



Final Estimate

Mark Holmes

F.H. Paschen

20-16 - 2020 City of Aurora JOC F.H. Paschen - Basic Contract Year -

10/01/2020 to 9/30/2021

Aurora PD Cooling Tower - 4623-019

Estimator: Mark Holmes

Summary of tagged estimates...

Division Summary (MF04)

01 - General Requirements	\$9,238.00
02 - Existing Conditions	\$1,725.00
03 - Concrete	
04 - Masonry	
05 - Metals	\$3,849.00
06 - Wood, Plastics, and Composites	\$3,500.00
07 - Thermal and Moisture Protection	\$2,343.60
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	\$3,580.35
25 - Integrated Automation	

Totalling Components

Priced Line Items	\$97,374.75
RSMeans CHICAGO, IL CCI 2021Q1, 121.60%	\$21,032.95

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	\$68,950.00
Trades	\$4,188.80
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$97,374.75

2020 City of Aurora JOC F.H. Paschen Standard (-7.0000%)	\$(8,288.54)
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Grand Total

\$110,119.16

Estimator: Mark Holmes

Alternate 1

Division Summary (MF04)

01 - General Requirements
02 - Existing Conditions
03 - Concrete
04 - Masonry
05 - Metals
06 - Wood, Plastics, and Composites
07 - Thermal and Moisture Protection
08 - Openings
09 - Finishes
10 - Specialties
11 - Equipment
12 - Furnishings
13 - Special Construction
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21 - Fire Suppression
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23 - Heating, Ventilating, and Air-Conditioning (HVAC)
25 - Integrated Automation

Totalling Components

Priced Line Items	\$7,361.00
RSMeans CHICAGO, IL CCI 2021Q1, 121.60%	\$1,589.98

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	\$6,545.00
Trades	\$816.00
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$7,361.00

2020 City of Aurora JOC F.H. Paschen Standard (-7.0000%)	\$(626.57)
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Estimate Grand Total**\$8,324.41**

Final Estimate

Estimator: Mark Holmes

Alternate 1

Item	Description	UM	Quantity	Unit Cost	Total	Book
Alternate						
1 05-51-33-23-1440	Ladder, shop fabricated, alternating tread, 68-degree incline, steel, 14' vertical rise, 281 lb, stainless Material only. Furnish second access ladder identical to existing ladder on opposite side of Service Platform.	Ea.	1.0000	\$6,545.00	\$6,545.00	CUSTOM M, O&P
Alternate Total					\$6,545.00	
Trades						
2 SHEE	Sheet Metal Workers - 2021 RSMeans Facilities O&P Rate Labor to install second access ladder identical to existing ladder on opposite side of Service Platform.	Hour	8.0000	\$102.00	\$816.00	Trades L, O&P
Trades Total					\$816.00	
Estimate Grand Total					8,324.41	

Final Estimate

Estimator: Mark Holmes

Alternate 2

Totalling Components

Priced Line Items	\$843.20	2020 City of Aurora JOC F.H. Paschen Standard (-7.0000%)	\$(71.77)
RMeans CHICAGO, IL CCI 2021Q1, 121.60%	\$182.13		
Estimate Grand Total			\$953.56

Final Estimate

Estimator: Mark Holmes

Alternate 2

Item	Description	UM	Quantity	Unit Cost	Total	Book
Trades						
1 STPI	Steamfitters or Pipefitters - 2021 RSMeans Facilities O&P Rate Labor for inspecting mechanical drive system including bearings, fan belt, fan, motor, and mechanical supports. Labor to grease bearings and tighten belts.	Hour	8.0000	\$105.40	\$843.20	Trades L, O&P
Trades Total						\$843.20
Estimate Grand Total						953.56

Final Estimate

Estimator: Mark Holmes

Aurora PD Cooling Tower

Division Summary (MF04)

01 - General Requirements	\$9,238.00
02 - Existing Conditions	\$1,725.00
03 - Concrete	
04 - Masonry	
05 - Metals	\$3,849.00
06 - Wood, Plastics, and Composites	\$3,500.00
07 - Thermal and Moisture Protection	\$2,343.60
08 - Openings	
09 - Finishes	
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	\$3,580.35
25 - Integrated Automation	

