

ATTACHMENT A

Amendment No. 1 to Agreement No. D08-103

AMENDMENT No.1 TO AGREEMENT D08-103

This Amendment No. 1 to Agreement D08-103 (hereinafter "AMENDMENT") is entered as of _____, 2010, by and between the Orange County Flood Control District, a body corporate and politic (hereinafter "OCFCD") and Tetra Tech, Inc. (hereinafter "A/E"), a Delaware Corporation. The OCFCD and A/E are hereinafter collectively referred to as the "PARTIES" and individually as a "PARTY".

RECITALS

WHEREAS, on January 13, 2009 OCFCD's Board of Supervisors approved Agreement No. D08-103, (hereinafter "AGREEMENT") to retain A/E to perform services to accomplish projects and/or services (hereinafter referred to "PROJECTS/SERVICES") for the Santa Ana River Interceptor (SARI) Line Project with a term of six (6) years and a maximum compensation of ten million fifty-seven thousand dollars (\$10,057,000) including Extra Work;

WHEREAS, an increase in maximum compensation up to twelve million eight hundred three thousand three hundred twenty-eight dollars (\$12,803,328) in the AGREEMENT is now required to provide additional funding for A/E to incorporate construction cost saving features not part of the original design and additional services related to metering station and siphon design and geotechnical engineering support;

WHEREAS, changes in the work require that the aggregate money value of PROJECTS/SERVICES provided by independent consultants/contractors employed by the A/E be allowed to exceed forty-nine percent (49%) of the total amount of PROJECS/SERVICES;

WHEREAS, the OCFCD requires A/E to secure the services of Bryant, Taylor, Gordon Golf as an independent Consultant/contractor to the A/E on the

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1 SARI Line Project; and,

2 WHEREAS, the PARTIES desire to amend Exhibit A to AGREEMENT to identify
3 new tasks to be assigned to A/E.

4 **NOW THEREFORE**, the PARTIES hereby agree as follows:

5 1. The intentions of the PARTIES as described in the above recitals are
6 fully incorporated into this AMENDMENT.

7 2. **Section A.3, Retainer**, of the AGREEMENT is deleted in its entirety and
8 replaced with the following:

9 "3. A/E may employ special consultants/contractors for the
10 accomplishment of the PROJECTS/SERVICES specified; and, it is agreed that
11 only the following firms or independent consultants/contractors are to be
12 employed to provide these PROJECTS/SERVICES:

- 13 a. Bush and Associates
- 14 b. Hatch Mott MacDonald
- 15 c. HDR
- 16 d. Leighton and Associates
- 17 e. MJF Consulting
- 18 f. SAR-r-DiG Utility Services
- 19 g. Tuchman Communications
- 20 h. Wieland Acoustics
- 21 i. V&A Consulting Engineers
- 22 j. Bryant, Taylor, Gordon Golf

23 3. The first sentence of **Section B.1.b, PROJECTS/SERVICES**, of the
24 AGREEMENT is deleted in its entirety and replaced with the following:

25 "b. PROJECT/SERVICES to be performed by A/E shall consist of two (2)
26 Work Orders as specified herein and as required in the Revised Itemized Fee

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1 Schedule, hereinafter referred to as "Exhibit B-1", attached hereto and incorporated
2 herein by reference."

3 4. **Section J.2, A/E Compensation**, of the AGREEMENT is deleted in its
4 entirety and replaced with the following:

5 "2. For completion and approval of all PROJECTS/SERVICES, total
6 compensation for each task shall not exceed the amount described and payable
7 as stipulated in Exhibit B-1."

8 5. **Section J.5, A/E Compensation**, of the AGREEMENT is deleted in its
9 entirety and replaced with the following:

10 "5. Unless otherwise indicated in Exhibit A, PROJECT/SERVICES related
11 to Construction Management included in Work Order #2 shall be performed as
12 requested by DIRECTOR and on a time and materials basis. These services
13 shall be billed at the A/E personnel classification and respective hourly
14 rate in accordance with Exhibit C and subject to the revised itemized fee
15 schedule as described in Exhibit B-1."

