APEX Directional Drilling, LLC
Creating Solutions ... Delivering Results

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March 20, 2014

VIA EMAIL AND HAND DELIVERY

Bruce Young, Director of Public Works
Charles Roecklein, City Engineer
Kurt Gierlich, City Engineer
City of Eureka
531 K Street
Eureka, CA 95501-1146

RE: Bid No. 2013-26 – Martin Slough Force Main Drill Project

Dear Messrs. Young, Roecklein and Gierlich:

The purpose of this letter is two-fold. First, as you requested in our telephone conference on Tuesday, March 18, we are providing you with a proposal (with all estimates based on time and materials, as you asked) for the work involved in attempting to get our drill steel unstuck and, if we get the steel unstuck, in attempting to complete the job under the conditions as now known.

As we have discussed several times and as proven by the soil analysis reports that were done several times per day (by a third party) and were given to SHN, as required, on an almost daily basis, the underlying problem of this project is that SHN designed the project to be built in soil of the Hookton formation, when in fact it is to be built in sand. Hookton formation soils are well documented and easy to find in the Eureka area. Hookton is a stable formation that is a yellowish/orange mix of clay, sand, gravel and some organic material. The City's bid documents for the project clearly state that the project would be built in Hookton formation (stable) soils. In fact, as we have discussed many times, the predominant soil (after a layer of bay mud at the entry and exit areas) is predominantly grey sand (just like beach sand). Just like sand at the beach, this sand is not stable and therefore will not hold a hole or a tunnel. This "change of soil conditions" (from what was specified by SHN to what is actually there), and the repeated refusal by SHN to recognize this change and then engineer proper changes to the project to account for beach sand instead of the Hookton formation, has led to a project in danger of failing and the loss of time and money. We propose to try to save the project, as outlined below.

We will first use a rented 1.3 million pound hammer (rented from Hammerhead) to assist the steel toward the exit pit accompanied by 2-100,000 pound tow trucks. We expect that effort to take approximately two days. The estimated cost per day would be approximately $37,229, as

detailed more fully on Exhibit A. We anticipate that we could start that effort within fifteen days after execution of a mutually agreeable change order.

If we are not successful in getting the drill steel unstuck using the hammer, we would then propose using a washover process. The washover process will be used to remove sand from around the drill steel by inserting a steel casing over the drill steel, thereby taking pressure off of the drill steel and flushing the space between the two with drilling fluid and, hopefully, allowing it to be pulled back through the bore hole. We would try to extend the washover, if possible, out to approximately the 1,000 foot point where we believe the steel is "pinched" in the bend of the bore. This washover is estimated to take up to two weeks, at an estimated cost of approximately $29,835 per day, as detailed more fully in Exhibit B. If the above washover process of approximately 1,000 feet does not relieve the drill steel, we may be able to continue further down the bore path at the same washover rate depending on the conditions and rotary torque being put on the casing at this distance. If we believe that we are at great risk of sticking the washover casing, we will not be able to proceed with the washover processes.

If we are unable to free up the drill steel using the hammer and washover processes, we will not be able to proceed any further on the job and we will lose our drill steel.

If we are able to get the drill steel unstuck with either the hammer or the washover process, it will be imperative that we immediately begin 24-hour shifts to pull back an 18" reamer to open up the hole. We will trail drill steel behind the reamer, with weepers at 1,000 foot intervals.

Upon successful completion of the 18" reamer, the 48" casing at the exit pit will need to be installed. This will cost approximately $17,740 per day, as more fully detailed on Exhibit C.

After we install the 48" casing we would then pull a larger 30" reamer; we will continue to ream the 30" reamer multiple times through the hole, with the same standards described above (weepers, trailing steel, etc.), until all parties are confident in moving to a 42" reamer.

We would then proceed to a 42" reamer and attempt to establish a 42" hole the entire way, which we will evaluate by measuring cuttings removed from the bore hole, and, once again, until all parties are confident in the adequate size and stability of the bore hole. Apex will then attempt to "swab" the bore hole and based on those results, all parties can determine if it is appropriate to attempt the 26" HDPE pullback. The cost of reaming and pulling back the 26" HDPE sewer main is estimated to be approximately $44,909 per day, as more fully detailed on Exhibit D.

All work will be done on a time and materials basis, with an additional 15 percent for overhead. Additionally, as we have previously discussed in detail, the City will ensure that Apex's contract with Wahlund Construction, Inc. is terminated and all ongoing costs necessary for the day-to-day

operations provided by Wahlund to fully support the efforts described above, will be borne directly by the City, with no mark-up to Apex.

As we have communicated to you on multiple occasions, we make no guarantee that we can get the drill steel unstuck. Given the now known soil conditions that are very different from that in the bid materials as well as repeated verbal assurances, and the fact that the drill steel has been in the ground for over two weeks (not to mention the earthquake) there is a substantial risk that the steel cannot be unstuck using any means.