Totalling Components

Priced Line Items	\$89,170.55
RSMeans CHICAGO, IL CCI 2021Q1, 121.60%	\$19,260.84

26 - Electrical	
27 - Communications	
28 - Electronic Safety and Security	
31 - Earthwork	
32 - Exterior Improvements	
33 - Utilities	
34 - Transportation	
35 - Waterway and Marine Transportation	
41 - Material Processing and Handling Equipment	
44 - Pollution Control Equipment	
46 - Water and Wastewater Equipment	
48 - Electric Power Generation	
Alternate	\$62,405.00
Trades	\$2,529.60
Assemblies	
FMR	
MF04 Total (Without totalling components)	\$89,170.55

2020 City of Aurora JOC F.H. Paschen Standard (-7.0000%)	\$(7,590.20)
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Estimate Grand Total

\$100,841.19

Final Estimate

Estimator: Mark Holmes

Aurora PD Cooling Tower

Item	Description	UM	Quantity	Unit Cost	Total	Book
01 - General Requirements						
1 01-21-53-50-1750-L	Cost adjustment factors, protection of existing work, add to construction costs for particular job requirements, maximum Protection of existing surfaces during construction.	Costs	110,000.0000	7.0000%	\$7,700.00	RSM20MCOM L, O&P
2 01-54-33-40-5720-2	Rent per day for rent sandblaster, portable, open top 3 cubic feet capacity Sand blasting equipment for 5 days.	Ea.	5.0000	\$145.20	\$726.00	RSM20MCOM E, O&P
3 01-54-33-40-5740-2	Rent per day for rent sandblaster accessories Sand blasting equipment accessories for 5 days.	Ea.	5.0000	\$26.40	\$132.00	RSM20MCOM E, O&P
4 01-54-36-50-1300	Mobilization or demobilization, delivery charge for equipment, hauled on 3-ton capacity towed trailer Mobilize and demobilize equipment and tools.	Ea.	2.0000	\$340.00	\$680.00	RSM20MCOM L, E, O&P
01 - General Requirements Total					\$9,238.00	
02 - Existing Conditions						
5 02-41-19-19-3040	Selective demolition, rubbish handling, 50' haul, loading & trucking, hand loading truck, cost to be added to demolition cost Hauling of construction debris.	C.Y.	30.0000	\$57.50	\$1,725.00	RSM20MCOM L, E, O&P
02 - Existing Conditions Total					\$1,725.00	
05 - Metals						
6 05-01-10-51-6265	Metal cleaning, steel surface treatment, 9.0 lb sand per S.F., near white blast, existing coat blistered/pitted (SSPC-SP10) Sandblasting of cooling tower to near white metal with Garnet Stone. Interior plenum walls not included.	S.F.	250.0000	\$13.50	\$3,375.00	RSM20MCOM M, L, E, O&P
7 05-12-23-65-2100	Steel plate, 1/4" T, warehouse price, no shop fabrication Material only. Furnish G-235 galvanized steel to patch over any holes in the steel.	S.F.	60.0000	\$7.90	\$474.00	RSM20MCOM Grn, M, O&P
05 - Metals Total					\$3,849.00	
06 - Wood, Plastics, and Composites						
8 06-52-10-30-1080	Fiberglass grating, molded, orange (for highly corrosive environment), 1-1/2" square mesh, 1" thick Furnish and install non-corrosive fiber glass fill support grid to elevate the fill 6"-8" above the basin floor.	S.F.	140.0000	\$25.00	\$3,500.00	RSM20MCOM M, L, O&P
06 - Wood, Plastics, and Composites Total					\$3,500.00	
07 - Thermal and Moisture Protection						
9 07-92-13-20-3850	Joint sealants, caulking and sealants, polyurethane, bulk, in place, 1 or 2 component, 3/4" x 3/4" Apply caulk to all prepared seams. Apply primer and CIM 2000 elastomeric polyurethane membrane liner to prepared areas.	L.F.	540.0000	\$4.34	\$2,343.60	RSM20MCOM M, L, O&P