16 6. **Section J.7, A/E Compensation**, of the AGREEMENT is deleted in its
17 entirety and replaced with the following:

18 "7. The maximum allowed compensation under this AGREEMENT including
19 Extra Work is twelve million eight hundred three thousand three hundred
20 twenty-eight dollars (\$12,803,328)."

21 7. **Exhibit B, Itemized Fee Schedule**, of the AGREEMENT is deleted in its
22 entirety and replaced with the revised Itemized Fee Schedule, hereinafter
23 referred to as "Exhibit B-1", attached hereto and incorporated herein by
24 reference.

25 8. Tasks described in Exhibit A to AGREEMENT are supplemented with
26 additional tasks as described in "Exhibit A-1" attached hereto and

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1 incorporated herein as though fully set forth.

2 9. Except as expressly set forth in this AMENDMENT No. 1, all other terms
3 and conditions of the AGREEMENT shall remain unchanged and in full force and
4 effect.

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1 **IN WITNESS WHEREOF**, the PARTIES hereto have executed this AMENDMENT No. 1 on
2 the dates opposite their respective signatures:

3 Tetra Tech, Inc.
4 a Delaware Corporation

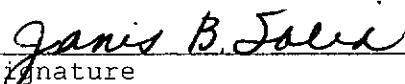
5 Date: 1-8-10

6 By 
7 Signature

8 Dan L. Batrack, President, CEO
9 Print Name & Title

10 (If a corporation, the document must be signed by two corporate officers. The 1st must be either Chairman of the Board,
11 President or any Vice President.)

12 Date: 1-8-10

13 By 
14 Signature

15 Janis B. Salin, Secretary
16 Print Name & Title

17 (If a corporation, the 2nd signature must be either the Secretary, an Assistant Secretary, the Chief Financial Officer, or any
18 Assistant Treasurer.)

19 Orange County Flood Control District,
20 a body corporate and politic

21 Date: _____

22 By _____
23 Chair of the Board of Supervisors
24 Orange County, CA

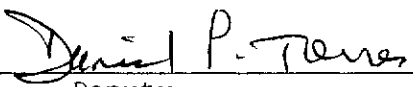
25 Signed and certified that a copy of this
26 document has been delivered to the Chair of
the Board per G.C. Sec 25103, Reso 79-1535
Attest:

Date: _____

Darlene J. Bloom
Clerk of the Board of Supervisors
County of Orange, California

APPROVED AS TO FORM
Office of the County Counsel
Orange County, California

Date: 1/11/10

By 
Deputy

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EXHIBIT A-1

Amendment No. 1 to Agreement D08-103
Supplemental Scope of Services Description

ADDITIONAL WORK AND OPTIONAL TASKS

SUMMARY

On January 13, 2009, Agreement D08-103 (AGREEMENT) was approved with Tetra Tech (A/E), Inc. to provide A-E services for the Santa Ana River Interceptor Line Project (PROJECT). As part of Work Order No. 1 (Preliminary Design) of this AGREEMENT, an extensive Value Engineering (VE) Study was conducted to reduce cost and address constructability issues. Consequently, additional work is required to incorporate the recommendations of the VE Study and to address design issues not known at the beginning at the time the contract was awarded. In addition, several optional (work) tasks have been identified that may be needed to complete the design of the PROJECT. Amendment No. 1 (AMENDMENT) is primarily required to address the following refinements to the PROJECT concept identified during Preliminary Design.

- Yorba Linda Spur "Hybrid" Alternative
- SARI Mainline along the southerly alignment, utilizing a siphon at the Santa Ana River low flow channel crossing to utilize the shallow profile
- A new metering station will be located within Canyon RV Park, co-located with the existing maintenance facility.

