of a

Wilsonville 24-inch diameter transmission line which will be a wholly owned Wilsonville component of this Project. These facilities are now operational and in place.

E. WHEREAS, the unanticipated early completion of Segments 6-9 of 48-inch diameter transmission by Sherwood in December 2010 and the later completion date of the Tooze Road Meter Vault left a short but very important period when water needed to be supplied to Sherwood. The Parties developed a way to provide temporary water supply during this period by the advance construction by Sherwood of a 24-inch diameter transmission line extension. This transmission line extension previously was a part of the Meter Vault Project, referenced in the Recital above, to serve Wilsonville permanently with potable water through the Tooze Road Meter Vault. All required real property had been acquired by Wilsonville for the construction of the Tooze Road Meter Vault and this line extension and its connection to Sherwood's Segment 6 transmission line. Sherwood proposed to construct these facilities by means of a change order to its Segment 6 contract with Emery and to pay for the redesign associated with advancing the 24-inch line extension and to front costs for this Project subject to reimbursement of Wilsonville's share through credits against future temporary and interim water sales to Sherwood. The specific terms of this Project are contained in the Temporary Water Supply Agreement between the Parties. This project is now completed. This temporary water supply arrangement has now been operationally replaced by an Interim Water Supply relationship reflected in the immediately following Recital.

F. WHEREAS, the Parties have previously executed an Interim Water Supply Agreement, which involves temporary wheeling of surplus water to Sherwood of up to 2.5 mgd of WRWTP potable water through jointly owned Sherwood and Wilsonville transmission lines and also partially through Wilsonville existing distribution lines until such time as Segment 3 is completed and on line. The Parties commissioned Montgomery Watson Harza, Inc. ("MWH") to perform a hydraulic capacity analysis of current WRWTP and Wilsonville facility capacity to ensure that the 2.5 mgd is currently available through the Wilsonville distribution system in addition to Wilsonville's ongoing and projected needs. MWH completed this analysis on February 22, 2011, and concluded that ample capacity was available to accomplish this. The Parties also contracted with the Galardi Rothstein Group to develop and recommend a

methodology and estimated rates of interim water treatment and production and associated wheeling rates for production/delivery of water to Sherwood following completion of the Meter Vault Project described above and continuing until Segment 3 of the jointly owned 48-inch transmission line is in place and operational. That methodology and interim water rate has been adopted by the parties and is in place.

G. WHEREAS, it has been long recognized and agreed by the Parties that the jointly owned 48-inch transmission linkage between the WRWTP and Sherwood will not be completed until the remaining 2500 lf of Segment 3B 48-inch Transmission Line is constructed by Wilsonville. The first phase of Segment 3B involves easement acquisition, environmental permitting, and pipeline design, and the parties desire to adopt an Agreement to allow this to move forward. Wilsonville has previously constructed Segment 3A and the parties also desire to convey to Sherwood a 1/2 capacity interest therein as well as reimbursement to Wilsonville of 1/2 of its costs previously incurred therefore. Additionally, Wilsonville has advanced certain costs for preliminary work on Segment 3B through August 31, 2011, which need to be repaid by Sherwood.

H. WHEREAS, it is recognized by the Parties that it is necessary to enter into this Intergovernmental Cooperative Agreement through ORS Chapter 190 to accomplish the objectives of Recital G set forth above.

I. WHEREAS, the Parties have the authority to enter into this Agreement pursuant to their applicable charters, principal acts, and ORS 190.003 – 190.030.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Recitals. The recitals set forth above are incorporated by reference and made a part of this Agreement.

2. Consideration. In consideration of the terms and conditions set forth below, the Parties enter into this Agreement.

3. Term. This Agreement will effective upon the date of execution by the last signatory party and its term shall be perpetual unless otherwise amended by the Parties

4. Purpose and Framework. As described in the Recitals of this Agreement, the purpose of the Agreement is to set out the terms between the parties as to the following matters:

A. Reimbursement to Wilsonville by Sherwood of 1/2 of Project Costs of Transmission Segment 3A previously constructed by Wilsonville.

B. Conveyance by Wilsonville to Sherwood of 1/2 the ownership and design capacity of Transmission Segment 3A.

C. Within the second phase of Segment B, Wilsonville will be responsible for a pressure reducing vault facility. Based on construction cost estimates, this creates a 53.82% share of the Segment 3B costs for Wilsonville and 46.18% estimated share of the Segment 3B costs for Sherwood. These estimated percentage shares may vary upon true up of the actual costs.

D. Payment by Sherwood to Wilsonville of 46.18% of the environmental permitting contract with Pacific Habitat Services, Inc. ("PHS") subject to final true up between the parties at contract completion.

E. Payment by Sherwood to Wilsonville of 46.18% of the Segment 3B Water Transmission Pipeline Design contract with Westech Engineering, Inc. ("WEI") subject to final true up between the parties at contract completion.

F. Payment by Sherwood to Wilsonville of 46.18% of previously paid Wilsonville costs for Segment 3B expended through August 31, 2011. Cost incurred beyond this date will be allocated by the second phase Segment 3B IGA Agreement between the parties.

G. Agreement between the parties as to acquisition costs of easements for Segment 3B and adoption of an acquisition process.

H. Terms of Sherwood advancement of funds for Segment 3B construction and direct costs related thereto and Wilsonville repayment thereof.

5. Segment 3A Reimbursement. Segment 3A has been previously constructed by Wilsonville. It consists of approximately 180 lf of 48-inch transmission line and extends northward from the northern end of Segment 2 of the Water Transmission Line located approximately at the intersection from Barber Road to Kinsman Road. It is more specifically described in the Final Design drawing attached hereto as Exhibit A and incorporated herein by reference. Wilsonville has incurred $409,920 in the construction of Segment 3A and Sherwood's 1/2 share is $204,960. A summary of Wilsonville's previously incurred costs and Sherwood's share thereof is attached hereto as Exhibit B and incorporated herein by reference. Sherwood, within 30 days of adoption of this Agreement by the parties, will remit its 1/2 project share ($204,960) to Wilsonville.

6. Conveyance of 1/2 Capacity and Ownership Share of Segment 3A from Wilsonville to Sherwood. Contemporaneous with payment by Sherwood to Wilsonville of its purchase of 1/2 the capacity of Segment 3A as described above, Wilsonville conveys 1/2 the capacity and ownership thereof to Sherwood. The Parties agree that Segment 3A has a design capacity of 40 mgd, and that if it has a greater operational capacity, any increase in capacity shall be shared equally by the Parties. Subject to permitting approved by state and federal regulations, the terms of other use rights and responsibilities of Segment 3 including Segment 3A will be set forth in the subsequent Agreement between the parties relating to the construction of Segment 3B. In the interim, use rights and responsibilities shall be as set forth in the Segment 2 Water Transmission Line Agreement entered into between the parties on August 7, 2007.

7. Segment 3A Easement. Wilsonville agrees, subject to Sherwood's compliance with the terms of Section 6 above, to execute and deliver to Sherwood a permanent easement to lay, replace, maintain, and use the Segment 3A Transmission Line for the purposes intended by this Agreement. The purpose and intent of the rights under such easement is to safeguard Sherwood and to be used only if Wilsonville fails or neglects its operation and maintenance responsibilities under Section 8 below.

8. Operational and Maintenance Responsibilities of Segment 3A. Segment 3A will operate as a part of Segment 3 which also shall include Segment 3B which is anticipated to be constructed by late 2013. Subject to permitting approved by state and federal regulations, the terms of operational and maintenance responsibilities of Segment 3 including Segment 3A will be set forth in the subsequent Agreement between the parties concerning the construction and operation of Segment 3B. In the interim, operation and maintenance responsibilities shall be as set forth in paragraphs 2.4 and 2.4.1 of the Segment 2 Water Transmission Line Agreement entered into between the parties on August 7, 2007.

