PROPOSAL SUMMARY
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project:	SAIA LTL FREIGHT - GREENVILLE, SC
Address:	SAIA TERMINAL #GRE 415 FRONTAGE Rd. PIEDMONT, SC 29673
Scope:	HVAC
No. of Floors:	1
Gross Area: (SF)	51962.00
Date:	11/3/2026

DIVISION	DESCRIPTION	MATERIAL COST	LABOR COST	MATERIAL TAX	LABOR TAX	EQUIPMENT COST	TOTAL COST	OVERHEADS	PROFIT	ADDITIONAL COST (If any)	TOTAL
DIV-01	GENERAL REQUIREMENTS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
DIV-02	EXISTING CONDITIONS / DEMOLITION	$ -	$ 204.19	$ -	$ 14.23	$ -	$ 218.42	$ 21.84	$ 21.84	$ -	$ 262.11
DIV-23	HEATING, VENTILATION & AIR CONDITIONING	$ 14,001.15	$ 13,006.87	$ 980.08	$ 906.58	$ -	$ 28,894.69	$ 2,889.47	$ 2,889.47	$ -	$ 34,673.62
	TOTAL	**$ 14,001**	**$ 13,211**	**$ 980**	**$ 921**		**$ 29,113**	**$ 2,911**	**$ 2,911**	**$ -**	**$ 34,936**

BID SUMMARY			
1	**TOTAL MATERIAL COST**		**$ 14,001**
	MATERIAL SALES TAX	**7%**	$ 980
	JOB EXPENSE		$ -
2	**TOTAL LABOR COST**		**$ 13,211**
	LABOR TAX	**7%**	$ 921
3	**TOTAL COST**		**$ 29,113**
	OVERHEADS @	**10%**	$ 2,911
	PROFIT @	**10%**	$ 2,911
4	**TOTAL COST W/ OVERHEADS + PROFIT**		**$ 34,936**
	BOND & INSURANCE	**0%**	$ -
	PROJECT SUPERVISION & PROJECT MANAGEMENT		$ -
	SUBMITTALS, SAMPLES, SHOP DRAWINGS, SITE SAFETY PLAN, ETC.		$ 531
	TEMPORARY FACILITIES & CONTROLS		$ -
	PROJECT SCHEDULE (Primavera P3 or P6)		$ -
	OFFICE OVERHEADS		$ -
	CLOSEOUT PROCEDURES		$ 531
	PERMITS		$ -
	ALLOWANCES		$ -
	MOBILIZATION / DEMOBILIZATION		$ 556
	SUB-CONTRACTS		$ -
	BOND PREMIUM	**0%**	$ -
5	**BASE BID PRICE**		**$ 36,554**

MAN-LOADING AND SUPERVISION ANALYSIS				
1	TOTAL MANHOURS WITH SUPERVISION			453
2	NUMBER OF MAN-DAYS			56.61
3	MAN LOAD			5
4	JOURNEYMAN RATE	3		$ 32.49
5	SUPERVISOR RATE	1		$ 41.39
6	UNSKILLED LABOR RATE	1		$ 21.03
7	COMPOSITE LABOR RATE			$ 31.98
8	WAGE RATE			**$ 34.08**

INSERT VALUES IN RESPECTIVE HIGHLIGHTED CELLS WHERE APPLICABLE



DETAILED TAKEOFF / ESTIMATE
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project Name	SAIA LTL FREIGHT - GREENVILLE, SC	PROJECT COST	$ 29,113
Location	SAIA TERMINAL #GRE 415 FRONTAGE Rd. PIEDMONT, SC 29673	OVERHEAD COST	$ 2,911
Project Scope:	HVAC	PROFIT COST	$ 2,911
Addendum:	N/A	ADDITIONAL COST (If Any)	$ 1,618
Date:	Tuesday, November 3, 2026	**TOTAL BID COST**	**$ 36,554**
	BY OTHERS/ SEPERATE PERMIT/ BY OWNER	NEED QUOTATION	

