

**MEMORANDUM**

DATE: January 18, 2017 Project No.: 693-20-16-01  
TO: SRWA TAC SENT VIA: EMAIL  
FROM: Nancy McWilliams, PE, RCE #68331  
REVIEWED BY: Gerry Nakano, PE, RCE #29524  
SUBJECT: Limited Land Surveying and Right-of-Way Acquisition Services Required to Support Design and Construction of Raw Water Pumping Facilities and Raw Water Pipeline

To prepare the preliminary design and acquire the rights-of-way that are needed for the construction, operations and maintenance of the Surface Water Supply Project (Project) for raw water pumping facilities and the raw water pipeline between the pumping facilities and the Water Treatment Plant, land surveying and right-of-way appraisal and acquisition services will be required.

Surveying is important to any design effort so that the engineer can determine where the proposed facilities will be placed so that they are constructible and maintainable. The survey includes establishing the exact location of the right-of-way lines, and what topographic features exist including their proximity to the right-of-way lines. Once the survey is complete and facility locations are determined, plat maps and legal descriptions must be prepared by a land surveyor to acquire the right-of-way necessary to construct, operate, and maintain the facilities.

It is necessary to obtain right-of-way wherever project facilities cannot be placed in existing public right-of-way. For the wet well and raw water pipeline permanent, temporary construction, and access easements are needed through private properties and state lands. It is important to start right-of-way acquisition early as possible, as it can take a 12 to 18-month process to acquire these rights-of-way.

**PROFESSIONAL LAND SURVEYING SERVICES**

West Yost Associates (West Yost) solicited proposals from three firms including GDR Engineering (GDR), Hawkins & Associates, and O'Dell Engineering for land surveying services associated with the Project, and received responses from all three.

The proposals were reviewed and ranked based on qualifications prior to review of the cost proposals, with consistent ranking results from all three reviewers. All three were qualified, but GDR was the top ranked candidate for the proposed services. In addition, GDR is located in Ceres,

their project experience appears to reflect what is required for this project, and they provided a detailed scope and fee to demonstrate the value they bring to the Project.

Following discussions with the Board and the TAC, we received some survey information from Turlock Irrigation District (TID) that included aerial topographic mapping around the raw water facilities, water treatment plant, and Hatch Road (as well as other roads (Euclid, Griffin, Faith Home, Roeding, Kinser, and Morgan) that are no longer within the project limits). On December 9, 2016 we received additional topographic files from City of Ceres representatives. Upon review of the files received, we found that both topographic files were identical, based on the same aerial photography performed by Cartwright Engineering for Stantec, and dated December 29, 2006.

It should also be noted that since 2006, Hatch Road has been widened to the north, a new intersection has been constructed, and others have been modified. When it becomes necessary to survey Hatch Road, SRWA should consider re-flying the alignment and mapping so that the survey and aerial image match current conditions.

The currently proposed City of Turlock treated water alignment, which runs mostly down Berkeley Road, is a new alignment that was developed when a tank site was identified. Because the Berkeley Road alignment was not included in the previously completed 2006 Stantec work product, it should also be flown and mapped when predesign of the pipeline commences.

On December 22, 2016 West Yost received PDF copies of several plat maps and legal descriptions from TID related to the raw water facilities. The documents were signed by Michael Halterman, presumably employed by Stantec at the time, in June 2008. We believe that these documents should be used as a base for the current boundary work, but should be updated for this project for the following reasons:

- Statute of liability for professional survey work is 10 years and these documents are currently 8.5-years old.
- There are inconsistencies within the documents related to Assessor's Parcel Numbers, some of the properties have changed ownership, and a couple will need to be modified for coordination/negotiation with the State of California.

At this time, the scope of work that is being recommended to move forward with is limited to confirming, updating, and filling in topographic information and preparing land description packages for areas around the raw water pumping station and raw water pipeline, (not including the proposed raw water pipeline on TID property to connect to the WTP), and a temporary construction easement over the existing park access road, if required. We intend to use all of the previously developed topographic information and supplement only where needed. The surveyor will be responsible for merging the new data with the existing topographic data.

GDR's survey scope of work includes the following:

- Survey in support of boundary confirmation and right-of-way acquisition
  - Obtaining and reviewing title reports (6 total) necessary to resolve boundaries and preparing a boundary base map for the proposed raw water facilities.

