# Task Order Number 04-607-21-00 Stantec Consulting Inc.

### Construction Surveying Services for the Sawmill 1A Bike Path Project Scope of Work

**DATE:** May 23, 2007

In accordance with Article I, Scope of Services, of **Agreement for Services # AGMT 04-607**, as amended, between the County of El Dorado (County) and Stantec Consulting Inc. (Stantec), Stantec shall accomplish the work described below in this Task Order, # 04-607-21-00.

#### **TASK ORDER DESCRIPTION:**

Stantec shall implement the Items of Work detailed in Attachment I in accordance with all of the terms and conditions, including the reporting and deliverable requirements, of Agreement for Services # AGMT 04-607, as amended. The Items of Work shall conform to the applicable requirements contained within the California Tahoe Conservancy Contracts CTA-05025 and CTA-05015.1 and the Sawmill 1A Bike Path Project Plans and Contract Documents, including the Specifications, dated February 2007, copies of which have been provided to Stantec by County. The Items of Work shall consist of construction surveying services for work on the Sawmill 1A Bike Path Project.

If changes in the Scope of Work for this Task Order are needed, an amendment to this Task Order must be approved in writing and executed by County's Contract Administrator and Stantec.

#### PRICE/COST:

Billing rates for the services performed under this Task Order shall be in accordance with the terms and conditions of Agreement for Services # AGMT 04-607, as amended. The not to exceed amount for this Task Order is \$55,456.00. The not to exceed amount of \$55,456 includes a contingency of \$7,192 for change order work, as indicated on the attached Task Order Budget Form. No payment shall be made for any work performed prior to the effective date of this Task Order, # 04-607-21-00, or beyond the completion date of the Task Order.

#### **INVOICES:**

Invoices pertaining to the services described herein shall be in accordance with Article III, Section D., of Agreement for Services # AGMT 04-607, as amended, and shall include sufficient documentation to support Stantec's charges for work performed and shall identify the appropriate project number (95148), project title, task code (U), the above-designated Task Order, # 04-607-21-00, Agreement for Services # AGMT 04-607 and the Work Breakdown Structure (WBS) Codes in accordance with County's WBS Codes identified in Attachment I. Stantec shall submit all invoices to County's Contract Administrator by December 31, 2007.

Stantec shall provide County's Contract Administrator with Certified Payroll for applicable personnel for the period for which payment is requested and such Certified Payroll shall accompany the invoice. The Certified Payroll shall contain information related only to the Sawmill 1A Bike Path Project. No invoice shall be paid until the Certified Payroll is submitted.

# **SAWMILL 1A BIKE PATH PROJECT** (JN 95148)

## Attachment I

**Construction Surveying Services Scope of Work** 

May 2007 **El Dorado County Department of Transportation** 

# Construction Surveying Services for the Sawmill 1A Bike Path Project Scope of Work

Stantec Consulting Inc. (Stantec) shall assist the County of El Dorado (County) with the construction surveying services for the Sawmill 1A Bike Path Project (Project) based on the Plans and Contract Documents, dated February 2007.

Stantec shall address any design issues that may arise during construction. Stantec shall consult with County when any field changes arise. Should the change be related to the design, Stantec shall provide the design correction at no cost to County in accordance with Task Order #04-607-18-00 issued pursuant to Agreement for Services # AGMT 04-607, as amended.

For the purposes of this Task Order, references to County's Contract Administrator shall mean Robert S. Slater, Deputy Director, Engineering, Department of Transportation, or successor. References to County's Contract Administrator's designee shall mean Steve Kooyman, Supervising Civil Engineer, Department of Transportation, or successor.

County reserves the right to use its own personnel to accomplish any item in this Scope of Work at any time.

#### ITEM OF WORK A.

#### WBS 1.2.5.2 CONSTRUCTION STAGE

#### **CS01** Construction Meetings

Stantec shall attend two meetings to discuss Project surveying and construction coordination and shall take meeting notes. One meeting shall be between County personnel and Stantec and one meeting shall be between County, Stantec, and County's Contractor. County's Contract Administrator or designee shall contact Stantec via phone and email with the date, time and location of the meetings.

Deliverables: Stantec shall submit one (1) electronic copy via email and one (1) hard copy via US Mail of all meeting notes to County's Contract Administrator or designee within one (1) week following each meeting.