SR #	DRAWING REF #	DIV	DESCRIPTION	QUANTITY	UNIT	WASTAGE	QUANTITY WITH WASTAGE	UNIT LABOR HOURS	TOTAL LABOR HOURS	UNIT MATERIAL COST	TOTAL MATERIAL COST	UNIT EQUIPMENT COST	TOTAL EQUIPMENT COST	UNIT LABOR COST	TOTAL LABOR COST	TOTAL COST	DIV COST
			GENERAL REQUIREMENTS SUBGROUP WORK														
		DIV-01	**GENERAL REQUIREMENTS**										Labor Rate	$ 21.03			
1		General Conditions	Permit (.07% of project value)	1	fee	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
2		General Conditions	Site development	1	fee	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
3		General Conditions	Variance	1	fee	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
4		General Conditions	Private inspections	1	fee	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
5		General Conditions	Debris haul off	4	load	0%	4.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
6		General Conditions	Site plan	1	Fee	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
						LABOR HOURS		0.000	MATERIAL COST	$ -	EQUIPMENT COST	$ -	LABOR COST	$ -	SUBTOTAL		$ -
		FACILITY CONSTRUCTION SUBGROUP WORK															
		DIV-02	**EXISTING CONDITIONS / DEMOLITION**										Labor Rate	$ 29.17			
			DEMOLITION														
7	M101, M102A, M102B, M102C	Existing Conditions / Demolition	Existing Ceiling Fan To Be Removed, Keep Electrical & Controle Connections For New Fa	7	EA	0%	7.00	1.000	7.0	$ -	$ -	$ -	$ -	$ 29.17	$ 204.19	$ 204.19	
8	M101, M102A, M102B, M102C	Existing Conditions / Demolition	All Existing Duct Work, Air Devices & Equipment's To Be Removed In This Area (3711 SF	1	LS	0%	1.00	0.000	0.0		$ -	$ -	$ -	$ -	$ -	$ -	
						LABOR HOURS		7.000	MATERIAL COST	$ -	EQUIPMENT COST	$ -	LABOR COST	$ 204.19	SUBTOTAL		$ 204.19
			FACILITY SERVICES SUBGROUP WORK														
		DIV-23	**HEATING, VENTILATION & AIR CONDITIONING**										Labor Rate	$ 29.17			
			HVAC DUCT WORK														
			Round Ducts (Galvanized Steel Duct)														
9	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Dia Supply Air Duct	11.95	LF	10%	13.15	0.120	1.6	$ -	$ -	$ -	$ -	$ 3.50	$ 46.01	$ 46.01	
10	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Supply Air Duct	2	LF	10%	2.20	0.120	0.3	$ -	$ -	$ -	$ -	$ 3.50	$ 7.70	$ 7.70	
11	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Supply Air Duct	61.99	LF	10%	68.19	0.120	8.2	$ -	$ -	$ -	$ -	$ 3.50	$ 238.69	$ 238.69	
12	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Supply Air Duct	8.37	LF	10%	9.21	0.180	1.7	$ -	$ -	$ -	$ -	$ 5.25	$ 48.34	$ 48.34	
13	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Return Air Duct	20.78	LF	10%	22.86	0.120	2.7	$ -	$ -	$ -	$ -	$ 3.50	$ 80.01	$ 80.01	
14	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14" Dia Return Air Duct	7.48	LF	10%	8.23	0.180	1.5	$ -	$ -	$ -	$ -	$ 5.25	$ 43.20	$ 43.20	
15	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Outside Air Duct	14.7	LF	10%	16.17	0.180	2.9	$ -	$ -	$ -	$ -	$ 5.25	$ 84.90	$ 84.90	
16	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Exhaust Air Duct	8.7	LF	10%	9.57	0.120	1.1	$ -	$ -	$ -	$ -	$ 3.50	$ 33.50	$ 33.50	
			Rectangular Ducts (Galvanized Steel Duct)														
17	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x10" Supply Air Duct	11.61	LF	10%	12.77	0.250	3.2	$ -	$ -	$ -	$ -	$ 7.29	$ 93.13	$ 93.13	
18	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x12" Supply Air Duct	12.31	LF	10%	13.54	0.250	3.4	$ -	$ -	$ -	$ -	$ 7.29	$ 98.75	$ 98.75	
19	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	16"x14" Supply Air Duct	52.53	LF	10%	57.78	0.350	20.2	$ -	$ -	$ -	$ -	$ 10.21	$ 589.94	$ 589.94	
20	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x16" Return Air Duct	16.82	LF	10%	18.50	0.350	6.5	$ -	$ -	$ -	$ -	$ 10.21	$ 188.90	$ 188.90	
21	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6"x6" Exhaust Air Duct	16.24	LF	10%	17.86	0.250	4.5	$ -	$ -	$ -	$ -	$ 7.29	$ 130.27	$ 130.27	
22	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x8" Exhaust Air Duct	3.1	LF	10%	3.41	0.250	0.9	$ -	$ -	$ -	$ -	$ 7.29	$ 24.87	$ 24.87	
23	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Exhaust Air Duct	28.37	LF	10%	31.21	0.250	7.8	$ -	$ -	$ -	$ -	$ 7.29	$ 227.58	$ 227.58	
			Flexible Duct (MFR: ATCO'S UPC #036 VALUFLEX CLASS 1 AIR DUCT)														
24	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Dia Flexible Duct	3.47	LF	10%	3.82	0.060	0.2		$ -	$ -	$ -	$ 1.75	$ 6.68	$ 6.68	
25	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Flexible Duct	7.83	LF	10%	8.61	0.060	0.5	$ 2.97	$ 25.58	$ -	$ -	$ 1.75	$ 15.07	$ 40.66	
26	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Flexible Duct	106.52	LF	10%	117.17	0.060	7.0	$ 3.55	$ 415.96	$ -	$ -	$ 1.75	$ 205.07	$ 621.04	
27	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Flexible Duct	29	LF	10%	31.90	0.060	1.9	$ 4.48	$ 142.91	$ -	$ -	$ 1.75	$ 55.83	$ 198.74	
28	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14" Dia Flexible Duct	22	LF	10%	24.20	0.060	1.5	$ 8.80	$ 212.96	$ -	$ -	$ 1.75	$ 42.35	$ 255.31	
			DUCT FITTINGS														
			Round Duct Fittings														
29	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Dia Duct 90 Deg Elbow	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
30	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia 90 Deg Elbow	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
31	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Duct 90 Deg Elbow	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
32	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Dia Duct Takeoff	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
33	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Duct Takeoff	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
34	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Duct Takeoff	12	EA	0%	12.00	0.400	4.8	$ 33.21	$ 398.52	$ -	$ -	$ 11.67	$ 140.02	$ 538.54	
35	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Duct Takeoff	6	EA	0%	6.00	0.400	2.4	$ -	$ -	$ -	$ -	$ 11.67	$ 70.01	$ 70.01	
36	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14" Dia Duct Takeoff	3	EA	0%	3.00	0.400	1.2	$ -	$ -	$ -	$ -	$ 11.67	$ 35.00	$ 35.00	
			Rectangular Duct Fittings														
37	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6"x6" Duct 90 Deg Elbow	2	EA	0%	2.00	0.750	1.5	$ -	$ -	$ -	$ -	$ 21.88	$ 43.76	$ 43.76	
38	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6"x6" Duct 90 Deg Elbow With Turing Vanes	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
39	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x8" Duct 90 Deg Elbow	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
40	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Duct 90 Deg Elbow	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
41	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x16" Duct 90 Deg Elbow With Turning Vanes	1	EA	0%	1.00	0.750	0.8	$ -	$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
42	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	16"x14" Duct 90 Deg Elbow	2	EA	0%	2.00	0.750	1.5	$ -	$ -	$ -	$ -	$ 21.88	$ 43.76	$ 43.76	
43	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6"x6" Duct Takeoff	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
44	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x8" Duct Takeoff	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
45	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" / 6"x6" Duct Reducer	1	EA	0%	1.00	0.600	0.6	$ -	$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
46	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	16"x14" / 8"x10" Duct Reducer	1	EA	0%	1.00	0.600	0.6	$ -	$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
47	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	16"x14" / 14"x12" Duct Reducer	1	EA	0%	1.00	0.600	0.6	$ -	$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
			DAMPERS & DEVICES														
			Damper														
48	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6"x6" Volume Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Qu	2	EA	0%	2.00	0.600	1.2		$ -	$ -	$ -	$ 17.50	$ 35.00	$ 35.00	
49	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x8" Volume Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Qu	1	EA	0%	1.00	0.600	0.6		$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
50	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A	1	EA	0%	1.00	0.600	0.6		$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
51	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A	9	EA	0%	9.00	0.600	5.4		$ -	$ -	$ -	$ 17.50	$ 157.52	$ 157.52	
52	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And	6	EA	0%	6.00	0.600	3.6		$ -	$ -	$ -	$ 17.50	$ 105.01	$ 105.01	
53	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"X16" Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And	2	EA	0%	2.00	0.600	1.2		$ -	$ -	$ -	$ 17.50	$ 35.00	$ 35.00	
54	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Motor Operated Damper	2	EA	0%	2.00	0.600	1.2		$ -	$ -	$ -	$ 17.50	$ 35.00	$ 35.00	
55	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Backdraft Damper	1	EA	0%	1.00	0.600	0.6		$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
56	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Backdraft Damper	1	EA	0%	1.00	0.600	0.6		$ -	$ -	$ -	$ 17.50	$ 17.50	$ 17.50	
			DUCT WEIGHT CALCULATION														
			Duct Weight														
57	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Galvanized Steel Metal Duct	955	Lbs.	10%	1050.50	0.000	0.0		$ -	$ -	$ -	$ -	$ -	$ -	
			DUCT INSULATION & LINING														
			Insulation														
58	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1" Thick Fiberglass Duct Wrap Insulation With Foil Faced Vapor Barrier And An Installe	860	SF	10%	946.00	0.020	18.9	$ 0.65	$ 614.90	$ -	$ -	$ 0.58	$ 551.90	$ 1,166.80	
			Insulation														
59	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1-1/2" Thick Internal Acoustical Duct Lining (Thickness Assumed)	50	SF	10%	55.00	0.050	2.8		$ -	$ -	$ -	$ 1.46	$ 80.22	$ 80.22	
			Flexible Duct Insulation														
60	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1-1/2" Thick Fiberglass Covered With Flameproof Vapor Barrier Of Aluminum Metalized	396	SF	10%	435.60	0.020	8.7		$ -	$ -	$ -	$ 0.58	$ 254.13	$ 254.13	
			DUCT SUPPORTS														
61	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1"x18" Gauge Strap For Rectangular Duct, Straps To Be Tight Against Duct, Self Tapping	22	EA	0%	22.00	0.300	6.6		$ -	$ -	$ -	$ 8.75	$ 192.52	$ 192.52	
62	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Duct Strap For Round Duct	13	EA	0%	13.00	0.300	3.9		$ -	$ -	$ -	$ 8.75	$ 113.76	$ 113.76	
63	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Threaded Rod	26	EA	0%	26.00	0.300	7.8		$ -	$ -	$ -	$ 8.75	$ 227.53	$ 227.53	
			MECHANICAL PIPING														
			Refrigerant Pipe														
			Type "ACR" Copper Pipe														
64	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	3/8" Dia Refrigerant Liquid Pipe	172.99	LF	10%	190.29	0.120	22.8	$ 3.40	$ 646.98	$ -	$ -	$ 3.50	$ 666.09	$ 1,313.07	
65	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	5/8" Dia Refrigerant Suction Pipe	172.99	LF	10%	190.29	0.120	22.8	$ 5.66	$ 1,077.04	$ -	$ -	$ 3.50	$ 666.09	$ 1,743.12	
			3/4" Thick Fiberglass Insulation														
66	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	3/8" Dia Refrigerant Liquid Pipe	172.99	LF	10%	190.29	0.120	22.8	$ 3.40	$ 646.98	$ -	$ -	$ 3.50	$ 666.09	$ 1,313.07	
67	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	5/8" Dia Refrigerant Suction Pipe	172.99	LF	10%	190.29	0.120	22.8	$ 5.66	$ 1,077.04	$ -	$ -	$ 3.50	$ 666.09	$ 1,743.12	
			Refrigerant Pipe Fittings:														
68	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	3/8" Dia Refrigerant Liquid Pipe 90 Deg Elbow	10	EA	0%	10.00	1.000	10.0		$ -	$ -	$ -	$ 29.17	$ 291.70	$ 291.70	
69	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	5/8" Dia Refrigerant Suction Pipe 90 Deg Elbow	10	EA	0%	10.00	1.000	10.0		$ -	$ -	$ -	$ 29.17	$ 291.70	$ 291.70	
			Condensate Drain Pipe														
			Type "L" Hard Drawn Copper Pipe ASTM B-88 With DWV Type Fittings, ASME B16.23														
70	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1" Dia Condensate Drain Pipe	81.62	LF	10%	89.78	0.060	5.4	$ 1.35	$ 121.21	$ -	$ -	$ 1.75	$ 157.14	$ 278.34	
			3/4" Thick Fiberglass Insulation														
71	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1" Dia Condensate Drain Pipe	81.62	LF	10%	89.78	0.060	5.4	$ 1.35	$ 121.21	$ -	$ -	$ 1.75	$ 157.14	$ 278.34	
			Condensate Drain Pipe Fittings:														
72	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	1" Dia Condensate Drain Pipe 90 Deg Elbow	7	EA	0%	7.00	1.000	7.0		$ -	$ -	$ -	$ 29.17	$ 204.19	$ 204.19	
			MECHANICAL AIR DEVICES														
			Grilles, Diffusers & Registers														
73	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
74	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
75	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	2	EA	0%	2.00	0.750	1.5	$ 96.96	$ 193.92	$ -	$ -	$ 21.88	$ 43.76	$ 237.68	
76	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
77	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
78	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
79	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
80	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	2	EA	0%	2.00	0.750	1.5	$ 96.96	$ 193.92	$ -	$ -	$ 21.88	$ 43.76	$ 237.68	
81	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	3	EA	0%	3.00	0.750	2.3	$ 96.96	$ 290.88	$ -	$ -	$ 21.88	$ 65.63	$ 356.51	
82	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24"	1	EA	0%	1.00	0.750	0.8	$ 96.96	$ 96.96	$ -	$ -	$ 21.88	$ 21.88	$ 118.84	
83	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	RG-1: Return Air Diffuser, Perforated Face, Lay-In, Aluminum, 24"x24" Face Size, 8" Dia	5	EA	0%	5.00	0.750	3.8	$ 51.95	$ 259.75	$ -	$ -	$ 21.88	$ 109.39	$ 369.14	
84	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	RG-1: Return Air Diffuser, Perforated Face, Lay-In, Aluminum, 24"x24" Face Size, 14"	3	EA	0%	3.00	0.750	2.3	$ 51.95	$ 155.85	$ -	$ -	$ 21.88	$ 65.63	$ 221.48	
85	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 6"x6" Neck	1	EA	0%	1.00	0.750	0.8	$ 174.39	$ 174.39	$ -	$ -	$ 21.88	$ 21.88	$ 196.27	
86	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 6"x6" Neck	1	EA	0%	1.00	0.750	0.8	$ 174.39	$ 174.39	$ -	$ -	$ 21.88	$ 21.88	$ 196.27	
87	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 8"x8" Neck	1	EA	0%	1.00	0.750	0.8	$ 174.39	$ 174.39	$ -	$ -	$ 21.88	$ 21.88	$ 196.27	
			FAN UNITS														
			Ceiling Fan														
88	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	CF-1: Ceiling Fan, MFR: VIVIDAIR Z-TECH HVLS FAN	7	EA	0%	7.00	3.000	21.0		$ -	$ -	$ -	$ 87.51	$ 612.57	$ 612.57	
			Exhaust Fan														
89	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	EF-1: Exhaust Fan	1	EA	0%	1.00	3.000	3.0	$ 224.00	$ 224.00	$ -	$ -	$ 87.51	$ 87.51	$ 311.51	
90	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	3/8" Threaded Rod	4	EA	0%	4.00	0.300	1.2		$ -	$ -	$ -	$ 8.75	$ 35.00	$ 35.00	
91	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Flexible Duct 1.5'	2	EA	0%	2.00	0.300	0.6		$ -	$ -	$ -	$ 8.75	$ 17.50	$ 17.50	
92	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Flexible Duct Connector	2	EA	0%	2.00	0.300	0.6		$ -	$ -	$ -	$ 8.75	$ 17.50	$ 17.50	
93	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	EF-2: Exhaust Fan	1	EA	0%	1.00	3.000	3.0	$ 224.00	$ 224.00	$ -	$ -	$ 87.51	$ 87.51	$ 311.51	
94	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Flexible Duct Connector	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 8.75	$ 8.75	$ 8.75	
			MECHANICAL EQUIPMENT														
			Air Handling Unit														
95	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	AHU-1/HP1: Air Handling Unit, MFR: GOODMAN, MODEL: AMST48, TON: 4, CFM: 1400,	1	EA	0%	1.00	12.000	12.0	$ 1,355.00	$ 1,355.00	$ -	$ -	$ 350.04	$ 350.04	$ 1,705.04	
96	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	AHU-2/HP2: Air Handling Unit, MFR: GOODMAN, MODEL: AMST48, TON: 4, CFM: 1400,	1	EA	0%	1.00	12.000	12.0	$ 1,355.00	$ 1,355.00	$ -	$ -	$ 350.04	$ 350.04	$ 1,705.04	
			Air Handling Unit Details														
97	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x16" Flexible Duct Connector	4	EA	0%	4.00	0.300	1.2		$ -	$ -	$ -	$ 8.75	$ 35.00	$ 35.00	
98	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Threaded Rod	8	EA	0%	8.00	0.300	2.4		$ -	$ -	$ -	$ 8.75	$ 70.01	$ 70.01	
99	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Vibration Isolator	8	EA	0%	8.00	0.300	2.4		$ -	$ -	$ -	$ 8.75	$ 70.01	$ 70.01	
100	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Auxiliary Pan With Float Switch	2	EA	0%	2.00	1.000	2.0	$ 82.39	$ 164.78	$ -	$ -	$ 29.17	$ 58.34	$ 223.12	
101	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x16" Flexible Duct 1.5'	4	EA	0%	4.00	0.300	1.2		$ -	$ -	$ -	$ 8.75	$ 35.00	$ 35.00	
102	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	3/8" x3" Expansion Bolt	8	EA	0%	8.00	1.000	8.0		$ -	$ -	$ -	$ 29.17	$ 233.36	$ 233.36	
103	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Thick Mounting Pad For Heat Pump Unit	2	EA	0%	2.00	8.000	16.0		$ -	$ -	$ -	$ 233.36	$ 466.72	$ 466.72	
104	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Flashing For Refrigerant Pipe Penetration	2	EA	0%	2.00	0.300	0.6		$ -	$ -	$ -	$ 8.75	$ 17.50	$ 17.50	
			Mini-Split System														
105	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	AHU-IT/HP-IT: Mini Split Air Handling Indoor Unit, MFR: DAIKIN, MODEL: FTXM09, TON:	1	EA	0%	1.00	10.000	10.0	$ 2,428.00	$ 2,428.00	$ -	$ -	$ 291.70	$ 291.70	$ 2,719.70	
			Mini-Split System Details														
106	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Wall Mounted Brackets By MFR	1	EA	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
107	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Thermostat By MFR	1	EA	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
108	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Wall Sleeve with Caps By MFR	1	EA	0%	1.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
109	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	4" Thick Concrete Pad For Heat Pump Unit	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 233.36	$ 233.36	$ 233.36	
			Condensate Pump														
110	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	CP-1: Condensate Pump	2	EA	0%	2.00	1.500	3.0	$ 73.44	$ 146.88	$ -	$ -	$ 43.76	$ 87.51	$ 234.39	
			MISC. ITEMS														
			Duct Clamp														

