

# Key Largo Wastewater Treatment District Board of Commissioners Meeting Agenda Item Summary

Meeting Date:  
January 22, 2019

Agenda Item Number: L-2

Agenda Item Type:  
BID / RFP

Agenda Item Scope:  
Review / Discussion

Recommended Action:  
Action: Approval

Department:  
Engineering

Sponsor:  
Ed Castle

Subject:

## Disinfection Basin Rehabilitation and Modifications

Summary of Discussion:

The bid for the disinfection basin was discussed at the January 8 Board meeting. WEC was authorized to enter into value engineering negotiations with Reynolds in an attempt to reduce costs. The results of those efforts are provided for the January 22, 2019 Board meeting. The negotiated base bid amount is \$293,782.00. If the Board elects to award any scope from the additive alternate work, the Financial Impact as stated below will increase accordingly.

### Reviewed / Approved

### Financial Impact

### Attachments

Operations: \_\_\_\_\_  
Administration: \_\_\_\_\_  
Finance: \_\_\_\_\_  
District Counsel: \_\_\_\_\_  
District Clerk: \_\_\_\_\_  
Engineering: \_\_\_\_\_

\$ 293,782.00  
Expense  
Funding Source:  
Grant(s)  
Budgeted:  
Yes

1. Memo from WEC

Approved By: \_\_\_\_\_

General Manager

Date: 1/17/19



## MEMORANDUM

**To:** KLWTD Board  
**From:** Ed Castle, PE  
**Date:** January 17, 2019  
**Re:** Basin Rehab Project

---

The Disinfection Basin Rehabilitation and Modifications Project proposal was brought to the Board for discussion at the January 8, 2019 meeting. Reynolds Construction LLC had submitted the only proposal. At the meeting the Board authorized WEC to explore value engineering (VE) opportunities with Reynolds

The Request for Proposals included a base bid item and an additive alternate item. The base bid scope of work included abrasive blasting the interior of the CCC to bare concrete, followed by concrete repairs as needed and a full coat of surfacing epoxy. The cold joint would be treatment with a fiberglass-reinforced resin, followed by a prime coat and top coat of chemically resistant epoxy paint.

During VE discussions, the Tnemic representative suggested switching the final coatings product from one that required roller application to one with similar chemical resistant properties but that could be spray applied. WEC also discussed leaving the sluice gates in place rather than requiring that they be removed and reinstalled. Reynolds accepted both of these proposed VE changes.

The additive alternate scope of work included piping modifications to both the CCC and to the existing effluent shallow wells. The VE discussion for this scope of work included removal of the piping modifications at the shallow wells. Without the piping modifications at the effluent shallow wells, if there was an overflow of effluent, it would run into the large retention area, and if the spill continued until the retention area was filled, it would overtop the control structure in the existing 24" storm water shallow well and would be drain down that well, preventing any discharge off-site. The storm water well was permitted only for storm water disposal, not effluent disposal. Without the modification to the effluent shallow well piping, the District would have to also report that the spilled effluent went down the storm water well.

The VE changes described above resulted the cost reductions presented in the tables below.

**Disinfection Basin Rehab Base Bid**

<b>Item No.</b>	<b>Description</b>	<b>Original Bid Amount</b>	<b>VE Negotiated Amount</b>
1.1	Cleaning, repair and coating of disinfection basin structures, interior and exterior	\$284,685.00	\$258,752.00
1.2	Concrete repair allocation (to be billed T&M)	\$ 30,000.00	\$ 30,000.00
1.3	Mobilization	\$ 16,825.00	\$ -
1.4	Bonds & Insurance	\$ 5,030.00	\$ 5,030.00
		<b>\$336,540.00</b>	<b>\$293,782.00</b>

**Additive Alternate**

2.1	Provide and install emergency discharge piping in disinfection basin	\$ 49,915.00	\$ 51,146.00
2.2	Provide and install emergency discharge piping in retention area, connected to existing shallow wells	\$ 56,400.00	\$ -
2.3	Bonds & Insurance	\$ 1,758.00	\$ 1,758.00
		<b>\$108,073.00</b>	<b>\$ 52,904.00</b>

WEC recommends that the Board approve award of the base bid and the additive alternate scopes of work to Reynolds Construction LLC as the lowest cost responsive and responsible bidder.

The concept of construction of a third effluent shallow well that would accept the gravity discharge from the emergency overflow piping was discussed with staff. If a third well were permitted and constructed, it would prevent a spill of effluent if the effluent pumps were to fail. There would be no unpermitted discharge to report. WEC and staff intend to explore the feasibility of this option and may bring it forward for Board consideration at a future date.