

**AMENDMENT TO AGREEMENT
BETWEEN THE COUNTY OF SAN MATEO AND
QUESTA ENGINEERING CORP.**

THIS AMENDMENT TO THE AGREEMENT, entered into this 26th day of January, 2016, by and between the COUNTY OF SAN MATEO, hereinafter called "County," and Questa Engineering Corp., hereinafter called "Contractor";

W I T N E S S E T H:

WHEREAS, pursuant to Government Code, Section 31000, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof;

WHEREAS, the parties entered into an Agreement for engineering design services on December 9, 2014; and

WHEREAS, the parties wish to amend the Agreement to revise the Scope of Work and increase the amount of the Agreement by an additional \$47,327 to \$251,193.

NOW, THEREFORE, IT IS HEREBY AGREED BY THE PARTIES HERETO AS FOLLOWS:

1. Section 3 of the agreement is amended to read as follows:

In consideration of the services provided by Contractor in accordance with the terms, condition, and specifications set forth herein and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit A. County reserves the right to withhold payment if County determines that the quantity or quality of the work performed is unacceptable. In no event shall County's total fiscal obligation under this Agreement exceed two hundred fifty one thousand one hundred ninety three dollars (\$251,193).

2. Original Exhibit A is replaced with Revised Exhibit A, (rev. December 17, 2015).

Refer to attached Revised Exhibit A

3. All other terms and conditions of the agreement dated December 9, 2014, between the County and Contractor shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto, by their duly authorized representatives, have affixed their hands.

COUNTY OF SAN MATEO


By: _____
President, Board of Supervisors, San Mateo County

Date: _____

ATTEST:

By: _____
Clerk of Said Board

Questa Engineering Corp.



Contractor's Signature *Principal*

Date: 1/7/2016

Revised Exhibit A
(rev. Dec. 17, 2015)

Scope of Work

1. Property Line Survey and Map of Existing and Proposed Easements

- a. ***Easement Staking*** An accurate survey and map showing existing property lines, ownership and easements has been prepared by Caltrans and Contractor has this information in their files. This information allows proposed trail alignments to be shown accurately and will form the basis for creation of legal descriptions of needed Right of Way for Encroachment Permits, Director's Easements, and/or other property transactions. Contractor recommends field staking (approximately 20' intervals) of the easement for review by project Partners, and this task includes field staking by Questa staff.
- b. ***Brush and Survey Trail***. In this task Contractor will brush (10-foot width) the proposed trail through the Caltrans non-disposal site property, stake the center line of the trail, and survey it in, including proposed bridge abutments.

2. Revised Trail Alignment and Trail Design Modifications. A new trail alignment will be developed through the northwestern portion of the property, including the Caltrans disposal slope and area to immediate east, for review with project Partners. The revised trail alignment may also require some new features be added into the design, including an elevated boardwalk below the pond, a structure crossing through a seep area, and a short span fiberglass reinforced composite (frp) bridge structure, likely founded on a Sutter wall abutment or other structure.

- a. ***Trail alignment***. Contractor will develop a revised trail grading plan, profile, sections, and cost estimate through the Caltrans property, with the goal of making the alignment less than 10% where possible, and minimize structures (within the hand-built section on the disposal slopes). The revised Plans, Specifications, Bid Sheet, and Cost Estimate will distinguish between the hand built and equipment built areas. A gray area requiring further discussions with Caltrans is whether mechanized equipment can be deployed on the easement road with a long reach hammer or other hydraulic operated devices to for instance pound in any needed steel H beams for wall construction where the trail first takes off from the roadway.
- b. ***Boardwalk on Disposal Site Slope***. USFWS has recommended use of an elevated boardwalk structure for the area below the pond, to allow California red-legged frog (CRLF) to move downslope under the structure. Contractor will need to modify the basic boardwalk design to include a different foundation, as a pin pier system such as proposed at Green Valley Creek may

not be applicable on a 2:1 slope. Our current thought is to also use a Sutter Wall as the support at boardwalk joist end points, and expand the size and spacings of the boardwalk joists from 8 to 12 feet. Contractor will also need to consider if this structure will need a railing, as the drop off on the 2:1 slope may exceed 4 feet. Because of the difficulty of precisely engineering this structure on the slope the technical specifications will be written that the work include some field engineering to fit the exact structure to field conditions.

