



**Preliminary Estimate, by line item**

Michael Pompa

Alpha Building Corporation

2015-01-15-0013 - City of San Antonio Job Order Contract - First Option -

1/15/2016 to 1/14/2017

COSA Building 1039 HVAC Ductwork Remodel - 161215-01

**Estimator: Michael Pompa**

**Summary of tagged estimates...**

**Division Summary (MF04)**

01 - General Requirements	\$101,521.73
02 - Existing Conditions	\$5,100.00
03 - Concrete	
04 - Masonry	
05 - Metals	\$1,597.02
06 - Wood, Plastics, and Composites	
07 - Thermal and Moisture Protection	\$19,328.00
08 - Openings	
09 - Finishes	\$70,004.00
10 - Specialties	
11 - Equipment	
12 - Furnishings	
13 - Special Construction	
14 - Conveying Equipment	
21 - Fire Suppression	
22 - Plumbing	
23 - Heating, Ventilating, and Air-Conditioning (HVAC)	\$288,064.49

**Totalling Components**

RS Means Subtotal	\$601,315.80
RSMMeans SAN ANTONIO, TX CCI 2016Q3, 84.30%	\$(94,406.58)

26 - Electrical	\$545.20
27 - Communications	\$770.00
28 - Electronic Safety and Security	\$4,680.00
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	\$109,705.36
Trades	
Assemblies	
FMR	
<b>MF04 Total (Without totalling components)</b>	<b>\$601,315.80</b>

JOC Coefficient Standard (-33.0000%)	\$(167,280.04)
--------------------------------------	----------------

**Priced/Non-Priced**

Total Priced Items:	169	\$601,315.80	
Total Non-Priced Items:	0	\$0.00	0.00%
	169	\$601,315.80	

**Grand Total \$339,629.18**

# Preliminary Estimate, by line item

**Estimator: Michael Pompa** **Combined estimates...**

Item	Description	UM	Quantity	Unit Cost	Total	Book
<b>01 - General Requirements</b>						
1	01-21-53-50-0850-L Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  LABOR COST ADJUSTMENT FOR HVAC DUST PROTECTION	Costs	134,060.5700	11.0000%	\$14,746.66	RSM17eFAC P
2	01-21-53-50-0850-L Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  LABOR COST ADJUSTMENT FOR FINISHES DUST PROTECTION	Costs	39,126.5200	11.0000%	\$4,303.92	RSM17eFAC P
3	01-21-53-50-0850-L Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  LABOR COST ADJUSTMENT FOR ELECTRICAL DUST PROTECTION	Costs	12,912.0300	11.0000%	\$1,420.32	RSM17eFAC P
4	01-21-53-50-0850-M Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  MATERIAL COST ADJUSTMENT FOR HVAC DUST PROTECTION	Costs	12,175.4400	4.0000%	\$487.02	RSM17eFAC P
5	01-21-53-50-0850-M Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  MATERIAL COST ADJUSTMENT FOR FINISHES DUST PROTECTION	Costs	25,863.3200	4.0000%	\$1,034.53	RSM17eFAC P
6	01-21-53-50-0850-M Factors, cost adjustments, add to construction costs for particular job requirements, dust protection, add, maximum  MATERIAL COST ADJUSTMENT FOR ELECTRICAL DUST PROTECTION	Costs	1,229.3800	4.0000%	\$49.18	RSM17eFAC P
7	01-21-53-50-2000-L Factors, cost adjustments, add to construction costs for particular job requirements, shift work requirements, add, minimum  LABOR COST ADJUSTMENT FOR ELECTRICAL NIGHT LABOR.	Costs	12,912.0300	5.0000%	\$645.60	RSM17eFAC P
8	01-21-53-50-2000-L Factors, cost adjustments, add to construction costs for particular job requirements, shift work requirements, add, minimum  LABOR COST ADJUSTMENT FOR FINISHES NIGHT LABOR.	Costs	39,126.5200	5.0000%	\$1,956.33	RSM17eFAC P
9	01-21-53-50-2050-L Factors, cost adjustments, add to construction costs for particular job requirements, shift work requirements, add, maximum  COST ADJUSTMENT FOR HVAC NIGHT AND WEEKEND LABOR.	Costs	134,060.5700	30.0000%	\$40,218.17	RSM17eFAC P
10	01-31-13-20-0020 Field personnel, clerk, average  CLERK	Week	3.0000	\$770.00	\$2,310.00	RSM17eFAC P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

**01 - General Requirements**

Item	Description	UM	Quantity	Unit Cost	Total	Book
11 01-31-13-20-0200	Field personnel, project manager, average  PROJECT MANAGER	Week	3.0000	\$3,900.00	\$11,700.00	RSM17eFAC P
12 01-31-13-20-0260	Field personnel, superintendent, average  SUPERINTENDENT	Week	6.0000	\$3,625.00	\$21,750.00	RSM17eFAC P
13 01-41-26-50-0020	Permits, rule of thumb, most cities, minimum  HVAC PERMIT	Job	180,000.0000	0.5000%	\$900.00	RSM17eFAC P
<b>01 - General Requirements Total</b>					<b>\$101,521.73</b>	

