

# Appendix C: Ventilation System Redesign Take Off

<b>RTU-1 Supply Air</b>													
Supply Air Duct										Supply Duct Insulation			Overall Total
Dimension* (in x in)	L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub- Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total			
<b>Second Floor</b>													
35	x	30	19	65	16.3	309.7	13.3	\$4,119	\$18,536	206	3.54	\$729	<b>\$19,264</b>
30	x	20	5	50	10.7	53.5	14.2	\$760	\$3,419	42	3.54	\$148	<b>\$3,566</b>
30	x	9	31	39	8.4	260.4	13.3	\$3,463	\$15,585	202	3.54	\$713	<b>\$16,298</b>
30	x	5	10	35	7.5	75	14.2	\$1,065	\$4,793	58	3.54	\$207	<b>\$4,999</b>
20	x	8	14	28	6	84	14.2	\$1,193	\$5,368	65	3.54	\$231	<b>\$5,599</b>
20	x	7	20	27	5.8	116	14.2	\$1,647	\$7,412	90	3.54	\$319	<b>\$7,731</b>
6	x	4	10	10	2.2	22	14.2	\$312	\$1,406	17	3.54	\$59	<b>\$1,465</b>
6	x	4	11	10	2.2	24.2	14.2	\$344	\$1,546	18	3.54	\$65	<b>\$1,611</b>
6	x	4	12	10	2.2	26.4	14.2	\$375	\$1,687	20	3.54	\$71	<b>\$1,758</b>
30	x	16	36	46	9.9	356.4	13.3	\$4,740	\$21,331	276	3.54	\$977	<b>\$22,308</b>
20	x	6	26	26	5.6	145.6	14.2	\$2,068	\$9,304	113	3.54	\$399	<b>\$9,703</b>
30	x	12	6	42	9	54	14.2	\$767	\$3,451	42	3.54	\$149	<b>\$3,599</b>
30	x	10	31	40	8.6	266.6	13.3	\$3,546	\$15,956	207	3.54	\$732	<b>\$16,688</b>
30	x	8	33	38	8.2	270.6	13.3	\$3,599	\$16,195	209	3.54	\$740	<b>\$16,935</b>
30	x	6	39	36	7.8	304.2	13.3	\$4,046	\$18,206	234	3.54	\$828	<b>\$19,035</b>
20	x	6	39	26	5.6	218.4	13.3	\$2,905	\$13,071	169	3.54	\$598	<b>\$13,670</b>
<b>First Floor</b>													
25	x	25	17	50	10.7	181.9	14.2	\$2,583	\$11,623	142	3.54	\$502	<b>\$12,125</b>
30	x	9	31	39	8.4	260.4	13.3	\$3,463	\$15,585	202	3.54	\$713	<b>\$16,298</b>
30	x	5	10	35	7.5	75	14.2	\$1,065	\$4,793	58	3.54	\$207	<b>\$4,999</b>