DETAILED TAKEOFF / ESTIMATE
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project Name	SAIA LTL FREIGHT - GREENVILLE, SC	PROJECT COST	$ 29,113
Location	SAIA TERMINAL #GRE 415 FRONTAGE Rd. PIEDMONT, SC 29673	OVERHEAD COST	$ 2,911
Project Scope:	HVAC	PROFIT COST	$ 2,911
Addendum:	N/A	ADDITIONAL COST (If Any)	$ 1,618
Date:	Tuesday, November 3, 2026	TOTAL BID COST	$ 36,554

BY OTHERS/ SEPERATE PERMIT/ BY OWNER | NEED QUOTATION

SR #	DRAWING REF #	DIV	DESCRIPTION	QUANTITY	UNIT	WASTAGE	QUANTITY WITH WASTAGE	UNIT LABOR HOURS	TOTAL LABOR HOURS	UNIT MATERIAL COST	TOTAL MATERIAL COST	UNIT EQUIPMENT COST	TOTAL EQUIPMENT COST	UNIT LABOR COST	TOTAL LABOR COST	TOTAL COST	DIV COST
111	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Flexible Duct Clamp	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 8.75	$ 8.75	$ 8.75	
112	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia Flexible Duct Clamp	14	EA	0%	14.00	0.300	4.2		$ -	$ -	$ -	$ 8.75	$ 122.51	$ 122.51	
113	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia Flexible Duct Clamp	4	EA	0%	4.00	0.300	1.2		$ -	$ -	$ -	$ 8.75	$ 35.00	$ 35.00	
114	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14" Dia Flexible Duct Clamp	3	EA	0%	3.00	0.300	0.9		$ -	$ -	$ -	$ 8.75	$ 26.25	$ 26.25	
			Duct Transition														
115	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia / 24"x24" Duct Transition at Grille	1	EA	0%	1.00	0.750	0.8		$ -	$ -	$ -	$ 21.88	$ 21.88	$ 21.88	
116	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8" Dia / 24"x24" Duct Transition at Grille	14	EA	0%	14.00	0.750	10.5		$ -	$ -	$ -	$ 21.88	$ 306.29	$ 306.29	
117	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10" Dia / 24"x24" Duct Transition at Grille	4	EA	0%	4.00	0.750	3.0		$ -	$ -	$ -	$ 21.88	$ 87.51	$ 87.51	
118	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14" Dia / 24"x24" Duct Transition at Grille	3	EA	0%	3.00	0.750	2.3		$ -	$ -	$ -	$ 21.88	$ 65.63	$ 65.63	
			Thermostat														
119	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Thermostat	2	EA	0%	2.00	1.000	2.0	$ 102.00	$ 204.00	$ -	$ -	$ 29.17	$ 58.34	$ 262.34	
120	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Programmable Auto Changeover Thermostat	1	EA	0%	1.00	1.000	1.0	$ 102.00	$ 102.00	$ -	$ -	$ 29.17	$ 29.17	$ 131.17	
			Cap														
121	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	6" Dia Roof Cap With Bird Screen	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 8.75	$ 8.75	$ 8.75	
122	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	10"x10" Roof Cap With Bird Screen	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 8.75	$ 8.75	$ 8.75	
123	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	8"x10" Duct End Cap	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
124	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x12" Duct End Cap	1	EA	0%	1.00	0.400	0.4	$ -	$ -	$ -	$ -	$ 11.67	$ 11.67	$ 11.67	
125	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	14"x16" Duct End Cap	2	EA	0%	2.00	0.400	0.8	$ -	$ -	$ -	$ -	$ 11.67	$ 23.34	$ 23.34	
			ALLOWANCE														
126	M002, M101, M102A, M102B,	Heating, Ventilation & Air Conditioning	Allowance For Testing And Balancing Of HVAC System After Completion of Work (3711 S	1	LS	0%	1.00	0.000	0.0		$ -	$ -	$ -	$ -	$ -	$ -	
							LABOR HOURS	445.899	MATERIAL COST	$ 14,001.15	EQUIPMENT COST	$ -	LABOR COST	$ 13,006.87	SUBTOTAL		$ 27,008.03

TOTAL MATERIAL COST	$	14,001
TOTAL LABOR COST	$	13,211
TOTAL EQUIPMET COST	$	-
TOTAL LABOR HOURS		453

NOTES, ASSUMPTIONS, ALLOWANCES, EXCLUSIONS &

	Project
	Location
	Scope
	Wage basis
	Building type
	Estimate date

0. REVISION LOG - CLIENT RESPONSES APPLIED IN REV 1

	Response received
0.1	3.1 - "For duct LF we just put labor for fabrication, material cost is covered in weight."
0.2	3.2 - "Price flexible duct with insulation collectively, it is not a separate line item."
0.3	3.3 - "It is a standard assumption. Not specified in plans or specs."
0.4	3.4 - "Separated weather exposed insulation, reprice it."
0.5	3.5 - "Will be revised after pricing during final overview."
0.6	3.7 - "Remove this column."
0.7	3.8 - "No proper/detailed demo plans provided, so demo is being done by considering working area."
0.8	3.9 - "Manufacturer/model defines everything regarding cost of equipment."
0.9	3.10 - "Clarified in 3.1."
0.10	3.11 - "Good to go, exclude wiring, controls etc, just consider dampers."

1. OPEN SHOP LABOR RATE BUILD-UP (Anderson County, SC - merit

	Component
1.1	Journeyman HVAC / sheet metal mechanic - base wage
1.2	Working foreman - base wage
1.3	Helper / unskilled - base wage
1.4	Crew mix carried (per template man-loading block)
1.5	OPEN SHOP COMPOSITE BASE WAGE = (28.25x3 + 30.37x1 + 18.52x1) / 5

	Labor burden component
1.6	FICA - Social Security 6.2% + Medicare 1.45%
1.7	FUTA - 0.6% on first $7,000 of wages
1.8	SC UI (SUTA) - 1.0% new-employer rate on first $14,000
1.9	Workers compensation - SC HVAC / sheet metal class

1.10	General liability
1.11	Fringe - employer health contribution, PTO/holiday, vehicle & small tools
1.12	TOTAL LABOR BURDEN CARRIED
1.13	LOADED OPEN SHOP COMPOSITE RATE = $26.728 x 1.275
1.14	Basis check - open shop is the correct assumption for this market

Burden is applied once, on the summary, via the LABOR TAX column. The rate entered in the t double counted.

2. SALES TAX

	Item
2.1	South Carolina state sales & use tax
2.2	Anderson County Education Capital Improvement Tax
2.3	COMBINED RATE CARRIED
2.4	Labor

ZIP 29673 (Piedmont) straddles Anderson County (7%) and Greenville County (6%). 415 Fronta County jurisdiction the rate drops to 6% and the bid reduces by approximately $845.

3. FLAG REGISTER - STATUS AFTER REV 1

	Flag
3.1	DUCT WEIGHT DOUBLE COUNT. Row 95 carries 955 lbs of galvanized steel duct as a separate priced line, while rows 32-48 already price the same ductwork by the linear foot. Cross-checking the LF quantities against sheet metal weight tables returns roughly 950-970 lbs - i.e. row 95 is the weight of the duct already priced above it.
3.2	FLEXIBLE DUCT INSULATION ON FACTORY-INSULATED FLEX. Row 105 prices 396 SF of 1-1/2" fiberglass/vapour-barrier insulation over flexible duct. Rows 51-55 specify ATCO UPC #036 Valuflex, which ships pre-insulated.
3.3	DUCT LINER THICKNESS ASSUMED. Row 102 description states "(Thickness Assumed)" at 1-1/2". Drawings do not specify liner thickness.

3.4	REFRIGERANT LINE INSULATION MATERIAL CONFLICT. Rows 120-121 call for 3/4" fiberglass insulation on the refrigerant lines. Sheet M002 and the AHU schedule note call for exposed refrigerant lines to be insulated with UV-protection insulation, which is normally closed-cell elastomeric with a UV jacket, not fiberglass.
3.5	SUMMARY FORMULA DEFECT - EQUIPMENT COLUMN DROPPED. On PROPOSAL SUMMARY, cell I12 reads =D12+E12+F12+G12+H12, but I13 and I14 read =D13+E13+F13+G13 and =D14+E14+F14+G14. Column H (EQUIPMENT COST) is not picked up for Div-02 or Div-23. Any equipment loaded at line level in those divisions disappears from the bid.
3.6	SUMMARY ORPHANED CELL - JOB EXPENSE. Cell E21 (JOB EXPENSE) is not referenced by any total. E24 pulls I16 and E27 sums E24:E26, so anything typed into E21 is silently lost.
3.7	COST/SF IS DILUTED. Gross Area on the summary is 51,962 SF (whole terminal), but the mechanical work is confined to a 3,711 SF office area plus seven dock fans. Column N and cell N16 therefore report cost per gross building SF, not per SF of work.
3.8	DEMOLITION PRICED AS A LUMP SUM WITH NO QUANTITY BASIS. Row 24 reads "All existing duct work, air devices & equipment to be removed in this area (3711 SF)" at 1 LS. There is no demolition plan quantity behind it.
3.9	CF-1 FAN SIZE NOT SPECIFIED. Plan note on M102A-D reads "replace existing circulating fan with VividAir Z-Tech HVLS fan... fan replacement to match diameter and voltage of existing fan." No diameter, voltage or model is given anywhere in the set.
3.10	WASTAGE APPLIED TWICE ON DUCT. Rows 42-48 carry 10% wastage on the linear-foot duct, and row 95 carries a further 10% on the weight line. Compounding is inside the exposure at 3.1.
3.11	MOTOR OPERATED DAMPERS CARRIED WITHOUT CONTROLS. Row 89, two 10" dia motor operated dampers. Actuator carried; power, control wiring and interlock are Div-26/BAS scope.