**02 - Existing Conditions**

14 02-41-19-19-0840	Selective demolition, rubbish handling, the following are to be added to the demolition prices. Dumpster, weekly rental, includes one dump per week, 40 C.Y. capacity, 10 tons  DUMPSTER	Week	6.0000	\$850.00	\$5,100.00	RSM17eFAC P
<b>02 - Existing Conditions Total</b>					<b>\$5,100.00</b>	

**05 - Metals**

15 05-05-19-20-4200	Expansion anchors, anchors for concrete, brick or stone, no layout and drilling, nailing anchors, nylon nailing anchor, 1/4" diameter, 1-1/2" long  SELF DRILLING THREADED ANCHOR	C	6.0000	\$259.00	\$1,554.00	RSM17eFAC P
16 05-05-19-20-8050	Expansion anchors, anchors for concrete, brick or stone, no layout and drilling, wedge anchors, carbon steel, 1/4" diameter, 1-3/4" long  WEDGE ANCHOR	Ea.	9.0000	\$4.78	\$43.02	RSM17eFAC P
<b>05 - Metals Total</b>					<b>\$1,597.02</b>	

**07 - Thermal and Moisture Protection**

17 07-21-16-10-3010	Blanket insulation for floors/ceilings, including spring type wire fasteners, fiberglass, blankets or batts, unfaced, 6-1/4" thick, R19  INSULATION FOR NEW ACOUSTICAL CEILING	S.F.	10,800.0000	\$1.73	\$18,684.00	RSM17eFAC P
18 07-21-16-10-9000	Blanket insulation for floors/ceilings, minimum labor/equipment charge  MINIMUM LABOR & EQUIPMENT CHARGE	Job	4.0000	\$161.00	\$644.00	RSM17eFAC P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

**07 - Thermal and Moisture Protection**

Item	Description	UM	Quantity	Unit Cost	Total	Book
<b>07 - Thermal and Moisture Protection Total</b>						<b>\$19,328.00</b>

**09 - Finishes**

19	09-51-23-30-0700	Suspended ceilings, complete, including standard, suspension system, excluding S.F. 1-1/2" carrier channels, fiberglass ceiling board, offices, 2' x 4' x 3/4"		10,800.0000	\$5.50	\$59,400.00 RSM17eFAC	P
NEW ACOUSTICAL CEILNG							
20	09-51-53-10-9000	Ceiling tile, minimum labor/equipment charge		4.0000	\$161.00	\$644.00 RSM17eFAC	P
MINIMUM LABOR AND EQUIPMENT CHARGE							
21	09-53-23-30-3420	Ceiling suspension systems, seismic ceiling bracing, IBC Site Class D, Occupancy Category II, wire support for light fixtures, per L.F. height to structure above, 10 lbs. to 56 lbs.	L.F.	3,000.0000	\$3.32	\$9,960.00 RSM17eFAC	P
WIRE SUPPORT FOR LIGHT FIXTURES							
<b>09 - Finishes Total</b>						<b>\$70,004.00</b>	

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

22	23-05-05-10-1600	HVAC demolition, ductwork, fiberglass, prefabricated		1,400.0000	\$3.31	\$4,634.00 RSM17eFAC	P
HVAC DUCTWORK DEMOLITION							
23	23-05-05-10-1600-1080	Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	L.F.	1,000.0000	\$0.21	\$210.00 RSM17eFAC	P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.							
24	23-05-05-10-1600-1100	Labor adjustment factors, add to labor for elevated installation, above floor level, 15' to 19.5' high (Modified using 22-01-02-20-1100)	L.F.	400.0000	\$0.42	\$168.00 RSM17eFAC	P
MODIFIER FOR HVAC WORK DONE 15' - 19.5' HIGH.							
25	23-05-05-10-1600-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	1,200.0000	\$0.52	\$624.00 RSM17eFAC	P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.							
26	23-05-05-10-1600-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	840.0000	\$0.73	\$613.20 RSM17eFAC	P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.							
27	23-05-05-10-1600-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	1,200.0000	\$0.31	\$372.00 RSM17eFAC	P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
MODIFIER FOR WORK DONE IN CONGESTED AREA.						
28	23-05-05-10-1610 HVAC demolition, ductwork, flex, prefabricated	L.F.	400.0000	\$2.64	\$1,056.00	RSM17eFAC P
DEMO OF EXISTING FLEX DUCT WORK						
29	23-05-05-10-1610-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	L.F.	150.0000	\$0.17	\$25.50	RSM17eFAC P
MODIFIER FOR HVAC WORK 10' 14.5' HIGH.						
30	23-05-05-10-1610-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	150.0000	\$0.42	\$63.00	RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
31	23-05-05-10-1610-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	150.0000	\$0.58	\$87.00	RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.						
32	23-05-05-10-1610-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	150.0000	\$0.25	\$37.50	RSM17eFAC P
MODIFIER FOR WORK DONE IN CONGESTED AREA.						
33	23-05-05-10-1640 HVAC demolition, diffusers, registers or grills, 21 thru 36" maximum dimension	Ea.	66.0000	\$20.50	\$1,353.00	RSM17eFAC P
DEMO FOR DIFFUSERS						
34	23-05-05-10-1640-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	40.0000	\$1.29	\$51.60	RSM17eFAC P
MODIFIER FOR HVAC WORK 10' - 14.5' HIGH						
35	23-05-05-10-1640-1100 Labor adjustment factors, add to labor for elevated installation, above floor level, 15' to 19.5' high (Modified using 22-01-02-20-1100)	Ea.	26.0000	\$2.58	\$67.08	RSM17eFAC P
MODIFIER FOR HVAC WORK 15'-19.5' HIGH.						
36	23-05-05-10-1640-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	66.0000	\$3.23	\$213.18	RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
37	23-05-05-10-1640-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	66.0000	\$1.94	\$128.04	RSM17eFAC P
MODIFIER FOR WORK DONE IN CONGESTED AREA.						

