

Scott Boettcher

From: David Fleckenstein <dfleckenstein@ci.chehalis.wa.us>
Sent: Wednesday, September 14, 2016 5:01 PM
To: Scott Boettcher
Cc: Trent Lougheed; tleyrer@skillings.com; 'Julie Balmelli-Powe'
Subject: Fw: Airport Pump Station - Opinion of Probable Project Cost
Attachments: Airport Pump Station - Opinion of Probable Project Cost - 2016-09-14.pdf; Airport Pump Station - 2 Phases - Opinion of Probable Phase 1 Cost - 2016-09-14.pdf; Airport Pump Station - 2 Phases - Opinion of Probable Phase 2 Cost - 2016-09-14.pdf

Scott,

Attached you will find the itemized list provided by Skillings for the scenarios we discussed.

1. First spread sheet with a project total of \$1,146,361.67: this reflects the design work already completed, the estimate for construction, and the request from Skillings for a contingency, construction management and geo tech oversight and finally additional work associated with the geo-tech analysis and delays on the part of the geo-tech firm. This equates to an additional \$350,361.67 with no stops once construction begins.

2. The Phase 1 spread sheet depicts the minimal amount necessary to conduct one phase which excludes the back up pump and standby generator system.

This equates to \$107,724.46 in additional funding for 2015-2017. I think you can consider this as the minimal acceptable system that meets basic requirements.

3. The Phase 2 sheet depicts the scenario in which we would have to stop work due to funding and subsequently restart once additional funding was available in order to add the back up pump and standby generator system. It also includes a 6% increase for inflation and additions for construction management. This equates to \$376,205.47 for 2017-2019 in addition to the \$107,724.46 required to complete Phase 1.

Hence, if we stop then start again (with approved funding), there is \$133,568.26 more in total costs over the \$350,361.67 requested to complete the project from start to finish with no stoppages.

Expected Life Cycle of the Pump House is a minimum of 50 yrs with periodic maintenance conducted by the airport. I would say that you can count on more than 50 yrs based on the fact the current structure and much of the components date back to the 1940s. Hence, this is a long term investment.

Rationale for increase in costs:

1. Delay in completion of the Geo-tech report and questions that it created given soil conditions and height of the structure.
2. Height of the structure was increased to meet the most up to date data regarding the Base Flood Elevation and studies of the Chehalis Basin.
3. Structure was reinforced due to the height, soil conditions and requirements to guard against seismic activity with anchors to prevent the structure from toppling.
4. Original platform design was going to be too large and expensive given the height of the structure. Hence, two platforms were incorporated. One platform contained on pilings will house the pumps. A separate platform on the levee will house the back up generator and Propane tank. While this increased costs, it would be even more expensive to have everything on one platform which would call for additional pilings.

Finally, this proposal and associated spread sheet do not contemplate funding O&M with State Capital Budget \$.

Let me know if this fully explains the cost breakdown and rationale.

Thanks and talk to you soon,
David

David Fleckenstein
Chehalis-Centralia Airport Manager
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From: Thomas Leyrer <tleyrer@skillings.com>
Sent: Wednesday, September 14, 2016 3:18 PM
To: David Fleckenstein
Cc: Tom Skillings; Debbie Maroon; John Hnatishin
Subject: Airport Pump Station - Opinion of Probable Project Cost

David,

Please find attached our opinion of probable construction cost if the entire project gets built in one phase, and the alternate opinions of probable construction costs if the pump station gets completed in two phases. Phase 1 includes only one pump and no backup power. Phase 2 adds the second pump, backup power, and the trash rack for the 48-inch culvert. Since Phase 2 might not get built for a couple of years, we have added 6% for inflation to most Phase 2 items.

Please feel free to contact me with any questions.

Thank you,
Thomas

Skillings Connolly, Inc.