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Aurora PD Cooling Tower

07 - Thermal and Moisture Protection

Item	Description	UM	Quantity	Unit Cost	Total	Book
07 - Thermal and Moisture Protection Total						\$2,343.60

23 - Heating, Ventilating, and Air-Conditioning (HVAC)

10	23-05-93-50-0160	Pipe testing, nondestructive hydraulic pressure test, isolate, 1 hour hold, 1" to 4" pipe, 250-500 LF Line item used for testing of towers for proper operation.	Ea.	1.0000	\$980.00	\$980.00	RSM20MCOM L, O&P
11	23-05-93-50-0160-1120	Labor adjustment factor (mechanical), general, 20' to 24.5' high, add to labor for elevated installation (above floor level), for Division 21, 22 and 23 only (Modified using 22-01-02-20-1120) Line item used for testing of towers for proper operation.	Ea.	1.0000	\$163.75	\$163.75	RSM20MCOM L, O&P
12	23-37-15-40-2000	Louver, aluminum, extruded, with screen, mill finish, cooling tower and mechanical equipment, screens, light weight Line item used for furnish and install new galvanized steel air inlet louver supports. Supports to be etched and coated with the rest of the cooling tower. Existing air inlet louvers to be re-used.	S.F.	60.0000	\$37.50	\$2,250.00	RSM20MCOM M, L, O&P
13	23-37-15-40-2000-1120	Labor adjustment factor (mechanical), general, 20' to 24.5' high, add to labor for elevated installation (above floor level), for Division 21, 22 and 23 only (Modified using 22-01-02-20-1120) Line item used for furnish and install new galvanized steel air inlet louver supports. Supports to be etched and coated with the rest of the cooling tower. Existing air inlet louvers to be re-used.	S.F.	60.0000	\$3.11	\$186.60	RSM20MCOM L, O&P
23 - Heating, Ventilating, and Air-Conditioning (HVAC) Total							\$3,580.35

Alternate

14	23-00-00-00-0001	Replacement parts for cooling tower Material only. Furnish replacement cooling tower parts: hot water basin, distribution box, steel covers, new strainer, and all valves. Also includes new high efficiency bottom supported PVC fill & drift eliminators, as well as associated angles, seals, and diverters to seal new fill.	LSUM	1.0000	\$41,445.00	\$41,445.00	CUSTOM B
15	23-21-20-74-2640	Demo - Strainer, basket type, perforated stainless steelbasket, brass or monel available, simplex style, bronze body, flanged, 3" pipe size Line item used for removal of anti-vortex hood and strainers. Set aside for re-use.	Ea.	2.0000	\$380.00	\$760.00	CUSTOM L, O&P
16	23-65-13-10-6160	R&R - Cooling tower, packaged unit, stainless steel, induced draft, crossflow, vertical, belt drive, 126 ton, includes standard controls, excludes pumps and piping Labor only. Install replacement cooling tower parts: hot water basin, distribution box, steel covers, new strainer, and all valves. Also includes installation of new high efficiency bottom supported PVC fill & drift eliminators, as well as associated angles, seals, and diverters to seal new fill.	Ea.	1.0000	\$20,200.00	\$20,200.00	CUSTOM L, O&P
Alternate Total							\$62,405.00

Trades

17	STPI	Steamfitters or Pipefitters - 2021 RSMeans Facilities O&P Rate Labor to apply G-235 galvanized steel patch over any holes in the steel. Labor to reinstall existing air inlet louvers, anti-vortex hood, and strainers. Labor to reconnect existing piping to new hot water basins.	Hour	24.0000	\$105.40	\$2,529.60	Trades L, O&P
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Aurora PD Cooling Tower

Trades

Item	Description	UM	Quantity	Unit Cost	Total	Book
	Trades Total					\$2,529.60
			Estimate Grand Total			100,841.19