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
38	23-05-93-10-3000 Balancing, air, subcontractor's quote including material and labor, supply, return, exhaust, registers and diffusers, average height ceiling	Ea.	75.0000	\$84.00	\$6,300.00	RSM17eFAC P
TESTING AND BALANCING OF HVAC SYSTEM						
39	23-05-93-10-3100 Balancing, air, subcontractor's quote including material and labor, supply, return, exhaust, registers and diffusers, high ceiling	Ea.	20.0000	\$126.00	\$2,520.00	RSM17eFAC P
MULTIPLIER FOR TESTING AND BALANCING HIGH CEILING AREAS.						
40	23-07-13-10-3180 Duct thermal insulation, ductwork, blanket type, fiberglass, flexible, FRK vapor barrier wrap, .75 lbs. density, 2" thick	S.F.	4,000.0000	\$4.59	\$18,360.00	RSM17eFAC P
2" THICK INSULATION WRAP						
41	23-07-13-10-3180-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	S.F.	2,680.0000	\$0.26	\$696.80	RSM17eFAC P
MODIFIER FOR HVAC WORK 10' - 14.5 HIGH.						
42	23-07-13-10-3180-1100 Labor adjustment factors, add to labor for elevated installation, above floor level, 15' to 19.5' high (Modified using 22-01-02-20-1100)	S.F.	1,320.0000	\$0.53	\$699.60	RSM17eFAC P
MODIFIER FOR HVAC WORK 15' - 19.5' HIGH.						
43	23-07-13-10-3180-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	S.F.	4,000.0000	\$0.66	\$2,640.00	RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
44	23-07-13-10-3180-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	S.F.	2,000.0000	\$0.92	\$1,840.00	RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT						
45	23-07-13-10-3180-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	S.F.	4,000.0000	\$0.40	\$1,600.00	RSM17eFAC P
MODIFIER FOR WORK DONE IN CONGESTED AREA.						
46	23-09-23-10-0120 Control components/DDC systems, subcontractor's quote including material and labor, analog inputs, sensors, average 50' run in 1/2" EMT, duct temperature	Ea.	4.0000	\$415.00	\$1,660.00	RSM17eFAC P
ANALOG SENSOR FOR SUPPLY AIR TEMP.						
47	23-09-23-10-0130 Control components/DDC systems, subcontractor's quote including material and labor, analog inputs, sensors, average 50' run in 1/2" EMT, space temperature	Ea.	4.0000	\$665.00	\$2,660.00	RSM17eFAC P
ANALOG SENSOR FOR SPACE TEMP.						

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
48 23-09-23-10-0180	Control components/DDC systems, subcontractor's quote including material and labor, analog inputs, sensors, average 50' run in 1/2" EMT, K.W. or transducer	Ea.	4.0000	\$1,350.00	\$5,400.00	RSM17eFAC P
	ANALOG SENSOR FOR SUPPLY FAN AMPS.					
49 23-09-23-10-2120	Control components/DDC systems, subcontractor's quote including material and labor, status alarms, digital inputs, average 50' run in 1/2" EMT, fire	Ea.	4.0000	\$395.00	\$1,580.00	RSM17eFAC P
	DIGITAL SENSOR FOR FIRE ALARM.					
50 23-09-23-10-2220	Control components/DDC systems, subcontractor's quote including material and labor, status alarms, digital outputs, average 50' run in 1/2" EMT, on/off, maintained contact	Ea.	20.0000	\$585.00	\$11,700.00	RSM17eFAC P
	BINARY OUTPUTS FOR AHUs.					
51 23-09-23-10-3229	Control components/DDC systems, subcontractor's quote including material and labor, D.D.C. controller, average 50' run in conduit, mechanical room, including 120 volt single phase power supply, software programming and checkout, 32 point controller	Ea.	5.0000	\$5,425.00	\$27,125.00	RSM17eFAC P
	DDC CONTROL FOR CENTRAL HUB AND AHUs 1 - 4.					
52 23-31-13-13-0580	Rectangular metal ducts, fabricated rectangular, including approximately 25% fittings, joints, supports, allowance for flexible connections and field sketches, excluding as-built drawings and insulation. Fabrication and installation are combined as labor cost, galvanized steel, over 5,000 lbs.	Lb.	13,000.0000	\$7.80	\$101,400.00	RSM17eFAC P
	NEW GALVANIZED STEEL DUCTWORK					
53 23-31-13-13-0580-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Lb.	6,500.0000	\$1.60	\$10,400.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
54 23-31-13-13-1060-0052	Rectangular metal ducts, add to labor for elevated installation of fabricated ductwork, 10' to 15' high (Modified using 23-31-13-13-0052)	Lb.	9,000.0000	\$0.33	\$2,970.00	RSM17eFAC P
	MODIFIER FOR AREAS 10'-15' HIGH					
55 23-31-13-13-1060-0054	Rectangular metal ducts, add to labor for elevated installation of fabricated ductwork, 20' to 25' high (Modified using 23-31-13-13-0054)	Lb.	4,000.0000	\$0.83	\$3,320.00	RSM17eFAC P
	MODIFIER FOR AREAS 20'-25' HIGH					
56 23-31-13-13-1060-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Lb.	13,000.0000	\$1.39	\$18,070.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
57	23-31-13-13-1060-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Lb.	13,000.0000	\$0.83	\$10,790.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA					
58	23-31-13-16-5420 Round and flat-oval spiral ducts, fabricated round and flat oval spiral, includes hangers, supports and field sketches, spiral preformed, steel, galvanized, straight lengths, maximum 10" static pressure water gauge, 6" diameter, 26 gauge	L.F.	70.0000	\$6.75	\$472.50	RSM17eFAC P
	6" ROUND DUCT					
59	23-31-13-16-5420-1283 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	L.F.	70.0000	\$0.30	\$21.00	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
60	23-31-13-16-5420-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	70.0000	\$0.75	\$52.50	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
61	23-31-13-16-5420-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	70.0000	\$1.05	\$73.50	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
62	23-31-13-16-5420-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	70.0000	\$0.45	\$31.50	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
63	23-31-13-16-5430 Round and flat-oval spiral ducts, fabricated round and flat oval spiral, includes hangers, supports and field sketches, spiral preformed, steel, galvanized, straight lengths, maximum 10" static pressure water gauge, 8" diameter, 26 gauge	L.F.	200.0000	\$9.35	\$1,870.00	RSM17eFAC P
	8" ROUND DUCT					
64	23-31-13-16-5430-1283 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	L.F.	50.0000	\$0.42	\$21.00	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
65	23-31-13-16-5430-1284 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 15' to 20' high (Modified using 23-31-13-16-1284)	L.F.	150.0000	\$0.84	\$126.00	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 15' - 19.5' HIGH.					



# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
66	23-31-13-16-5430-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	200.0000	\$1.05	\$210.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
67	23-31-13-16-5430-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	50.0000	\$1.46	\$73.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
68	23-31-13-16-5430-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	200.0000	\$0.63	\$126.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
69	23-31-13-16-5440 Round and flat-oval spiral ducts, fabricated round and flat oval spiral, includes hangers, supports and field sketches, spiral preformed, steel, galvanized, straight lengths, maximum 10" static pressure water gauge, 10" diameter, 26 gauge	L.F.	100.0000	\$11.65	\$1,165.00	RSM17eFAC P
	10" ROUND DUCT					
70	23-31-13-16-5440-1283 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	L.F.	70.0000	\$0.53	\$37.10	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
71	23-31-13-16-5440-1284 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 15' to 20' high (Modified using 23-31-13-16-1284)	L.F.	30.0000	\$1.05	\$31.50	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 15' - 19.5' HIGH.					
72	23-31-13-16-5440-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	100.0000	\$1.31	\$131.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
73	23-31-13-16-5440-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	100.0000	\$1.84	\$184.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
74	23-31-13-16-5440-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	100.0000	\$0.79	\$79.00	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
75	23-31-13-16-5820 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 6" diameter	Ea.	9.0000	\$18.50	\$166.50	RSM17eFAC P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
6" CONNECTOR						
76	23-31-13-16-5820-1283	Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	Ea.	9.0000	\$0.95	\$8.55 RSM17eFAC P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.						
77	23-31-13-16-5820-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	9.0000	\$2.38	\$21.42 RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
78	23-31-13-16-5820-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	9.0000	\$3.33	\$29.97 RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.						
79	23-31-13-16-5820-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	9.0000	\$1.43	\$12.87 RSM17eFAC P
MODIFIER FOR WORK DONE IN CONGESTED AREA.						
80	23-31-13-16-5840	Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 8" diameter	Ea.	28.0000	\$21.00	\$588.00 RSM17eFAC P
8" CONNECTOR						
81	23-31-13-16-5840-1283	Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	Ea.	10.0000	\$1.07	\$10.70 RSM17eFAC P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.						
82	23-31-13-16-5840-1284	Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 15' to 20' high (Modified using 23-31-13-16-1284)	Ea.	18.0000	\$2.14	\$38.52 RSM17eFAC P
MODIFIER FOR WORK DONE 15' - 20' HIGH.						
83	23-31-13-16-5840-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	28.0000	\$2.68	\$75.04 RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
84	23-31-13-16-5840-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	10.0000	\$3.75	\$37.50 RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.						