9. Environmental Permitting for Segment 3B. Wilsonville has executed a contract with Pacific Habitat Services (PHS) to prepare and provide to Wilsonville appropriate environmental documentation to support a Joint Permit Application for the Segment 3B Transmission line. A copy of the scope of work of the executed contract is attached hereto as Exhibit C and incorporated herein by reference. The contract amount is $25,681. Within 30 days of execution of this Agreement by the Parties, Sherwood shall remit to Wilsonville 46.18% of that amount ($11,859.49). In the event that final costs differ from the contract maximum amount, the Parties shall share proportionally any such overage or underage responsibility.

10. Pipeline Design Contract for Segment 3B. The Parties have been negotiating with WEI to provide Wilsonville with engineering services to provide a Segment 3B Water Transmission Pipeline Design. The Scope of Services is attached hereto as Exhibit D and is incorporated herein by reference. The Final Proposed contract amount is $214,530. Within 30 days of execution of this Agreement by the Parties Sherwood will remit 46.18% of the contract amount ($99,070) to Wilsonville. If there is a contract payment difference, then at the time of contract true up, the Parties shall share proportionally any such overage or underage responsibility.

11. Repayment of Segment 3B Costs Advanced by Wilsonville. Wilsonville has previously paid $73,931 for authorized Segment 3B costs. They are summarized in Exhibit E. Within 30 days of the execution of this Agreement, Sherwood will remit to Wilsonville 46.18% of this amount ($34,141.34).

12. Easement Acquisition. Wilsonville estimates that property acquisition costs to purchase needed easements from two property owners (Bruer and Inland) will total approximately $280,000, exclusive of any wetland mitigation or wetland park property that may need to be acquired. They also estimate that appraisals, legal descriptions, negotiations with property owners, and legal work associated with easement purchases will total another $35,000. Based on current calculations, Sherwood shall be responsible for 46.18% and Wilsonville for 53.82% of the expenses actually incurred. Within 30 days of execution of this Agreement, each Party will pay into a sinking fund $17,500 to cover the foregoing costs incurred. Any overruns in these costs will be promptly satisfied by the parties on an equal basis. The Parties anticipate that permitting will have to be largely in place, including identification of any required property mitigation, before formal property acquisition may be concluded. At such time as these elements are in place and there is tentative agreement with one or both property owners, Sherwood will pay 46.18% and Wilsonville 53.82% of the agreed upon acquisition costs into a sinking fund. Based upon current information, there appears to be a need for a 30 ft wide permanent utility easement. Initially, it was contemplated that the Kinsman Road street right of way would also overlap this easement. Present direction from reviewing governmental agencies appears to favor a stand alone water line easement. In the event that this regulatory direction changes, the Parties will review on the basis of equity and fairness sharing of acquisition costs between the water line easement and the other acquiring use.

13. Computation Method of the Parties' Share of Segment 3B Costs. As evidenced in Sections 9, 10, 11, and 12 above, Sherwood has a calculated 46.18% and Wilsonville a calculated 53.82% responsibility for Segment 3B Total Project Costs. These percentages are derived from current estimates of construction costs of the Segment 3B Project, excluding mobilization which is subject to the percentages and added back in. The difference in responsibility for payment relates to the fact that certain project elements (the pressure reducing valve facilities) have no benefit to Sherwood. Subsequently, the final percentages will be reflective of the actual construction costs, and if those costs have the effect of altering the proportional allocation of responsibility for other project costs as listed in paragraphs 9, 10, 11, and 12, the percentage allocations will be appropriately revised. Finally, at the time of Project

completion and true up, this allocation will again be reviewed and changed if necessary. The term Total Project Cost shall have the meaning as defined in Section 2.4 of the Agreements for Segments 4 and 5A, which states:

> 2.4 Cost of Project. The direct cost of the property easement acquisition, surveying, geotechnical/environmental studies, permitting, design, and construction including inspection/project management, ownership, maintenance, ownership, maintenance, and operation of … [the] Project.

14. Responsibilities of the Parties. Wilsonville will be responsible for all contracting of obligations and services required by this IGA subject to oversight and active involvement and coordination of Sherwood in all aspects of the Project. The Sherwood Public Works Director will be concurrently copied on all correspondence and documents, including emails regarding the Project excepting otherwise privileged Wilsonville communications.

15. Overview of Second Segment 3B IGA and the Construction and Financing Process Regarding Segment 3B. The Parties will subsequently negotiate a second IGA dealing with the costs related to Segment 3B not otherwise covered in this Agreement. It is anticipated that Sherwood will advance funds for the construction phase based upon subsequently negotiated terms, including establishment of initial deposit draw accounts and establishment of coordinated periodic pay estimates. Wilsonville will repay Sherwood for costs advanced on its behalf by Sherwood no later than 180 days after completion of the Segment 3B Project. To the extent that monies are available to Wilsonville to repay all or a portion of the funds advanced in its behalf prior to 180 days, Wilsonville will exercise its best efforts to do so. Wilsonville Project overhead will be limited to 14% of Total Project Costs and Sherwood will accept that amount as an appropriate Wilsonville overhead charge without the need for further itemization by Wilsonville.

16. Dispute/Attorneys Fees. If a dispute arises between the Parties regarding breach of this Agreement or interpretation of any term of this Agreement, the Parties shall first attempt to resolve the dispute by negotiation, followed by mediation and arbitration.

Step One: The respective City Managers of the Parties or their designees are designated to negotiate on behalf of the Party each represents. If the dispute is resolved at this Step One, there shall be a written determination of such resolution, signed by each Party's Manager and ratified by each governing body, if required by the governing body, which shall be binding upon the Parties. Step one will be deemed complete when a Party delivers notice in writing to the other Parties that the Party desires to proceed to Step Two.

Step Two: If the dispute cannot be resolved within 10 days at Step One, or earlier after written notice given by a party, the Parties shall submit the matter to non-binding mediation by a professional engineer with demonstrated substantial experience in the design, construction and operation of complex municipal treatment, transmission, distribution, and storage systems. The Parties shall attempt to agree on a mediator. If they cannot agree, the Parties shall request a list of five mediators from an entity or firm experienced in providing engineering mediation services who do not have an existing professional relationship with either Party. The Parties will mutually agree upon a mediator from the list provided. Any common costs of mediation shall be borne equally by the Parties who shall each bear their own costs and fees. If the issue(s) is resolved at this Step Two, a written determination of such resolution shall be signed by each Manager and approved by their respective governing bodies, if necessary.

Step Three: If mediation does not resolve the issue within 45 days of submission of the issue to mediation, the matter will be referred to binding arbitration by a panel of three arbitrators who are professional engineers with demonstrated substantial experience in the design, construction and operation of complex municipal treatment, transmission, distribution, and storage systems. One arbitrator will be chosen by each Party and those two arbitrators chosen will choose a third arbitrator. No panel member may have an on-going professional relationship to either Party. The arbitration panel will reasonably endeavor to reach a decision on the dispute within 60 days of its submission to the panel. The decision shall be binding on both Parties and there shall be no right of further appeal. The prevailing Party shall be entitled to its reasonable attorneys fees as shall be awarded by the arbitration panel.

15. Breach. If a Party defaults under the terms of this Agreement, then upon 20 days written notice, the defaulting Party shall undertake steps to commence cure of the breach within a reasonable time, depending on the circumstances. In the event there is a dispute over the amount to be paid, the undisputed amount shall be paid immediately and the Agreement shall not be in default while the solution to the disputed payment portion is resolved under Section 7. The Parties understand and agree that water service is critical to each Party's customers and that monetary damages may be an insufficient remedy considering the infrastructure involved. Therefore, the Parties expressly agree that equitable remedies such as injunction or specific performance are specifically contemplated and allowed by this Agreement.

