

**Work Authorization No. 15 –Les Lacs Pond Water Well Transfer Piping System Improvements**

Attachment 1: **Scope of Services**

**PROJECT DESCRIPTION**

The scope of work to be performed under this Work Authorization shall generally consist of preliminary design, final design, bidding phase, and construction phase services for a well water pipeline system for discharging well water to the south end of Les Lacs pond. A water quality program and assessment has been completed and residence complaints regarding odors and appearance of the pond during summer conditions have been addressed. The purpose of the improvements is to assist in better water quality entering the pond. A water quality program will be developed outside the scope of this services.

CONSULTANT shall provide the following services in accordance with recognized industry standards which are similar in size, scope and budget to the project.

**SCOPE OF SERVICES**

<b>3</b>	<b>Les Lacs Pond – Water Well Transfer Piping System - Preliminary Design Phase and Final Design Phase -</b>	
<b>3.1</b>	<b>Preliminary Design Phase -</b>	
<b>3.1.1</b>		Halff shall perform Field resonance for preliminary route of piping system.
<b>3.1.2</b>		Halff shall review alignment in field with Town of Addison staff for feedback on adjusting the alignment. The meeting is listed under item 1 above.
<b>3.1.3.</b>	Topographic surveys	
<b>3.1.3.1</b>		Halff survey shall consist of surface improvements start from the North water well survey, inclusive of trees, sidewalks, flatwork, sprinkler heads, extending to the south limits of Pond in area of discharge of well water. The conceptual route is within 50 feet of the edge of the pond and would be a maximum of 1200 linear feet.
<b>3.1.3.2</b>		Survey would use baseline as the centerline of proposed piping improvements and survey surface improvements within 100 feet of centerline on public property.
<b>3.1.4</b>		3.1.4 Prepare working base map for design on 1 inch to 40 foot scale.

<b>3.2</b>	Prepare preliminary drawings	
<b>3.2.1</b>		Halff shall prepare Alignment drawing.
<b>3.2.1.1.</b>		Prepare alignment which is least disruptive to existing improvements.
<b>3.2.2</b>		Halff shall prepare pipeline profile drawing
<b>3.2.2.1</b>		Prepare profile design drawing which is least disruptive to existing improvements and as shallow as permissible.
<b>3.3.a</b>	Design of well piping connection, valving, fittings, bypass piping, piping outlet feature, system hydraulic curve, suggested erosion control plan, flow testing program, landscape repairs, sprinkler system repairs, concrete repairs, traffic control items, and address any removal and replacement items. Meet with Town of Addison for review, coordination, and comment solicitation. Meeting is listed under item 1 above.	
<b>3.3b.</b>	Provide Internal Review for Quality assurance/quality control	
<b>3.4</b>	The design is based on minimal disturbances to pond liner, and existing water surface disturbances.	
<b>3.5</b>	Design of piping system is based on the determination that the Les Lacs Pond is not under US Army Corps of Engineers Waters of the U. S. regulations, and the existing Habitat assessment memo has demonstrated absence of no state listed threatened mussel species.	

<b>3.6</b>	Design of technical specifications for piping system is based on the determination that the Les Lacs Pond is not under US Army Corps of Engineers Waters of the U. S. regulations, and the existing Habitat assessment memo has demonstrated absence of no state listed threatened mussel species.	
<b>3.7</b>	Prepare 2 monthly progress reports and perform regular quality reviews.	
<b>3.8</b>	Up to two (2) project meetings with town staff during design phase.	

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<b>5</b>	<b>Bid Phase and Construction Phase Services for Water Well Transfer Piping Improvements</b>	
<b>5.1</b>	Prepare Front end Bid documents and specifications for piping improvement project.	
<b>5.2</b>	Prepare environmental permit specifications including restoration and fish relocation guidance and requirements.	
<b>5.3</b>	Bid phase services	
<b>5.3.1</b>		Attend pre- bid meeting.
<b>5.3.2</b>		Prepare addenda as required.
<b>5.3.3</b>		Attend bid opening.
<b>5.3.4</b>		Tabulate bids.
<b>5.3.5</b>		Contact references of apparent low bidder.
<b>5.3.6</b>		Provide bid tabulations and reference results.
<b>5.4</b>	Construction and post-construction phase services.	
<b>5.4.1</b>		Attend pre-construction meeting
<b>5.4.2</b>		Establish three (3) horizontal and vertical survey control points for contractors use.

<b>5.4.3</b>		Three (3) site visits with staff as described under item 1 above.
<b>5.4.4</b>		Perform in conjunction with the Contractor and the Town of Addison a well pumping test to measure well drawn down and pumping flow performance.
<b>5.4.5</b>		Assist Owner in and warranty claims during the 12 months warranty period.
<b>5.4.6</b>		Prepare record drawings based on contractors and town staff mark-ups (town shall not hold consultant liable for the information supplied to the consultant).

**Work Authorization No. 15 –Les Lacs Pond Water Well Transfer Piping System Improvements****Attachment 2: Fee Schedule**

No.	Phase & Task Description	Task Fee	Phase Total
3	<b><u>Water Well Transfer Piping System – Preliminary Design Phase and Final Design Phase –</u></b>	<b>\$37,000</b>	
5	<b><u>Bid Phase and Construction Phase Services for Water Well Transfer Piping Improvements –</u></b>	<b>\$33,000</b>	
	<b>Work Authorization #15 Total Fee</b>		<b>\$70,000</b>

**Work Authorization No. 15 –Les Lacs Pond Water Well Transfer Piping System Improvements**Attachment 3: **Project Schedule**

No.	Activity	Duration (days)
3	<b><u>Water Well Transfer Piping System – Preliminary Design Phase and Final Design Phase –</u></b>	<b>90</b>
5	<b><u>Bid Phase and Construction Phase Services for Water Well Transfer Piping Improvements –</u></b>	<b>90</b>