

MFRWTP DO INJECTION - CONSTRUCTION SCOPE & COST INCREASES

| No. | Description | Added Cost |
|--|--|---------------------------|
| Misc. Plant Modifications | 1 Owner request to re-route Air Relief Valves discharge to exterior of the filter gallery building | \$ 2,000 |
| | 2 Owner request to replace corroded lab sink | \$ 7,500 |
| | 3 Owner request to route compressed air line to chemical fill station for offloading bulk product | \$ 500 |
| | 4 Owner request for additional upper and lower mezzanine lighting in equipment building | \$ 2,500 |
| | 5 Owner request for additional isolation valves on raw water and finished water mains | \$ 20,000 |
| | | Subtotal \$ 32,500 |
| Dissolved Oxygen Design Changes | 7 DOH requirement for onsite professional archeologist training | \$ 1,500 |
| | 8 DOH requirement for backflow preventer to protect carrier water from air injection and chemical injection systems | \$ 7,500 |
| | 9 DOH requirement for backflow preventer to protect air injection from chemical injection | \$ 7,500 |
| | 10 Owner standard to construct injectors in vaults rather than direct bury | \$ 24,000 |
| | 11 Owner request for raw water sample point between pre-chlorination and DO injection, with sample line to lab | \$ 5,000 |
| | 12 Owner standard for redundant design adding second 200 gpm 15hp DO pump | \$ 15,000 |
| | 13 Design change to use air compressor and receiver instead of air eductor which required 20-ft tall degassing unit | \$ 70,000 |
| | 14 Design change for new subpanel to support electrical load from compressors and DO pumps; No spare breakers in Panel DPE | \$ 3,500 |
| | 15 Design change for second DO vault for air injection capability pre-filter into raw water stream | \$ 150,000 |
| | 16 Estimated cost inflation due to current bidding climate | \$ 35,000 |
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| | Subtotal | \$ 319,000 |
| | | |
| | OH&P (8%) | \$ 28,120 |
| Total | | \$ 379,620 |

August 3, 2017