16. Notices. Notices regarding operation, maintenance, repair, replacement, breach, termination, renewal or other issues shall be deemed sufficient if deposited in the United States Mail, First Class, postage prepaid, addressed to the Parties as follows:

City Manager
City of Sherwood
22560 SW Pine Street
Sherwood, OR 97140

City Manager
City of Wilsonville
29799 SW Town Center Loop E
Wilsonville, OR 97070

17. Insurance and Indemnity. To the full extent permitted by law, each Party agrees to indemnify and hold harmless the other, its counsel, officers, employees, and agents from any and all claims, demands, damages, actions, or other harm caused by the sole negligence or intentional acts of that Party, including any attorneys fees or other costs of defense. Further, independent of the indemnity obligation, and as may be allowed under law, each Party agrees to maintain general liability insurance in an amount not less than Oregon Tort Claim limits applicable to public agencies as set forth in ORS 30.260 – 30.300.

18. Succession. This Agreement shall be binding upon any successors to the respective Parties, which through merger, consolidation or other means, including a lawful transfer by Sherwood to the Willamette River Water Coalition ("WRWC"), succeeds to the water supply treatment and distribution and transmission functions of that Party. No transfer to a private, nonpublic entity is permissible without the consent of both parties.

19. Amendment. The terms of this Agreement may be amended or supplemented by mutual agreement of the Parties. Any amendment or supplement shall be in writing and shall refer specifically to this Agreement, and which shall be executed by the Parties.

20. Good Faith and Cooperation. The Parties agree and represent to each other good faith, complete cooperation, and due diligence in the performance in all obligations of the Parties pursuant to this Agreement.

21. Governing Law. This Agreement is governed by the laws of the State of Oregon.

22. Counterparts. This Agreement may be signed in two counterparts, each of which shall be deemed as an original and, when taken together, shall constitute one and the same agreement.

23. Instruments of Further Assurance. From time to time, at the request of either Party, each Party shall, without further consideration, execute and deliver such further instruments and shall take such further action as may be reasonably required to fully effectuate the purposes of this Agreement.

24. Severability. In case any one or more of the provisions contained in this Agreement shall be judicially deemed invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

IN WITNESS WHEREOF, the Parties have, pursuant to official action of their respective governing bodies duly authorizing the same, caused their respective officers to execute this Agreement on their behalf.

CITY OF SHERWOOD

An Oregon municipal corporation

_____
City Manager

_____
City Recorder

APPROVED AS TO FORM

_____
City Attorney

CITY OF WILSONVILLE

An Oregon municipal corporation

_____
City Manager

_____
City Recorder

APPROVED AS TO FORM

_____
City Attorney

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EXHIBIT A

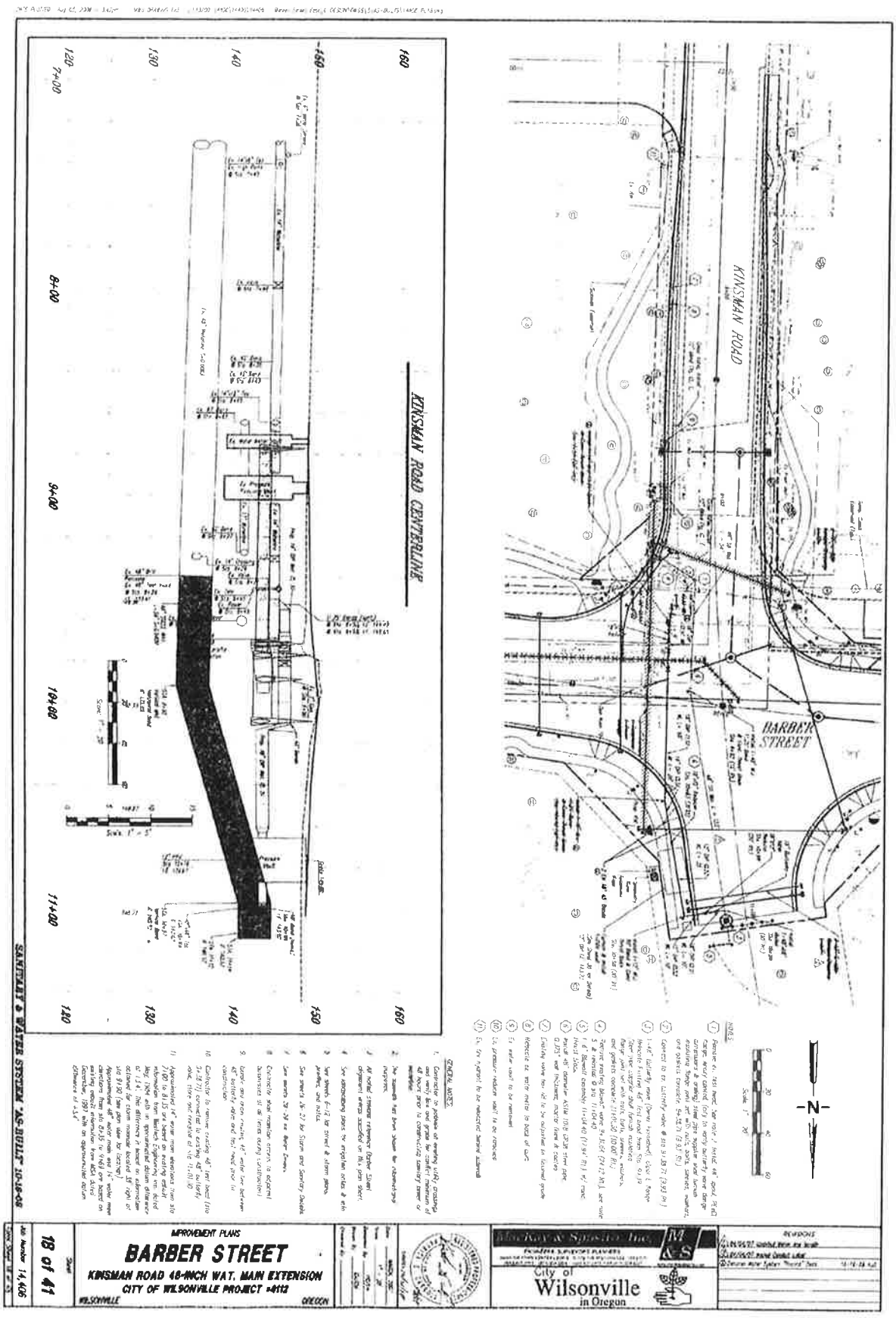
KINSMAN ROAD
BARBER STREET
KINSMAN ROAD CENTERLINE
IMPROVEMENT PLANS
BARBER STREET
KINSMAN ROAD 48-INCH WAT. MAIN EXTENSION
CITY OF WILSONVILLE PROJECT #4112
WILSONVILLE
OREGON
City of Wilsonville in Oregon
SANITARY & WATER SYSTEM "AS-BUILT" 10-08-08
18 of 41
Job Number 14,406

EXHIBIT B

Segment 3A - Barber Street Extension 48 " Water Line - Boberg Road to Kinsman Road Intersection (Project # 4112)