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
85	23-31-13-16-5840-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	28.0000	\$1.61	\$45.08	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
86	23-31-13-16-5860 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 10" diameter	Ea.	30.0000	\$23.50	\$705.00	RSM17eFAC P
	10" CONNECTOR					
87	23-31-13-16-5860-1283 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	Ea.	20.0000	\$1.20	\$24.00	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
88	23-31-13-16-5860-1284 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 15' to 20' high (Modified using 23-31-13-16-1284)	Ea.	10.0000	\$2.39	\$23.90	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 15' - 19.5' HIGH.					
89	23-31-13-16-5860-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	30.0000	\$2.99	\$89.70	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
90	23-31-13-16-5860-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	30.0000	\$4.18	\$125.40	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
91	23-31-13-16-5860-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	30.0000	\$1.79	\$53.70	RSM17eFAC P
	MODIFIER FOR LABOR DONE IN CONGESTED AREA.					
92	23-31-13-16-5880 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 12" diameter	Ea.	6.0000	\$31.50	\$189.00	RSM17eFAC P
	12" CONNECTOR					
93	23-31-13-16-5880-1283 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-31-13-16-1283)	Ea.	2.0000	\$1.67	\$3.34	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
94	23-31-13-16-5880-1284 Round and flat-oval spiral ducts, add to labor for elevated installation, of prefabricated purchased ductwork, 15' to 20' high (Modified using 23-31-13-16-1284)	Ea.	4.0000	\$3.34	\$13.36	RSM17eFAC P
	MULTIPLIER FOR HVAC WORK DONE 15' - 19.5' HIGH.					
95	23-31-13-16-5880-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	6.0000	\$4.18	\$25.08	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
96	23-31-13-16-5880-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	2.0000	\$5.85	\$11.70	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
97	23-31-13-16-5880-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	6.0000	\$2.51	\$15.06	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
98	23-31-13-16-5930 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 18" diameter	Ea.	3.0000	\$42.00	\$126.00	RSM17eFAC P
	18" CONNECTOR					
99	23-31-13-16-5940 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, connector, 20" diameter	Ea.	1.0000	\$46.50	\$46.50	RSM17eFAC P
	20" CONNECTOR					
100	23-31-13-16-6620 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, elbow, 90°, 6" diameter	Ea.	4.0000	\$35.00	\$140.00	RSM17eFAC P
	90 BEND 6"					
101	23-31-13-16-6630 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, elbow, 90°, 8" diameter	Ea.	8.0000	\$53.00	\$424.00	RSM17eFAC P
	90 ELBOW 8"					
102	23-31-13-16-6640 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, elbow, 90°, 10" diameter	Ea.	6.0000	\$81.50	\$489.00	RSM17eFAC P
	90 BEND 10"					
103	23-31-13-16-6650 Round and flat-oval spiral ducts, spiral preformed, steel, galvanized, elbow, 90°, 12" diameter	Ea.	6.0000	\$112.00	\$672.00	RSM17eFAC P
	90 ELBOW 12"					

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
104 23-33-46-10-1940	Flexible air ducts, flexible, coated fiberglass fabric on corrosion resistant metal helix, pressure to 12" water gauge, UL-181, insulated, 1" thick, polyethylene jacket, 6" diameter  6" FLEX DUCT	L.F.	70.0000	\$8.50	\$595.00	RSM17eFAC P
105 23-33-46-10-1940-1283	Flexible air ducts, add to labor for elevated installation of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-33-46-10-1283)  MODIFIER FOR HVAC WORK DONE 10' - 14.5'	L.F.	70.0000	\$0.32	\$22.40	RSM17eFAC P
106 23-33-46-10-1940-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)  MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.	L.F.	70.0000	\$0.81	\$56.70	RSM17eFAC P
107 23-33-46-10-1940-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)  MODIFIER FOR WORK DONE IN CRAMPED SHAFT.	L.F.	70.0000	\$1.13	\$79.10	RSM17eFAC P
108 23-33-46-10-1940-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)  MODIFIER FOR WORK DONE IN CONGESTED AREA.	L.F.	70.0000	\$0.48	\$33.60	RSM17eFAC P
109 23-33-46-10-1980	Flexible air ducts, flexible, coated fiberglass fabric on corrosion resistant metal helix, pressure to 12" water gauge, UL-181, insulated, 1" thick, polyethylene jacket, 8" diameter  8" FLEX DUCT	L.F.	170.0000	\$11.55	\$1,963.50	RSM17eFAC P
110 23-33-46-10-1980-1283	Flexible air ducts, add to labor for elevated installation of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-33-46-10-1283)  MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.	L.F.	170.0000	\$0.46	\$78.20	RSM17eFAC P
111 23-33-46-10-1980-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)  MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.	L.F.	170.0000	\$1.16	\$197.20	RSM17eFAC P
112 23-33-46-10-1980-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)  MODIFIER FOR WORK DONE IN CRAMPED SHAFTS.	L.F.	170.0000	\$1.62	\$275.40	RSM17eFAC P
113 23-33-46-10-1980-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	170.0000	\$0.70	\$119.00	RSM17eFAC P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book	
MODIFIER FOR WORK DONE IN CONGESTED AREA.							
114	23-33-46-10-2020	Flexible air ducts, flexible, coated fiberglass fabric on corrosion resistant metal helix, pressure to 12" water gauge, UL-181, insulated, 1" thick, polyethylene jacket, 10" diameter	L.F.	180.0000	\$14.45	\$2,601.00 RSM17eFAC	P
10" FLEX DUCT							
115	23-33-46-10-2020-1283	Flexible air ducts, add to labor for elevated installation of prefabricated purchased ductwork, 10' to 15' high (Modified using 23-33-46-10-1283)	L.F.	180.0000	\$0.60	\$108.00 RSM17eFAC	P
MODIFIER FOR HVAC WORK 10' - 14.5' HIGH.							
116	23-33-46-10-2020-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	L.F.	180.0000	\$1.49	\$268.20 RSM17eFAC	P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.							
117	23-33-46-10-2020-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	L.F.	180.0000	\$2.08	\$374.40 RSM17eFAC	P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.							
118	23-33-46-10-2020-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	L.F.	180.0000	\$0.89	\$160.20 RSM17eFAC	P
MODIFIER FOR WORK DONE IN CONGESTED AREA.							
119	23-33-53-10-3710	Duct liner board, board type, fiberglass liner, 3 lbs. density, no finish, 1-1/2" thick	S.F.	1,200.0000	\$10.25	\$12,300.00 RSM17eFAC	P
DUCT LINER BOARD FOR RETURN DUCTWORK							
120	23-33-53-10-3710-1080	Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	S.F.	1,200.0000	\$0.57	\$684.00 RSM17eFAC	P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.							
121	23-33-53-10-3710-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	S.F.	1,200.0000	\$1.41	\$1,692.00 RSM17eFAC	P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.							
122	23-33-53-10-3710-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	S.F.	1,200.0000	\$1.98	\$2,376.00 RSM17eFAC	P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.							
123	23-33-53-10-3710-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	S.F.	1,200.0000	\$0.85	\$1,020.00 RSM17eFAC	P