- c. ***Trail Drainage Structure.*** The surface trail will pass over some wet or seepy areas on the Caltrans disposal slope that are planted to willows as part of the required riparian restoration component of the Tunnel mitigation plan. The trail will need to be carefully routed through one section within the seepage zone that is drier and not planted with willows; however seepage and groundwater through-flow necessary to support lower lying willows be allowed to continue. Contractor will need to develop a trail design that will permit seepage through-flow with a surface that will keep the trail from becoming too muddy for use.
- d. ***New Drainage Crossing Bridge.*** Spanning the western drainage lower than the higher lying and proposed puncheon bridge crossing will mean that a partial clear span structure will be needed. Some of the support footings can potentially be on the drainage slopes, but the water course and most of the riparian zone will need to be spanned with at least a 20 foot structure. Since the drop off at the deepest point in the below drainage will be about 8 feet to ground surface, a railing will be needed. Contractor may want to consider widening the bridge from the standard 6 foot boardwalk width to 8 feet because of the railing interference with bicycle handlebars. The abutments will be designed with review by our structural engineer and based on the proposed task 3 geotechnical investigation.

3. Geotechnical Investigation of New Drainage Crossing and Boardwalk. Contractor will need to conduct a geotechnical investigation of the abutment areas for the new drainage crossing and boardwalk and examine soil conditions, including reviewing Devil's Slide Tunnel As-built plans to determine how the geomembrane installed in the disposal site fill slopes affects structure design, including footings for any walls and boardwalks. This information will be developed using hand augers, slide hammer samplers, and a Triggs wildcat penetrometer. The existing Geotechnical Investigation will be updated or amended with an Addendum to reflect this work (Contractor does not believe the Drainage/Hydrology study will need to be revised).

4. Revision to Biological Resources Assessment and Wetlands Delineation.

- a. ***Revised BRA.*** The revised trail alignment is located outside of the area that was field reviewed by the Biological Consultant (BioMaaS). The new trail

alignment will need to be reviewed by them to make sure the findings are still consistent, and minor changes to the text and maps made to reflect the revised trail alignment, the boardwalk crossing of the seepage area, and the lower FRP bridge crossing of the drainage. The figures in the BRA and Wetlands Delineation will need minor updating and revised reports prepared to include protocols for CRLF and San Francisco garter snake (SFGS) avoidance in the BRA.

b. **Rare Plant Survey.** An additional work task includes completion of a Rare Plant Survey of the proposed trail alignment, focused on the non-disposal site Caltrans property, and the Green Valley Creek area.

5. **Revision to Archaeological Resources Report.** The revised trail alignment is located outside of the Area of Potential Affects (APE) that was provided to the archaeological consultant (Basin). The new trail alignment will need to be reviewed by them to make sure the findings are still consistent. Most of the revised alignment is on disturbed lands, but a portion crosses a drainage through native soils and also is located on a semi-disturbed slope below the historic roadway that is being used for the trail. The figures in the report will need minor updating and a new APE will need to be prepared.
6. **Revision to CEQA Document.** A draft Initial Study/Mitigated Negative Declaration has been prepared for the project and has gone through administrative draft review by County Parks staff, and consultant revision. The project description and the summary of impacts and potential mitigations, including lengths of trail and boardwalk, especially those crossing wetlands and riparian areas, will need to be revised to reflect the new alignment, and the associated Document Figures and Plan Sheets will also need to be updated. The Greenhouse Gas analysis section will need to be updated to reflect changes to the design, and related equipment, and the fact that some of the trail will be hand constructed through the Caltrans disposal field.
7. **Revisions to Permit Applications and Additional Informal Agency Consultation.** The description of the project and the determination of impacts to sensitive habitat, riparian areas, and jurisdictional Wetlands/Waters of the US will need to be revised to reflect the new trail alignment and the location of the trail below the northern drainage that previously had a proposed 12 foot puncheon bridge. The lower elevation drainage crossing includes an elevated boardwalk and short span bridge and, as noted above, an elevated boardwalk structure will likely be needed where the trail traverses the lower slopes of the Caltrans disposal site area, including through seep areas, as an avoidance and minimization measure for any California Red Legged Frog that successfully bred in the upper pond and are traveling downslope to the Green Valley Creek riparian corridor. Informal consultation with the USFWS and CDFW has taken place on this issue, and additional consultation will likely be needed, including the potential requirement to prepare a Habitat Mitigation and Monitoring Plan (HMMP). The designated mitigation area and mitigation concept will need to be worked out in consultation with State Parks and Caltrans.