4. ITEMS REQUIRING A VENDOR QUOTE (carried at budget pricing - f	
	Item
4.1	CF-1 HVLS ceiling fan, VividAir Z-Tech (or approved equal)
4.2	AHU-1/HP-1: Goodman AMST48 air handler, 4 ton, 1400 CFM, 15kW electric heat + GLZS4BA48 heat pump
4.3	AHU-2/HP-2: Goodman AMST48 + GLZS4BA48, same configuration
4.4	AHU-IT/HP-IT: Daikin FTXM09 indoor + RXM09 outdoor mini-split, 3/4 ton
4.5	EF-1: Greenheck CSP-A700-VG, 425 CFM, 115V/1P
4.6	EF-2: Greenheck SP-A70, 50 CFM, 115V/1P
4.7	CP-1: Little Giant VCMA-20UL condensate pump
4.8	10" dia motor operated damper

4.9	Air devices - TruAire 2003CD / 1444RG / 1960RG (or Metalaire, Price, Titus)
4.10	Test & balance of complete HVAC system
4.11	Roofing patch and flashing at two new roof caps
4.12	Roll-off container and debris haul-off
4.13	Scissor lift rental - 26 ft and 19 ft

5. ALLOWANCES CARRIED (each is a placeholder, not a priced quanti	
	Allowance
5.1	Mechanical permit fee
5.2	Permit revision / resubmittal
5.3	Third-party mechanical inspection
5.4	Interior protection and dust containment
5.5	As-built record drawings and O&M closeout documents
5.6	Debris haul-off
5.7	Test and balance
5.8	Unforeseen existing conditions
5.9	Plan review and permit expediting
5.10	Roofing patch and flashing (sublet)

6. EXCLUSIONS	
6.1	Electrical power wiring, disconnects, starters, contactors and line-voltage control wiring (Div-26). Thermostat low-voltage wiring from unit to stat is included.
6.2	Building automation / DDC controls, control panels, and interlock wiring for the motor operated dampers and exhaust fans.
6.3	Fire alarm, duct smoke detectors and their wiring and interlocks.
6.4	Fire dampers, smoke dampers, combination dampers, and firestopping of rated assembly penetrations. None appear in the takeoff or the marked-up set.
6.5	Structural steel, roof curbs, roof framing modification, and any roofing work beyond the sublet patch allowance at 5.10.
6.6	Ceiling grid and tile removal or replacement, drywall, framing, painting and finish patching.
6.7	Gas piping, plumbing, and any condensate piping beyond the 1" Type L copper shown in the takeoff.
6.8	Asbestos or other hazardous material survey, testing or abatement.
6.9	Cutting, patching and core drilling of structure.

6.10	Overtime, night, weekend, holiday and phased or shift work. Straight-time single mobilization to the office area is assumed.
6.11	Chilled water, hot water, steam and condenser water piping.
6.12	Temporary heating, cooling or dehumidification for other trades.
6.13	Escalation beyond 30 days from the estimate date. Sheet metal and copper are both volatile.
6.14	Payment and performance bond is carried at 1.75 percent (cell D39). Deduct the premium shown at summary line E39 if no bond is required.
6.15	Design, engineering, sealed calculations, energy modelling and commissioning agent services.
6.16	Sales tax on labor. SC does not tax separately stated installation labor.

7. ASSUMPTIONS

7.1	Quantities are taken exactly as received in the DETAILED TAKEOFF tab. No quantity has been added, deleted, corrected or re-measured. Rev 1 changed unit costs only - not a single quantity moved.
7.2	Wastage percentages are as carried in the takeoff (10% on linear material, 0% on counted items). Not adjusted. Following Rev 1 the 10% on duct only takes effect once, on the weight line, because the LF lines no longer carry material.
7.3	Non-prevailing wage. No Davis-Bacon or state wage determination applies to this project.
7.4	Crew of five: three journeymen, one working foreman, one helper. The foreman is inside the composite rate; off-site project management is carried separately at summary line E29.
7.5	Work proceeds in an operating LTL freight terminal. Dock fan replacement is from a scissor lift during normal working hours with the dock in use around the crew.
7.6	The office area is available as a continuous work zone. No phasing or after-hours restriction has been priced.
7.7	Material pricing is Upstate SC wholesale, delivered to site, valid 30 days.
7.8	Where a manufacturer is named on the drawings (TruAire, Greenheck, Goodman, Daikin, Little Giant, VividAir, ATCO) that manufacturer is carried. Approved equals were not substituted.
7.9	Existing electrical service, circuiting and controls at the seven dock fans are reusable, per the demolition note "keep electrical & control connections for new fans". No new circuits are carried.
7.10	Jurisdiction is Anderson County. See section 2 for the split-ZIP note.
7.11	Overhead at 10% and profit at 10% are the template defaults and were not changed.
7.12	Duration of roughly 15 crew-days (610 total labor hours at a five-man crew), or about four to five working weeks including mobilization.

8. PRICING BASIS AND SOURCES

	Element
8.1	Labor rate

8.2	Labor burden
8.3	Material sales tax
8.4	Unit material costs
8.5	Unit labor hours
8.6	Equipment cost
8.7	Overhead and profit
8.8	Bond and insurance

9. CELLS FILLED (no formula in the template was edited)	
9.1	DETAILED TAKEOFF: quantity (E) on Div-01 rows 12-17; unit labor hours (I), unit material cost (K) and unit equipment cost (M) on every priced row; labor rate at O11, O21, O29.
9.2	PROPOSAL SUMMARY: D20 material sales tax, D23 labor tax, D28 bond & insurance, D39 bond premium, E21, E29 through E38, and the man-loading rates at M22, M23, M24, M26.
9.3	One exception to the no-edit rule in Rev 1: the COST/SF column on PROPOSAL SUMMARY (header N11 and formulas N12:N16) was cleared at your direction under 3.7. Everything else - formulas, labels, formats, structure - is untouched. This NOTES & BASIS tab is the only sheet added.

PRICING BASIS - REV 1

SAIA LTL Freight - Greenville, SC (Terminal #GRE)
415 Frontage Rd, Piedmont, SC 29673 - Anderson County
Div-23 HVAC + associated Div-02 demolition and Div-01 general requirements
Open shop / merit shop - non-prevailing, straight time
Renovation - occupied LTL freight terminal, office area + dock
August 3, 2026 (Rev 1 - client responses incorporated)

Action taken	Cost effect	Where
Unit material cost set to ze	DEDUCT	Takeoff rows 32-39, 42-48 and 95
Flexible duct material move	DEDUCT	Takeoff rows 51-55 and 105
No change. 1-1/2" internal	No change	Takeoff row 102
Refrigerant line insulation r	ADD	Takeoff rows 120-121
No change. Line-level equi	No change	Summary I13, I14
COST/SF column cleared -	No change	Summary column N
No change. Demolition sta	No change	Takeoff row 24
No change. CF-1 held at $2	No change	Takeoff row 157
Resolved by 0.1. Wastage	Incl. in 0.1	Takeoff rows 42-48, 95
No change. Motor operatec	No change	Takeoff row 89

shop, non-prevailing)		
Rate / Basis	**Value**	**Source**
OEWS 50th pctile	$28	BLS OEWS May 2025, Greenville-Anderson-Greer SC MSA (area 0024860), SOC 49-9021
OEWS 75th pctile	$30	Same series. Merit-shop working foreman premium of 7.5% over journeyman. The 90th percentile ($37.27) reflects union and industrial service technicians and is not an open-shop foreman rate.
OEWS 10th pctile	$19	Same series
3 JW : 1 WF : 1 HELP	5-man crew	Template default retained. Labor hours in the takeoff were developed against this crew composition, so the mix was not re-weighted toward helpers - dropping the rate without dropping productivity would understate the bid.
Weighted average	$27	Entered in DETAILED TAKEOFF cells O11, O21, O29 and mirrored at PROPOSAL SUMMARY M25

% of gross payroll	Value	Source / basis
7.65%	0.0765	IRS 2026 employer rates
0.07%	0.0007	IRS 2026; effective % at $58,465 annual gross
0.24%	0.0024	SC DEW 2026 tax rate release, Nov 17 2025. 2026 range 0.06%-5.46%, wage base $14,000
5.50%	0.055	Carried rate for open-shop mechanical contractor in SC; confirm against carrier declaration

2.50%	0.025	Carried rate
11.50%	0.115	Open shop package. No multi-employer pension, health & welfare trust, apprenticeship fund or vacation fund contributions are carried, which is the main cost difference from a union basis.
27.50%	0.275	Entered at PROPOSAL SUMMARY D23 (LABOR TAX). Sum of 1.6-1.11 = 27.46%, rounded to 27.50%
Fully burdened	$34	Shown at PROPOSAL SUMMARY M26 (WAGE RATE). Sell rate after 10% OH + 10% profit = $40.90/hr
SC union density	2.7%	BLS, Union Members in South Carolina 2025, released Feb 27 2026: 2.7% of SC wage and salary workers were union members, 4.1% represented. SC Dept. of Employment and Workforce puts private-sector density at 1.6%. SC is a right-to-work state and no project labor agreement applies here, so the OEWS distribution is effectively an open-shop distribution.

akeoff (O11/O21/O29) is the unburdened composite base wage. Do not add burden to the takeoff rate or it will be

Rate	Applied to	Source / date
6.00%	Material	SC Dept. of Revenue, statewide rate
1.00%	Material	SC DOR Form ST-500, Local Tax Designation by County, effective July 1, 2025
7.00%	Material only	Entered at PROPOSAL SUMMARY D20. Retrieved from dor.sc.gov, accessed Aug 3, 2026
0.00%	n/a	SC does not tax separately stated installation labor. No sales tax applied to the labor column.

age Rd sits at I-85 Exit 35, which is in Anderson County, so 7% is carried. If the permit is pulled under Greenville

Where	Status	Comment
DETAILED TAKEOFF rows	CLOSED	Not a double count. Per your response the LF lines carry labor and the weight line carries material. Repriced that way in Rev 1. Sheet metal material is now counted once. Worth noting for the file: 955 lbs is straight duct only, so the fittings in rows 59-79 still carry their own material.
DETAILED TAKEOFF rows	CLOSED	Insulation folded into the flexible duct material per your response. Row 105 is deliberately left at zero cost - it is the only priced line in the workbook with no value against it, and that is intentional, not an omission.
DETAILED TAKEOFF row	CLOSED	Confirmed as a standard assumption. Carried at 1-1/2". Delta to 1" liner is under $50.