Exhibit B-1 (Work Order #2) shows the Additional Work and Optional Services addressed in the AMENDMENT. A more detailed description of the Additional Work and Optional Tasks included in the AMENDMENT is provided below.

ADDITIONAL WORK

The SEIR/EIS for the SARI Line was adopted by the Orange County Board of Supervisors on October 6, 2009. Refinement of the EIR/EIS's preferred alternative will require preparation of additional environmental studies and will require additional environmental documentation to be prepared. Some of the more significant refinements include constructing portions of the Yorba Linda Spur within La Palma Avenue, constructing the metering station within Canyon RV Park, providing a staging area southeast of the 91 freeway, horizontal alignment revisions (approaching Caltrans tie-back area, through the golf course, etc.), removal/replacement of Caltrans tie-backs and portions of bike trail detour (potentially). In addition, A/E will provide geotechnical services throughout construction. Said services will include construction inspection and/or materials testing.

Moreover, the extended preliminary design schedule, beyond the anticipated completion in mid November, has resulted in increased PROJECT management expenses for invoicing, monthly reports and PROJECT meetings.

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Yorba Linda Spur

Additional traffic control conceptual and final design work will be required. The original scope of work assumed that the pipeline would be constructed within the trail system adjacent to La Palma Avenue. Accordingly, a trail (bike) detour was anticipated. The recommended alignment utilizes La Palma right-of-way, per the City of Yorba Linda's request. As such, additional traffic control plans are required for this work including traffic control phasing

SARI Mainline

The need to remove and replace a portion of the existing Caltrans tie backs, upstream of SAVI Ranch was identified during Preliminary Design. Numerous alternatives were identified during the VE Workshop. Additional Work is required to determine the most cost-effective and lowest-risk construction alternative and which alternative to use during final design.

During Preliminary Design and later confirmed during VE, it was concluded that incorporation of an inverted siphon into the SARI Line vertical profile would result in a much more shallow pipeline elevation and result in significant construction cost savings by reducing excavation, shoring and dewatering costs.

The metering station will also require additional work to address the more shallow vertical profile and to address work that was deferred to Final Design so that several additional alternatives identified by Orange County Sanitation District (OCSD), OC Parks and the Featherly Park lessee can be evaluated. The additional work will include designing the expansion of the Canyon RV Park maintenance yard, storm water hydrology within Featherly Park, final design issues identified by Canyon RV Park and OC Parks, and preparation of repaving/re-vegetation plans for the work areas which will disturb the existing conditions.

Supplemental work to support the incorporation of the inverted siphon is required to determine pipe size, pipe material, typical operations, anticipated maintenance (including required equipment) and the layout of the inlet and outlet structures as well as the horizontal and vertical alignment.

Existing as-built drawings of the Green River Golf Club irrigation system, and other infrastructure improvements, have been deemed unreliable. Bryant Taylor Gordon Golf (the original designer of the irrigation system) is being added as a sub-consultant due to the firm's first-hand knowledge of the irrigation system, including location of local controllers and sprinklers. Additional work for field investigation and meetings are required to design the golf course irrigation system modification.

OPTIONAL TASKS

On-going, coordination efforts with affected parties including the U.S. Army Corps of Engineers (USACE), Caltrans, OC Parks, City of Yorba Linda and Canyon RV Park has identified potential Optional Services that may be required to complete the SARI Line project. These Optional Services will require the approval of the Director, OC Public Works or his designee prior to the A-E beginning work and will be completed at no additional compensation except as described in Exhibit B-1. The Optional Services are described below.

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Yorba Linda Spur

The City of Yorba Linda informed the Orange County Flood Control District (OCFCD) that it may desire to have the existing landscaping and irrigation system adjacent to the Santa Ana River trail removed or modified. Optional Services may be required to address the City's concerns including preparation of plans, specifications and estimate for removal or modification of the existing landscaping. The City is currently in negotiations with Yorba Linda Water District (YLWD) to dedicate the existing City's sewer system to YLWD. The City anticipates this transaction being completed during the final design of the Yorba Linda Spur. Therefore, it is anticipated that the Yorba Linda Spur design criteria and standards will be changing from City standards to YLWD standards. Additionally, there would be a need for additional meetings to assist YLWD with overall PROJECT understanding, additional submittals/reviews (City reviews remain since constructing within their right-of-way) and assisting OCFCD with an additional agreement.