20	x	8	14	28	6	84	14.2	\$1,193	\$5,368	65	3.54	\$231	<b>\$5,599</b>	
20	x	7	20	27	5.8	116	14.2	\$1,647	\$7,412	90	3.54	\$319	<b>\$7,731</b>	
6	x	4	10	10	2.2	22	14.2	\$312	\$1,406	17	3.54	\$59	<b>\$1,465</b>	
6	x	4	11	10	2.2	24.2	14.2	\$344	\$1,546	18	3.54	\$65	<b>\$1,611</b>	
6	x	4	12	10	2.2	26.4	14.2	\$375	\$1,687	20	3.54	\$71	<b>\$1,758</b>	
30	x	20	38	50	10.7	406.6	13.3	\$5,408	\$24,335	317	3.54	\$1,121	<b>\$25,456</b>	
30	x	16	23	46	9.9	227.7	13.3	\$3,028	\$13,628	176	3.54	\$624	<b>\$14,252</b>	
30	x	8	21	38	8.2	172.2	14.2	\$2,445	\$11,004	133	3.54	\$471	<b>\$11,474</b>	
30	x	6	41	36	7.8	319.8	13.3	\$4,253	\$19,140	246	3.54	\$871	<b>\$20,011</b>	
20	x	6	31	26	5.6	173.6	14.2	\$2,465	\$11,093	134	3.54	\$476	<b>\$11,569</b>	
30	x	9	33	39	8.4	277.2	13.3	\$3,687	\$16,590	215	3.54	\$759	<b>\$17,350</b>	
30	x	7	33	37	8	264	13.3	\$3,511	\$15,800	204	3.54	\$720	<b>\$16,521</b>	
20	x	6	24	26	5.6	134.4	14.2	\$1,908	\$8,588	104	3.54	\$368	<b>\$8,956</b>	
Ground Floor														
30	x	12	17	42	9	153	14.2	\$2,173	\$9,777	119	3.54	\$421	<b>\$10,198</b>	
30	x	6	25	36	7.8	195	14.2	\$2,769	\$12,461	150	3.54	\$531	<b>\$12,992</b>	
30	x	6	6	36	7.8	46.8	14.2	\$665	\$2,991	36	3.54	\$127	<b>\$3,118</b>	
10	x	8	3	18	3.9	11.7	14.2	\$166	\$748	9	3.54	\$32	<b>\$779</b>	
10	x	8	11	18	3.9	42.9	14.2	\$609	\$2,741	33	3.54	\$117	<b>\$2,858</b>	
10	x	8	11	18	3.9	42.9	14.2	\$609	\$2,741	33	3.54	\$117	<b>\$2,858</b>	
20	x	14	21	34	7.3	153.3	14.2	\$2,177	\$9,796	119	3.54	\$421	<b>\$10,217</b>	
20	x	14	27	34	7.3	197.1	14.2	\$2,799	\$12,595	153	3.54	\$542	<b>\$13,136</b>	
20	x	7	21	27	5.8	121.8	14.2	\$1,730	\$7,783	95	3.54	\$335	<b>\$8,118</b>	
20	x	7	26	27	5.8	150.8	14.2	\$2,141	\$9,636	117	3.54	\$414	<b>\$10,050</b>	
							<b>6,468</b>			<b>\$398,131</b>			<b>\$17,596</b>	<b>\$415,727</b>

\* All supply air ductwork sized for 0.08 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-1 Return Air</b>													
Return Air Duct								Return Duct Insulation				Overall Total	
Dimension* (in x in)			Length (ft)	2-S (in)	W/L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub- Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total	Overall Total
<b>Second Floor</b>													
20	x	6	46	26	5.6	257.6	7.05	\$1,816	\$8,172	199	3.54	\$706	<b>\$8,878</b>
20	x	12	44	32	6.9	303.6	7.05	\$2,140	\$9,632	235	3.54	\$831	<b>\$10,462</b>
20	x	12	38	32	6.9	262.2	7.05	\$1,849	\$8,318	203	3.54	\$717	<b>\$9,036</b>
30	x	14	18	44	9.5	171	7.3	\$1,248	\$5,617	132	3.54	\$467	<b>\$6,085</b>
30	x	14	8	44	9.5	76	7.3	\$555	\$2,497	59	3.54	\$208	<b>\$2,704</b>
20	x	10	50	30	6.5	325	7.05	\$2,291	\$10,311	250	3.54	\$885	<b>\$11,196</b>
30	x	16	23	46	9.9	227.7	7.05	\$1,605	\$7,224	176	3.54	\$624	<b>\$7,848</b>
9	x	5	15	14	3	45	7.3	\$329	\$1,478	35	3.54	\$124	<b>\$1,602</b>
20	x	8	9	28	6	54	7.3	\$394	\$1,774	42	3.54	\$149	<b>\$1,923</b>
20	x	9	16	29	6.2	99.2	7.3	\$724	\$3,259	77	3.54	\$274	<b>\$3,532</b>
30	x	8	9	38	8.2	73.8	7.3	\$539	\$2,424	57	3.54	\$202	<b>\$2,626</b>
30	x	9	76	39	8.4	638.4	7.05	\$4,501	\$20,253	494	3.54	\$1,749	<b>\$22,002</b>
30	x	40	17	70	17.5	297.5	7.05	\$2,097	\$9,438	198	3.54	\$702	<b>\$10,140</b>
<b>First Floor</b>													
9	x	5	15	14	3	45	7.3	\$329	\$1,478	35	3.54	\$124	<b>\$1,602</b>
20	x	8	9	28	6	54	7.3	\$394	\$1,774	42	3.54	\$149	<b>\$1,923</b>
20	x	9	16	29	6.2	99.2	7.3	\$724	\$3,259	77	3.54	\$274	<b>\$3,532</b>
20	x	8	9	28	6	54	7.3	\$394	\$1,774	42	3.54	\$149	<b>\$1,923</b>
30	x	9	16	39	8.4	134.4	7.3	\$981	\$4,415	104	3.54	\$368	<b>\$4,783</b>
30	x	25	17	55	11.8	200.6	7.05	\$1,414	\$6,364	156	3.54	\$552	<b>\$6,916</b>
30	x	8	32	38	8.2	262.4	7.05	\$1,850	\$8,325	203	3.54	\$717	<b>\$9,042</b>