If we are successful in getting the drill steel unstuck, we will not necessarily be able to complete the job, given the soil conditions, design of the bore path and the material to be pulled back. As we told you in our meeting and telephone conference, we believe there is about a 50 percent chance that we will be able to complete the job as described above in the soil conditions as now known, and we are open to any other suggestions or plans from you, your engineers or other parties.

Furthermore, we believe that there is additional risk beyond what we contemplated in our bid in attempting to bore a 42" hole approximately 4,300 feet through the hill and pull HDPE back for that distance through the flow sand that exists along the full length of the bore path. For example, we believe there is significant risk at pullback of sticking the HDPE or tearing it apart. We did not anticipate those soil conditions or the related risks when we bid the job because we relied on the geo's supplied in the bid materials plus verbal assurances of the soil conditions as we were told to do by City and SHN staff.

Therefore, in addition to an agreement for payment for any additional work you approve, we will need the agreement of the City that if Apex is not able to get the drill steel unstuck, or if Apex can get the drill steel unstuck but cannot otherwise complete the project despite all reasonable efforts to do so, Apex will be released from all obligations and the City will make no further claim of any nature against Apex. Apex is willing to make like assurances to release the City from claims by Apex. Additionally, we will need to have the City's agreement to hold Apex harmless from and indemnify it for any claim, demand, liability or proceeding arising out of the effort to unstick the drill steel or complete the hole as its profile changes and pull back the HDPE force main sewer in the conditions now known.

This letter will also serve as written notice by Apex Directional Drilling LLC to the City of Eureka (the "City") of the City's default under Contract Agreement dated July 24, 2013 with respect to the Martin Slough Force Main-Drill Project. Specifically, as we told you in our meeting last week and on the telephone, and from daily soil analysis reports, the City is in default by reason of: (a) material misrepresentations made to Apex by the City and its agents, including but not limited to misrepresentations with respect to soil conditions in the specified bore path; and (b) breach of the implied covenant of good faith and fair dealing by repeatedly

refusing to investigate and acknowledge the true soil conditions and to timely issue appropriate change orders.

The City's default has caused, and is continuing to cause, Apex substantial damages, including but not limited to extra pay to subcontractors, extra materials and parts, extra labor, standby time and lost opportunity (all totaling several million dollars) over and above the costs Apex would have incurred in completing the job had the conditions, including soil, been as represented. In addition, Apex may lose its drill steel, the cost of which is $137,000.

We will allow the City until 5:00 p.m. Pacific Daylight Time on Friday, March 21, to cure the default by entering into an appropriate change order reflecting the terms and conditions described in our proposal above. Alternatively, the City may elect not to proceed any further with the job, provided that the City releases Apex from any and all obligations and claims, and pays for costs incurred.

We look forward to hearing from you.

Very truly yours,

Mike Lachner, President

EXHIBIT A

HAMMER COSTS

Prevailing Wage Labor:	# of Wage Earners by Classification	Reg Hours	OT Hours	Reg Rate	OT Rate	Taxes, Work Comp., Etc.	Daily Rate
Drill Operator	1	8	2	60.37	78.05	20%	766.87
Excavator Operator	1	8	2	60.37	78.05	20%	766.87
Laborers	3	8	2	43.77	57.09	20%	1,671.62
Project Manager	1	8		62.50		20%	600.00
							3,805.37
Crew Per Diem	6 @ $60 per day						360.00

Hammerhead		
Weekly Hammer Rental Rate (Daily Rate Not Available)	14,175	
@ Daily Rate - 2 Days		7,087.50
Weekly Hammer Technician Rate (Daily Rate Not Available)	3,250	
@ Daily Rate - 2 Days		1,625.00
Technician Travel Costs - estimated airfare, hotel, meals, rental car	2,000	
@ Daily Rate - 2 Days		1,000.00
Other Equipment		
Weekly Compressor Rental Rate (Daily Rate Not Available)	2,100	
Weekly Excavator Rental Rate (Daily Rate Not Available)	2,625	
		2,362.50
100,000 Pound Tow Truck		1,600.00
100,000 Pound Tow Truck		1,600.00
DDW 500 Drill		10,000.00
Ford F-550 Crew Truck		263.20
Pape 350 Excavator		525.00
Materials		
Total For Project	5,000	
@ Daily Rate - 2 Days		2,500.00
Fuel		
Total For Project	2,000	
@ Daily Rate - 2 Days		1,000.00
Contingency		
Approx. 10%		3,500.00
ESTIMATED TOTAL DAILY RATE BEFORE OVERHEAD MARKUP		**37,228.57**

EXHIBIT B

WASHOVER COSTS

Prevailing Wage Labor:	# of Wage Earners by Classification	Reg Hours	OT Hours	Reg Rate	OT Rate	Taxes, Work Comp., Etc.	Daily Rate
Drill Operator	1	8	2	60.37	78.05	20%	766.87
Excavator Operator	1	8	2	60.37	78.05	20%	766.87
Laborers	3	8	2	43.77	57.09	20%	1,671.62
Project Manager	1	8		62.50		20%	600.00
							3,805.37
Crew Per Diem	6 @ $60 per day						360.00