SARI

Dependent upon the final design of the SARI Line, Optional Services may be required to address issues and concerns raised by OC Parks and Canyon RV Park related to work within Featherly Park. Optional Services could include design of utilities and other park facilities.

Additional bank protection not currently planned by the USACE between Canyon RV Park and the State Parks Property may be required. Design of the bank protection is required to protect the proposed SARI line from scour over the life of the facility. Optional Services may be required to coordinate the bank protection design with the SARI Line design. Services could include preparation of the plans, specifications and estimate. Special bank stabilization may be required in support of Caltrans permit and right-of-way relinquishment.

Emergency action plan may be developed for a line break along the alignment, with specific detail given to the area with highest potential of lateral spreading and liquefaction due to seismic event. Siphon Operations and Maintenance Report may be required by OCSD if the ultimate siphon design requires special maintenance activities. Optional Services may also be needed to design a temporary bike trail "structure" within Caltrans slope and restoration plan.

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EXHIBIT B - 1

SARI Line Project: Itemized Fee Schedule

Work Order #1

Phase 1 - Completed

Phase 2 - Preliminary Design

Task No.	Description	Total
2.1	Task 2.1 - Preliminary Design Report	
2.1.1	TM 1 - Alignment Verification	\$695,816
2.1.2	TM 2 - Hydraulics	\$179,975
2.1.3	TM 3 - Metering Facility	\$220,860
2.1.4	TM 4 - Preliminary Geotechnical	\$878,560
2.1.5	TM 5 - Construction Method	\$126,801
2.1.6	TM 6 - Existing Utility Research	\$193,438
2.1.7	TM 7 - Implementation Plan	\$63,864
2.1.8	TM 8 - Permitting	\$27,300
2.1.9	TM 9 - Electrical and IC	\$53,480
2.1.10	TM 10 - Draft Habitat Mitigation & Monitoring Plan	\$43,300
2.1.11	Supplemental Surveying	\$48,356
2.1.12	Draft and Final PDR	\$480,049
2.1.13	Prelim Quantity and Cost Estimate	\$74,730
	Subtotal 2.1	\$3,086,529
2.2	Task 2.2 - Environmental Documentation	\$27,000
	Subtotal 2.2	\$27,000
2.3	Task 2.3 Value Engineering	\$285,915
	Subtotal 2.3	\$285,915
2.4	Task 2.4 - Project Management	
2.4.1	General Management	\$157,750
2.4.2	Work Breakdown Structure	\$27,800
2.4.3	Progress Report	\$69,245
2.4.4	Project Invoices	\$32,400
2.4.5/6	Project & Progress Schedules	\$57,120
	Subtotal 2.4	\$344,315
2.5	Task 2.5 - Workshops and Focused Mtgs	
2.5.1	Workshops	\$21,221
2.5.2	Meetings	\$240,528
	Subtotal 2.5	\$261,749
2.6	Task 2.6 Quality Control Plan	\$26,240
	Subtotal 2.6	\$26,240
2.7	Task 2.7 - Subconsultants	\$25,300
	Subtotal 2.7	\$25,300
	Total Phase 2	\$4,057,048

Reimbursables

Task No.	Description	Dollars Total
	Reimbursables	\$54,078
	Total Reimbursables	\$54,078

Optional Items

Task No.	Description	Dollars Total
1	Supplemental Support for ROW Engineering	\$0
2	Siphon Design	\$0
3	Prepare Study to Validate SAWPA Flows	\$0
4	Additional Scour Analysis	\$120,100
5	Upgrade Design for Existing Metering Station	\$0
6	Additional Permitting Agency Meetings	\$0
7	Focused Environmental Surveys and Studies	\$0
8	Environmental Restoration Design Drawings	\$0
	Total Optional Items	\$120,100