30	x	8	60	38	8.2	492	7.05	\$3,469	\$15,609	380	3.54	\$1,345	<b>\$16,954</b>
30	x	12	35	42	9	315	7.05	\$2,221	\$9,993	245	3.54	\$867	<b>\$10,861</b>
30	x	8	32	38	8.2	262.4	7.05	\$1,850	\$8,325	203	3.54	\$717	<b>\$9,042</b>
30	x	18	28	48	10.3	288.4	7.05	\$2,033	\$9,149	224	3.54	\$793	<b>\$9,942</b>
30	x	18	27	48	10.3	278.1	7.05	\$1,961	\$8,823	216	3.54	\$765	<b>\$9,587</b>
30	x	8	10	38	8.2	82	7.3	\$599	\$2,694	63	3.54	\$224	<b>\$2,918</b>
30	x	20	10	50	10.7	107	7.3	\$781	\$3,515	83	3.54	\$295	<b>\$3,810</b>
Ground Floor													
15	x	6	15	21	4.5	67.5	7.3	\$493	\$2,217	53	3.54	\$186	<b>\$2,403</b>
15	x	6	15	21	4.5	67.5	7.3	\$493	\$2,217	53	3.54	\$186	<b>\$2,403</b>
20	x	8	8	28	6	48	7.3	\$350	\$1,577	37	3.54	\$132	<b>\$1,709</b>
20	x	12	17	32	6.9	117.3	7.3	\$856	\$3,853	91	3.54	\$321	<b>\$4,174</b>
20	x	9	30	29	6.2	186	7.3	\$1,358	\$6,110	145	3.54	\$513	<b>\$6,623</b>
30	x	10	22	40	8.6	189.2	7.3	\$1,381	\$6,215	147	3.54	\$519	<b>\$6,734</b>
30	x	10	25	40	8.6	215	7.05	\$1,516	\$6,821	167	3.54	\$590	<b>\$7,411</b>
20	x	20	17	40	8.6	146.2	7.3	\$1,067	\$4,803	113	3.54	\$401	<b>\$5,204</b>
						<b>6,542</b>			<b>\$209,707</b>			<b>\$17,824</b>	<b>\$227,532</b>

