



STAFF REPORT

DATE: July 21, 2021
TO: City Council, Trever Johnson
CC: Niki Sargent, Zane DeWeese, Sheldon Smith
FROM: Paul Taylor, P.E. City Engineer
SUBJECT: Force Main Project Status Update

Mayor Johnson recently asked for an update on the force main project. This report is intended to summarize where we currently are and provide information to help the Council to direct staff on where to go from here. The last formal update was dated March 19, 2021.

Budget Status

The project budget has not changed since March. The latest extension is due to expire on, I believe, August 15 of this year. I have been told verbally that no additional extensions will be granted unless we have a contractor actively working on the project. Here is a summary of available project funds:

Contingency left over from sewer project (obligated 8/15/2013)	\$145,989.85	(grant #03)
Cost overrun for lift station (obligated 3-21-2016)	\$304,000.00	(grant #05)
State funds originally \$100 K. \$75 K was used for truck.	\$25,000.00	
Interest that has accrued on remaining state funds (as of 10/9/20)	\$22,559.95	(This will be slightly higher now)
TOTAL AVAILABLE	\$497,549.80	

Construction Options

The recent conversation with Mayor Johnson, requested that we identify what options we have to complete some work without exceeding this budget. Utilizing a combination of recent (Feb. 23, 2021) revised quotes from Counterpoint Construction and the latest bid amounts (2017) for

items not specifically itemized in the February revised numbers we have developed two options for consideration. Option #1 focuses on trying to get as much of the force main piping in the ground as possible. Option #2 focuses on making improvements to the existing pump station and installing piping from the pump station to the east as far as possible.

Both options include paying some outstanding claims for work completed to-date in investigating alternative alignments and revising bid numbers. Both options also include a 10% contingency (typically required by USDA to move forward with a project) and an estimated 6% engineering and inspection fee (also required by USDA to ensure the project is completed according to standards).

Option #1

The priority for installing the force main is getting the boring completed under I-80. Unfortunately, with the amount of money available, we can only construct the boring itself, installing the 18" casing under the freeway. There isn't enough money available to install any of the piping. This option spends money installing a pipe that can not be used until money is found to complete the rest of the piping.

OPTION #1 - HORIZONTAL DIRECTIONAL DRILLING ACROSS FREEWAY AND CASING INSTALLATION

Item	Description	Quantity	Unit	Unit Price	Extended Price
1	Mobilization	1	ls	\$45,688.00	\$45,688.00
2	Steel Casing	350	lf	\$815.00	\$285,250.00
3	Traffic Control	1	ls	\$22,125.00	\$22,125.00
	TOTAL CONSTRUCTION COSTS				\$353,063.00
	Counterpoint Change Order (Work done to investigate alternatives)				\$118,279.10
	Contractor Designated Budget				\$471,342.10
	Contingency (10%)				\$35,306.30
	Construction Inspections/Coordination				\$21,183.78
	Combined Project Costs				\$527,832.18

Mobilization and Traffic Control are estimates not quotes and will need to be verified

Option #2

The other option that might make sense is to spend the money making improvements that can benefit the city now. This option focuses on making improvements to the existing pump station and the first 250 feet of pipe. This option would replace the existing pumps (relatively new) with new suction lift pumps, replacing piping and valving in the pump station and installing a new 8" pipe moving to the east at least to the east side of the southbound offramp.

