



October 1, 2020

TO: LOCSD Board of Directors

FROM: Ron Munds, General Manager

**SUBJECT: Agenda Item 9J – 10/01/2020 Board Meeting
South Bay Well Transmission Main Project**

DESCRIPTION

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The South Bay Well Transmission Main Project (Project) commenced construction on September 21st. As the project began, it was discovered that a natural gas pipeline alignment was different than previously identified and that the water pipeline placement would need to change. Working with Brough Construction, the project's contractor, two alternative alignments have been identified. Both come with a significant increase in cost which is discussed in this report.

STAFF RECOMMENDATION

This item will be approved along with the Consent Calendar unless it is pulled by a Director for separate consideration. If so, Staff recommends that the Board adopt the following motion:

Motion: I move that the Board approve:

- 1. The Alternative 2 Pipeline Alignment; and***
- 2. A change order to include a required Air and Vacuum Valve and a new Gate Valve; and***
- 3. An increase to the Brough Construction Contract in an amount not to exceed \$362,674.***

Discussion

Background

At the July 2, 2020 Board meeting, the Board authorized going out to bid for the South Bay Well Transmission Main Project (Project). The pipeline alignment was to be primarily on the south shoulder of Nipomo Avenue. The main driver to locate the pipeline in the shoulder was to provide adequate separation from the existing sewer and minimize pavement restoration costs.

The engineering cost estimate for the Project was \$432,350 of which \$395,000 was for the actual construction of the pipeline. The Board authorized the General Manager to enter into a contract for construction if the lowest responsive bid was at or below the \$395,000 amount. On July 29th, the District received twelve bid submittals. The lowest responsive bid was from Brough Construction with bid price of \$298,350. This is \$96,650 lower than the original engineering cost estimate.

Pipeline Alignment Change

As the project moved forward, the contractor order of work was to identify all underground utilities by "potholing" in various locations to "ground truth" what was on the plans. It was discovered that the natural gas line location was in a different location than shown on the utility plans used by the design engineer. According to the District's consultants and the contractor, this is not an unusual occurrence

for this type of project. After conferring with a Gas Company representative, it was determined the pipeline alignment would need to change in order to keep five feet of separation between the two lines. Wallace Group, WSC, District staff and Brough Construction collaboratively came up with two alternatives both of which result in significant pavement restoration costs. The alternatives are as follows:

Alternative 1:

This option would align the pipeline in the southern half of the easterly travel lane of Nipomo Avenue for about 1,765 feet (from about 12th Street to Mountain View Avenue) and would cost approximately \$113,706.

Alternative 2 (recommended):

This option would align the pipeline in the southern half of the easterly travel lane of Nipomo Avenue for about 800 feet (from 12th Street to north just of 13th Street) then move to the northern shoulder of Nipomo Avenue and continue to Mountain View Avenue. The estimated cost of this option is \$57,624.

Change Orders for Work in Progress

At the bid phase of the project, there was an error in the bid quantities for air and vacuum valves. The plans called for three but bid specifications only listed two to be included in bid documents. Adding the third air and vacuum valve will cost \$4,700.00. Also, with the change in alignment, there will be a new tie-in point at the eastern end of the pipeline. A new gate valve will be needed at the tie-in point. The cost of the valve is \$2,000.00.

Financial Impact

As previously discussed, the original budget for the construction portion of the Project is \$395,000 with the actual contract award bid coming in at \$298,350. Adding the Alternative 2 cost and the change orders to the overall cost of the Project will still be below the original budgeted amount as shown in the table below.

Change Order Summary	
Pipeline Realignment	\$57,624
Air & Vacuum Valve	\$4,700
Gate Valve	\$2,000
Sub-total	\$64,324
Project Total	\$362,674
Engineering Cost Estimate	\$395,000