\* All return air ductwork sized for 0.06 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-2 Supply Air</b>													
Supply Air Duct										Supply Duct Insulation			Overall
Dimension* (in x in)			L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total	Total
Second Floor													
40	x	30	19	70	17.5	332.5	13.3	\$4,422	\$19,900	222	3.54	\$785	<b>\$20,685</b>
20	x	12	4	32	6.9	27.6	14.2	\$392	\$1,764	21	3.54	\$76	<b>\$1,839</b>
20	x	12	30	32	6.9	207	13.3	\$2,753	\$12,389	160	3.54	\$566	<b>\$12,955</b>
20	x	12	15	32	6.9	103.5	14.2	\$1,470	\$6,614	80	3.54	\$283	<b>\$6,897</b>
20	x	7	8	27	5.8	46.4	14.2	\$659	\$2,965	36	3.54	\$127	<b>\$3,092</b>
15	x	5	8	20	4.3	34.4	14.2	\$488	\$2,198	27	3.54	\$94	<b>\$2,293</b>
20	x	8	14	28	6	84	14.2	\$1,193	\$5,368	65	3.54	\$231	<b>\$5,599</b>
20	x	7	8	27	5.8	46.4	14.2	\$659	\$2,965	36	3.54	\$127	<b>\$3,092</b>
15	x	5	8	20	4.3	34.4	14.2	\$488	\$2,198	27	3.54	\$94	<b>\$2,293</b>
6	x	5	30	11	2.4	72	14.2	\$1,022	\$4,601	55	3.54	\$195	<b>\$4,796</b>
30	x	16	40	46	9.9	396	13.3	\$5,267	\$23,701	307	3.54	\$1,086	<b>\$24,786</b>
30	x	16	76	46	9.9	752.4	13.3	\$10,007	\$45,031	583	3.54	\$2,063	<b>\$47,094</b>
30	x	16	14	46	9.9	138.6	14.2	\$1,968	\$8,857	107	3.54	\$380	<b>\$9,237</b>
30	x	8	54	38	8.2	442.8	13.3	\$5,889	\$26,502	342	3.54	\$1,211	<b>\$27,712</b>
30	x	6	33	36	7.8	257.4	13.3	\$3,423	\$15,405	198	3.54	\$701	<b>\$16,106</b>
30	x	6	10	36	7.8	78	14.2	\$1,108	\$4,984	60	3.54	\$212	<b>\$5,197</b>
20	x	6	28	26	5.6	156.8	14.2	\$2,227	\$10,020	121	3.54	\$430	<b>\$10,449</b>
10	x	5	28	15	3.2	89.6	14.2	\$1,272	\$5,725	70	3.54	\$248	<b>\$5,973</b>
20	x	16	41	36	7.8	319.8	13.3	\$4,253	\$19,140	246	3.54	\$871	<b>\$20,011</b>
20	x	16	9	36	7.8	70.2	14.2	\$997	\$4,486	54	3.54	\$191	<b>\$4,677</b>
20	x	12	41	32	6.9	282.9	13.3	\$3,763	\$16,932	219	3.54	\$774	<b>\$17,706</b>
20	x	6	19	26	5.6	106.4	14.2	\$1,511	\$6,799	82	3.54	\$291	<b>\$7,090</b>
20	x	9	28	29	6.2	173.6	14.2	\$2,465	\$11,093	135	3.54	\$479	<b>\$11,572</b>

