

Moderate

Engineer's Estimate Checklist for ~~Optimal~~ Confidence

Project Name/Number: CBWTP Digester Expansion/8106 Engineer: Brown and Caldwell

Level of Effort to prepare this estimate: see attached Basis of Estimate Report

Items included in this estimate: _____

Items excluded in this estimate: Estimate is from project 60% design.

Project Scope

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Is the project scope clearly understood and well defined?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are pay items identified according to project specifications?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are materials and quantities accurate for execution of the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the extent of street resurfacing understood and accounted for?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is utility coordination and/or relocation, and potential project delay, understood and accounted for in this estimate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are environmental and soil conditions understood, and are the extent and methods of any required disposal accounted for in this estimate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has Traffic Control been estimated according to project-specific conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are project-specific mobilization costs understood and accounted for in this estimate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have known extra work items, or force account items, been accounted for?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: _____

Project Schedule

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Have availability and delivery time of important materials and equipment been checked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the contract time been determined with/by the Construction Manager?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Have contract time cost impacts been accounted for in this estimate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have construction season cost impacts been accounted for in this estimate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are schedule constraints and/or schedule acceleration requirements understood, well defined, and accounted for in this estimate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have unusual work time requirements (ie 24 hr work or limited street closure times) been accounted for in this estimate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: _____

Quality Assurance

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Are quantity take-off calculations and back-up information documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are unit prices verified with vendors and sources documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are historical unit costs adjusted (to midpoint of construction) from projects of similar scale, similar site and similar construction conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have non-standard items been estimated "bottom-up"?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a contingency in this estimate? If so, describe: <u>20%</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are "plug" estimates used? If so, describe: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was this estimate checked? (quantities and costs)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Bidding Environment

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Is this project directed to the sheltered market and is this accounted for in this estimate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has the time/season of advertising been factored into the estimate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are circumstances known that would limit the bidding pool and is this accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: Post-tensioned tank walls, injection grouting and stone columns are specialty contractors. Estimate is based on similar projects B+C was recently completed.

Implementation Procedures for Capital Projects

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Does the project construction estimate agree with the current budget?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If "No", has a Trend Alert been prepared?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: Brown and Caldwell estimate based on 90% design will be complete mid-January. Will Trend project based

on the optimal estimate if required.