Contract Number		Barber Street Bid Schedule	Unit	Quantity	Unit Price	Total Price	Paid Quantity	Amount Paid
		Steel Pipe and Specials (NW Pipe/Owner Furninshed)						
	1	Furnish 48-Inch Diameter Steel pipe and specials	LS	1	$ 73,222.00	$ 73,222.00		$ 85,173.37
	2	48-inch Flange Butterfly Valve and specials (Val-Matic)	LS	1	$ 23,000.00	$ 23,000.00		$ 21,564.00
	3	Furnish Buried 48-Inch Diameter Butterfly Valves	EA	1	$ 23,000.00	$ 23,000.00		$ -
	4	Furnish Buried 48-Inch Diameter Restrained Coupling	EA	1	$ 17,250.00	$ 17,250.00		$ -
	5	48-inch Blind Flange	EA	1	$ 7,500.00	$ 7,500.00		$ -
					Sub-Total Pipe Procurement:			**$ 106,737.37**
		Pipe Installation and Appurtenances (Westech Contract)						
2	6	Mobilization, bonds, insurance and demobilization (10%)	LS	1	--	$ 11,709.50		$ 9,035.50
123	7	Install owner furnished 48" Steel Waterline	LF	180	$ 460.00	$ 78,200.00	180	$ 82,800.00
122	8	Connection to 48: Water Main	LS	1	$ 1,425.00	$ 1,425.00	1	$ 1,425.00
57	9	Relocate Ex. 48" Test Head	EA	1	$ 1,500.00	$ 1,500.00	1	$ 1,500.00
124	10	Trench Foundation for Water (if Nec.)	CY	200	$ 45.00	$ 9,000.00	47	$ 2,115.00
125	11	Trench Protection for Water	LF	500	$ 1.00	$ 500.00	180	$ 180.00
126	12	Rock Excavation for Water (If Nec.)	CY	100	$ 100.00	$ 10,000.00		$ -
118	13	6-inch diameter blow-off assemblies complete	EA	1	$ 1,500.00	$ 1,500.00	1	$ 1,500.00
130	14	Testing, flushing and disinfection of new watermains (prorated)	LS	1	$ 2,800.00	$ 2,800.00	0.25	$ 700.00
148	15	Remove Ex. Temp. Blow Off Assembly	EA	1	$ 135.00	$ 270.00	1	$ 135.00
					Sub-Total Pipe Installation:			**$ 99,390.50**
		AC Pavement Road Reconstruction (Westech Contract)						
	16	Mobilization, bonds, insurance and demobilization (10%)	LS	1	--	$ 402.90		$ -
	17	Level 3, 3/4 Inch Dense HMAC	TON	51	$ 79.00	$ 4,029.00		$ -
	18	8" Thick Concrete Pavement	SF	1800	$ 5.60	$ 10,080.00	1800	$ 10,080.00
					Sub-Total AC Pavement:			**$ 10,080.00**
CCO#		**Contract Change Orders (CCO's)**						
	1	PCO-009R, CCO#2, supply & install bolts, nuts, & washers for 48" water main	LS	1	--			$ 9,576.68
	2	PCO-010, CCO#2, standby time for 48" water main (missing parts, misalignment) & dewatering	LS	1	--			$ 26,533.70
	3	PCO-015, CCO#1, Cathodic Protection for 48" water main	LS	1	--			$ 7,531.12
	4	PCO-022, CCO#1, Replace 1-1/2" bolts and nuts on 48" steel water main to zink plated	LS	1	--			$ 5,122.66
	5	PCO-063, CCO#2, Additional cost related to impacts on 48" connection and installation	LS	1	--			$ 12,457.48
	6	PCO-068R, CCO#2, 72" Manhole for access to 48" water main	LS	1	--			$ 7,247.56
	7	PCO-101, Air release valve for 72" manway on 48" water main	LS	1	--			$ 6,057.60
	8	PCO-111, Dig up 48" test head and test new 48" butterfly valve	LS	1	--			$ 2,969.23
					Sub-Total PCOs & CCOs:			**$ 77,498.03**

Total Project (Bid) Cost including Waterline installation	**$ 2,998,317**	**Total Waterline Costs w/o temporary facilities**	**$ 293,703.90**
Add Waterline Materials purchased seperately (above)	**$ 106,737**		
Subtract Total (Bid) Cost for temporary features:	**$ (165,095)**		
COST BASIS for Determining Cost Split for other costs	**$ 2,939,959**	Water Line as % of Cost Basis: ($293,704/$2,939,959)	10.0%
		Temporary Facilities allocated to Waterline (10%)	**$ 16,510.00**

Total Pipe Procurement, Installation, AC Pavement, & 10% of Temporary Features	**$ 310,213.90**
Preliminary Engineering: 10% of Actual Cost of $125,357	**$ 12,536.00**
Final Engineering: 10% of Actual Cost of $695,258	**$ 69,526.00**
Norton Corrosion: Actual Cost of subcontracted Cathodic Protection Review	**$ 520.00**
Wilsonville Community Development Overhead: 10% of Actual Cost of $83,644 against "road" capital project number 4112	**$ 8,364.00**
Wilsonville Community Development Overhead: 100% of Actual Cost of $916 against "waterline" capital project number 1055	**$ 916.00**
Wilsonville Administrative Overhead: 2% of Actual Cost of PE, FE, and Construction ($12,536+$69,526+$310,213)	**$ 7,845.00**
Total	**$ 409,920.90**

Sherwood Share @ 50% $ 204,960

Exhibit C
SCOPE OF SERVICES
SEGMENT 3 TRANSMISSION PIPELINE PERMIT SUPPORT

INTRODUCTION AND PROJECT BACKGROUND

In 2002, the City of Wilsonville completed construction of the Willamette River Water Treatment Plant (WRWTP). This Plant was constructed with a long term capacity, and with the specific intent to provide treated water to multiple water providers on a regional basis. The plant is jointly owned by the City of Wilsonville and the Tualatin Valley Water District (TVWD). TVWD in turn sold a portion of their rights to the City of Sherwood.

To provide a physical water transmission system to the City of Sherwood, various intergovernmental agreements were negotiated between the cities of Wilsonville and Sherwood to construct a 48" diameter Water Transmission Pipeline from the intersection of Wilsonville Road and Kinsman Road, to a delivery point located at the corner of Tooze Road and Westfall Road. Five Segments were identified for the Transmission Pipeline construction, of which this Segment 3 is the last remaining unconstructed segment.

Most of the design criteria for the project have been resolved during the design of previous phases. Pipeline diameter (48'), material type (steel), corrosion protection requirements, and the start and end point of the pipeline are all known. A final alignment has been selected, and preliminary design and environmental documentation have been completed under an ongoing multi task contract known as the Barber – Kinsman Project, which involves coordination of this project with 2 road projects, 1 other water line project, and a sewer line project. This project, specifically, is designed to parallel and underlie the eastern sidewalk of the Kinsman Road extension project.

For various reasons, the City has chosen to split and remove the Segment 3 Transmission Pipeline project from the other work, and intends to expedite design, permitting, and construction of the pipeline project as a separate and distinct project. Based on the work performed to date, the pipeline alignment will pass through wetland and natural areas containing compressible soils, and subject to Oregon Department of State Lands (DSL) and US Army Corp of Engineers (Corp) permitting requirements.

This Scope of Services covers only environmental permitting support services. Final design services and construction document preparation for the pipeline are on a different timeline and are being solicited by the City separately.

TASK 1 - PROJECT MANAGEMENT AND COORDINATION

Consultant shall manage work performed by Consultant's staff, coordinate with permit review Agencies (Department of State Lands, US Army Corp of Engineers) and the City on the schedule and status for work tasks, submittals, reviews, and revisions necessary for the Joint Permit Application, provide quality assurance in the form of peer review on all deliverables submitted to the Agencies and the City, and coordinate information sharing and resolution of technical details between this project and the ongoing Barber-Kinsman road projects. Consultant shall prepare monthly progress reports and progress billings in a format approved by the City.