20	x	6	43	26	5.6	240.8	13.3	\$3,203	\$14,412	186	3.54	\$660	\$15,072
First Floor													
30	x	25	17	55	11.8	200.6	13.3	\$2,668	\$12,006	156	3.54	\$552	\$12,558
30	x	12	12	42	9	108	14.2	\$1,534	\$6,901	84	3.54	\$297	\$7,199
30	x	12	17	42	9	153	14.2	\$2,173	\$9,777	119	3.54	\$421	\$10,198
20	x	7	12	27	5.8	69.6	14.2	\$988	\$4,447	54	3.54	\$191	\$4,639
15	x	6	17	21	4.5	76.5	14.2	\$1,086	\$4,888	60	3.54	\$211	\$5,099
20	x	14	5	34	7.3	36.5	14.2	\$518	\$2,332	28	3.54	\$100	\$2,433
20	x	12	6	32	6.9	41.4	14.2	\$588	\$2,645	32	3.54	\$113	\$2,759
10	x	8	11	18	3.9	42.9	14.2	\$609	\$2,741	33	3.54	\$117	\$2,858
20	x	7	15	27	5.8	87	14.2	\$1,235	\$5,559	68	3.54	\$239	\$5,798
10	x	8	11	18	3.9	42.9	14.2	\$609	\$2,741	33	3.54	\$117	\$2,858
10	x	6	12	16	3.4	40.8	14.2	\$579	\$2,607	32	3.54	\$113	\$2,720
8	x	4	50	12	2.6	130	14.2	\$1,846	\$8,307	100	3.54	\$354	\$8,661
30	x	18	65	48	10.3	669.5	13.3	\$8,904	\$40,070	520	3.54	\$1,841	\$41,910
30	x	7	18	37	8	144	14.2	\$2,045	\$9,202	111	3.54	\$393	\$9,595
10	x	5	15	15	3.2	48	14.2	\$682	\$3,067	38	3.54	\$133	\$3,200
30	x	7	29	37	8	232	13.3	\$3,086	\$13,885	179	3.54	\$633	\$14,518
15	x	6	15	21	4.5	67.5	14.2	\$959	\$4,313	53	3.54	\$186	\$4,499
30	x	5	18	35	7.5	135	14.2	\$1,917	\$8,627	105	3.54	\$372	\$8,998
15	x	6	32	21	4.5	144	14.2	\$2,045	\$9,202	112	3.54	\$396	\$9,598
30	x	16	103	46	9.9	1019.7	13.3	\$13,562	\$61,029	790	3.54	\$2,795	\$63,824
30	x	16	10	46	9.9	99	14.2	\$1,406	\$6,326	77	3.54	\$271	\$6,598
20	x	6	32	26	5.6	179.2	14.2	\$2,545	\$11,451	139	3.54	\$491	\$11,942
30	x	12	30	42	9	270	13.3	\$3,591	\$16,160	210	3.54	\$743	\$16,903
30	x	9	20	39	8.4	168	14.2	\$2,386	\$10,735	130	3.54	\$460	\$11,195
30	x	7	20	37	8	160	14.2	\$2,272	\$10,224	123	3.54	\$437	\$10,661
20	x	6	31	26	5.6	173.6	14.2	\$2,465	\$11,093	134	3.54	\$476	\$11,569
						9,032			\$554,383			\$24,628	\$579,011

\* All supply air ductwork sized for 0.08 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-2 Return Air</b>													
Return Air Duct								Return Duct Insulation				Overall Total	
Dimension* (in x in)	L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total			
Second Floor													
20	x	6	43	26	5.6	240.8	7.05	\$1,698	\$7,639	186	3.54	\$660	<b>\$8,299</b>
20	x	10	16	30	6.5	104	7.3	\$759	\$3,416	80	3.54	\$283	<b>\$3,700</b>
20	x	14	100	34	7.3	730	7.05	\$5,147	\$23,159	567	3.54	\$2,006	<b>\$25,165</b>
20	x	10	11	30	6.5	71.5	7.3	\$522	\$2,349	55	3.54	\$195	<b>\$2,543</b>
20	x	18	42	38	8.2	344.4	7.05	\$2,428	\$10,926	266	3.54	\$942	<b>\$11,868</b>
20	x	8	63	28	6	378	7.05	\$2,665	\$11,992	294	3.54	\$1,041	<b>\$13,033</b>
30	x	16	7	46	9.9	69.3	7.3	\$506	\$2,277	54	3.54	\$190	<b>\$2,466</b>
30	x	16	37	46	9.9	366.3	7.05	\$2,582	\$11,621	284	3.54	\$1,004	<b>\$12,625</b>
10	x	6	24	16	3.4	81.6	7.3	\$596	\$2,681	64	3.54	\$227	<b>\$2,907</b>
20	x	14	27	34	7.3	197.1	7.3	\$1,439	\$6,475	153	3.54	\$542	<b>\$7,016</b>
First Floor													
20	x	12	20	32	6.9	138	7.3	\$1,007	\$4,533	107	3.54	\$378	<b>\$4,911</b>
20	x	12	27	32	6.9	186.3	7.3	\$1,360	\$6,120	144	3.54	\$510	<b>\$6,630</b>
20	x	18	58	38	8.2	475.6	7.05	\$3,353	\$15,088	367	3.54	\$1,300	<b>\$16,389</b>
20	x	12	16	32	6.9	110.4	7.3	\$806	\$3,627	85	3.54	\$302	<b>\$3,929</b>
30	x	16	48	46	9.9	475.2	7.05	\$3,350	\$15,076	368	3.54	\$1,303	<b>\$16,378</b>
20	x	12	40	32	6.9	276	7.05	\$1,946	\$8,756	213	3.54	\$755	<b>\$9,511</b>
30	x	20	35	50	10.7	374.5	7.05	\$2,640	\$11,881	292	3.54	\$1,033	<b>\$12,914</b>