Attachment

Alternatives 1 & 2 Cost Breakdown
 Work Directive Change No. 1

South Bay Transmission Main
 Pipe Reroute Alternate Pricing



ALT 1 STA 16+35 - END OF ROAD | ROADWAY

item	COST CODE	QUANTITY	UNIT OF MEASURE	UNIT COST	MARKUP PERCENT	SUBTOTAL	MARKUP	TOTAL COST
	SLURRY IMPORT	481.9	CY	\$123.19	15.00%	\$59,370.74	\$8,905.61	\$68,276.35
	DIRT DISPOSAL FEE	481.9	CY	\$14.70	15.00%	\$7,084.58	\$1,062.69	\$8,147.27
	ASPHALT DISPOSAL FEE	80.3	TON	\$15.00	15.00%	\$1,204.86	\$180.73	\$1,385.59
	PLATE RENTAL	175.0	EA	\$8.00	15.00%	\$1,400.00	\$210.00	\$1,610.00
	COLD MIX	50.0	TON	\$115.00	15.00%	\$5,750.00	\$862.50	\$6,612.50
	PAVING	10500.0	SQFT	\$2.97	5.00%	\$31,150.00	\$1,557.50	\$32,707.50
	BROUGH SUPPORT	2.0	DAY	\$4,500.00	15.00%	\$9,000.00	\$1,350.00	\$10,350.00
	BROUGH TRENCH GRIND	1735.0	LF	\$3.25	15.00%	\$5,638.75	\$845.81	\$6,484.56
	11 Pavement Repairs FT DEDUCT ALT1	1.0	LS	-\$30,225.00		-\$30,225.00	\$0.00	-\$30,225.00
	12 Miscellaneous Residential Propert Coordination and Repairs LS DEDUCT ALT1	1.0	LS	-\$4,092.00		-\$4,092.00	\$0.00	-\$4,092.00
	POTHOLE ALT1	1.0	LS	\$9,950.00		\$9,950.00	\$0.00	\$9,950.00
	ADDITIONAL PIPE AND FITTINGS ALT1 CONT.	1.0	LS	\$2,500.00		\$2,500.00	\$0.00	\$2,500.00

TOTAL **\$113,706.77**

South Bay Transmission Main
Pipe Reroute Alternate Pricing



ALT 2 STA 16+35 - 24+00 | ROADWAY | 24+00 - END | NORTH SHOULDER

item	COST CODE	QUANTITY	UNIT OF MEASURE	UNIT COST	MARKUP PERCENT	SUBTOTAL	MARKUP	TOTAL COST
	SLURRY IMPORT	212.5	CY	\$123.19	15.00%	\$26,177.88	\$3,926.68	\$30,104.56
	DIRT DISPOSAL FEE	212.5	CY	\$14.70	15.00%	\$3,123.75	\$468.56	\$3,592.31
	ASPHALT DISPOSAL FEE	35.4	TON	\$15.00	15.00%	\$531.25	\$79.69	\$610.94
	PLATE RENTAL	80.0	EA	\$8.00	15.00%	\$640.00	\$96.00	\$736.00
	COLD MIX	23.0	TON	\$115.00	15.00%	\$2,645.00	\$396.75	\$3,041.75
	PAVING	6314.0	SQFT	\$3.50	5.00%	\$22,099.00	\$1,104.95	\$23,203.95
	BROUGH SUPPORT	1.0	DAY	\$4,500.00	15.00%	\$4,500.00	\$675.00	\$5,175.00
	BROUGH TRENCH GRIND	765.0	LF	\$3.25	15.00%	\$2,486.25	\$372.94	\$2,859.19
	12 Miscellaneous Residential Propert Coordination and Repairs LS DEDUCT ALT2	1.0	LS	-\$2,100.00		-\$2,100.00	\$0.00	-\$2,100.00
	11 Pavement Repairs FT DEDUCT ALT2	1.0	LS	-\$18,900.00		-\$18,900.00	\$0.00	-\$18,900.00
	POTHOLE ALT2	1.0	LS	\$6,800.00		\$6,800.00	\$0.00	\$6,800.00
	ADDITIONAL PIPE AND FITTINGS ALT2 CONT.	1.0	LS	\$2,500.00		\$2,500.00	\$0.00	\$2,500.00

TOTAL **\$57,623.69**

WORK DIRECTIVE CHANGE
(Instructions on reverse side)

No. 1

DATE: September 30, 2020

PROJECT: SOUTH BAY WELL SITE WATER TRANSMISSION MAIN TO MAIN ZONE

CONTRACTOR: Brough Construction, Inc.

ENGINEER: WATER SYSTEM CONSULTING, INC.