Thomas Leyrer, PE
Senior Project Engineer

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| | | | | | | |
|---|-------------------|--|----------|-----------------|---------------------------|-----------------------|
| City of Chehalis - Airport Pump Station Rebuild | | | | Estimate By: | J.HNATISHIN | 9/14/2016 |
| | | | | Checked By: | T.LEYRER | 9/14/2016 |
| BID ITEM NO. | STANDARD ITEM NO. | STANDARD ITEM DESCRIPTION | QUANTITY | UNIT OF MEASURE | UNIT PRICE | TOTAL PRICE |
| PREPARATION | | | | | | |
| 1 | | MOBILIZATION | 1 | LS | \$50,000.00 | \$50,000.00 |
| TESC AND DEWATERING / FISH EXCLUSION | | | | | | |
| 2 | | TEMPORARY EROSION AND SEDIMENT CONTROL | 1 | LS | \$13,000.00 | \$13,000.00 |
| 3 | | DEWATERING | 1 | LS | \$22,000.00 | \$22,000.00 |
| SITE GRADING | | | | | | |
| 4 | | SITE GRADING | 1 | LS | \$2,500.00 | \$2,500.00 |
| PIPE | | | | | | |
| 5 | | 3'0" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$2,942.00 | \$2,942.00 |
| 6 | | 9'0" DUCTILE IRON SPOOL 24" DIAM. (FL X PE) | 1 | EA | \$4,052.00 | \$4,052.00 |
| 7 | | 8'0" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$4,652.00 | \$4,652.00 |
| 8 | | 3'6" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$3,113.00 | \$3,113.00 |
| 9 | | 4'0" DUCTILE IRON SPOOL 24" DIAM. (FL X PE) | 2 | EA | \$2,342.00 | \$4,684.00 |
| 10 | | 24" DIAM. DUCTILE IRON FLANGED 45 DEGREE BEND | 1 | EA | \$2,258.00 | \$2,258.00 |
| 11 | | 24" DIAM. DUCTILE IRON FLANGED WYE | 1 | EA | \$7,842.00 | \$7,842.00 |
| 12 | | TIDEFLEX 24" IN-LINE CHECK VALVE (SHIPPED) | 1 | EA | \$6,217.30 | \$6,217.30 |
| 13 | | 24" BFV FLANGED W/ HAND WHEEL AND POSITION INDICATOR CLASS 250 | 2 | EA | \$9,700.00 | \$19,400.00 |
| 14 | | 24" DIAM. RESTRAINED FLANGE ADAPTER | 4 | EA | \$1,121.00 | \$4,484.00 |
| 15 | | INSTALLATION OF PIPING | 1 | LS | \$25,000.00 | \$25,000.00 |
| PUMP | | | | | | |
| 16 | | 20AP PUMP AXIAL FLOW | 2 | EA | \$43,750.00 | \$87,500.00 |
| 17 | | 50 HP MOTOR | 2 | EA | \$8,850.00 | \$17,700.00 |