30	x	20	53	50	10.7	567.1	7.05	\$3,998	\$17,991	442	3.54	\$1,564	<b>\$19,555</b>
10	x	6	10	16	3.4	34	7.3	\$248	\$1,117	27	3.54	\$94	<b>\$1,211</b>
10	x	6	3	16	3.4	10.2	7.3	\$74	\$335	8	3.54	\$28	<b>\$363</b>
20	x	8	30	28	6	180	7.3	\$1,314	\$5,913	140	3.54	\$496	<b>\$6,409</b>
20	x	12	12	32	6.9	82.8	7.3	\$604	\$2,720	64	3.54	\$227	<b>\$2,947</b>
30	x	12	26	42	9	234	7.05	\$1,650	\$7,424	182	3.54	\$644	<b>\$8,068</b>
30	x	30	10	60	12.9	129	7.3	\$942	\$4,238	100	3.54	\$354	<b>\$4,592</b>
						<b>5,856</b>			<b>\$187,353</b>			<b>\$16,075</b>	<b>\$203,428</b>

\* All return air ductwork sized for 0.06 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings



<b>RTU-3 Supply Air</b>													
Supply Air Duct								Supply Duct Insulation				Overall Total	
Dimension* (in x in)	L (ft)	2-S (in)	W/ (lb / ft)	L**	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total		
<b>Second Floor</b>													
30	x	25	10	55	11.8	118	14.2	\$1,676	\$7,540	92	3.54	\$325	<b>\$7,865</b>
30	x	16	5	46	9.9	49.5	14.2	\$703	\$3,163	38	3.54	\$136	<b>\$3,299</b>
30	x	14	37	44	9.5	351.5	13.3	\$4,675	\$21,037	271	3.54	\$961	<b>\$21,998</b>
30	x	9	35	39	8.4	294	13.3	\$3,910	\$17,596	228	3.54	\$805	<b>\$18,401</b>
30	x	6	28	36	7.8	218.4	13.3	\$2,905	\$13,071	168	3.54	\$595	<b>\$13,666</b>
10	x	7	72	17	3.7	266.4	13.3	\$3,543	\$15,944	204	3.54	\$722	<b>\$16,666</b>
8	x	4	70	12	2.6	182	14.2	\$2,584	\$11,630	140	3.54	\$496	<b>\$12,125</b>
30	x	16	38	46	9.9	376.2	13.3	\$5,003	\$22,516	291	3.54	\$1,031	<b>\$23,547</b>
30	x	14	26	44	9.5	247	13.3	\$3,285	\$14,783	191	3.54	\$675	<b>\$15,458</b>
30	x	12	11	42	9	99	14.2	\$1,406	\$6,326	77	3.54	\$273	<b>\$6,599</b>
30	x	6	12	36	7.8	93.6	14.2	\$1,329	\$5,981	72	3.54	\$255	<b>\$6,236</b>
30	x	8	49	38	8.2	401.8	13.3	\$5,344	\$24,048	310	3.54	\$1,099	<b>\$25,146</b>
30	x	8	31	38	8.2	254.2	13.3	\$3,381	\$15,214	196	3.54	\$695	<b>\$15,909</b>
15	x	9	12	24	5.2	62.4	14.2	\$886	\$3,987	48	3.54	\$170	<b>\$4,157</b>
20	x	8	15	28	6	90	14.2	\$1,278	\$5,751	70	3.54	\$248	<b>\$5,999</b>
15	x	9	19	24	5.2	98.8	14.2	\$1,403	\$6,313	76	3.54	\$269	<b>\$6,582</b>
6	x	4	10	10	2.2	22	14.2	\$312	\$1,406	17	3.54	\$59	<b>\$1,465</b>
6	x	4	11	10	2.2	24.2	14.2	\$344	\$1,546	18	3.54	\$65	<b>\$1,611</b>
6	x	4	12	10	2.2	26.4	14.2	\$375	\$1,687	20	3.54	\$71	<b>\$1,758</b>
						<b>3,275</b>			<b>\$199,540</b>			<b>\$8,947</b>	<b>\$208,487</b>