You are directed to proceed promptly with the following change(s):

Description:

1. Add third A&V at 10th Street/Nipomo Avenue. A&V Can to be located in field (on SW corner of intersection) with approval by Engineering and Owner. This A&V was shown on the plans, but inadvertently not included in the bid schedule. Cost, \$4,700.
2. Alignment Change to Avoid Gas Main in South Shoulder of Nipomo Avenue. At Station 16+35, transition from south shoulder of Nipomo Avenue to the southerly half of eastbound lane of Nipomo Avenue (using two 22-1/2 degree fittings and restrained joints) to avoid the existing gas main, continuing this alignment to ~Station 23+75. At Station 23+75, transition to north shoulder of Nipomo Avenue (using two 22-1/2 fittings with joint restraint), and continuing this north shoulder alignment to the tie-in at Mountain View Avenue. Alignment change includes potholing on north side of Nipomo Avenue from Station 23+75 to Mountain View Avenue tie-in, temporary cold mix, slurry backfill in trench, excess soils haul off, property and driveway restoration on north side of Nipomo Avenue. Pavement trench in Nipomo Avenue to use slurry backfill to 1" above existing pavement section, thus not requiring T-cut per County standards. Grind and overlay (2" asphalt) entire south half of eastbound lane of Nipomo Avenue. At alignment transition at Station 23+75, entire road section between pipeline transition from eastbound lane to north shoulder of Nipomo Avenue, to be replaced using 2" grind and overlay. Re-stripe obliterated road striping in kind. From Station 16+35 to Mountain View Avenue, receive credits for miscellaneous pavement restoration and driveway repairs no longer required (on south side of Nipomo Avenue). Net cost, \$57,624.
3. Mountain View Avenue Tie-In. Add new 8" gate valve to tie-in detail. Cost, \$2,000.
4. Tie-in at 10th Street. Due to utility conflicts, modify tie-in detail using ductile iron to cross over existing comm line and recycled water main, slurry backfill; in lieu of crossing beneath utilities in 10th Street. No cost change.
5. Contract Time. Add 7 calendar days to contract time.
6. TOTAL CONTRACT PRICE CHANGE: Add \$64,324. Original Contract Price, \$298,350. Adjusted Contract Price, \$362,674.

Attachments: Brough Construction, Inc. cost backup for Item 2 above. See plan revisions prepared by WSC, Inc., to be as-built at final construction completion.

If a claim is made that the above change(s) have affected Contract Price or Contract Time, any claim for a Change Order based thereon will involve one of the following methods of determining the effect of the change(s).

Method of determining change in Time: Actual time required to initiate alignment change.

Method of determining Contract Price: Items 1 and 3, Unit Prices, Bid Items 10 and 9, respectively. Item 2, cost backup from Brough Construction, Inc.

RECOMMENDED:

AUTHORIZED:

By: Michael Goymerac, PE, WSC
Engineer of Record

By: Steven Tanaka, Wallace Group
Title: Principal Civil Engineer

By: Ron Munds, LOCSD
Title: General Manager

WORK DIRECTIVE CHANGE INSTRUCTIONS

A. GENERAL INFORMATION

This document was developed for use in situations involving changes in the Work which, if not processed expeditiously, might delay the Project. These changes are often initiated in the field and may affect the Contract Price or the Contract Time. This is not a Change Order, but only a directive to proceed with Work that may be included in a subsequent Change Order.

For supplemental instructions and minor changes not involving a change in the Contract Price or the Contract Time, a Field Order may be used.

B. COMPLETING THE WORK DIRECTIVE CHANGE FORM

The Engineer initiates the form, including a description of the items involved and attachments.

Based on conversations between the Engineer and the Contractor, the Engineer completes the following:

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT PRICE: Mark the method to be used in determining the final cost of Work involved and the net effect on the Contract Price. If the change involves an increase in the Contract Price and the estimated amount is approached before the additional or changed Work is completed, another Work Directive change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Time, the space for estimated increase (decrease) should be marked "Not Applicable."

METHOD OF DETERMINING CHANGE, IF ANY, IN CONTRACT TIME: Mark the Method to be used in determining the change in Contract Time and the estimated increase or decrease in Contract Time. If the change involves an increase in the Contract Time and the estimated time is approached before the additional or changed Work is completed, another Work Directive Change must be issued to change the time or Contractor may stop the changed Work when the estimated time is reached. If the Work Directive Change is not likely to change the Contract Price, the space for estimated increase (decrease) should be marked "Not Applicable."

Once the Engineer has completed and signed the form, all copies should be sent to the OWNER for authorization because the Engineer alone does not have authority to authorize changes in Price or Time. Once authorized by the OWNER, a copy should be sent by the Engineer to the Contractor.

Once the Work covered by this directive is completed or final cost and time determined, the Contractor should submit documentation for inclusion in a Change Order.

THIS IS A DIRECTIVE TO PROCEED WITH A CHANGE THAT MAY AFFECT THE CONTRACT PRICE OR THE CONTRACT TIME. A CHANGE ORDER, IF ANY, SHOULD BE CONSIDERED PROMPTLY.