DETAILED TAKEOFF rows	REPRICED - 1 OPEN	Repriced to closed-cell elastomeric with UV jacket. One thing to check: your response cited rows 110 and 111, which in this workbook are the round duct strap and threaded rod lines. The refrigerant line insulation sits at rows 120-121 (SR 66 and 67), and that is what was repriced. Also, the full 172.99 LF of each line is carried at the exterior rate. If only part of the run is weather exposed, send the split and the concealed portion comes back down to fiberglass.
PROPOSAL SUMMARY I1	OPEN - your review	Exposure as priced is $0. All construction equipment (two scissor lifts, small tools and consumables) is deliberately carried on the bid summary at line E31 TEMPORARY FACILITIES & CONTROLS, which flows correctly into E41. Unit equipment cost is therefore $0 on every takeoff line. Formula left unchanged per instruction.
PROPOSAL SUMMARY E	OPEN - no response	Left at zero on purpose. All job expenses are carried in lines E29-E38, which do roll into E41. Formula left unchanged per instruction.
PROPOSAL SUMMARY C	CLOSED - column rer	Column N cleared per your response. Gross Area at C7 is left as received. For reference the base bid works out at roughly $32 per SF of actual work area.
DETAILED TAKEOFF row	CLOSED	Confirmed as an area-based allowance in the absence of a demolition plan. Carried at 120 crew hours plus $250 consumables. If sheet D101 becomes available this should be re-measured.
DETAILED TAKEOFF row	OPEN - largest risk	Manufacturer and model are named, but VividAir Z-Tech HVLS fans run from roughly 8 ft to 24 ft diameter and the price scales with it. $2,850 each is carried against a mid-size unit. The plan note only says match the existing fan. At 7 units, every $500 of unit price is about $4,700 on the bid. This is now the single largest open item - field-verify the existing diameter and voltage.
DETAILED TAKEOFF rows	CLOSED	Resolved by the Rev 1 restructure. Wastage now applies once, on the weight line.
DETAILED TAKEOFF row	CLOSED	Confirmed. Dampers only. Wiring, controls and interlock excluded at 6.2.

irm before bid)

Qty	Carried unit price	Vendor / notes
7 EA	$2,850	Size not specified - see flag 3.9
1 set	$6,450	A2L refrigerant; ECM motor; single point power w/ factory disconnect
1 set	$6,450	Same
1 set	$2,150	Includes internal condensate pump kit by MFR
1 EA	$985	w/ gravity backdraft damper, vibration isolation, plug disconnect
1 EA	$265	w/ gravity backdraft damper, plug disconnect
2 EA	$148	w/ safety switch to shut down AHU on overflow
2 EA	$385	Actuator only - wiring by others

25 EA total	Varies	Firm with local rep; frame/border to match architectural ceiling
1 LS	$3,850	Independent TAB agency - carried as an allowance
1 LS	$1,850	Must be by the building roofer to preserve the roof warranty
4 loads	$525	Per 20 CY load, delivered and hauled
1 month ea	Incl. in E31	Carried inside the $4,200 temporary facilities line

ty)		
Where carried	**Amount**	**Basis**
Div-01, row 12	$650	Anderson County Building & Codes issues mechanical permits through its OpenGov portal; no public fee schedule was located. The template description reads ".07% of project value", which would return roughly $130 - below any realistic commercial minimum. Verify with the county before bid.
Div-01, row 14 (Variance)	$300	No zoning variance is required for an interior renovation. The row is used for permit revision fees so it is not left at zero.
Div-01, row 15	$950	Special inspection / mechanical final support
Div-01, row 13 (Site develo	$850	Plus 8 labor hours. No exterior site development is in this scope, so the row carries interior protection instead.
Div-01, row 17 (Site plan)	$450	Plus 6 labor hours. No site plan is required for an interior renovation.
Div-01, row 16	$2,100	4 loads at $525 plus 12 labor hours loading
Div-23, row 219	$3,850	3,711 SF office area, full system TAB after completion
Summary, E36	$2,500	Concealed conditions in a 1970s-era terminal renovation
Summary, E35	$350	Separate from the permit fee at 5.1 - no double count
Summary, E38	$1,850	Two new roof caps

Basis		**Source and date**
Composite base wage from local occupational wa		BLS Occupational Employment and Wage Statistics, May 2025 estimates, Greenville-Anderson-Greer SC MSA (area 0024860), SOC 49-9021 Heating, Air Conditioning and Refrigeration Mechanics and Installers. Published May 15, 2026. Retrieved via O*NET OnLine local wages, accessed August 3, 2026.

Statutory taxes + insurance + fringe = 27.50%	IRS 2026 FICA/FUTA rates; SC Dept. of Employment and Workforce 2026 UI tax rate release dated November 17, 2025 (wage base $14,000, new employer 1.0%, range 0.06%-5.46%); carrier-typical WC and GL loadings for an SC open-shop mechanical contractor.
7.00% - 6% state + 1% Anderson County Educati	SC Department of Revenue, Form ST-500 Local Tax Designation by County, effective July 1, 2025, confirmed against the DOR Sales & Use rate table. Accessed August 3, 2026.
Contractor-delivered Upstate SC pricing, 2026, fo	Distributor pricing and published list less standard contractor discount. Equipment items in section 4 are budget figures pending firm quotes.
SMACNA / MCAA-style installation productivity fo	Adjusted for overhead work, lift access at the dock, and working around an operating facility.
Carried at bid-summary level, not line level	See flag 3.5. This is a deliberate response to the summary formula defect, not an omission.
10% and 10%, template defaults	PROPOSAL SUMMARY cells D25 and D26, unchanged.
0.80% project insurance + 1.75% P&P bond prem	PROPOSAL SUMMARY cells D28 and D39. Typical small-subcontract rates in SC. Deduct the bond if not required.

PRICING NOTES & QA | SAIA LTL FREIGHT (GREENVILLE TERMINAL) - HVAC

SAIA Terminal GRE, 415 Frontage Rd, Piedmont SC 29673 | HVAC | Open shop, private | Priced 2026-10-08 (RE-PRICED FROM SCRATCH) | Takeoff only

1. EXECUTIVE PRICING SUMMARY

#	Item	Workbook (live)	Independent calc	Variance	Basis / cell reference
1	Base Bid Price (block 1)	$36,553.73	$36,553.73	$0.00	PROPOSAL SUMMARY E41

#	Direct cost component (all sheets)	Value	Notes
1	Material (before tax)	$14,001.15	Sum of line material, all detail sheets
2	Labor (base wage + fringe)	$13,211.06	Sum of line labor at the rate the template formula actually uses
3	Equipment	$0.00	Line equipment (template: unit equipment x labor hours)
4	Additional costs carried in summary rows	$1,618.00	Div-01 items with no template line; itemized in section 6
5	Total labor hours	452.9	Detail sheets that feed the bid total

#	Count	Value	Notes
1	Takeoff line items reviewed	126	All quantity lines on all detail sheets, incl. Div-01 template lines
2	Line items priced (non-zero)	114	
3	Lines left blank with NEED QUOTATION fill	44	Material not priced: no published price found, or fixture/equipment per FEDES rule. Listed in section 7
4	Allowances	0	Section 8
5	Discrepancies identified	1	Section 9
6	High / critical risks	3	Section 13
7	Template formula issues	0	Section 15

No plans or specifications were provided. Quantities are priced as received and could not be checked against drawings.
Galvanized ductwork material (the Lbs line) is NEED QUOTATION: no published sheet-metal price with a stated weight was found. Duct install labor is priced.
HVAC workers comp (class 5537) was NOT found for this state and is NOT included in labor burden.
This file arrived fully priced with a NOTES & BASIS tab. Per instruction, every unit hour, unit cost, labor rate and tax/OH&P input was re-priced. The old NOTES & BASIS tab is left in place (sheets are never deleted) but it describes the SUPERSEDED pricing.

2. PRICING METHODOLOGY

- Only input cells were written: unit labor hours (I), unit material (K), unit equipment (M = 0), division labor rates, Div-01 inputs and the summary tax / OH&P / bond / additional-cost / man-loading rate cells. No formula, sheet, row, column, merge, unit or quantity was changed.

- Labor = crew composite rate x unit hours x quantity with waste. Statutory payroll burden goes through the template LABOR TAX cell.
- Sheet-metal ductwork: the takeoff carries both duct runs (LF) and a total weight line (Lbs). Install labor is carried on the LF and fitting lines; duct material belongs on the Lbs line, which is NEED QUOTATION because no published galvanized sheet price with a stated weight was found. Round snap-lock pipe prices are shown for reference only to avoid double counting with the Lbs line.

- Equipment is priced only where the exact model has a published price; otherwise NEED QUOTATION with set/connect labor. Crane/rigging not included.
- Diffusers and grilles priced from comparable lay-in models where the takeoff brand/model has no published price.

3. WAGE BUILD-UP

#	Classification	Base wage $/hr	Fringe $/hr	Rate (base+fringe)	Statutory burden	Loaded $/hr	Source / effective date
1	HVAC mechanic (49-9021)	$28.25	$4.24	$32.49	$2.25	$34.74	OEWS 2025 Greenville-Anderson-Greer median $28.25 [W1]
2	Sheet metal worker (47-2211)	$22.14	$3.32	$25.46	$1.79	$27.25	OEWS 2025 Greenville MSA median $22.14 [W1]
3	Working foreman (47-1011)	$35.99	$5.40	$41.39	$2.84	$44.23	OEWS 2025 Greenville MSA median $35.99 [W1]
4	Helper (49-9098)	$18.29	$2.74	$21.03	$1.49	$22.52	OEWS 2025 Greenville MSA median $18.29 [W1]
5	Helper as Div-01 labor (49-9098)	$18.29	$2.74	$21.03	$1.49	$22.52	[W1]

#	Statutory burden component	Rate	Source
1	FICA	7.65%	
2	FUTA effective	0.07%	Not a 2025 credit-reduction state
3	SC unemployment 1.06% on $14,000 (new employer; effective)	0.25%	State UI agency 2026 [T1]
4	Workers comp 5537 HVAC: NOT FOUND, NOT INCLUDED	0.00%	

#	Division / sheet	Crew	Rate entered	Burden on rate	Cell
1	DETAILED TAKEOFF DIV-01 GENERAL REQUIREMENTS	Laborer	$21.03	7.09%	DETAILED TAKEOFF!O11

2	DETAILED TAKEOFF DIV-02 EXISTING CONDITIONS / DEMOLITION	2 sheet metal workers + 1 HVAC	$29.17	6.97%	DETAILED TAKEOFF!O21
3	DETAILED TAKEOFF DIV-23 HEATING, VENTILATION & AIR CONDITIONING	2 sheet metal workers + 1 HVAC	$29.17	6.97%	DETAILED TAKEOFF!O29

Summary block 'BASE BID PRICE': LABOR TAX D23 = 6.97% (labor-weighted burden of the divisions in the block); MATERIAL SALES TAX D20 = 7.00%; OH 10%, profit 10%.
- Open-shop fringe 15% of base (assumption).

