

Aeration Decks 1 and 2 Improvements
Contract No. 2102926
Kokosing Industrial, Inc. - Costing Summary

		Kokosing Industrial Inc.	
		Proposed	Negotiated
#	Item	Total Cost	Total Cost
#1-1	Task A – Project Management	\$9,400,000.00	\$9,500,000.00
#1-2	Task B – Studies and Conceptual Design (30%)	\$4,600,000.00	\$4,700,000.00
#1-3	Task C – Preliminary Design (60%)	\$5,415,000.00	\$5,515,000.00
#1-4	Task D – Pre-Final Design (90%)	\$3,400,000.00	\$3,500,000.00
#1-5	Task E – Final Design (100%) and Permitting	\$1,250,000.00	\$1,350,000.00
#1-6	Task E – Permit Fees	\$145,000.00	\$175,000.00
#1-7	Task F – Construction Assistance/Construction Engineering (CA/CE)	\$7,160,000.00	\$7,750,000.00
#1-8	Task G – System Operations and Maintenance Manuals and Training	\$750,000.00	\$750,000.00
#1-9	Task H – Document Management and Turnover Requirements	\$600,000.00	\$600,000.00
#2-1	Furnish and install 20 HP mixers, including motors, supports, mixer base and ancillary items and all related appurtenances (Decks 1 and 2 Bays 1-3)	\$3,215,000.00	\$3,120,000.00
#2-2	Furnish and install 150 HP aerators, including motors, supports, mixer base and ancillary items and all related appurtenances (Decks 1 and 2 Bay 4)	\$4,415,000.00	\$4,300,000.00
#2-3	Furnish and install 75 HP aerators, including motors, supports, mixer base and ancillary items and all related appurtenances (Decks 1 and 2 Bays 5-8)	\$13,055,000.00	\$12,700,000.00
#2-4	Furnish and install 100 HP aerators, including motors, supports, mixer base and ancillary items and all related appurtenances (Decks 1 and 2 Bays 9-10)	\$6,605,000.00	\$6,800,000.00
#2-5	Aeration Decks 1 and 2 - Dewatering, and removal and disposal, associated channels, chambers, vaults, and ILPs pump station.	\$2,464,000.00	\$2,560,000.00
#2-6	Aeration Decks 3 and 4 (Bays 8) - Dewatering, and removal and disposal of settled solids.	\$308,000.00	\$320,000.00
#2-7	Furnish and Install Intermediate Lift Pumps No. 1 and No. 2 including vortex suppressors, motors, VFDs, and ancillary items and all related appurtenances. Include witness factory test.	\$18,472,000.00	\$15,800,000.00
#2-8	Remove and replace purge blowers with new, including all associated piping, valves, instruments, supports, insulation, controls, electrical and wiring	\$6,105,000.00	\$5,800,000.00
#2-9	Provide new Bay 10 CO2 stripping blowers (at 5,280 scfm), including all associated piping, valves, instruments, supports, insulation, controls, electrical and wiring	\$1,495,000.00	\$1,300,000.00

#2-10	Remove and replace 12" dia. oxygen piping, 316 SS welded, including all fittings and supports	\$1,260,000.00	\$1,462,500.00
#2-11	Remove and replace 24" dia. oxygen bypass piping, 316 SS welded, including all fittings, supports, insulation, SS jacketing, heat tracing and electrical supply	\$0.00	\$0.00
#3-1	Rehabilitation of Existing Aeration Basin Buildings (CMU and brickwork)	\$159,000.00	\$145,000.00
#3-2	Bulkheading and other temporary measures required to maintain plant operation and to complete the Work	\$850,000.00	\$875,000.00
#3-3	Demolition and disposal - Aeration Basin No. 1 and associated channels, chambers and vaults	\$4,000,000.00	\$4,100,000.00
#3-4	Demolition and disposal - Aeration Basin No. 2 and associated channels, chambers and vaults	\$4,750,000.00	\$4,850,000.00
#3-5	Civil Work - Aeration Basin No. 1 and related areas, and appurtenances	\$625,000.00	\$590,000.00
#3-6	Civil Work - Aeration Basin No. 2 and related areas, and appurtenances	\$1,610,000.00	\$1,575,000.00
#3-7	Structural Work - Aeration Basin No. 1 and related areas, and appurtenances	\$5,510,000.00	\$5,475,000.00
#3-8	Structural Work - Aeration Basin No. 2 and related areas, and appurtenances	\$8,676,000.00	\$8,650,000.00
#3-9	Architectural Work - Aeration Basin No. 1 and related areas, and appurtenances	\$5,483,000.00	\$5,450,000.00
#3-10	Architectural Work - Aeration Basin No. 2 and related areas, and appurtenances	\$5,210,000.00	\$5,200,000.00
#3-11	HVAC Work - Aeration Basin No. 1 and related areas, and appurtenances	\$8,070,000.00	\$5,200,000.00
#3-12	HVAC Work - Aeration Basin No. 2 and related areas, and appurtenances	\$2,835,000.00	\$2,300,000.00
#3-13	All other civil/structural/architectural Work including without limitation work at existing VFD, Metering, ILP 1 & 2 electrical/mechanical room, Electrical Buildings No. 1, 6A, 6B and 7, and exterior work, as well as all repairs, rehabilitation, demolition and new construction not expressly included in Unit Price items # 2-1 through # 2-15 or Lump Sum items # 3-1 through #3-12.	\$3,000,000.00	\$2,900,000.00
#3-14	Remove and Replace Pipe Supports with new 316 S.S. Stainless Steel Supports	\$0.00	\$0.00