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Task 1.1 General Project Management

This task includes all costs and labor to schedule and coordinate other work tasks, prepare and revise schedules, maintain communication and coordination with the Agencies and City, prepare invoices and progress reports, maintain project files, and manage the project budget.

Consultant's Project Manager (PM) shall be the primary point of contact, and is responsible for communicating with the City regarding the status of work being performed and to discuss issues or concerns that may impact the Project.

Task 1.1 Deliverables

Consultant shall:

- Prepare and distribute a preliminary Project Schedule, and revise and distribute said schedule monthly.
- Prepare and submit to the City monthly progress reports and billing invoices including a breakdown of labor hours and expenses, to be submitted by the 20th of each month.
- Project files must be delivered within thirty (30) calendar days of request by City.

Task 1.2 Meetings

This task includes all costs and labor for Consultant to organize, schedule, and attend meetings with the City, Agencies, and/or others, prepare meeting agendas and take and distribute meeting notes. For estimating purposes, it is assumed up to four meetings will be required, with all meetings lasting up to 2 hours and all meetings held at City of Wilsonville offices. This Task also covers Consultants' presence at a public open house or City Council meeting, if needed. Any Exhibits required for an open house or Council meeting shall be performed and billed under work task in Section 2.

Task 1.2 Deliverables

Consultant shall:

- Prepare and distribute meeting agendas at least 48 hours prior to meetings.
- Prepare and distribute meeting notes within 7 calendar days.

Task 1.3 Coordination with Barber – Kinsman Project

This task recognizes that the preliminary engineering, selected pipeline alignment, and general scope of environmental documentation for this project were originally prepared as part of a larger joint project known as the Barber-Kinsman Project. Under the Barber-Kinsman Project, the pipeline alignment and technical details for this now separate water transmission pipeline project were coordinated with the alignment of the Kinsman Road extension. The Barber-

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Kinsman Project remains an active project, and certain tasks performed under that project, or to be performed under that project, such as surveying, geotechnical investigation, and Right of Way determination require coordination and sharing of information between the two projects. This task provides a separate line item to accumulate costs and labor efforts of the Consultant to facilitate coordination and information sharing efforts that cannot be easily categorized under other tasks within this project, or under task items of the Barber – Kinsman Project.

Task 1.3 Deliverables

- Specific work efforts and activities charged against this task shall be clearly documented as part of the monthly progress report and invoice.

TASK 2 - ENVIRONMENTAL DOCUMENTATION and JOINT PERMIT APPLICATION

Consultant shall prepare and provide the City with appropriate environmental documentation as needed or required to prepare or support a full and complete Joint Permit Application (JPA) to the Agencies for the Segment 3 Water Transmission Pipeline to be constructed in the City of Wilsonville, Clackamas County, Oregon. In preparing the required documentation and JPA, Consultant shall use work products and documentation previously prepared under the Barber-Kinsman Project to the maximum extent possible.

Task 2.1 Existing Document Review and Revision

Consultant shall review, revise, modify, and republish previous documentation from the Barber-Kinsman project as needed for the purposes of this project. Environmental documentation previously prepared for the Barber-Kinsman project and available for use on this project includes:

- Wetland Delineation Report
- Wetland Mitigation Plan
- Ordinary High Water (OHW) Determination
- Stormwater Management Report
- No Effect Memorandum
- Essential Fish Habitat Documentation
- Aquatic and Wildlife Habitat Inventory Memorandum
- Rare Plant and Noxious Weed Survey Memorandum
- Biological Assessment
- Fish Passage Plan
- Phase I Hazardous Materials Corridor Assessment
- Historic Resource Survey
- Phase 1 Archaeology Survey
- Noise Study

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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). Consultant shall include a discussion of SLOPES IV Compliance within the Joint Permit Application.

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

If required, 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.

Task 2.1 Deliverables

Consultant shall provide:

- One (1) electronic copy and one (1) hard copy of any revised Plan, Report, Determination, Memorandum, Assessment or Survey prepared specific to this project.
- If required, one (1) electronic copy and one (1) hard copy of the Final Wetland Delineation Report with a completed Wetland Determination Request form.
- If required, 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 three (3) weeks after receiving comments from the review Agencies.

Task 2.2 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

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and to assess initial agency comments on the Project. In conjunction with any pre-application meeting, Consultant shall also coordinate with the City and the City's Pipeline Design Engineering Consultant (PDEC) 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. The City's PDEC 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 City staff or PDEC 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, including the mitigation plan if required, shall be included in the JPA.

Assumptions:

- The physical alignment / location, approximate depth, and general technical details of the pipeline will match the Alternative 2 plans, sections, and details of the Barber – Kinsman preliminary engineering package.
- Field surveying, geotechnical engineering, and ROW or easement legal descriptions will be performed by others.
- The City's PDEC will 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.
- Draft JPA submittal to the Agencies will occur on or before December 31, 2011.

Task 2.2 Deliverables

Consultant shall provide: One (1) electronic copy of the Draft JPA.

Task 2.3 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 City staff in developing appropriate responses to questions regarding the information submitted to the

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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.
- Final JPA submittal will occur on or before June 30, 2012.

Task 2.3 Deliverables

Consultant shall provide:

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

END OF SCOPE OF SERVICES

Exhibit D

SCOPE OF SERVICES
SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

INTRODUCTION AND PROJECT BACKGROUND

In 2002, the City of Wilsonville completed construction of the Willamette River Water Treatment Plant (WRWTP). This Plant was constructed with a long term capacity, and with the specific intent to provide treated water to multiple water providers on a regional basis. The plant is jointly owned by the City of Wilsonville and the Tualatin Valley Water District (TVWD). TVWD in turn sold a portion of their rights to the City of Sherwood.

To provide a physical water transmission system to the City of Sherwood, various intergovernmental agreements were negotiated between the cities of Wilsonville and Sherwood to construct a 48" diameter Water Transmission Pipeline from the intersection of Wilsonville Road and Kinsman Road, to a delivery point located at the corner of Tooze Road and Westfall Road. Five Segments were identified for the Transmission Pipeline construction, of which this Segment 3b is the last remaining unconstructed segment.

Most of the design criteria for the project have been resolved during the design of previous phases. Pipeline diameter (48'), material type (steel), corrosion protection requirements, and the start and end point of the pipeline are all known. A final alignment has been selected, and preliminary design and environmental documentation have been completed under an ongoing multi task contract known as the Barber – Kinsman Project, which involves coordination of this project with 2 road projects, 1 other water line project, and a sewer line project. This project, specifically, is designed to parallel and underlie the eastern sidewalk of the Kinsman Road extension project.

For various reasons, the City has chosen to split and remove the Segment 3 Transmission Pipeline project from the other work, and intends to expedite design, permitting, and construction of the pipeline project as a separate and distinct project. Based on the work performed to date, the pipeline alignment will pass through wetland and natural areas containing compressible soils, and subject to Oregon Department of State Lands (DSL) and US Army Corp of Engineers (Corp) permitting requirements. Permits from these agencies are being pursued under a separate contract and are not part of this Scope of Services.

This Scope of Services covers final design services, construction document preparation, and related services. Environmental permitting support services are on a different timeline and are being solicited by the City separately.

TASK 1 - PROJECT MANAGEMENT AND COORDINATION

Consultant shall manage work performed by Consultant's staff, coordinate with the City's permitting subcontractor and Kinsman Road design consultant, organize and facilitate progress meetings, provide quality assurance in the form of peer review on all deliverables submitted to the City, and coordinate information sharing and resolution of technical details between this project and the Kinsman Road design. Consultant shall prepare monthly progress reports and progress billings in a format approved by the City.

SCOPE OF SERVICES
SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Task 1.1 General Project Management

This task includes all costs and labor to schedule and coordinate other work tasks, prepare and revise schedules, maintain communication and coordination with the City and other subconsultants, prepare invoices and progress reports, maintain project files, and manage the project budget.