#### ITEM OF WORK B.

#### WBS 1.2.5.2.2 CONSTRUCTION SURVEY STEP

#### **CSS01** Construction Survey Calculations/Processing

Upon execution of this Task Order, County shall provide Stantec with an AutoCAD file of the final engineered drawings and data for the control. Stantec shall provide to County's Contract Administrator or designee actual and offset calculations, and cut/fill calculations as required by County's Contractor in order to construct the

improvements depicted within the Construction Plan Set and in accordance with the Specifications for Project. Stantec shall be responsible to complete all quality assurance on construction staking calculations.

Deliverables: Stantec shall utilize Land Development Desktop and shall submit one (1) CD or DVD via US Mail or in-person delivery of the point list, offset construction points, and the points showing the proposed improvements, all in AutoCAD format, to County's Contract Administrator or designee on a weekly basis. Stantec shall submit one (1) hard copy and one (1) CD or DVD via US Mail or in-person delivery of a plot of the points showing the proposed improvements in AutoCAD format to County's Contract Administrator or designee on a weekly basis or at the written request of County's Contract Administrator or designee for points staked that week.

#### **CSS02** Construction Survey Staking

In accordance with Section 5-1.37 of the Special Provisions within the Project Specifications, County's Contractor's staking requests will not be less than a full day's work and the staking area shall be clean and ready for stakes. County's Contractor's staking requests shall be made in writing on County's Construction Staking Form to be provided at the time of Task Order execution, clearly describing the type and location of the item to be staked. County's Contractor will submit staking requests to Stantec who shall transmit the staking requests to County's Contract Administrator or designee within forty-eight (48) hours of Stantec's receipt from County's Contractor. It is Stantec's responsibility to review the staking requests and determine if the amount of work requested can be accomplished in the time requested. Once Stantec determines that the amount of work is commensurate with the completion dates requested by County's Contractor in the staking request, County shall not be held responsible for any claims from County's Contractor due to delays in construction staking.

If Stantec's staking work takes place outside of County's Contractor's traffic control area, Stantec shall provide traffic control for the field crew(s) throughout the staking operations.

Stantec shall provide one full-time crew (seasoned Party Chief with the appropriate number of chainmen) as necessary to complete the following construction stakes as requested by County's Contractor on the Construction Staking Form provided by County's Contract Administrator or designee at Task Order execution:

- Tree Removal Provide marking for 73 each (ea)
   (Estimated at 73 paint marks or flagging)
- Rock-Lined Channel and Grass-Lined Channel Provide offset stakes for 465 linear feet (LF) (Estimated at 20 stakes)
- Concrete Headwalls Provide stakeout for 2 ea (Estimated at 4 stakes)

 Drainage Inlet (Caltrans Type G1 and Type OMPI) – Provide stakeout for 2 ea

(Estimated at 4 stakes)

- Storm Drain Pipe and Culverts Provide offset stakes for 104 LF (Estimated at 6 stakes)
- Type 1, Type 2, and Type 3 Filter Fence Provide stakeout for 18,796 LF
   of Construction Limit Fence/Filter Fence (CLF/FF) (Estimated at 376 stakes)
- Rock Bowl Provide stakeout for 4 ea (Estimated at 8 stakes)
- AC Pavement Removal Provide paint markings or stakes for 2,050 square feet (SF) (Estimated at 20 paint marks or stakes)
- Peeler Core Fence Provide offset stakes for 40 LF (Estimated at 3 stakes)
- Bike Path and Vegetated Swale Provide offset stakes for 5,600 LF (Estimated at 225 stakes).
- Bike Path Decking Piers and Abutments Provide offset stakes for 35 ea
   (Estimated at 70 stakes)
- Signs Provide stakeout for 30 ea (Estimated at 30 stakes)

The numbers of required stakes listed above are estimates only and it is the responsibility of Stantec to determine the actual amount of stakes needed based on the guidelines detailed in Section 5-1.37 of the Special Provisions within the Project Specifications

County has certain expectations of field crew production. The following production rates account for travel time within the Project area, continuity of feature, unseen adverse conditions, and multiple setups and are meant to be averaged over an entire project. The expected production rates are as follows:

- Stakes or markings with no grades such as Signs, CLF/FF, and Tree removal shall be set at a rate of no less than 15 stakes per hour.
- Stakes with grades for soft surfaces such as Basins, Channels, and Rock Slope Protection shall be set at a rate of no less than 8 stakes per hour.
- Stakes with grades for structures such as Sediment Traps, Drainage Inlets, Headwalls, Pipes and Piers and stakes with grades for hard surfaces for features that are primarily continuous such as Curb or Pavement shall be set at a rate of no less than 10 stakes per hour.