- Preparation of appraisal maps, and coordination with appraiser to locate raw water facilities easements in the field;
- Preparation of plat maps and legal descriptions for raw water facilities (10 permanent and temporary construction easements)
- Monument preservation in accordance with Section 8771 of the California Business and Professions Code, including all necessary coordination with Stanislaus County;
- Project management, meetings and QA/QC, and coordination with West Yost
- Topographic Surveying
  - Establishing horizontal and vertical control;
  - Verifying existing topographic information through spot checking;
  - Supplementing existing topographic information using manual survey techniques including survey under the recently reconstructed Geer Road Bridge
  - Combining new survey data with existing mapping.
  - Project management, meetings and QA/QC

West Yost will provide the following services (which are not currently in our approved Phase 1 scope of work):

- Coordinate with and direct survey subconsultant work efforts, including facilitating communication between survey and right-of-way consultant, monitor budgets and schedules;
- Provide locations of proposed easements where not already identified in existing documentation;
- Review title reports;
- Review appraisal maps;
- Review plat maps and legal descriptions;
- Review quality of topographic survey work and update layers and styles as necessary for pre-design work; and
- One (1) day of field verification.

## **RIGHT-OF-WAY APPRAISAL AND ACQUISITION SERVICES**

West Yost also solicited proposals for right-of-way acquisition services from three firms, including Associated Right-of-way Services, Inc. (AR/WS), Bender Rosenthal, and Paragon Partners and received responses from all three.

Each proposal was reviewed and ranked based on qualifications prior to review of the cost proposals, with consistent ranking results from all three reviewers. Overall, the AR/WS proposal ranked higher and the costs are comparable. The AR/WS planned hours and schedule appeared to be the most reasonable. AR/WS is currently on the City of Turlock's right-of-way and acquisition

services on-call list, and have been asked to provide right-of-way acquisition services for the City's tank site off North Quincy Road.

The right-of-way acquisition scope of work for raw water facilities over six parcels involving three owners includes the following:

- Project management and meetings;
- Preparing appraisals including restorative and crop loss costs;
- Developing necessary contracts, conveyance documents, and escrow instructions;
- Reviewing appraisals, title reports, and maps;
- Preparing acquisition documents;
- Meeting with owners;
- Delivering and negotiating offers; and
- Title and escrow support.

West Yost will provide the following services (which are not currently in our approved Phase 1 scope of work):

- Coordinate and direct right-of-way acquisition subconsultant work efforts, including facilitating communication between right-of-way and survey subconsultant; monitor budgets and schedules;
- Meetings with critical stakeholders, including State of California, County of Stanislaus, and Mr. Nazareno;
- Review appraisals;
- Obtain written approval of just compensation from SRWA member agencies;
- Review all written offers;
- Assist with escrow instructions;
- Attend One (1) TAC meeting; and
- Coordinate negotiations with TAC, General Manager, member agencies, and SRWA counsel as necessary.

## **FISCAL IMPACT**

Details related to survey costs are presented in Table 1, and details for right-of-way acquisition costs are presented in Table 2, and details for West Yost's costs are presented in Table 3.

Table 4 provides a summary of the total costs for this scope of work to provide limited survey and right-of-way acquisition services.

It should be noted that the Table 4 summary cost estimate includes effort for acquiring an easement from a private property owner for access to Fox Grove Park. Very recent discussions with this

owner indicate that a public easement may already exist, therefore this particular work task may not be required, which would reduce the overall Project cost.

West Yost's subconsultant mark-up shown in Tables 1 and 2 does not include West Yost labor required to coordinate the work efforts of each sub consultant. The markup cost represents work performed by West Yost's Accounting Department to manage and bill for subconsultant invoices, track insurance, and payment of the subconsultant. It also includes West Yost's risks associated with retaining a subconsultant. Although we do our best to select subconsultants, the risks of retaining subconsultants include relying on information that they provide, having their staff responsible for maintaining our reputation in the field, and relying on their ability to meet budget and schedule obligations.

At this time, we request that the TAC approve our recommendation to move forward with obtaining Board approval for a budget augmentation to engage GDR Engineering and Associated Right-of-way Services for limited survey and acquisition services, as described in this Technical Memorandum.