Consultant's Project Manager (PM) shall be the primary point of contact, and is responsible for communicating with the City regarding the status of work being performed and to discuss issues or concerns that may impact the Project.

Task 1.1 Deliverables

Consultant shall:

- Prepare and distribute a preliminary Project Schedule, and revise and distribute said schedule monthly.
- Prepare and submit to the City monthly progress reports and billing invoices including a breakdown of labor hours and expenses, to be submitted by the 20th of each month.
- Project files must be delivered within thirty (30) calendar days of request by City.

Task 1.2 Meetings

This task includes all costs and labor for Consultant to organize, schedule, and attend meetings with the City, Agencies, and/or other subconsultants, prepare meeting agendas and take and distribute meeting notes. For estimating purposes, it is assumed up to 12 meetings will be required, with all meetings lasting up to 2 hours and all meetings held at City of Wilsonville offices. This Task also covers Consultants' presence at a 3 hour public open house or City Council meeting, if needed. Any Exhibits required for an open house or Council meeting shall be prepared and billed under work tasks listed under TASK 2.

Task 1.2 Deliverables

Consultant shall:

- Prepare and distribute meeting agendas at least 48 hours prior to meetings.
- Prepare and distribute meeting summaries within 7 calendar days after the meeting.

Agendas and meeting summaries shall be distributed electronically in Word or pdf format.

Task 1.3 Coordination with Barber – Kinsman Project

This task recognizes that the preliminary engineering, selected pipeline alignment, and general scope of environmental documentation for this project were originally prepared as part of a larger joint project known as the Barber-Kinsman Project. Under the Barber-Kinsman Project, the pipeline alignment and technical details for this now separate water transmission pipeline

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

project were coordinated with the alignment of the Kinsman Road extension. The Barber-Kinsman Project remains an active project, and certain tasks performed under that project, or to be performed under that project, such as surveying, geotechnical investigation, and Right of Way determination require coordination and sharing of information between the two projects. This task provides a separate line item to accumulate costs and labor efforts of the Consultant to facilitate coordination and information sharing efforts that cannot be easily categorized under other tasks within this project, or under task items of the Barber – Kinsman Project.
For estimating purposes, the scope of effort is assumed to include 60 hours of mixed labor on the part of the Consultant.

Task 1.3 Deliverables

- Specific work efforts and activities charged against this task shall be clearly documented as part of the monthly progress report and invoice.

Task 1.4 Permit Coordination

This task recognizes that environmental (e.g., wetland) permits from the Oregon Department of State Lands (DSL) and US Army Corp of Engineers (Corp) for this project are being prepared and submitted by a separate consultant working directly for the City, but that clearing, erosion control, and required mitigation efforts will be performed as part of the construction effort for this project, and must therefore be incorporated into the construction bid package. This task provides a separate line item to accumulate costs and labor efforts of the Consultant to facilitate coordination and information sharing efforts that cannot be easily categorized under other tasks within this project, or under task items of the permitting consultant.
For estimating purposes, the scope of effort is assumed to include 40 hours of mixed labor on the part of the Consultant.

Task 1.4 Deliverables

- Specific work efforts and activities charged against this task shall be clearly documented as part of the monthly progress report and invoice.

TASK 2 – 75% DESIGN SERVICES

Under this Task, Consultant shall prepare pre-final designs, construction drawings, specifications, and other necessary documents, advancing the project design status from the approximately 30% current design level without details and specifications, to an approximately 75% level, with details and specifications. Included under Task 2 are preparation of the necessary drawings, specifications and plans for clearing and grading, erosion control, stormwater management, and wetland mitigation. This Task docs not include Final Design services, Bid Phase services or Construction Phase services which are detailed in Tasks 3 & 4.

In the performance of this Task, it is the express desire of the City not to "reinvent the wheel". Preliminary Engineering (e.g., 30% design) was completed under the Barber – Kinsman project,

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

including alignment, and preliminary Plan and Profile. Significant design information, specifications, and design detail drawings are also available from previous design and construction packages for other segments of the pipeline, including Segment 2, Segment 3a, Segment 4, Segment 5a, and the Tooze Vault project (which includes Segment 5b). Consultant is expected to re-use this existing design and construction detail information to the maximum extent possible to minimize design, drafting, and specification/bid package preparation costs.

Task 2.1 Existing Document Collection & Review

The City will provide electronic and hard copies (CAD files, Word documents, etc.) of the current preliminary plan and profile information, and the complete design and specification packages for the previously completed projects referenced above. Consultant shall organize and review these documents, and determine the extent to which this previous information can be incorporated into the design package for this project. For each design package component (see Table 1 for example) Consultant shall identify one of three levels of applicability:

a) Directly applicable – no changes needed
b) Applicable with minor (text or drafting) edits
c) Not applicable, or major (text or drafting) edits required

For any design package component determined to be in level c) above, Consultant shall provide a written explanation as to why it was not applicable, or the extent of major edits required. Note: For a design feature / component where different source documents have different levels of applicability, a written explanation is only needed when none of source documents are considered "directly applicable".

TABLE 1
(note: this is only an example and is NOT meant to reflect a complete listing)

Design Feature / Component	Source Document	Directly Applicable (a)	Partially Applicable (b)	Not Applicable (c)
General / Special Conditions	Segment 2			X
	Segment 3a		X	
	Segment 4	X		
	Segment 5a	X		
Trench / Backfill Specs	Segment 4	X		
Pipe Material Specs	Segment 2, 3a, 4		X	
Corrosion Protection Details	Segment 2			X
	Segment 3a		X	
	Segment 4	X		
Valve Selection	Segment 2			X
	Segment 3a	X		
	Segment 4	X		

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Pipe Tiedowns	Segment 4		X	
PRV Station Design	Segment 3a		X	
PRV Vault Design	Segment 3a			X
Erosion Control Plan	Segment 2			X
	Segment 3a			X
	Segment 4		X	

Task 2.1 Deliverables

Consultant shall provide:

- A summary table of the design features / components and degree of applicability similar to Table 1.
- A written memorandum providing explanations of features / components deemed Not Applicable.

Task 2.2 Draft Plan and Profile

Consultant shall prepare draft plan and profile drawings, using the existing Preliminary Engineering plan and profile drawings prepared under the Barber – Kinsman project (Final Design Acceptance Package drawing sets 5A through 10A). Electronic (CAD) files shall be provided by the City. Drawing scale shall be 1" = 40' for plotting on 11 x17 sheet size. Consultant shall create new to-scale CAD layers, also at 1" = 40', but designed for plotting on 24" x 36" sheets (i.e., using fewer sheets). For both sets, layers not applicable to the water line construction (e.g., wetlands, sanitary and storm sewer, road centerline, etc.) shall be "turned off" for clarity, but shall not be deleted. Stationing of the water line shall be revised such that the start of waterline construction at the southern connection to the existing line is at Station 0+00, and an accurate reference distance shall be provided to the 0+00 point of the Barber – Kinsman profile.

Task 2.2 Deliverables

Consultant shall provide:

- One hard copy set of 11 x 17 draft plan and profile drawings.
- One disk containing all electronic (CAD) files for both the 11 x17 set and the 24 x 36 set, fully editable by AutoCAD Civil 3D 2011, or earlier.

Task 2.3 Draft Specifications

Consultant shall prepare a draft construction specifications package using the existing project documents accumulated under Task 2.1. At this stage of design, the intent is to assemble the full range of pre-existing specifications that are either, a) directly applicable, or b) partially applicable to this project, without consideration of future modification and editing of the

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

specification package. Technical review, modification, and/or editing of the draft specification package will occur under a separate task.