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
MODIFIER FOR WORK DONE IN CONGEST AREA.						
124	23-37-13-10-1000	Diffusers, aluminum, opposed blade damper, ceiling, rectangular, 1 to 4 way blow, 6" x 6"	Ea.	9.0000	\$92.00	\$828.00 RSM17eFAC P
6" INLET						
125	23-37-13-10-1000-1080	Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	9.0000	\$2.90	\$26.10 RSM17eFAC P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH						
126	23-37-13-10-1000-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	9.0000	\$7.25	\$65.25 RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
127	23-37-13-10-1000-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	9.0000	\$10.15	\$91.35 RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.						
128	23-37-13-10-1000-5140	Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	9.0000	\$4.35	\$39.15 RSM17eFAC P
MODIFIER FOR WORK DONE IN CONGESTED AREA.						
129	23-37-13-10-1010	Diffusers, aluminum, opposed blade damper, ceiling, rectangular, 1 to 4 way blow, 8" x 8"	Ea.	28.0000	\$113.00	\$3,164.00 RSM17eFAC P
8" INLET						
130	23-37-13-10-1010-1080	Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	14.0000	\$3.10	\$43.40 RSM17eFAC P
MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.						
131	23-37-13-10-1010-1100	Labor adjustment factors, add to labor for elevated installation, above floor level, 15' to 19.5' high (Modified using 22-01-02-20-1100)	Ea.	14.0000	\$6.20	\$86.80 RSM17eFAC P
MODIFIER FOR HVAC WORK DONE 15' - 19.5' HIGH.						
132	23-37-13-10-1010-4140	Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	28.0000	\$7.75	\$217.00 RSM17eFAC P
MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.						
133	23-37-13-10-1010-5100	Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	21.0000	\$10.85	\$227.85 RSM17eFAC P
MODIFIER FOR WORK DONE IN CRAMPED SHAFT.						

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
134	23-37-13-10-1010-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	28.0000	\$4.65	\$130.20	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
135	23-37-13-10-1016 Diffusers, aluminum, opposed blade damper, ceiling, rectangular, 1 to 4 way blow, 10" x 10"	Ea.	24.0000	\$138.00	\$3,312.00	RSM17eFAC P
	10" INLET					
136	23-37-13-10-1016-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	24.0000	\$3.10	\$74.40	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
137	23-37-13-10-1016-4180 Labor adjustment factors, add to labor for working in existing occupied buildings, school (Modified using 22-01-02-20-4180)	Ea.	24.0000	\$6.20	\$148.80	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
138	23-37-13-10-1016-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	24.0000	\$10.85	\$260.40	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					
139	23-37-13-10-1016-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	24.0000	\$4.65	\$111.60	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
140	23-37-13-30-1260 Grilles, aluminum, unless noted otherwise, air return, steel, 24" x 24"	Ea.	3.0000	\$110.00	\$330.00	RSM17eFAC P
	N.L.I. 22 x 22 AIR RETURN GRILLE					
141	23-37-13-30-1260-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	3.0000	\$3.10	\$9.30	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' - 14.5' HIGH.					
142	23-37-13-30-1260-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	3.0000	\$7.75	\$23.25	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
143	23-37-13-30-1260-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	3.0000	\$10.85	\$32.55	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CRAMPED SHAFT.					



# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

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

Item	Description	UM	Quantity	Unit Cost	Total	Book
144	23-37-13-30-1260-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	3.0000	\$4.65	\$13.95	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
145	23-37-13-30-1280 Grilles, aluminum, unless noted otherwise, air return, steel, 36" x 24"	Ea.	5.0000	\$139.00	\$695.00	RSM17eFAC P
	N.L.I. 34 x 22 AIR RETURN GRILLE					
146	23-37-13-30-1280-1080 Labor adjustment factors, add to labor for elevated installation, above floor level, 10' to 14.5' high (Modified using 22-01-02-20-1080)	Ea.	5.0000	\$3.30	\$16.50	RSM17eFAC P
	MODIFIER FOR HVAC WORK DONE 10' -14.5' HIGH.					
147	23-37-13-30-1280-4140 Labor adjustment factors, add to labor for working in existing occupied buildings, office building (Modified using 22-01-02-20-4140)	Ea.	5.0000	\$8.25	\$41.25	RSM17eFAC P
	MODIFIER FOR WORK DONE IN OCCUPIED OFFICE BUILDING.					
148	23-37-13-30-1280-5100 Labor adjustment factors, add to labor, miscellaneous, cramped shaft (Modified using 22-01-02-20-5100)	Ea.	5.0000	\$11.55	\$57.75	RSM17eFAC P
	MODIFIER FOR WORK DON IN CRAMPED SHAFT.					
149	23-37-13-30-1280-5140 Labor adjustment factors, add to labor, miscellaneous, congested area (Modified using 22-01-02-20-5140)	Ea.	5.0000	\$4.95	\$24.75	RSM17eFAC P
	MODIFIER FOR WORK DONE IN CONGESTED AREA.					
150	23-43-13-10-2150 Electronic air cleaners, electronic air cleaner, duct mounted, 1000 CFM	Ea.	4.0000	\$660.00	\$2,640.00	RSM17eFAC P
	N.L.I. PORTABLE HEPA FILTERS					

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

**\$288,064.49**

**26 - Electrical**

151	26-05-19-35-0020 Cable terminations, wire connectors, screw type, #18 to #12	Ea.	2.0000	\$3.00	\$6.00	RSM17eFAC P
	WIRE CONNECTORS					
152	26-05-19-90-1200 Wire, 600 volt, copper type THWN-THHN, stranded, #12	C.L.F.	1.4000	\$75.00	\$105.00	RSM17eFAC P
	#12 THHN/THWN STRANDED COPPER WIRE					
153	26-05-33-13-1162 Conduit, to 10' high, aluminum, field bends, 45° to 90°, 3/4" diameter	Ea.	4.0000	\$14.90	\$59.60	RSM17eFAC P
	FIELD BEND 3/4" EMT					

# Preliminary Estimate, by line item

**Estimator: Michael Pompa**

**Combined estimates...**

**26 - Electrical**

Item	Description	UM	Quantity	Unit Cost	Total	Book
154 26-05-33-13-5020	Conduit, to 10' high, includes 2 terminations, 2 elbows, 11 beam clamps, and 11 couplings per 100 L.F., electric metallic tubing (EMT), 3/4" diameter  3/4" EMT	L.F.	40.0000	\$6.50	\$260.00	RSM17eFAC P
155 26-05-33-13-6220	Conduit, to 10' high, electric metallic tubing (EMT), couplings, set screw, steel, 3/4" diameter  3/4" EMT COUPLING	Ea.	4.0000	\$5.60	\$22.40	RSM17eFAC P
156 26-05-33-13-6520	Conduit, to 10' high, electric metallic tubing (EMT), box connectors, set screw, steel, 3/4" diameter  EMT CONNECTOR	Ea.	4.0000	\$7.85	\$31.40	RSM17eFAC P
157 26-05-33-13-8320	Conduit, to 10' high, electric metallic tubing (EMT), one hole clips, 3/4" diameter  EMT 1-HOLE STEEL STRAP	Ea.	5.0000	\$1.95	\$9.75	RSM17eFAC P
158 26-05-33-16-0220	Boxes for electrical systems, pressed steel, square, 4", 2-1/8" deep, 1" KO  4" OUTLET BOX W/ KNOCKOUT	Ea.	1.0000	\$39.00	\$39.00	RSM17eFAC P
159 26-05-33-16-0250	Boxes for electrical systems, pressed steel, square, 4", covers, blank  4" WIRE BOX COVER	Ea.	1.0000	\$12.05	\$12.05	RSM17eFAC P

**26 - Electrical Total**

**\$545.20**

**27 - Communications**

160 27-11-19-10-3000	Termination blocks and patch panels, patch panel, RJ-45/110 type, 48 ports  48 PORT PATCH PANEL	Ea.	1.0000	\$655.00	\$655.00	RSM17eFAC P
161 27-15-13-13-7244	Communication cables and fittings, high performance unshielded twisted pair (UTP), cable, category 6, #24, 4 pair stranded, PVC jacket  CAT6 CABLE	C.L.F.	1.0000	\$115.00	\$115.00	RSM17eFAC P

**27 - Communications Total**

**\$770.00**

**28 - Electronic Safety and Security**

162 28-31-46-50-5400	Smoke detectors, excluding wires and conduit, smoke detector, duct type  SMOKE DUCT DETECTORS.	Ea.	8.0000	\$585.00	\$4,680.00	RSM17eFAC P
----------------------	--	-----	--------	----------	------------	-------------

Preliminary Estimate, by line item

Estimator: Michael Pompa

Combined estimates...