4. MATERIAL PRICING BASIS AND LABOR PRODUCTIVITY

Ref	Material / item	Unit	Price carried	Source	Notes
H1	Insulated flex duct (Quietflex)	LF	2.97 to 8.80	Zoro / product pages	
H1	Diffusers and grilles (comparable models)	EA	29.80 to 174.39	Zoro, Home Depot	Takeoff models mostly not listed
H1	Duct wrap R6 FSK, duct liner	SF	0.65 / 3.32	Zoro	
H1	ACR copper + elastomeric insulation	LF	3.40 to 12.23	Zoro	
H1	Equipment with exact model match (Goodman AMST48, Greenheck SP-A70 / CSP-A700, Daikin FTXM09)	EA	224 to 2,428	hvacdirect, Greenheck store, gotductless	

Labor production rates (unit hours) are FEDES estimator judgment for the stated conditions. No published RSMeans, NECA, MCAA or NRCA unit-hour data could be accessed during this review; each rate is shown on the line table in section 18 so it can be checked against company history.

5. SALES TAX BASIS

- Piedmont straddles Anderson County (7%) and Greenville County (6%) per SC DOR letter IL #26-5; the parcel county was not confirmed, so 7% is carried [T2].
- SC contractors are the consumer of materials and pay tax at purchase; labor not taxed [T2].

6. DIVISION 01 / GENERAL REQUIREMENTS BASIS

#	Item	Location	Carried	Status	Basis
1	Permit	row 12	$0.00	N/A - gap	Mechanical permit fee not retrieved.
2	Debris haul off	row 16	$0.00	N/A	GC dumpster assumed.
3	Other Div-01 rows	rows 13-15,17	$0.00	N/A	
4	Project Supervision	PROPOSAL	$0.00	N/A	Foreman in crew
5	Submittals	PROPOSAL	$531.00	Carried	12 MH equipment, air device, duct submittals
6	Temporary Facilities	PROPOSAL	$0.00	N/A	
7	Project Schedule	PROPOSAL	$0.00	N/A	
8	Office Overheads	PROPOSAL	$0.00	N/A	
9	Closeout	PROPOSAL	$531.00	Carried	12 MH O&M, start-up coordination, as-builts
10	Permits	PROPOSAL	$0.00	N/A	Gap
11	Allowances	PROPOSAL	$0.00	N/A	
12	Mobilization	PROPOSAL	$556.00	Carried	2 mobilizations x 8 MH
13	Sub-Contracts	PROPOSAL	$0.00	N/A	Test & balance by quote (takeoff line)

7. VENDOR QUOTES REQUIRED / NEED QUOTATION LINES

#	Sheet!row	Item	Qty	Unit	Labor carried?	Reason material is blank
1	DETAILED TAKEOFF!24	All Existing Duct Work, Air Devices &	1	LS	No	Demolition lump sum: area-based scope with no quantity breakdown
2	DETAILED TAKEOFF!51	4" Dia Flexible Duct	3.82	LF	Yes	Flex size not priced
3	DETAILED TAKEOFF!83	6"x6" Volume Damper, With Frame And	2	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
4	DETAILED TAKEOFF!84	8"x8" Volume Damper, With Frame And	1	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
5	DETAILED TAKEOFF!85	6" Dia Manual Balancing Damper, With Frame And	1	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
6	DETAILED TAKEOFF!86	8" Dia Manual Balancing Damper, With Frame And	9	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
7	DETAILED TAKEOFF!87	10" Dia Manual Balancing Damper, With Frame And	6	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
8	DETAILED TAKEOFF!88	14"X16" Manual Balancing Damper, With Frame And	2	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)

9	DETAILED TAKEOFF!89	10" Dia Motor Operated Damper	2	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
10	DETAILED TAKEOFF!90	6" Dia Backdraft Damper	1	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
11	DETAILED TAKEOFF!91	10"x10" Backdraft Damper	1	EA	Yes	Commercial volume/balancing/motorized damper price not found (only industrial units $167-$355)
12	DETAILED TAKEOFF!95	Galvanized Steel Metal Duct	1050.5	Lbs.	No	Fabricated galvanized duct $/lb not found (no published sheet price with weight)
13	DETAILED TAKEOFF!102	1-1/2" Thick Internal Acoustical Duct	55	SF	Yes	Item not matched to a published price
14	DETAILED TAKEOFF!105	1-1/2" Thick Fiberglass Covered With Flameproof	435.6	SF	Yes	Accessory: size/model not priced
15	DETAILED TAKEOFF!109	1"x18" Gauge Strap For Rectangular Duct, Straps To Be	22	EA	Yes	Accessory: size/model not priced
16	DETAILED TAKEOFF!110	Duct Strap For	13	EA	Yes	Accessory: size/model not priced
17	DETAILED TAKEOFF!111	Threaded Rod	26	EA	Yes	Accessory: size/model not priced
18	DETAILED TAKEOFF!124	3/8" Dia Refrigerant Liquid Pipe 90 Deg	10	EA	Yes	Item not matched to a published price
19	DETAILED TAKEOFF!125	5/8" Dia Refrigerant Suction Pipe 90 Deg	10	EA	Yes	Item not matched to a published price
20	DETAILED TAKEOFF!135	1" Dia Condensate	7	EA	Yes	Item not matched to a published price
21	DETAILED TAKEOFF!157	CF-1: Ceiling Fan, MFR: VIVIDAIR Z-TECH HVLS FAN	7	EA	Yes	HVAC equipment: exact model price not published; vendor quote
22	DETAILED TAKEOFF!161	3/8" Threaded Rod	4	EA	Yes	Accessory: size/model not priced
23	DETAILED TAKEOFF!162	10"x10" Flexible	2	EA	Yes	Short flex connector size not priced
24	DETAILED TAKEOFF!163	10"x10" Flexible	2	EA	Yes	Short flex connector size not priced
25	DETAILED TAKEOFF!165	6" Dia Flexible Duct	1	EA	Yes	Short flex connector size not priced
26	DETAILED TAKEOFF!173	14"x16" Flexible	4	EA	Yes	Short flex connector size not priced
27	DETAILED TAKEOFF!174	Threaded Rod	8	EA	Yes	Accessory: size/model not priced
28	DETAILED TAKEOFF!175	Vibration Isolator	8	EA	Yes	Accessory: size/model not priced
29	DETAILED TAKEOFF!177	14"x16" Flexible	4	EA	Yes	Short flex connector size not priced
30	DETAILED TAKEOFF!178	3/8" x3" Expansion	8	EA	Yes	Item not matched to a published price
31	DETAILED TAKEOFF!179	4" Thick Mounting	2	EA	Yes	HVAC equipment: exact model price not published; vendor quote
32	DETAILED TAKEOFF!180	Flashing For	2	EA	Yes	Accessory: size/model not priced
33	DETAILED TAKEOFF!189	4" Thick Concrete	1	EA	Yes	HVAC equipment: exact model price not published; vendor quote
34	DETAILED TAKEOFF!196	6" Dia Flexible Duct	1	EA	Yes	Short flex connector size not priced
35	DETAILED TAKEOFF!197	8" Dia Flexible Duct	14	EA	Yes	Short flex connector size not priced
36	DETAILED TAKEOFF!198	10" Dia Flexible	4	EA	Yes	Short flex connector size not priced
37	DETAILED TAKEOFF!199	14" Dia Flexible	3	EA	Yes	Short flex connector size not priced
38	DETAILED TAKEOFF!202	6" Dia / 24"x24"	1	EA	Yes	Air device model/size not priced
39	DETAILED TAKEOFF!203	8" Dia / 24"x24"	14	EA	Yes	Air device model/size not priced
40	DETAILED TAKEOFF!204	10" Dia / 24"x24"	4	EA	Yes	Air device model/size not priced
41	DETAILED TAKEOFF!205	14" Dia / 24"x24"	3	EA	Yes	Air device model/size not priced
42	DETAILED TAKEOFF!212	6" Dia Roof Cap	1	EA	Yes	Accessory: size/model not priced
43	DETAILED TAKEOFF!213	10"x10" Roof Cap	1	EA	Yes	Accessory: size/model not priced
44	DETAILED TAKEOFF!219	Allowance For Testing And	1	LS	No	Testing & balancing / allowance: subcontract quote needed

8. ALLOWANCES

#	Item	Qty / unit	Allowance $	Basis	Included	Excluded	Why exact pricing cannot be set

9. TAKEOFF DISCREPANCIES (PRICED AS RECEIVED)

#	Issue	Takeoff	Expected /	Reference	Priced as	Exposure	Detail
1	Duct both as LF runs and as a total Lbs line	LF lines + Lbs line	One material basis	Takeoff structure	Labor on LF, material on Lbs (NQ)	Avoided double count	

10. MISSING / ADDITIONAL SCOPE

#	Scope item	Reference	Carried?	Carried $	Exposure range	Notes
1	Galvanized ductwork material (Lbs line) and fabrication	Section 7	Labor only on LF lines	$0	not quantified (no published $/lb found)	Largest open cost on duct jobs; get a sheet-metal fabricator quote

2	Equipment without a published exact-model price	Section 7	Labor only	$0	quotes required	
3	Crane / rigging for rooftop equipment, test & balance, controls	Practice	No	$0	not quantified	
4	Electrical gear, scheduled fixtures, special devices (NEED QUOTATION lines)	Section 7	Labor only	$0	quotes required	Largest open cost
5	Pull boxes, straps, supports, fittings beyond couplings/connectors, wire connectors, labels	Practice	No	$0	2% to 4% of material	

11. KEY ASSUMPTIONS

- Material at published distributor web prices; no trade discount.
- Normal working hours.
- Labor production rates are FEDES estimator judgment (section 18).

12. EXCLUSIONS

- Items on NEED QUOTATION lines until quotes are added.
- Overtime / shift work.
- Utility company charges.

13. DOLLAR EXPOSURE / RISK ITEMS

#	Risk	Reason	Carried	Low impact	High impact	Rating	Notes
1	Ductwork material not priced	No published $/lb	labor only	$0	$0	CRITICAL	Get a fabricator quote; impact not quantified
2	HVAC workers comp not included	Rate not found	0%	$0	$0	HIGH	Add carrier rate
3	Equipment without exact-model price	Vendor quotes	labor only	$0	$0	HIGH	
4	Sales tax county not confirmed	6% vs 7%	7%	-$300	$0	LOW	

14. TAKEOFF-TO-ESTIMATE RECONCILIATION

#	Sheet / division	Takeoff lines	Priced	Need quotation	Material $	Labor $	Notes
1	DETAILED TAKEOFF DIV-01	6	0	0	$0.00	$0.00	
2	DETAILED TAKEOFF DIV-02	2	1	1	$0.00	$204.19	
3	DETAILED TAKEOFF DIV-23	118	113	43	$14,001.15	$13,006.87	

Every takeoff line is carried at its takeoff quantity, unit and division. No quantity, unit, description or formula was changed. Div-01 template quantities were entered only where a cost is carried (section 6).

15. MATHEMATICAL QA AND TEMPLATE FORMULA ISSUES

Independent calculation: every line recomputed in Python as qty x (1 + waste) x unit rate, then the template's own summary formulas evaluated against those independent line values. Result 36,553.73. Workbook after full LibreOffice recalculation: see section 1 variance column (live).

#	Issue (formula not modified)	Cells	Dollar impact now	Detail

16. DEVIL'S ADVOCATE REVIEW

#	Area	Challenge and
1	Materials	Published web prices without trade discount. A real supplier quote will move material +/- 15%.
2	Labor	Unit hours are judgment; a published-manual estimate may differ by +/- 20%.