Schedule - Revised October 2015
 Development of Plans, Specifications, CEQA and Permits for the Green Valley Trail, Montara, California

TASKS	2015												2016							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Task 1: Review Current Conditions / Trail Guidelines																				
1.1: Kickoff Meeting	M																			
1.2: Document Review and Field Reconnaissance																				
1.3: Topo Survey and Base Map		BM					GS													
1.4: Geotechnical/Drainage Study, incl. C3 & Parking Area					D	F						D	F							
1.5: Biological Resources Study				D	F															
1.6: Archaeological/Historical Study																				
1.7: Technical Report/Mitigation Memorandum																				
1.8: Partner Meetings				M		M							M			M				
1.9: Interagency Meeting & Permit Coordination																				
Task 2: Prepare 30% Plan & Cost Estimate																				
2.1: Conceptual Plan & Cost Estimate						D30	F30													
2.2: Public Workshop							M													
2.3: Interactive Website																				
Task 3: Prepare 60% Design PS&E																				
Task 4: Parks and Recreation Commission Meeting						M														
Task 5: Permits																				
5.1: Permitting																				R
5.2: CEQA/ISMND																				
5.3: County Planning Commission Hearing																				
Task 6: Prepare 90% Design PS&E																				
6.1: Incorporate Partner Comments																				
6.2: Incorporate Agency Comments, incl. Mitigation Plan Reqs.*																				90
Task 7: Prepare 100% Design PS&E																				
7.1: Divide PS&E into Phases (Caltrans Fill Slope, Parking Lot, Main Trail & Boardwalk) & Finalize based on 90% Comments																				100
Task 8: Project Management																				

KEY:

- M = Meetings/Workshops
- BM = Base Map
- GS = Additional Ground Survey (as needed)
- TM = Technical/Mitigation Memoranda
- IM = ISMND
- D = Draft Deliverable
- F = Final Deliverable
- P = Permits Submitted
- R = All Permits Received
- D30 = Draft 30% Conceptual Plan
- F30 = Final 30% Conceptual Plan
- 60 = 60% Design Documents
- 90 = 90% Design Documents
- 100 = 100% Construction Documents

* Reflects 135-day time allowance for formal Sec. 7 consultation on ESA

Development of Plans, Specifications and Permits for the Green Valley Trail, Montara, California

TASK DESCRIPTION	Questa Engineering							BioMaAS				TOTALS	
	Principal-in-Charge	Principal/Lead Engineer	Sr. Engineering Geologist	Sr. Landscape Architect	Staff Engr/Landscape Arch./ Geol.	Research Assist./ Tech. Writer	Design/ Drafting/ Graphics	Principal	Graphics	Senior Scientist	Staff Biologist	Total Hours by Task	Total Fees by Task
Task 1: Review Current Conditions / Trail Guidelines	\$175	\$175	\$150	\$146	\$100	\$80	\$95	\$145	\$110	\$140	\$82		
1.1: Kickoff Meeting	3	3		3				5		5		19	\$2,913
1.2: Document Review and Field Reconnaissance	6	6	6	6	6					24	10	64	\$8,656
1.3: Topo Survey and Base Map		2			4		8					14	\$1,510
1.4: Geotechnical and Hydrology/Drainage Study		12	16		48							76	\$9,300
1.5: Biological Resources Study	2			1				4	8	40		55	\$7,556
1.6: Archaeological/Historical Study	1											1	\$175
1.7: Technical Report/Mitigation Memorandum	4	6	6	20	24	12	6					78	\$9,500
Task 1 Subtotal	16	29	28	30	82	12	14	9	8	69	10	307	\$39,610
Task 2: Prepare 30% Plan & Cost Estimate													
2.1: Conceptual Plan & Cost Estimate	4	14	4	20	32		36					110	\$13,290
2.2: Public Workshop	4			12			18					34	\$4,162
2.3: Interactive Website	2			12		24	16					54	\$5,542
Task 2 Subtotal	10	14	4	44	32	24	70	0	0	0	0	198	\$22,994
Task 3: Prepare 60% Design PS&E	16	18	4	24	48	36	60					206	\$23,434
Task 4: Parks and Recreation Commission Meeting	4			12								16	\$2,452
Task 5: Permits													
5.1: Permitting	8			24		60	60					152	\$15,404
5.2: CEQA/ISMND	12		6	32	40	80	60					230	\$23,772
5.3: County Planning Commission Hearing	4			12			6					22	\$3,022
Task 5 Subtotal	24	0	6	68	40	140	126	0	0	0	0	404	\$42,198
Task 6: Prepare 90% Design PS&E	12	20		16	24	8						80	\$10,976
Task 7: Prepare 100% Design PS&E	8	16		12	16	6	16					74	\$9,552
Task 8: Project Management	48											48	\$8,400
SUBTOTAL HOURS	138	97	42	206	242	226	286	9	8	69	10	1,333	-
TOTAL LABOR BY TEAM MEMBER	\$24,150	\$16,975	\$6,300	\$30,076	\$24,200	\$18,080	\$27,170	\$1,305	\$880	\$9,660	\$820	\$159,616	