#3-15	Furnish and install slide gates, sluice gates, weir gates, knife gates, valves 12" or larger in size, and actuators	\$8,685,000.00	\$12,275,000.00
#3-16	Furnish and install piping and valves, actuators, supports, heat trace and insulation (and electrical supply), vents, drains, baffle hoods, and all fixtures and appurtenances not included in Unit Price Items # 2-10 through #2-15 or Lump Sum Items #3-16 through #3-18	\$1,835,000.00	\$2,500,000.00
#3-17	Furnish and install ILP Small Piping Modification (2" and 4" cooling water pipes)	\$1,920,000.00	\$1,900,000.00
#3-18	Furnish and install Small Bore PVC/CPVC Piping Modifications (1-1/4", 2-1/2", 1", 2" Water/Drain/Air/Sample pipes)	\$100,000.00	\$128,000.00
#3-19	Furnish and install fire protection, associate piping and fittings, pipe supports, heat trace, insulation, and all fixtures and appurtenances	\$0.00	\$0.00
#3-20	Furnish and install all other mechanical work (emergency shower/eye wash), and appurtenances such as sump pumps, etc.	\$1,060,000.00	\$1,250,000.00
#3-21	Furnish and install 13.8 kV/4.16 kV power transformers D and E with protective relays and all other appurtenances	\$3,600,000.00	\$3,800,000.00
#3-22	Furnish and install motor control centers, 480V VFDs, 480V transformers, panels, instrumentation, monitoring, motor starters, contactors, circuit breakers, disconnect switches, surge suppressors, control panels, uninterruptable power supplies, and other electrical equipment, modifications and rehabilitation	\$12,500,000.00	\$13,050,000.00
#3-23	Other electrical work including all raceway, fittings, supports, wiring, fiber optics, connections, boxes, lighting, switches, 120 v. receptacles, welding receptacles, heat tracing, heaters, lighting poles, bonding, grounding, lightning protection, telephone terminal board, timeclocks, batteries, fire alarms, and other items, equipment and devices.	\$9,845,000.00	\$10,250,000.00
#3-24	Furnish and install new open channel flow meters and magnetic flow meters	\$1,760,000.00	\$1,750,000.00
#3-25	Furnish and install new DCS equipment, I/O, HMIs, software, programming, integration, alarms, control algorithms, historicization, graphics, reports and documentation	\$3,325,000.00	\$3,350,000.00
#3-26	Furnish and install new instruments, probes, controls, indicators, instrumentation panels, automatic samplers, gas monitoring systems (including Hydrocarbon, H2S, and Oxygen), instrument piping, tubing, valves and supports, testing, calibration, documentation and all other I&C Work. Remove and replace existing sample ports. Provide additional sample ports for future use as directed by GLWA.	\$4,850,000.00	\$4,275,000.00
#3-27	Construction mobilization and demobilization	\$6,000,000.00	\$6,000,000.00

#3-28	Bonds, liability insurance, and builder's risk/installation floater insurance premiums	\$2,865,000.00	\$3,250,000.00
#3-29	Start-up, Commissioning and Testing	\$810,000.00	\$750,000.00
#3-30	Spare Parts	\$200,000.00	\$200,000.00
#3-31	Final Clean-up	\$45,000.00	\$45,000.00
#3-32	Non-manual labor, general conditions and all other Contract Work, obligations costs and mark-ups not included in Items # 1-1 through # 3-27 above.	\$0.00	\$0.00
#4-1	Provisionary allowance for GLWA-authorized remediation of hazardous materials excluding lead paint included in Contract Work (Allowance Item - \$250,000.00)	\$250,000.00	\$250,000.00
#4-2	Provisionary allowance for Underground Yard Pipelines (4", 6", 8", 10", 12", 48", 60" DIP) (Allowance Item - \$250,000.00)	\$250,000.00	\$250,000.00
#4-3	Provisionary allowance for rerouting of electrical conduit and wiring through the existing Meter Vault (Allowance Item - \$1,000,000.00)	\$1,000,000.00	\$1,000,000.00
#4-4	Provisionary allowance for GLWA-authorized additional work required due to materially differing conditions (Allowance Item - \$2,000,000.00)	\$2,000,000.00	\$3,500,000.00
#4-5	Provisionary allowance for GLWA-authorized changes (Allowance Item - \$7,000,000.00)	\$7,000,000.00	\$7,000,000.00
	Provisionary Allowance for Security at Aeration Basin 1 & 2	\$0.00	\$500,000.00
	Interim milestone date revision, but final completion date remains the same	\$0.00	(\$915,000.00)
	Replace Bay 10B splash mixer with just a mixer no aeration	\$0.00	(\$375,000.00)
	Delete step-feed flow measurement	\$0.00	(\$1,415,000.00)
	Total	\$210,792,000.00	\$209,880,500.00