17. EXTERNAL SOURCES (all accessed 2026-10-08 unless noted)

Ref	Source	Used for	Data / effective	URL
W1	O*NET Local Wages (BLS OEWS 2025), South Carolina	Wages	2025	https://www.onetonline.org/link/localwages/49-9021.00?st=SC
T1	SC DEW 2026 UI rates	Burden	2026	research file tax_burden_batch2.md
T2	SC DOR IL #26-5	Sales tax	2026	research file tax_burden_batch2.md
H1	Zoro, Supplyhouse, Home Depot, Budget Heating, gotductless, hvacdirect, Global Industrial, Greenheck store	HVAC material and equipment prices	seen 2026-10-08	research file hvac_prices.md
P1	HD Supply / Zoro / Hemlock Hardware plumbing listings	Copper, PVC	seen 2026-10-08	research file plumbing_prices.md

Hallucination control: a separate reviewer re-opened a 42-item sample of these source pages (prices, wage rates, tax rates, unemployment and WC rates) and confirmed all 42 against the live pages on 2026-10-08.

18. LINE PRICING BASIS (EVERY LINE)

Row	Description	Qty w/ waste	Unit hrs	Unit material	Ext. material	Ext. labor	Basis / source ref / flag

DETAI	Permit (.07% of project value) [fee]	1	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAI	Site development [fee]	1	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAI	Variance [fee]	1	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAI	Private inspections [fee]	1	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAI	Debris haul off [load]	4	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAI	Site plan [Fee]	1	0	$0.00	$0.00	$0.00	N/A (section 6)
DETAILED TAKE	Existing Ceiling Fan To Be Removed, Keep Electrical & Controle Connections For New Fans [EA]	7	1	$0.00	$0.00	$204.19	Demolition labor (judgment)
DETAILED TAKE	All Existing Duct Work, Air Devices & Equipment's To Be Removed In This Area (3711 SF) [LS]	1	0	NEED QUOTE	$0.00	$0.00	Demolition LS: no basis given
DETAILED	4" Dia Supply Air Duct [LF]	13.14	0.12	$0.00	$0.00	$46.01	Round duct 4 in install 0.12 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	6" Dia Supply Air Duct [LF]	2.2	0.12	$0.00	$0.00	$7.70	Round duct 6 in install 0.12 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	8" Dia Supply Air Duct [LF]	68.19	0.12	$0.00	$0.00	$238.69	Round duct 8 in install 0.12 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	10" Dia Supply Air Duct [LF]	9.21	0.18	$0.00	$0.00	$48.34	Round duct 10 in install 0.18 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	8" Dia Return Air Duct [LF]	22.86	0.12	$0.00	$0.00	$80.01	Round duct 8 in install 0.12 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	14" Dia Return Air Duct [LF]	8.23	0.18	$0.00	$0.00	$43.20	Round duct 14 in install 0.18 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	10" Dia Outside Air Duct [LF]	16.17	0.18	$0.00	$0.00	$84.90	Round duct 10 in install 0.18 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	6" Dia Exhaust Air Duct [LF]	9.57	0.12	$0.00	$0.00	$33.50	Round duct 6 in install 0.12 MH/LF; material on the Lbs line (round pipe $4.92-$11.36/ft listed if separate [H1])
DETAILED	8"x10" Supply Air Duct [LF]	12.77	0.25	$0.00	$0.00	$93.13	Rect duct 8x10 install 0.25 MH/LF; sheet metal material on the Lbs line
DETAILED	14"x12" Supply Air Duct [LF]	13.54	0.25	$0.00	$0.00	$98.75	Rect duct 14x12 install 0.25 MH/LF; sheet metal material on the Lbs line
DETAILED	16"x14" Supply Air Duct [LF]	57.78	0.35	$0.00	$0.00	$589.94	Rect duct 16x14 install 0.35 MH/LF; sheet metal material on the Lbs line
DETAILED	14"x16" Return Air Duct [LF]	18.5	0.35	$0.00	$0.00	$188.90	Rect duct 14x16 install 0.35 MH/LF; sheet metal material on the Lbs line
DETAILED	6"x6" Exhaust Air Duct [LF]	17.86	0.25	$0.00	$0.00	$130.27	Rect duct 6x6 install 0.25 MH/LF; sheet metal material on the Lbs line
DETAILED	8"x8" Exhaust Air Duct [LF]	3.41	0.25	$0.00	$0.00	$24.87	Rect duct 8x8 install 0.25 MH/LF; sheet metal material on the Lbs line
DETAILED	10"x10" Exhaust Air Duct [LF]	31.21	0.25	$0.00	$0.00	$227.58	Rect duct 10x10 install 0.25 MH/LF; sheet metal material on the Lbs line
DETAI	4" Dia Flexible Duct [LF]	3.82	0.06	NEED QUOTE	$0.00	$6.68	0.06 MH/LF
DETAI	6" Dia Flexible Duct [LF]	8.61	0.06	$2.97	$25.58	$15.07	Quietflex insulated flex 6 in $2.97/ft [H1]; 0.06 MH/LF
DETAI	8" Dia Flexible Duct [LF]	117.17	0.06	$3.55	$415.96	$205.07	Quietflex insulated flex 8 in $3.55/ft [H1]; 0.06 MH/LF
DETAI	10" Dia Flexible Duct [LF]	31.9	0.06	$4.48	$142.91	$55.83	Quietflex insulated flex 10 in $4.48/ft [H1]; 0.06 MH/LF
DETAI	14" Dia Flexible Duct [LF]	24.2	0.06	$8.80	$212.96	$42.35	Quietflex insulated flex 14 in $8.8/ft [H1]; 0.06 MH/LF
DETAILED	4" Dia Duct 90 Deg Elbow [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	6" Dia 90 Deg Elbow [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	8" Dia Duct 90 Deg Elbow [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	4" Dia Duct Takeoff [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	6" Dia Duct Takeoff [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAI	8" Dia Duct Takeoff [EA]	12	0.4	$33.21	$398.52	$140.02	Master Flow 8 in spin-in with damper $33.21 [H1]; 0.4 MH
DETAILED	10" Dia Duct Takeoff [EA]	6	0.4	$0.00	$0.00	$70.01	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	14" Dia Duct Takeoff [EA]	3	0.4	$0.00	$0.00	$35.00	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	6"x6" Duct 90 Deg Elbow [EA]	2	0.75	$0.00	$0.00	$43.76	Fitting install 0.75 MH; fabricated from duct material (Lbs line)

DETAILED	6"x6" Duct 90 Deg Elbow With Turing Vanes [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	8"x8" Duct 90 Deg Elbow [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	10"x10" Duct 90 Deg Elbow [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	14"x16" Duct 90 Deg Elbow With Turning Vanes [EA]	1	0.75	$0.00	$0.00	$21.88	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	16"x14" Duct 90 Deg Elbow [EA]	2	0.75	$0.00	$0.00	$43.76	Fitting install 0.75 MH; fabricated from duct material (Lbs line)
DETAILED	6"x6" Duct Takeoff [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	8"x8" Duct Takeoff [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	10"x10" / 6"x6" Duct Reducer [EA]	1	0.6	$0.00	$0.00	$17.50	Fitting install 0.6 MH; fabricated from duct material (Lbs line)
DETAILED	16"x14" / 8"x10" Duct Reducer [EA]	1	0.6	$0.00	$0.00	$17.50	Fitting install 0.6 MH; fabricated from duct material (Lbs line)
DETAILED	16"x14" / 14"x12" Duct Reducer [EA]	1	0.6	$0.00	$0.00	$17.50	Fitting install 0.6 MH; fabricated from duct material (Lbs line)
DETAILED TAKE	6"x6" Volume Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Thread Screw. [EA]	2	0.6	NEED QUOTE	$0.00	$35.00	0.6 MH
DETAILED TAKE	8"x8" Volume Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Thread Screw. [EA]	1	0.6	NEED QUOTE	$0.00	$17.50	0.6 MH
DETAILED TAKE	6" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Threa [EA]	1	0.6	NEED QUOTE	$0.00	$17.50	0.6 MH
DETAILED TAKE	8" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Threa [EA]	9	0.6	NEED QUOTE	$0.00	$157.52	0.6 MH
DETAILED TAKE	10" Dia Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Thre [EA]	6	0.6	NEED QUOTE	$0.00	$105.01	0.6 MH
DETAILED TAKE	14"X16" Manual Balancing Damper, With Frame And Bearings, A Continuous Shaft, And A Locking Quadrant With Thre [EA]	2	0.6	NEED QUOTE	$0.00	$35.00	0.6 MH
DETAI	10" Dia Motor Operated Damper [EA]	2	0.6	NEED QUOTE	$0.00	$35.00	0.6 MH
DETAI	6" Dia Backdraft Damper [EA]	1	0.6	NEED QUOTE	$0.00	$17.50	0.6 MH
DETAI	10"x10" Backdraft Damper [EA]	1	0.6	NEED QUOTE	$0.00	$17.50	0.6 MH
DETAI	Galvanized Steel Metal Duct [Lbs.]	1050.5	0	NEED QUOTE	$0.00	$0.00	Labor carried on duct LF and fitting lines
DETAILED TAKE	1" Thick Fiberglass Duct Wrap Insulation With Foil Faced Vapor Barrier And An Installed Thermal Resistance Of [SF]	946	0.02	$0.65	$614.90	$551.90	Knauf R6 FSK duct wrap $0.65/SF [H1]; 0.02 MH/SF
DETAILED	1-1/2" Thick Internal Acoustical Duct Lining (Thickness Assumed) [SF]	55	0.05	NEED QUOTE	$0.00	$80.22	Fallback: labor by judgment
DETAILED TAKE	1-1/2" Thick Fiberglass Covered With Flameproof Vapor Barrier Of Aluminum Metalized Polyester Film Laminated T [SF]	435.6	0.02	NEED QUOTE	$0.00	$254.13	Accessory labor (judgment)
DETAILED TAKE	1"x18" Gauge Strap For Rectangular Duct, Straps To Be Tight Against Duct, Self Tapping Cadmium-Plated Hex-Head [EA]	22	0.3	NEED QUOTE	$0.00	$192.52	Accessory labor (judgment)
DETAI	Duct Strap For Round Duct [EA]	13	0.3	NEED QUOTE	$0.00	$113.76	Accessory labor (judgment)
DETAI	Threaded Rod [EA]	26	0.3	NEED QUOTE	$0.00	$227.53	Accessory labor (judgment)
DETAILED	3/8" Dia Refrigerant Liquid Pipe [LF]	190.29	0.12	$3.40	$646.98	$666.09	Streamline ACR 3/8 in $2.27/ft + K-Flex 1/2 in wall from $1.13/ft [H1]; 0.12 MH/LF
DETAILED	5/8" Dia Refrigerant Suction Pipe [LF]	190.29	0.12	$5.66	$1,077.04	$666.09	Streamline ACR 5/8 in $4.53/ft + K-Flex 1/2 in wall from $1.13/ft [H1]; 0.12 MH/LF
DETAILED	3/8" Dia Refrigerant Liquid Pipe [LF]	190.29	0.12	$3.40	$646.98	$666.09	Streamline ACR 3/8 in $2.27/ft + K-Flex 1/2 in wall from $1.13/ft [H1]; 0.12 MH/LF
DETAILED	5/8" Dia Refrigerant Suction Pipe [LF]	190.29	0.12	$5.66	$1,077.04	$666.09	Streamline ACR 5/8 in $4.53/ft + K-Flex 1/2 in wall from $1.13/ft [H1]; 0.12 MH/LF
DETAILED	3/8" Dia Refrigerant Liquid Pipe 90 Deg Elbow [EA]	10	1	NEED QUOTE	$0.00	$291.70	Fallback: labor by judgment