Task 2.3 Deliverables

Consultant shall provide:

- One hard copy of the Draft Specification Package.
- One disk containing a fully editable electronic copy of the Draft Specification Package in Microsoft Word format. PDF format is unacceptable.

Task 2.4 Draft Details

Consultant shall prepare draft detail drawings (piping details, section views, material schedules, etc.) using the existing project documents accumulated under Task 2.1. At this stage of design, the intent is to assemble the full range of pre-existing details that are either a) directly applicable, or b) partially applicable to this project, without consideration of future modification and editing of the details. The Draft Detail set shall specifically include the Pressure Reducing Valve (PRV) Station and PRV Vault. Technical review, modification, and/or editing of the draft details will occur under a separate task.

Task 2.4 Deliverables

Consultant shall provide:

- One set of 11 x 17 hard copy Detail Sheets.
- One disk containing all electronic (CAD) files for both the 11 x17 set and the 24 x 36 set, fully editable by AutoCAD Civil 3D 2011, or earlier.

Task 2.5 Survey Confirmation

Consultant shall obtain the ground survey DTM point file, pipeline centerline coordinate file, and other available coordinate files developed as part of the Barber – Kinsman project, and perform additional field surveying to confirm the accuracy of existing ground elevations and feature coordinates within the Project Area. For the purposes of this task, the Project Area is defined as 30' south of the southern connection to existing, 30' north of the northern connection to existing, and 20' either side of the proposed centerline alignment. Specific features requiring X-Y coordinate confirmation include the starting and ending connections to the existing pipelines, proposed pipeline centerline at approximately 300 foot spacing (7 shots), the centerline of the eastern branch of Coffee Lake Creek, the centerline of the existing 15" sewer, and the location of geotechnical boreholes B-7, B-8, B-10, B-12, B-14, B-15, and B-16. At this stage of design, the intent of this task is not to perform a full re-survey of the project area, but to select a representative subset of ground shots and verify whether previous survey information (X,Y,Z) is accurate. Before beginning field work, Consultant shall meet with the City Project Manager to discuss and select specific points for confirmation.

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Task 2.5 Deliverables

Consultant shall provide:

- One hard copy and one electronic copy of an Excel spreadsheet comparing coordinates and elevations of the existing survey versus the confirmation survey.
- One color hard copy plot, 11 x17 size, of the confirmed borehole locations and confirmed pipeline centerline superimposed on the aerial photo of the area.
- One disk containing all electronic files (point files, DTM, as applicable) of the confirmation points, fully importable and editable by AutoCAD Civil 3D 2011, or earlier.

Task 2.6 Geotechnical Review

Geotechnical Investigations conducted as part of the Barber – Kinsman project developed subsurface information for most, but not all of the proposed alignment of the pipeline. The previous geotechnical report identifies a 3' to 8' layer of compressible alluvium and/or organic silts and clays underlain by competent coarse grained flood deposits along profiles B-B' and D-D'. The report also recommends removal and replacement of this material where it will underlie the pipeline.
Consultant shall review the previous geotechnical report and the information developed in Task 2.5, and make a recommendation as to whether additional geotechnical investigations are warranted. The recommendation, justification for the recommendation, and the proposed scope of additional geotechnical investigations, if any, shall be documented in a letter memo. Given the current recommendation for removal and replacement of poor soils, the letter memo shall document the construction cost reduction or risk avoidance benefits that will potentially result from any additional investigations, compare these benefits to the expected cost of the investigation work, and provide a discussion of other construction strategies that could be employed to mitigate for the presumed lack of information. After review and discussion of the letter memo, if the City chooses to move forward with additional geotechnical investigations, these services will be negotiated as a change order to this Scope of Services.

Task 2.6 Deliverables

Consultant shall provide:

- One hard copy original letter memo signed and stamped by a licensed geotechnical engineer registered in the State of Oregon.

Task 2.7 Corrosion Protection

Consultant shall review previous corrosion protection designs and technical memoranda prepared for previous projects and accumulated under Task 2.1, including current soils data and draft corrosion protection recommendations from the Barber – Kinsman work, and design an equivalent and compatible corrosion protection system for this project.

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

As an initial task before proceeding with detailed design, Consultant shall provide a letter / memo containing a summary of existing corrosion protection criteria and cathodic protection installations on other pipeline segments, the recommended type of corrosion protection criteria / cathodic protection installation for this segment, and the need for additional field information in order to proceed with design tasks. After review and discussion of the letter memo, the City will provide direction concerning the scope of additional corrosion protection design services.

For proposal and budget tracking purposes, all data accumulation, review, and design efforts for the corrosion protection system shall be accumulated under this Task 2.7 instead of spread across other Task items such as 2.1, 2.3, 3.2, and 3.4.

Task 2.7 Deliverables

Consultant shall provide:

- One hard copy original letter memo signed and stamped by a licensed engineer registered in the State of Oregon, documenting existing corrosion protection criteria and cathodic protection installations and providing recommendations for corrosion protection criteria and cathodic protection design features for this project.
- Complete design drawings, technical specifications, and material lists for the corrosion protection system.

Task 2.8 Electrical Design, SCADA and Telemetry

Consultant shall review previous designs and technical details for the electrical system, Supervisory Control and Data Acquisition (SCADA), and telemetry systems installed at existing City of Wilsonville PRV vaults /stations, and prepare design drawings and specification documents for equivalent systems to serve the new PRV station being installed on this project. Minimum required telemetry reporting points will include: upstream and downstream pressure, flow rate, and valve position. Minimum electrical requirements include interior vault lighting, confined space ventilation, and automatic sump pump. All meters, panels, and other devices needed to support the electrical and telemetry system shall be installed in an above grade weatherproof enclosure.

As an initial task and before proceeding with final design efforts, Consultant shall accumulate and review design information and prepare a letter memo to the City documenting any deficiencies or unique details that will need to be incorporated in the design.

For proposal and budget tracking purposes, all data accumulation, review, and design efforts for the electrical/SCADA / telemetry systems shall be accumulated under this Task 2.8 instead of spread across other Task items such as 2.1, 2.3, 3.2, and 3.4.

Task 2.8 Deliverables

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Consultant shall provide:

- One hard copy original letter memo signed and stamped by a licensed engineer registered in the State of Oregon documenting existing electrical / SCADA / telemetry system information and recommended electrical / SCADA / telemetry system design for this project.
- Complete design drawings, technical specifications, and material lists for the electrical system for the PRV vault, and for the SCADA / telemetry system connecting to the City-wide SCADA / telemetry system.

Task 2.9 Design Calculations

Consultant shall prepare a complete set of design calculations (pressure, flow, pipe stress, water hammer, dead and live loads, buoyancy (as needed), pressure reduction requirements for the PRV station, etc.) adequate to confirm the basic design parameters (size, wall thickness, flange selection, depth of bury, required soil bearing strength, etc.) of the preliminary design information provided by the City (see Task 2.2). As part of this task, Consultant shall review existing Hydraulic Modeling studies performed for the City by others, and provide an opinion as to the adequacy of the model runs for the current design. If additional Hydraulic Modeling is recommended, Consultant shall provide the required input parameters for the model run, and the desired output information to support the design effort. The City maintains an up-to-date INFOWATER™ hydraulic model and requires any additional hydraulic modeling to be performed with this software suite. If the consultant currently owns this software, the City may negotiate these additional modeling services as a change order to this Scope of Services. If the consultant does not have access to this particular software, the City will contract separately with another firm to perform the model runs.

Task 2.9 Deliverables

Consultant shall provide:

- One hard copy set of design calculations, signed and stamped by a licensed engineer registered in the State of Oregon.
- One hard copy letter memo addressing the adequacy of current hydraulic modeling, and providing recommendations as needed.