| 18 | | VFD CONTROL PANEL W/ 3 CONTACTOR BYPASS AND MONITORING | 2 | EA | \$20,000.00 | \$40,000.00 |
| 19 | | FLOATS | 4 | EA | \$125.00 | \$500.00 |
| 20 | | SOLEPLATE | 2 | EA | \$4,500.00 | \$9,000.00 |
| 21 | | FREIGHT CHARGES | 1 | EA | \$4,400.00 | \$4,400.00 |
| 22 | | INSTALLATION OF PUMPS, MOTORS, AND CONTROL PANELS | 1 | LS | \$20,000.00 | \$20,000.00 |
| 23 | | 15% GENERAL CONTRACTOR PUMP MARKUP | 1 | LS | \$26,865.00 | \$26,865.00 |
| 48" CULVERT TRASH RACK | | | | | | |
| 24 | | 48" CULVERT TRASH RACK WITH CONCRETE PAD | 1 | LS | \$5,000.00 | \$5,000.00 |
| PUMP HOUSE STRUCTURE | | | | | | |
| 25 | | MIGHTI RIB ROOFING AND SIDING | 750 | SF | \$2.00 | \$1,500.00 |
| 26 | | FLASHING | 300 | LF | \$2.50 | \$750.00 |
| 27 | | ROOFING AND SIDING INSTALLATION | 1 | LS | \$10,000.00 | \$10,000.00 |
| 28 | | HOIST SYSTEM | 1 | LS | \$3,200.00 | \$3,200.00 |
| 29 | | CHAIN LINK FENCE | 190 | LF | \$20.00 | \$3,800.00 |
| STRUCTURAL ESTIMATE | | | | | | |
| 30 | | ESTIMATE BY ERIK MARTIN (7/13/2016) | 1 | LS | \$234,603.00 | \$234,603.00 |
| ELECTRICAL ESTIMATE | | | | | | |
| 31 | | ESTIMATE BY SERI HAMM (6/6/2016) | 1 | LS | \$93,760.00 | \$93,760.00 |
| 32 | | 15% GENERAL CONTRACTOR ELECTRICAL MARKUP | 1 | LS | \$14,064.00 | \$14,064.00 |
| | | | | | Subtotal | \$744,786.30 |
| | | | | | Tax (8%) | \$59,582.90 |
| | | | | | Contingencies (5%) | \$40,218.46 |
| | | | | | Total (CONSTRUCTION ONLY) | \$844,587.66 |
| ADDITIONAL PROJECT COSTS | | | | | | |
| 33 | | CIVIL, STRUCTURAL, AND ELECTRICAL DESIGN | 1 | LS | \$192,000.00 | \$192,000.00 |
| 34 | | GEOTECH DESIGN | 1 | LS | \$9,585.01 | \$9,585.01 |
| 35 | | FUNDING AGENCY SIGN | 1 | EA | \$189.00 | \$189.00 |
| 36 | | CONTINGENCY FOR CHANGED SUBSURFACE CONDITIONS | 1 | EST | \$25,000.00 | \$25,000.00 |
| 37 | | ADDITIONAL DESIGN WORK DUE TO GEO-TECH WORK AND DELAYS | 1 | LS | \$25,000.00 | \$25,000.00 |
| 38 | | CONSTRUCTION MANAGEMENT AND GEO-TECH OVERSIGHT | 1 | LS | \$50,000.00 | \$50,000.00 |
| | | | | | Project Total | \$1,146,361.67 |