DETAILED	5/8" Dia Refrigerant Suction Pipe 90 Deg Elbow [EA]	10	1	NEED QUOTE	$0.00	$291.70	Fallback: labor by judgment
DETAIL	1" Dia Condensate Drain Pipe [LF]	89.78	0.06	$1.35	$121.21	$157.14	PVC Sch 40 1 in $1.35/ft [H1/P1]; 0.06 MH/LF
DETAIL	1" Dia Condensate Drain Pipe [LF]	89.78	0.06	$1.35	$121.21	$157.14	PVC Sch 40 1 in $1.35/ft [H1/P1]; 0.06 MH/LF
DETAILED	1" Dia Condensate Drain Pipe 90 Deg Elbow [EA]	7	1	NEED QUOTE	$0.00	$204.19	Fallback: labor by judgment
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 6" Dia Neck Si [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	2	0.75	$96.96	$193.92	$43.76	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 8" Dia Neck Si [EA]	2	0.75	$96.96	$193.92	$43.76	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 10" Dia Neck S [EA]	3	0.75	$96.96	$290.88	$65.63	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	SD-1: Supply Air Diffuser, Square Cone, Fixed Pattern, 2-Cone Lay-In, Steel, 24"x24" Face Size, 10" Dia Neck S [EA]	1	0.75	$96.96	$96.96	$21.88	Tuttle & Bailey 24x24 step-down supply $96.96 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	RG-1: Return Air Diffuser, Perforated Face, Lay-In, Aluminum, 24"x24" Face Size, 8" Dia Neck Size MFR: TRUAIRE [EA]	5	0.75	$51.95	$259.75	$109.39	TRUaire 1010MAS 24x24 perforated return $51.95 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	RG-1: Return Air Diffuser, Perforated Face, Lay-In, Aluminum, 24"x24" Face Size, 14" Dia Neck Size MFR: TRUAIR [EA]	3	0.75	$51.95	$155.85	$65.63	TRUaire 1010MAS 24x24 perforated return $51.95 comparable (confirm decimal) [H1]; 0.75 MH
DETAILED TAKE	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 6"x6" Neck Size, 25 CFM MFR: TRUAIRE [EA]	1	0.75	$174.39	$174.39	$21.88	TRUaire A1970RG 24x24 lay-in egg crate $174.39 comparable [H1]; 0.75 MH
DETAILED TAKE	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 6"x6" Neck Size, 150 CFM MFR: TRUAIR [EA]	1	0.75	$174.39	$174.39	$21.88	TRUaire A1970RG 24x24 lay-in egg crate $174.39 comparable [H1]; 0.75 MH
DETAILED TAKE	EG-1: Exhaust Air Grille, Egg Crate, Lay-In, Aluminum, 24"x24" Face Size, 8"x8" Neck Size, 250 CFM MFR: TRUAIR [EA]	1	0.75	$174.39	$174.39	$21.88	TRUaire A1970RG 24x24 lay-in egg crate $174.39 comparable [H1]; 0.75 MH
DETAILED TAKE	CF-1: Ceiling Fan, MFR: VIVIDAIR Z-TECH HVLS FAN Reconnect to Existing Wiring & Controls [EA]	7	3	NEED QUOTE	$0.00	$612.57	Set and connect 3 MH (crane/rigging not included)
DETAILED TAKE	EF-1: Exhaust Fan MFR: GREENHECK MODEL: CSP-A700-VG CFM: 425, RPM: 950, WATTS: 74, SONES: 0.9, 115V/1P. NOTES: [EA]	1	3	$224.00	$224.00	$87.51	Greenheck SP-A70 $224 [H1]; 3 MH
DETAIL	3/8" Threaded Rod [EA]	4	0.3	NEED QUOTE	$0.00	$35.00	Accessory labor (judgment)
DETAIL	10"x10" Flexible Duct 1.5' [EA]	2	0.3	NEED QUOTE	$0.00	$17.50	0.3 MH
DETAIL	10"x10" Flexible Duct Connector [EA]	2	0.3	NEED QUOTE	$0.00	$17.50	0.3 MH
DETAILED TAKE	EF-2: Exhaust Fan MFR: GREENHECK MODEL: SP-A70 CFM: 50, RPM: 850, WATTS: 13, SONES: 0.3, 115V/1P. NOTES: 1: Pr [EA]	1	3	$224.00	$224.00	$87.51	Greenheck SP-A70 $224 [H1]; 3 MH
DETAIL	6" Dia Flexible Duct Connector [EA]	1	0.3	NEED QUOTE	$0.00	$8.75	0.3 MH

DETAILED TAKE	AHU-1/HP1: Air Handling Unit, MFR: GOODMAN, MODEL: AMST48, TON: 4, CFM: 1400, Total MBH: 46.1, SEN MBH: 36.4, [EA]	1	12	$1,355.00	$1,355.00	$350.04	Goodman AMST48 air handler $1,355 [H1] - heat pump HP side NOT priced (exact model not listed; current R-32 equivalent $3,609 not used); 12 MH
DETAILED TAKE	AHU-2/HP2: Air Handling Unit, MFR: GOODMAN, MODEL: AMST48, TON: 4, CFM: 1400, Total MBH: 46.1, SEN MBH: 36.4, [EA]	1	12	$1,355.00	$1,355.00	$350.04	Goodman AMST48 air handler $1,355 [H1] - heat pump HP side NOT priced (exact model not listed; current R-32 equivalent $3,609 not used); 12 MH
DETAI	14"x16" Flexible Duct Connector [EA]	4	0.3	NEED QUOTE	$0.00	$35.00	0.3 MH
DETAI	Threaded Rod [EA]	8	0.3	NEED QUOTE	$0.00	$70.01	Accessory labor (judgment)
DETAI	Vibration Isolator [EA]	8	0.3	NEED QUOTE	$0.00	$70.01	Accessory labor (judgment)
DETAILED	Auxiliary Pan With Float Switch [EA]	2	1	$82.39	$164.78	$58.34	Diversitech 6-3030L pan $38.39 + RectorSeal SS2 float switch $44 [H1]; 1.0 MH
DETAI	14"x16" Flexible Duct 1.5' [EA]	4	0.3	NEED QUOTE	$0.00	$35.00	0.3 MH
DETAI	3/8" x3" Expansion Bolt [EA]	8	1	NEED QUOTE	$0.00	$233.36	Fallback: labor by judgment
DETAI	4" Thick Mounting Pad For Heat Pump Unit [EA]	2	8	NEED QUOTE	$0.00	$466.72	Set and connect 8 MH (crane/rigging not included)
DETAILED	Flashing For Refrigerant Pipe Penetration [EA]	2	0.3	NEED QUOTE	$0.00	$17.50	Accessory labor (judgment)
DETAILED TAKE	AHU-IT/HP-IT: Mini Split Air Handling Indoor Unit, MFR: DAIKIN, MODEL: FTXM09, TON: 0.75, CFM: 340, TOTAL COOL [EA]	1	10	$2,428.00	$2,428.00	$291.70	Daikin FTXM09 mini-split system (indoor + outdoor) $2,428 [H1]; 10 MH
DETAI	Wall Mounted Brackets By MFR [EA]	1	0	$0.00	$0.00	$0.00	By others / by manufacturer per takeoff
DETAI	Thermostat By MFR [EA]	1	0	$0.00	$0.00	$0.00	By others / by manufacturer per takeoff
DETAI	Wall Sleeve with Caps By MFR [EA]	1	0	$0.00	$0.00	$0.00	By others / by manufacturer per takeoff
DETAI	4" Thick Concrete Pad For Heat Pump Unit [EA]	1	8	NEED QUOTE	$0.00	$233.36	Set and connect 8 MH (crane/rigging not included)
DETAILED TAKE	CP-1: Condensate Pump MFR: LITTLE GIANT MODEL: VCMA-20UL 115V/1P/60Hz NOTES: 1: Provide Model Specified Or Equ [EA]	2	1.5	$73.44	$146.88	$87.51	Little Giant VCMA-20ULS $73.44 [H1]; 1.5 MH
DETAI	6" Dia Flexible Duct Clamp [EA]	1	0.3	NEED QUOTE	$0.00	$8.75	0.3 MH
DETAI	8" Dia Flexible Duct Clamp [EA]	14	0.3	NEED QUOTE	$0.00	$122.51	0.3 MH
DETAI	10" Dia Flexible Duct Clamp [EA]	4	0.3	NEED QUOTE	$0.00	$35.00	0.3 MH
DETAI	14" Dia Flexible Duct Clamp [EA]	3	0.3	NEED QUOTE	$0.00	$26.25	0.3 MH
DETAILED	6" Dia / 24"x24" Duct Transition at Grille [EA]	1	0.75	NEED QUOTE	$0.00	$21.88	0.75 MH
DETAILED	8" Dia / 24"x24" Duct Transition at Grille [EA]	14	0.75	NEED QUOTE	$0.00	$306.29	0.75 MH
DETAILED	10" Dia / 24"x24" Duct Transition at Grille [EA]	4	0.75	NEED QUOTE	$0.00	$87.51	0.75 MH
DETAILED	14" Dia / 24"x24" Duct Transition at Grille [EA]	3	0.75	NEED QUOTE	$0.00	$65.63	0.75 MH
DETAI	Thermostat [EA]	2	1	$102.00	$204.00	$58.34	Honeywell T6 Pro low end $102 [H1]; 1.0 MH
DETAILED	Programmable Auto Changeover Thermostat [EA]	1	1	$102.00	$102.00	$29.17	Honeywell T6 Pro low end $102 [H1]; 1.0 MH
DETAI	6" Dia Roof Cap With Bird Screen [EA]	1	0.3	NEED QUOTE	$0.00	$8.75	Accessory labor (judgment)
DETAI	10"x10" Roof Cap With Bird Screen [EA]	1	0.3	NEED QUOTE	$0.00	$8.75	Accessory labor (judgment)
DETAILED	8"x10" Duct End Cap [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	14"x12" Duct End Cap [EA]	1	0.4	$0.00	$0.00	$11.67	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED	14"x16" Duct End Cap [EA]	2	0.4	$0.00	$0.00	$23.34	Fitting install 0.4 MH; fabricated from duct material (Lbs line)
DETAILED TAKE	Allowance For Testing And Balancing Of HVAC System After Completion of Work (3711 SF) [LS]	1	0	NEED QUOTE	$0.00	$0.00	No basis given