28 - Electronic Safety and Security

Item	Description	UM	Quantity	Unit Cost	Total	Book
<b>28 - Electronic Safety and Security Total</b>						<b>\$4,680.00</b>

Alternate

163	07-21-16-10-3000	Demo - Blanket insulation for floors/ceilings, including spring type wire fasteners, S.F. fiberglass, blankets or batts, unfaced, 3-1/2" thick, R13 Labor Adjustment: 50% of \$1.07 = \$0.54 ----- Using O&P Pricing Bare Costs: (M:\$0.34 L:\$0.66 E: O:600.00 LH:0.013) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.000%) \$1.44 - \$0.37 - \$0.00 = \$1.07 Labor w/CCI = \$1.07 * 100.000% = \$1.07  DEMO OF EXISTING INSULATION	S.F.	10,800.0000	\$0.54	\$5,832.00	CUSTOM P
-----	------------------	--	------	-------------	--------	------------	----------

164	09-51-23-30-0700	Demo - Suspended ceilings, complete, including standard, suspension system, S.F. excluding 1-1/2" carrier channels, fiberglass ceiling board, offices, 2' x 4' x 3/4" Labor Adjustment: 50% of \$1.70 = \$0.85 ----- Using O&P Pricing Bare Costs: (M:\$3.45 L:\$1.04 E: O:380.00 LH:0.021) O&P Labor Calc = O&P Total - (Bare Material + 10.000%) - (Bare Equipment + 10.000%) \$5.50 - \$3.80 - \$0.00 = \$1.70 Labor w/CCI = \$1.70 * 100.000% = \$1.70  DEMO OF EXISTING CEILING GRID	S.F.	10,800.0000	\$0.85	\$9,180.00	CUSTOM P
-----	------------------	--	------	-------------	--------	------------	----------

165	Crew B-01K	B-01K Crew - 2017 - RSMMeans Repair and Remodling and Facilities O&P B-01K (2017 - RSMMeans Repair and Remodling and Facilities) Labor Hours: 16 Equip Hours: 0 Daily Hours: 16  Crew Details: Code: CARP Description: Carpenters (Inside Foreman) Qty: 1 Hourly: 81.19 Daily: 649.52 Code: CARP Description: Carpenters Qty: 1 Hourly: 80.4 Daily: 643.2  ADDITIONAL MANPOWER FOR FINISHES CREW	Daily	16.0000	\$1,292.72	\$20,683.52	CUSTOM P
-----	------------	--	-------	---------	------------	-------------	----------

166	Crew Q-09	Q-09 Crew - 2017 - RSMMeans Repair and Remodling and Facilities O&P Q-09 (2017 - RSMMeans Repair and Remodling and Facilities) Labor Hours: 16 Equip Hours: 0 Daily Hours: 16  Crew Details:	Daily	0.0000	\$1,321.76		CUSTOM P
-----	-----------	--	-------	--------	------------	--	----------

Preliminary Estimate, by line item

Estimator: Michael Pompa

Combined estimates...

Alternate		Item	Description	UM	Quantity	Unit Cost	Total	Book
			Code: SHEE Description: Sheet Metal Workers Qty: 1 Hourly: 91.8 Daily: 734.4 Code: SHEE Description: Sheet Metal Workers (Apprentice) Qty: 1 Hourly: 73.42 Daily: 587.36					
			ADDITIONAL MANPOWER FOR HVAC CREW					
167	Crew Q-11		Q-11 Crew - 2017 - RSMMeans Repair and Remodling and Facilities O&P Q-11 (2017 - RSMMeans Repair and Remodling and Facilities) Labor Hours: 32 Equip Hours: 0 Daily Hours: 32  Crew Details: Code: SHEE Description: Sheet Metal Workers (Inside Foreman) Qty: 1 Hourly: 92.57 Daily: 740.56 Code: SHEE Description: Sheet Metal Workers Qty: 2 Hourly: 91.8 Daily: 1468.8 Code: SHEE Description: Sheet Metal Workers (Apprentice) Qty: 1 Hourly: 73.42 Daily: 587.36	Daily	21.0000	\$2,796.72	\$58,731.12	CUSTOM P
			ADDITIONAL MANPOWER					
168	Crew R-01A		R-01A Crew - 2017 - RSMMeans Repair and Remodling and Facilities O&P R-01A (2017 - RSMMeans Repair and Remodling and Facilities) Labor Hours: 16 Equip Hours: 0 Daily Hours: 16  Crew Details: Code: ELEC Description: Electricians Qty: 1 Hourly: 87.6 Daily: 700.8 Code: ELEC Description: Electricians (Apprentice) Qty: 1 Hourly: 70.09 Daily: 560.72	Daily	2.0000	\$1,261.52	\$2,523.04	CUSTOM P
			ADDITIONAL MANPOWER					
169	Crew R-01B		R-01B Crew - 2017 - RSMMeans Repair and Remodling and Facilities O&P R-01B (2017 - RSMMeans Repair and Remodling and Facilities) Labor Hours: 24 Equip Hours: 0 Daily Hours: 24  Crew Details: Code: ELEC Description: Electricians Qty: 1 Hourly: 87.6 Daily: 700.8 Code: ELEC Description: Electricians (Apprentice) Qty: 2 Hourly: 70.09 Daily: 1121.44	Daily	7.0000	\$1,822.24	\$12,755.68	CUSTOM P
			LABOR SUSPEND LIGHT FIXTURES AND ADJUST HEIGHT ONCE SUSPENDED CEILING IS IN					
			<b>Alternate Total</b>					<b>\$109,705.36</b>

**Estimate Grand Total 339,629.18**