Extra Work

Task No.	Description	Dollars Total
1	ISA & IDL Studies	\$85,560
2	Pump Station Cost Estimate	\$20,000
	Subtotal	\$85,560
	Remaining Unallocated	\$14,440
	Total Extra Work	\$100,000

SUMMARY WO#1

Task No.	Description	Dollars Total
	Phase 2	\$4,057,048
	Reimbursables	\$54,078
	Optional Items	\$120,100
	Extra Work	\$100,000
	Total Work Order #1	\$4,331,226

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EXHIBIT B - 1

SARI Line Project: Itemized Fee Schedule Work Order #2

Phase 3 - Final Design

No.	Task Description	Dollars Total
3.2	Task 3.2 - Design Submittal 2	
3.2.1.1	Design Information	\$184,011
3.2.1.2	Metering Station *	\$121,110
3.2.1.3	Pipeline / Address VE Issues *	\$193,031
3.2.1.4	Permitting *	\$199,256
3.2.2	Facility Operation and Maintenance	\$22,380
3.2.3	Construction Cost Estimate and Schedule	\$93,445
3.2.4	Electrical and I&C	
3.2.4.1	Metering Station	\$91,236
3.2.4.2	Pipeline (Siphon) *	\$33,671
3.2.5	Plans	
3.2.5.1	General Plans	\$784,463
3.2.5.2	Metering Station *	\$72,454
3.2.5.3	Pipeline / Incorporate VE Results *	\$450,148
3.2.6	Specifications	
3.2.6.1	General Specifications	\$202,562
3.2.6.2	Metering Station *	\$8,278
3.2.6.3	Pipeline *	\$9,504
3.2.7	Final Habitat Mitigation and Monitoring Plan	\$19,800
	Subtotal 3.2	\$2,485,349
3.3	Task 3.3 Final Design Submittal	\$968,094
	Subtotal 3.3	\$968,094
3.4	Task 3.4 - Environmental Documentation	
3.4.1	General Documentation	\$76,200
3.4.2	Prepare CEQA/NEPA Supplemental Documents *	\$194,500
	Subtotal 3.4	\$270,700
3.5	Task 3.5 Bid Support Services	\$211,491
	Subtotal 3.5	\$211,491
3.6	Task 3.6 - Project Management	
3.6.1	General Project Management	\$263,300
3.6.2	Additional Project Management & Meetings *	\$103,260
	Subtotal 3.6	\$366,560
3.7	Task 3.7 - Workshops and Meetings	
3.7.1	Workshops	\$362,262
3.7.2	Over the Shoulder Mtgs	\$104,800
3.7.3	Commissioning Team Mtgs	\$32,702
3.7.4	Safety Mtgs (N/A)	\$0
	Subtotal 3.7	\$499,764
3.8	Task 3.8 Quality Control	\$219,600
	Subtotal 3.8	\$219,600
3.9	Task 3.9 - Subconsultants	
3.9.1	Geotechnical	\$328,667
3.9.2	Survey	\$14,256
3.9.4	Utility (N/A)	\$0
3.9.5	Landscape (N/A)	\$0
3.9.6	Noise	\$14,300
3.9.7	Biologist (N/A)	\$0
3.9.8	Public Outreach	\$57,860
3.9.9	Other (N/A)	\$0
	Subtotal 3.9	\$415,083
3.10	Task 3.10 Permitting	\$46,710
	Subtotal 3.10	\$46,710
	Total Phase 3	\$5,483,351