County and Stantec understand that there are many factors that affect production. If County's Contract Administrator or designee feels that the production expectations are not being met, County's Contract Administrator or designee shall contact Stantec via email to schedule a meeting to discuss the factors that resulted in lack of expected production.

Deliverables: Stantec shall submit one (1) electronic copy via US Mail or in-person delivery of all Raw Data Files and Cut Sheets using Tripod Data Systems (TDS) Platform to County's Contract Administrator or designee on a weekly basis. Stantec shall submit one (1) hard copy via US Mail or in-person delivery of the Cut Sheets to County's Contract Administrator or designee on a weekly basis. Stantec shall submit one (1) hard copy via US Mail or in-person delivery of any field notes to County's Contract Administrator or designee on a weekly basis or at the written request of County's Contract Administrator or designee.

### **CSS03** Construction Survey Staking – Extra Work

• 15% staking contingency (Contingency estimated at 90 stakes).

If there is a need to utilize this item due to delays caused by County's Contractor (restaking) or if additional stakes are needed which are required due to change order work as directed and approved by County, County's Contractor shall submit to Stantec the written staking request on County-provided Construction Staking Form, clearly describing the type and location of the item to be staked. Before any work is done, Stantec shall transmit the staking request to County's Contract Administrator or designee who shall review, and if approved, shall notify Stantec within forty-eight (48) hours of County's Contract Administrator or designee receipt.

Deliverables: The deliverables shall be the same as those identified above in CSS02, Construction Survey Staking. If Stantec is unable to stake the requested improvements as stipulated within the Project Specifications due to site conditions caused by County's Contractor, Stantec shall notify County's Contract Administrator or designee of the conditions and provide a written correspondence to County's Contract Administrator or designee which states the condition of the site and issues

related to the inability of Stantec to stake the requested improvements with any labor and equipment costs implications.

#### **PROJECT BUDGET**

The estimated costs associated with the Project Construction Surveying Services are detailed in Table 1 and on the attached Task Order Budget Form.

Table 1. Sawmill 1A Bike Path Project Budget for Construction Surveying Services.

Services.	WBS	Item of Work	Estimated
Item of Work Description	CODE	Cost Estimate	Total Cost
Item of Work A.			
Construction Stage	1.2.5.2		
CS01 - Construction Meetings			\$2,416
<ul> <li>Principal 3 = 8hrs. @ \$183/hr.</li> </ul>		\$1,464	
<ul> <li>Technologist 4 = 8hrs. @ \$119/hr.</li> </ul>		\$952	
Item of Work B.			
Construction Survey Step	1.2.5.2.2		
CSS01 - Construction Survey Calculations/ Processing			\$11,324
<ul> <li>Principal 3 = 4hrs. @ \$183/hr.</li> </ul>		\$732	
• Technologist 4 = 80hrs. @ \$119/hr.		\$9,520	
<ul> <li>Technician 2 = 16hrs. @ \$67/hr.</li> </ul>		\$1,072	
CSS02 - Construction Survey Staking			\$34,524
<ul> <li>Principal 3 = 8hrs. @ \$183/hr.</li> </ul>		\$1,464	
• Technologist 4 = 8hrs. @ \$119/hr.		\$952	
<ul> <li>Technician 2 = 4hrs. @ \$67/hr.</li> </ul>		\$268	
• 2 Person Survey Crew = 160hrs. @ \$178/hr.		\$28,480	
<ul><li>Field Survey Equipment = 160hrs.</li><li>@ \$15/hr.</li></ul>		\$2,400	
• Field Vehicles = 160hrs. @ \$6/hr.		\$960	
CSS03 - Construction Survey Staking – Extra Work			\$7,192
<ul> <li>Principal 3 = 3hrs. @ \$183/hr.</li> </ul>		\$549	
• Technologist 4 = 14hrs. @ \$119/hr.		\$1,666	
• Technician 2 = 3hrs. @ \$67/hr.		\$201	
• 2 Person Survey Crew = 24hrs. @ \$178/hr.		\$4,272	
• Field Survey Equipment = 24hrs. @ \$15/hr.		\$360	
<ul> <li>Field Vehicles = 24hrs. @ \$6/hr.</li> </ul>		\$144	
TOTAL NOT TO EXCEED COST:			\$ 55,456