<b>Table 1. Cost Details for Survey Services</b>			
<b>Right-of-Way</b>		<b>Total Staff Hours</b>	<b>Cost, dollars</b>
Task A	Project Management: Project management, meetings, reviewing existing information	42	5,880
Task B	Boundary Identification: Obtaining title reports and background documents Researching R/W widths Preparing basemaps and plotting existing easements	62	9,120
Task C	Legal Descriptions and Plats: Coordination with client and acquisition agent Preparing plats and legals, calculating closures, field locating easements	91	11,720
<b>Subtotal</b>		<b>195</b>	<b>\$26,720</b>
<b>Topographic Survey</b>		<b>Total Staff Hours</b>	<b>Cost, dollars</b>
Task D	Project Management: Project management, meetings, reviewing existing topo, QA/QC	40	5,600
Task E	Survey Control: Field locating control monuments, monument preservation, record of survey	84	12,030
Task F	Topographic Survey: Coordinate with property owners, 4 days of ground survey, merging info with aerial topo	88	11,010
Reimbursables:			1,500
<b>Subtotal</b>		<b>212</b>	<b>\$30,140</b>
<b>Total</b>		<b>407</b>	<b>\$56,860</b>
West Yost's Subconsultant Mark-up (10%)			5,686
<b>GRAND TOTAL</b>			<b>\$62,546</b>

<b>Table 2. Cost Details for Appraisal Acquisition Services</b>		
Right-of-way	Total Staff Hours	Cost, dollars
Task A – Project Management	70	9,650
Task B – Appraisal Services (lump sum, hours are for information only)	160	32,000
Task C – Acquisition Services	140	19,300
Task D – Title and Escrow Support	70	9,650
Subtotal	440	70,600
West Yost's Subconsultant Mark-up (10%)		7,060
Total		\$77,660

**Table 3. West Yost Cost Details**

Survey Support for Raw Water		Hours	Costs, dollars
Task A	Establish easement location	1	
	Review title report	2	
	Review appraisal map	2	
	Subtotal per Parcel	5	
	<b>Subtotal for 6 Separate Parcels</b>	<b>30</b>	<b>\$6,656</b>
Task B	Review appraisal maps, plat maps & legal descriptions (10 plat maps + 10 descriptions)	20	
	Review topo in house	4	
	Field review (one person)	6	
	Coordination	2	
	<b>Subtotal for Task B</b>	<b>32</b>	<b>\$6,724</b>
	<b>Subtotal, Tasks A and B</b>	<b>62</b>	<b>\$13,380</b>
ROW Acquisition Support for Raw Water		Hours	Subtotal Costs, dollars
Task C	Assist with communications	4	
	Review appraisal	4	
	Obtain Just Compensation	2	
	Review 1st Written Offer	2	
	Review and obtain input on counter offers	10	
	Assist with escrow instructions (subordination/subject to)	2	
	Subtotal per Acquisition	24	
	<b>Subtotal for Acquisitions with 3 Property Owners</b>	<b>72</b>	<b>\$15,338</b>
Task D	Review and coordinate approval of forms proposed by acquisition agent	4	
	Meeting with State (1)	4	
	Meeting with County (1)	4	
	Meeting with Mr. Nazzareno (1)	4	
	Meeting with Owner of Access Road	4	
	TAC Meeting (1)	3	
	Coordination	7	
	<b>Subtotal, Task D</b>	<b>30</b>	<b>\$8,282</b>
	<b>Subtotal, Tasks C and D</b>	<b>102</b>	<b>\$23,620</b>
	<b>GRAND TOTAL</b>	<b>164</b>	<b>\$37,000</b>



<b>Table 4. Land Survey and Right-of-Way Acquisition Services, Raw Water Only</b>			
<b>Task 9 – Preliminary Alignment Study Subtask</b>	<b>West Yost Fees, Dollars</b>	<b>Subconsultant Fees, dollars</b>	<b>Subtotal Costs, dollars</b>
9.01 Survey Support Services	13,380		13,380
9.02 ROW Acquisition Support Services	23,620		23,620
9.17 GDR Engineering		62,546	62,546
9.18 Associate R/W Services		77,660	77,660
Totals	\$37,000	\$140,206	\$177,206