Washover Casing Rental

9-7/8 Threaded Washover Casing @ 40' Lengths @ 1,000';	3,500.00
Washover Technician	850.00
Technician Travel Costs	500.00

Other Equipment

DDW 500 Drill with Steel	10,000.00
Ford F-550 Crew Truck	263.20
Vermeer 9x12 Mud Cleaner	2,500.00
Alder Frac Tank @ 2	72.00
Sterling 1-Ton Utility Truck	263.20
JD 135 Track Excavator	650.00
Mod Space Container	42.25
4" Trash Pump w/ Hoses	165.38
Mechanic Truck	263.20

Materials

Materials, Including Drill Fluids, Hole Stabilizers, etc.	3,000.00

Fuel

Fuel	600.00

Contingency

Approx. 10%	3,000.00

ESTIMATED TOTAL DAILY RATE BEFORE OVERHEAD MARKUP **29,834.60**

EXHIBIT C

CASING INSTALLATION AT EXIT PIT

Prevailing Wage Labor:	# of Wage Earners by Classification	Reg Hours	OT Hours	Reg Rate	OT Rate	Taxes, Work Comp., Etc.	Daily Rate
Operator	1	8	4	60.37	78.05	20%	954.19
Welder	1	8	4	60.37	78.05	20%	954.19
Laborers	4	8	4	43.77	57.09	20%	2,776.90
Project Manager	1	8		62.50		20%	600.00
							5,285.28
Saturday & Sunday Overtime Premiums - Approx., Allocated to Daily Rate							1,000.00
Crew Per Diem	6 @ $60 per day						360.00
Hammerhead							
Weekly Hammer Rental Rate (Daily Rate Not Available)						14,175	
@ Daily Rate - 7 Days							2,025.00
Weekly Hammer Technician Rate (Daily Rate Not Available)						3,250	
@ Daily Rate - 7 Days							464.29
Technician Travel Costs - estimated airfare, hotel, meals, rental car						2,000	
@ Daily Rate - 7 Days							285.71
Other Equipment							
Weekly Compressor Rental Rate (Daily Rate Not Available)						2,100	
Weekly Excavator Rental Rate (Daily Rate Not Available)						2,625	
							675.00
Ford F-550 Crew Truck							263.20
Pape 350 Excavator							525.00
Materials							
Maskell 48" Casing @ 300' - Cost of $49,595 allocated over 14 days							3,542.50
Total Weekly Cost						5,000	
@ Daily Rate - 7 Days							714.29
Fuel							
Fuel							600.00
Contingency							
Approx. 10%							2,000.00
ESTIMATED TOTAL DAILY RATE BEFORE OVERHEAD MARKUP							**17,740.27**

EXHIBIT D

REAMING AND HDPE PULLBACK OPERATIONS (24 HOURS/DAY @ 2-12 HOUR SHIFTS)

Prevailing Wage Labor:	# of Wage Earners by Classification	Reg Hours	OT Hours	Reg Rate	OT Rate	Taxes, Work Comp., Etc.	Daily Rate
Drill Operator	1	8	4	60.37	78.05	20%	954.19
Excavator Operator	1	8	4	60.37	78.05	20%	954.19
Laborers	4	8	4	43.77	57.09	20%	2,776.90
Drill Operator	1	8	4	60.37	78.05	20%	954.19
Excavator Operator	1	8	4	60.37	78.05	20%	954.19
Laborers	4	8	4	43.77	57.09	20%	2,776.90
Project Manager	1	8		62.50		20%	600.00
							9,970.56
Saturday & Sunday Overtime Premiums - Approx., Allocated to Daily Rate							2,000.00
Crew Per Diem	13 @ $60 per day						780.00

Mud Engineer	
Mud Engineer	850.00
Mud Engineer Travel Costs	500.00
Equipment	
DDW 500 Drill with Steel, Bits, Reamers, Etc.	15,000.00
Ford F-550 Crew Truck	263.20
Pape 350 Excavator	525.00
Vermeer 9x12 Mud Cleaner	2,500.00
Tango Mud Cleaner	800.00
Alder Frac Tank @ 3	108.00
Sterling 1-Ton Utility Truck	263.20
JD 135 Track Excavator	650.00
Mod Space Container	42.25
3" Trash Pump w/ Hoses	165.38
4" Trash Pump w/ Hoses	165.38
Mechanic Truck	263.20
Supervac # 1	800.00
Supervac # 2	800.00
Fuel Truck	263.20
Materials	
Materials, Including Drill Fluids, Hole Stabilizers, etc.	3,000.00
Fuel	
Fuel	1,200.00
Contingency	
Approx. 10%	4,000.00
ESTIMATED TOTAL DAILY RATE BEFORE OVERHEAD MARKUP	**44,909.37**