Phase 5 - Commissioning Services

No.	Task Description	Dollars Total
5	Task 5.0 - Commissioning Services	
5.1	Finalize O & M Manuals	\$75,670
5.2	Final Process Control Strategies	
5.2.1	General	\$21,530
5.2.2	Siphon *	\$29,238
5.3	Record Drawings	\$11,920
5.4	Finalize Lock-out Tag-out Procedures	\$19,400
5.5	Commissioning Team Meetings (N/A)	\$0
5.6	Conduct Staff Training	\$11,720
5.7	Start-up and Initial Operation Assistance	\$44,000
	Total Phase 5	\$213,478

Phase 6 - Closeout

No.	Task Description	Dollars Total
6.00	Task 6.0 - Closeout	\$20,080
	Total Phase 6	\$20,080

* Additional Tasks per Amendment No. 1

TOTAL FOR AMENDMENT to AGREEMENT D08-103 = \$2,746,328

Phase 4 - Construction Support Services

No.	Task Description	Dollars Total
4	Task 4.0 - Construction Phase Engineering	
4.0.1	Meetings	\$67,134
4.0.2	Shop Drawings & Submittals	
4.0.2.1	General	\$172,918
4.0.2.2	Siphon *	\$33,968
4.0.2.3	Caltrans Tie-backs *	\$9,850
4.0.3	RFIs and CO	
4.0.3.1	General	\$140,586
4.0.3.2	Siphon *	\$33,792
4.0.4	RFP	\$57,976
4.0.5	Contract As-Builts/Final Record Dwgs	
4.0.5.1	General	\$98,500
4.0.5.2	Siphon *	\$10,670
4.0.5.3	Additional Plan & Profile Sheets (4) *	\$5,368
4.0.6	Other Services	\$179,283
	Subtotal 4.0	\$810,045
4.2	Field Consultations	\$54,820
	Subtotal 4.2	\$54,820
4.6	Proposals & Changes	\$94,200
	Subtotal 4.6	\$94,200
4.7	Cost Estimating & Scheduling (N/A)	\$0
	Subtotal 4.7	\$0
4.10	Disputes Between Contractor & Owner	\$55,044
	Subtotal 4.10	\$55,044
4.11	Task 4.11 - Subconsultants	
4.11.1	Geotechnical Testing Support	\$414,336
4.11.2	Vibration Analysis Baseline (N/A)	\$0
4.11.3	Noise Study and Control	\$46,200
4.11.4	Biologist	\$339,450
4.11.5	Survey (N/A)	\$0
4.11.6	HMMSP Specialist (N/A)	\$0
4.11.7	Permitting Specialist	\$6,105
4.11.8	Materials Testing Support (N/A)	\$0
	Subtotal 4.11	\$806,091
4.18	Task 4.18 Public Outreach	\$111,100
	Subtotal 4.18	\$111,100
	Total Phase 4	\$1,931,300

Optional Items

No.	Task Description	Dollars Total
	Design Information	
1	Emergency Action Plan *	\$58,320
2	Siphon O&M Report *	\$94,612
	Plans & Specs	
3	YLS Native Hydroseed *	\$18,260
4	YLS Coordination with YLWD *	\$31,200
5	Canyon RV Restoration *	\$92,064
6	Special Bank Protection (Caltrans) *	\$35,288
7	Bike Trail Structure Within Caltrans Slope *	\$58,400
8	Bank Protection *	\$293,183
	Total Optional Items	\$671,327

Reimbursables

No.	Task Description	Dollars Total
	Reimbursables	\$152,566
	Total Phase 6	\$152,566

PROJECT SUMMARY

Work Order No.	Phase No.	Description	Fee
1	Phase 1 & 2	Preliminary Design	\$4,057,048
		Optional Services	\$120,100
		Reimbursables	\$54,078
		Extra Work	\$100,000
		Subtotal	\$4,331,226
2	Phase 3	Final Design	\$5,483,351
		Const. Support Serv.	\$1,931,300
		Commissioning	\$213,478
		Closeout	\$20,080
		Optional Items	\$671,327
		Reimbursables	\$152,566
		Subtotal	\$8,472,102
		TOTAL	\$12,803,328