OPTION #2 - LIFT STATION REPLACEMENT AND FIRST 250' OF PIPE

Item	Description	Quantity	Unit	Unit Price	Extended Price
1	Mobilization and General Conditions	1	LS	\$45,688.00	\$45,688.00
2	Removal of Pumps, Piping and Appurtenances From Existing Lift Station	1	LS	\$1,650.00	\$1,650.00
3	Furnish and Install Package Suction Lift Pump Station including a precast concrete wet well-complete and in place	1	LS	\$62,352.00	\$62,352.00
4	Furnish and Install Precast Concrete Doghouse Manholes Complete and in Place	2	EA	\$3,430.00	\$6,860.00
5	Bypass Pumping and Hauling of Sanitary Sewage	1	DAYS	\$15,543.00	\$15,543.00
6	Bypass Pumping Precast Concrete Vault including all appurtenances – complete and in place	1	LS	\$8,322.00	\$8,322.00
7	Furnish and Install Lift Station Electrical Power Supply System	1	LS	\$29,051.00	\$29,051.00
8	Site Restoration	1	LS	\$1,279.00	\$1,279.00
	Subtotal				\$170,745.00
Items not part of Original Schedule B					
9	SCADA System RTU	1	LS	\$15,318.00	\$15,318.00
10	8" DR 11 HDPE Pipe	250	LF	\$91.00	\$22,750.00
11	18" Steel Casing HDD	100	LF	\$815.00	\$81,500.00
12	8" x 6" Reducer	1	EA	\$1,600.00	\$1,600.00
13	Sand Bedding (Material)	100	TON	\$36.00	\$3,600.00
14	UTBC	1	TON	\$70.00	\$70.00
15	Asphalt Repair	0.5	TON	\$745.00	\$372.50
	Subtotal				\$125,210.50
	TOTAL CONSTRUCTION COSTS				\$295,955.50
	Counterpoint Change Order (Work done to investigate alternatives)				\$118,279.10
	Contractor Designated Budget				\$414,234.60
	Contingency (10%)				\$29,595.55
	Construction Inspection/Coordination				\$19,533.06
	Combined Project Costs				\$463,363.21



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Unit prices from original bid 2017

Unit prices from revised bid 2-17-2021

Cost estimates for both options will need to be verified by the contractor and schedules and availability will need to be determined. In order to keep funding, it is believed that we will need to at least purchase materials or mobilize equipment. Exact requirements will need to be verified with USDA.

Option Discussion

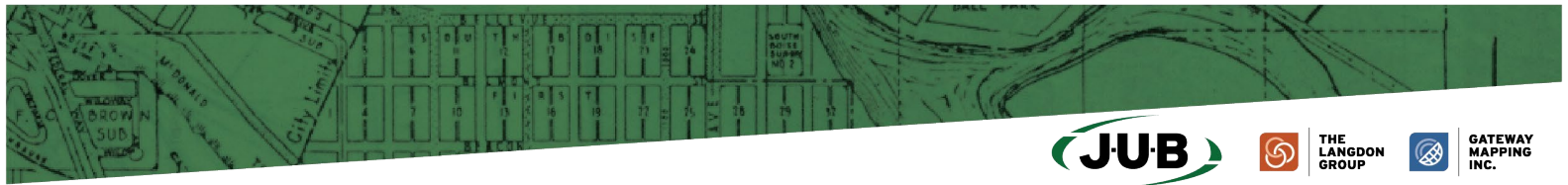
There are advantages with both options. The most problematic portion of the entire project has been the issue of crossing the freeway. If we can spend the money we currently have to provide a way to cross the freeway that is acceptable to UDOT, pulling the pipe through the casing at a later date should be quite simple. Finding the money needed to complete this work will then need to be a focus. It is unfortunate that there is not enough grant money to complete this work. Option #1 addresses this most problematic section.

Option #2 would spend the money in places where the city realizes immediate benefit. We won't have to wait until we can find more money to benefit. I understand that the most problematic section of pipe is the first few hundred feet. This option starts with replacing the worst section of pipe. There is no guarantee that once this section of pipe is replaced that there won't be more problems with sections further to the east. The downside to this option is that we would be replacing pumps that are relatively new and not getting the full use out of the existing pumps.

Both options push the limits of the available funding. Option #1 has a little higher risk due to the many unknowns associated with boring under the freeway.

Counterpoint Change Order Claim

Probably over a year ago, Shane McFarland asked Counterpoint to identify costs that they have incurred on this project for which they have not yet been paid. Counterpoint did that and identified \$118,279.10 in expenses incurred. This was for time spent doing many different activities including potholing to locate the existing freeway crossing casing pipes, working with J-U-B and the City to identify and consider at least four different alternative alignments, coordinating options with subcontractors, preparing bid numbers for the different options, investigating alternative methods for crossing the freeway (jacking and boring versus horizontal directional drilling), investigating UDOT requirements, considering dewatering options, and many other tasks. I am convinced, after reviewing the numbers carefully with Counterpoint, that



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these numbers represent only a portion of the time and effort they have expended in trying to help the city find a viable solution. At the request of the mayor, I have invited Counterpoint to attend this City Council meeting to be available to address this change order and try to answer questions that might exist.

Recommendation

J-U-B recommends that the city approve the change order for Counterpoint and that the City utilize the rest of the available money to complete at least a portion of the needed improvements. As to which option is the best, we don't have a strong preference. Doing either one puts the city in a better position to complete the project at a later date.

J-U-B needs direction from the Council to move this project forward. Time is of the essence.