| City of Chehalis - Airport Pump Station Rebuild - Phase 1 (2015-2017) | | | | Estimate By: | J.HNATISHIN | 9/14/2016 |
|---|-------------------|--|----------|-----------------|---------------------------|---------------------|
| | | | | Checked By: | T.LEYRER | 9/14/2016 |
| BID ITEM NO. | STANDARD ITEM NO. | STANDARD ITEM DESCRIPTION | QUANTITY | UNIT OF MEASURE | UNIT PRICE | TOTAL PRICE |
| PREPARATION | | | | | | |
| 1 | | MOBILIZATION | 1 | LS | \$50,000.00 | \$50,000.00 |
| TESC AND DEWATERING | | | | | | |
| 2 | | TEMPORARY EROSION AND SEDIMENT CONTROL | 1 | LS | \$13,000.00 | \$13,000.00 |
| 3 | | DEWATERING | 1 | LS | \$22,000.00 | \$22,000.00 |
| SITE GRADING | | | | | | |
| 4 | | SITE GRADING | 1 | LS | \$2,500.00 | \$2,500.00 |
| PIPE | | | | | | |
| 5 | | 3'0" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$2,942.00 | \$2,942.00 |
| 6 | | 8'0" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$4,652.00 | \$4,652.00 |
| 7 | | 4'0" DUCTILE IRON SPOOL 24" DIAM. (FL X PE) | 1 | EA | \$2,342.00 | \$2,342.00 |
| 8 | | 24" DIAM. DUCTILE IRON FLANGED WYE | 1 | EA | \$7,842.00 | \$7,842.00 |
| 9 | | 24" BFV FLANGED W/ HAND WHEEL AND POSITION INDICATOR CLASS 250 | 1 | EA | \$9,700.00 | \$9,700.00 |
| 10 | | 24" BLIND FLANGE | 1 | EA | \$1,498.00 | \$1,498.00 |
| 11 | | 24" DIAM. RESTRAINED FLANGE ADAPTER | 2 | EA | \$1,121.00 | \$2,242.00 |
| 12 | | INSTALLATION OF PIPING | 1 | LS | \$20,000.00 | \$20,000.00 |
| PUMP | | | | | | |
| 13 | | 20AP PUMP AXIAL FLOW | 1 | EA | \$43,750.00 | \$43,750.00 |
| 14 | | 50 HP MOTOR | 1 | EA | \$8,850.00 | \$8,850.00 |
| 15 | | VFD CONTROL PANEL W/ 3 CONTACTOR BYPASS AND MONITORING | 1 | EA | \$20,000.00 | \$20,000.00 |
| 16 | | FLOATS | 4 | EA | \$125.00 | \$500.00 |
| 17 | | SOLEPLATE | 2 | EA | \$4,500.00 | \$9,000.00 |
| 18 | | SOLEPLATE HOLE COVER | 1 | EA | \$500.00 | \$500.00 |
| 19 | | FREIGHT CHARGES | 1 | EA | \$4,400.00 | \$4,400.00 |
| 20 | | INSTALLATION OF PUMPS, MOTORS, AND CONTROL PANELS | 1 | LS | \$15,000.00 | \$15,000.00 |
| 21 | | 15% GENERAL CONTRACTOR PUMP MARKUP | 1 | LS | \$15,300.00 | \$15,300.00 |
| PUMP HOUSE STRUCTURE | | | | | | |
| 22 | | MIGHTI RIB ROOFING AND SIDING | 750 | SF | \$2.00 | \$1,500.00 |
| 23 | | FLASHING | 300 | LF | \$2.50 | \$750.00 |
| 24 | | ROOFING AND SIDING INSTALLATION | 1 | LS | \$10,000.00 | \$10,000.00 |
| 25 | | HOIST SYSTEM | 1 | LS | \$3,200.00 | \$3,200.00 |
| 26 | | CHAIN LINK FENCE | 110 | LF | \$20.00 | \$2,200.00 |
| STRUCTURAL ESTIMATE | | | | | | |
| 27 | | STRUCTURAL ESTIMATE WITHOUT GENERATOR PLATFORM AND TANK | 1 | LS | \$208,878.00 | \$208,878.00 |
| 28 | | TEMPORARY GANGWAY LANDING | 1 | LS | \$5,000.00 | \$5,000.00 |
| ELECTRICAL ESTIMATE | | | | | | |
| 29 | | ELECTRICAL ESTIMATE WITHOUT BACKUP POWER | 1 | LS | \$37,630.00 | \$37,630.00 |
| 30 | | 15% GENERAL CONTRACTOR ELECTRICAL MARKUP | 1 | LS | \$5,644.50 | \$5,644.50 |
| | | | | | Subtotal | \$530,820.50 |
| | | | | | Tax (8%) | \$42,465.64 |
| | | | | | Contingencies (5%) | \$28,664.31 |
| | | | | | Total (CONSTRUCTION ONLY) | \$601,950.45 |
| ADDITIONAL PHASE 1 COSTS | | | | | | |
| 31 | | CIVIL, STRUCTURAL, AND ELECTRICAL DESIGN | 1 | LS | \$192,000.00 | \$192,000.00 |
| 32 | | GEOTECH DESIGN | 1 | LS | \$9,585.01 | \$9,585.01 |
| 33 | | FUNDING AGENCY SIGN | 1 | EA | \$189.00 | \$189.00 |
| 34 | | CONTINGENCY FOR CHANGED SUBSURFACE CONDITIONS | 1 | EST | \$25,000.00 | \$25,000.00 |
| 35 | | ADDITIONAL DESIGN WORK DUE TO GEO-TECH WORK AND DELAYS | 1 | LS | \$25,000.00 | \$25,000.00 |
| 36 | | CONSTRCTION MANAGEMENT AND GEO-TECH OVERSIGHT | 1 | LS | \$50,000.00 | \$50,000.00 |
| | | | | | Total Phase 1 | \$903,724.46 |