DIRECT EXPENSES	Questa	BioMaAS
Printing and Reproductions	\$790	\$40
Vehicle and Mileage	\$1,160	\$260
Misc. Supplies and Materials, incld. Soil lab fees	\$2,700	\$200
Task 1.3 Topo Survey - Preferred Route(KSR - 4 days @ \$2,300)	\$9,200	
Task 1.6 Archaeological/Historical Study (Basin Research Assoc. - 50 hrs. @ \$125)	\$6,250	
Task 2.1 Alternative/QC Review (GoNative - 40 hrs. @ \$120)	\$4,800	
Task 2.3 Interactive Website (SurveyMonkey, etc.)	\$5,000	
Tasks 3, 6, 7 Structural Engineering bridge/boardwalk (NRV - 70 hrs. @ \$205)	\$14,350	
TOTAL EXPENSES	\$44,250	
TOTAL PROJECT COST	\$203,866	

Development of Plans, Specifications and Permits for the Green Valley Trail, Montara, California - Additional Work

TASK DESCRIPTION	Questa Engineering								BioMaAS				TOTALS	
	Principal-in-Charge	Principal/Lead Engineer	Sr. Engineering Geologist	Sr. Engr/Land Architect	Staff Engr/Landscape Arch./ Geol.	Research Assist./ Tech. Writer	Design/ Drafting/ Graphics	Principal	Graphics	Senior Scientist	Staff Biologist	Total Hours by Task	Total Fees by Task	
1. Property Line Survey and Map of Existing Easements	\$175	\$175	\$150	\$146	\$100	\$80	\$95	\$145	\$110	\$140	\$82			
1a. Staking Easement	0.5			8	8							16.5	\$2,056	
1b. Brush and Survey Caltrans Trail and Bridge	0.5	8		6	12	12						38.5	\$4,524	
Task 1 Subtotal	1	8	0	14	20	12	0	0	0	0	0	55	\$6,579	
2. Revised Trail Alignment and Trail Design Modifications														
2a. Revised Trail	2	2	1	4	16	2	4					31	\$3,574	
2b. Disposal Site Boardwalk	4	2	1	4	16	4	12					43	\$4,844	
2c. Trail Flow-through Structure	2	1	2	1	4	4	4					18	\$2,071	
2d. Drainage Crossing Structure	4	2	2	8	24	6	24					70	\$7,678	
Task 2 Subtotal	12	7	6	17	60	16	44	0	0	0	0	162	\$18,167	
3. Geotechnical Investigation of New Drainage Crossing & Boardwalk	1	1	6		20	12	2					42	\$4,400	
4. Revision to Biological Resources Assessment and Wetlands Delineation														
4a. Revisions to BRA	1			1			2	2	4	2	4	16	\$1,849	
4b. Rare Plant Survey	1			1				1	1	4	16	24	\$2,448	
Task 4 Subtotal	2	0	0	2	0	0	2	3	5	6	20	40	\$4,297	
5. Revision to Archaeological Resources Report and APE	1						3					4	\$460	
6. Revision to CEQA Document	4			12	4	8	4					32	\$3,872	
7. Revisions to Permit Applications & Additional Informal Agency Consultation	4			12	4	2	2					24	\$3,202	
SUBTOTAL HOURS	25	16	12	57	108	50	57	3	5	6	20	359	-	
TOTAL LABOR BY TEAM MEMBER	\$4,375	\$2,800	\$1,800	\$8,322	\$10,800	\$4,000	\$5,415	\$435	\$550	\$840	\$1,640	\$40,977		

DIRECT EXPENSES	Questa	BioMaAS
Printing and Reproductions	\$150	\$100
Vehicle and Mileage	\$300	\$200
Misc. Supplies and Materials	\$200	\$150
Geotech. Equipment & Lab Fees	\$1,200	
Cultural Resources (Basin)	\$2,000	
Structural Engineer Review	\$2,500	
TOTAL EXPENSES	\$6,350	
TOTAL PROJECT COST	\$47,327	