Task 2.10 Draft Erosion Control, Wetland Mitigation, and Stormwater Management Plans

Consultant shall prepare a draft grading plan, and draft erosion control and stormwater management plan, and coordinate these plans with the wetland mitigation drawings (prepared by others) based on the information collected in Task 2.1, and other information provided by the City. Specifically included in this task is the formal Stormwater Management Plan required under Clean Water Act criteria.

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SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Task 2.10 Deliverables

Consultant shall provide:

- Draft Grading Plan and details for inclusion in Task 2.10
- Draft Erosion Control and Stormwater Management Plan, as a separate document for submittal to regulatory agencies.
- Erosion Control and Stormwater Management drawings and details for inclusion in the drawing package required by Task 2.10.

Task 2.11 75% Design Review Package

Consultant shall prepare a "75%" design review package for distribution to the City. In preparing this package, Consultant shall perform all work necessary to package together the information accumulated and generated in Tasks 2.1 through 2.9, delete information (specifications, plan details, etc.) that is duplicative or not applicable to this project, modify and adjust the horizontal and vertical alignment of the pipeline to resolve all spatial interferences, add information deemed to be lacking from the package, and publish the package for review. The intent of this Task is to create a complete draft set of working documents, including plans, details, and specifications, from which the final (bid) set of documents will eventually result.

Task 2.11 Deliverables

Consultant shall provide:

- Six hard copy sets of review materials, 11 x 17 drawing size, with specifications.
- One additional hard copy set of 24 x 36 drawings.
- One disk containing all review materials in original electronic format – either AutoCAD or Word – pdf is not acceptable.

TASK 3 – FINAL DESIGN SERVICES

Task 3.1 75% Design Review Meeting

Consultant shall organize and facilitate a review meeting at City offices to receive comments and questions on the 75% Design Review Package issued under Task 2.10. This meeting is separate from and in addition to other project meetings listed under Task 1.2. For estimating purposes, this meeting shall be assumed to last 4 hours, and will require the services of an administrative assistant to document comments, in addition to meeting facilitation by the consultants Project Manager. Subsequent to and within one week of the review meeting, Consultant shall prepare and distribute a comment resolution worksheet to all those in attendance at the meeting, describing the comments made and the proposed technical or administrative resolution. Questions or disagreements concerning the proposed resolutions of comments will be resolved by the City Project Manager.

SCOPE OF SERVICES
SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Task 3.1 Deliverables

Consultant shall provide:

- Electronic distribution of the meeting announcement.
- Electronic distribution of the comment resolution worksheet. (pdf is acceptable)

Task 3.2 Draft Final Drawings and Specifications

Consultant shall prepare a draft final drawing set, draft final Stormwater Management Plan, and draft final construction specifications package based on the review comments of Task 3.1. Technical review, modification, and/or editing of the draft final drawing set and specification package will occur under a separate task.

Task 3.2 Deliverables

Consultant shall provide:

- See Task 3.4

Task 3.3 Draft Contract Documents

Consultant shall prepare a draft Contract Documents package using the existing project documents accumulated under Task 2.1, and other criteria provided by the City Project Manager. Specific inclusions of the Contract Documents shall include sections for Bidding Requirements, Contract Forms, and Conditions of the Contract. Note that General Requirements and Special Provisions are considered part of the Technical Specifications and shall be included therein (see Task 3.2).

Task 3.3 Deliverables

Consultant shall provide:

- See Task 3.4.

Task 3.4 Final Review and Edits

Consultant shall prepare a draft final package for review containing all the documents identified in Tasks 3.2 and 3.3. This is the final review set before going to bid, and shall include all required figures, text, appendices, construction drawings, drawing details, and standard details representing a complete bid set. Consultant shall distribute final review sets, receive comments, and make final edits.

Task 3.4 Deliverables

SCOPE OF SERVICES
SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

Consultant shall provide:

- Six hard copy sets of final review materials, 11 x 17 drawing size.
- One hard copy final set of all documents, 11 x 17 drawing size, with original wet seal stamp and signature. Electronic seal and signature is not acceptable.
- One hard copy final set of 24 x 36 drawings, with original wet seal and signature. Electronic seal and signature is not acceptable.
- One disk containing all final materials in original electronic format – either AutoCAD or Word – pdf is not acceptable.

Task 3.5 Final Easement Legal Descriptions and Exhibits

Consultant shall prepare up to six legal descriptions and corresponding exhibits for required permanent and construction easements for the project. All work shall be performed by a licensed surveyor.

Task 3.5 Deliverables

Consultant shall provide:

- 1 Electronic and 3 hard copy, stamped and signed, of each recordable easement exhibit.

Task 3.6 Bid Addenda Support

Consultant shall be available to answer questions concerning the drawings and specifications during the bid phase of the project, and shall provide written answers to written questions submitted by bidders within 48 hours of receipt. For estimating purposes, the scope of effort is assumed to include 40 hours of mixed labor on the part of the Consultant. Note: The City will publish all advertisements, prepare and formally issue all bid addenda, provide all official communication between bidders and the City, and open and verify bids.

Task 3.6 Deliverables

Consultant shall provide:

- Electronic delivery (pdf is acceptable) of written response to bidder or City questions.

TASK 4 – CONSTRUCTION PHASE SERVICES

Task 4.1 On-Call Field Services

Consultant shall be available to perform on-site field investigations and answer questions concerning the drawings and specifications during the construction phase of the project, on an as needed basis. For estimating purposes, the scope of effort is assumed to include 40 hours of mixed labor on the part of the Consultant.

SCOPE OF SERVICES
SEGMENT 3B WATER TRANSMISSION PIPELINE DESIGN

END OF SCOPE OF SERVICES

Exhibit E

Estimated Segment 3B Total Costs

					Sherwood Share
Part 1 - Actual Costs incurred through 8/31/11				footnote 4	
a	Prelim. Eng. (Barber-Kinsman accrual)[1]	actual	$ 54,534.00	46.18%	$ 25,183.80
b	COW Overhead thru 8/31	actual	$ 18,306.00	46.18%	$ 8,453.71
c	Wilsonville Accounting Overhead (2% of line a)		$ 1,091.00	46.18%	$ 503.82
	Part 1 - TOTAL		**$ 73,931.00**		**$ 34,141.34**
Part 2 - Estimated remaining Total Project Costs through project completion					
d	Final Eng. (WEI contract)[2]	est.	$ 214,530.00	46.18%	$ 99,069.95
e	Permitting (PHS Contract)	actual	$ 25,681.00	46.18%	$ 11,859.49
f	Easements	est.	$ 280,000.00	46.18%	$ 129,304.00
g	Appraisals, legal, etc. for easements	est.	$ 25,000.00	46.18%	$ 11,545.00
h	Wetland Mitigation (2.79 ac @ $20K/ac)	est.	$ 55,800.00	46.18%	$ 25,768.44
i	Construction[3]	est.	$ 2,950,900.00	46.18%	$ 1,362,725.62
j	Subtotal lines d-i		$ 3,551,911.00		$ 1,640,272.50
k	Post 8/31/11 Wilsonville Overhead at 14% of line i		$ 413,126.00	46.18%	$ 190,781.59
	Part 2 - Remaining Total Project Costs		**$ 3,965,037.00**		**$ 1,831,054.09**
	GRAND TOTAL - Total Project Costs		**$ 4,038,968.00**		**$ 1,865,195.42**

1 - Accrual against direct (contracted) costs only, excludes contingencies and overhead
2 - Includes survey and legal descriptions for easements
3 - From Barber Kinsman Final DAP estimate
4 - Sherwood % from construction cost calculation applied to all other categories