| City of Chehalis - Airport Pump Station Rebuild - Phase 2 (2017-2019) | | | | Estimate By: | J.HNATISHIN | 9/14/2016 |
|---|-------------------|--|----------|-----------------|---------------------------|---------------------|
| | | | | Checked By: | T.LEYRER | 9/14/2016 |
| BID ITEM NO. | STANDARD ITEM NO. | STANDARD ITEM DESCRIPTION | QUANTITY | UNIT OF MEASURE | UNIT PRICE | TOTAL PRICE |
| PREPARATION | | | | | | |
| 1 | | MOBILIZATION | 1 | LS | \$25,000.00 | \$25,000.00 |
| TESC AND DEWATERING | | | | | | |
| 2 | | TEMPORARY EROSION AND SEDIMENT CONTROL | 1 | LS | \$10,000.00 | \$10,000.00 |
| 3 | | DEWATERING | 1 | LS | \$10,000.00 | \$10,000.00 |
| SITE GRADING | | | | | | |
| 4 | | GRADING | 1 | LS | \$1,000.00 | \$1,000.00 |
| PIPE | | | | | | |
| 5 | | 9'0" DUCTILE IRON SPOOL 24" DIAM. (FL X PE) | 1 | EA | \$4,300.00 | \$4,300.00 |
| 6 | | 3'6" DUCTILE IRON SPOOL 24" DIAM. (FL X FL) | 1 | EA | \$3,300.00 | \$3,300.00 |
| 7 | | 4'0" DUCTILE IRON SPOOL 24" DIAM. (FL X PE) | 1 | EA | \$2,500.00 | \$2,500.00 |
| 8 | | 24" DIAM. DUCTILE IRON FLANGED 45 DEGREE BEND | 1 | EA | \$2,400.00 | \$2,400.00 |
| 9 | | TIDEFLEX 24" IN-LINE CHECK VALVE (SHIPPED) | 1 | EA | \$6,600.00 | \$6,600.00 |
| 10 | | 24" BFV FLANGED W/ HAND WHEEL AND POSITION INDICATOR CLASS 250 | 1 | EA | \$10,300.00 | \$10,300.00 |
| 11 | | 24" DIAM. RESTRAINED FLANGE ADAPTER | 2 | EA | \$1,200.00 | \$2,400.00 |
| 12 | | INSTALLATION OF PIPING | 1 | LS | \$12,500.00 | \$12,500.00 |
| PUMP | | | | | | |
| 13 | | 20AP PUMP AXIAL FLOW | 1 | EA | \$46,400.00 | \$46,400.00 |
| 14 | | 50 HP MOTOR | 1 | EA | \$9,400.00 | \$9,400.00 |
| 15 | | VFD CONTROL PANEL W/ 3 CONTACTOR BYPASS AND MONITORING | 1 | EA | \$21,200.00 | \$21,200.00 |
| 16 | | FREIGHT CHARGES | 1 | EA | \$4,700.00 | \$4,700.00 |
| 17 | | INSTALLATION OF PUMPS, MOTORS, AND CONTROL PANELS | 1 | LS | \$15,000.00 | \$15,000.00 |
| 18 | | 15% GENERAL CONTRACTOR PUMP MARKUP | 1 | LS | \$14,505.00 | \$14,505.00 |
| FENCE | | | | | | |
| 19 | | CHAIN LINK FENCE | 120 | LF | \$20.00 | \$2,400.00 |
| 48" CULVERT TRASH RACK | | | | | | |
| 20 | | 48" CULVERT TRASH RACK WITH CONCRETE PAD | 1 | LS | \$5,000.00 | \$5,000.00 |
| STRUCTURAL ESTIMATE | | | | | | |
| 21 | | GENERATOR PLATFORM AND TANK | 1 | LS | \$27,500.00 | \$27,500.00 |
| 22 | | REMOVE TEMPORARY GANGWAY LANDING | 1 | LS | \$2,000.00 | \$2,000.00 |
| ELECTRICAL ESTIMATE | | | | | | |
| 23 | | BACKUP POWER | 1 | LS | \$62,000.00 | \$62,000.00 |
| 24 | | 15% GENERAL CONTRACTOR ELECTRICAL MARKUP | 1 | LS | \$9,300.00 | \$9,300.00 |
| | | | | | Subtotal | \$309,705.00 |
| | | | | | Tax (8%) | \$24,776.40 |
| | | | | | Contingencies (5%) | \$16,724.07 |
| | | | | | Total (CONSTRUCTION ONLY) | \$351,205.47 |
| ADDITIONAL PHASE 2 COSTS | | | | | | |
| 25 | | SECOND BID CALL AND CONSTRUCTION MANAGEMENT | 1 | LS | \$25,000.00 | \$25,000.00 |
| | | | | | Total Phase 2 | \$376,205.47 |