\* All supply air ductwork sized for 0.08 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-3 Return Air</b>													
Return Air Duct								Return Duct Insulation				Overall Total	
Dimension* (in x in)	L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total			
Second Floor													
10	x	8	38	18	3.9	148.2	7.3	\$1,082	\$4,868	114	3.54	\$404	<b>\$5,272</b>
20	x	14	51	34	7.3	372.3	7.05	\$2,625	\$11,811	289	3.54	\$1,023	<b>\$12,834</b>
20	x	16	17	36	7.8	132.6	7.3	\$968	\$4,356	102	3.54	\$361	<b>\$4,717</b>
30	x	16	19	46	9.9	188.1	7.3	\$1,373	\$6,179	146	3.54	\$516	<b>\$6,695</b>
30	x	16	57	46	9.9	564.3	7.05	\$3,978	\$17,902	437	3.54	\$1,547	<b>\$19,449</b>
25	x	35	7	60	15	105	7.3	\$767	\$3,449	70	3.54	\$248	<b>\$3,697</b>
6	x	8	15	14	3	45	7.3	\$329	\$1,478	35	3.54	\$124	<b>\$1,602</b>
20	x	8	8	28	6	48	7.3	\$350	\$1,577	37	3.54	\$132	<b>\$1,709</b>
20	x	9	18	29	6.2	111.6	7.3	\$815	\$3,666	87	3.54	\$308	<b>\$3,974</b>
20	x	8	8	28	6	48	7.3	\$350	\$1,577	37	3.54	\$132	<b>\$1,709</b>
20	x	14	62	34	7.3	452.6	7.05	\$3,191	\$14,359	351	3.54	\$1,244	<b>\$15,602</b>
25	x	18	50	43	9.2	460	7.05	\$3,243	\$14,594	358	3.54	\$1,269	<b>\$15,862</b>
25	x	18	17	43	9.2	156.4	7.3	\$1,142	\$5,138	122	3.54	\$431	<b>\$5,569</b>
30	x	20	17	50	10.7	181.9	7.3	\$1,328	\$5,975	142	3.54	\$502	<b>\$6,477</b>
						<b>3,014</b>			<b>\$96,930</b>			<b>\$8,239</b>	<b>\$105,169</b>

\* All return air ductwork sized for 0.06 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-4 Supply Air</b>													
Supply Air Duct								Supply Duct Insulation				Overall	
Dimension* (in x in)	L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total	Total		
<b>Second Floor</b>													
30	x	25	10	55	11.8	118	14.2	\$1,676	\$7,540	92	3.54	\$325	<b>\$7,865</b>
30	x	8	13	38	8.2	106.6	14.2	\$1,514	\$6,812	82	3.54	\$291	<b>\$7,103</b>
30	x	6	25	36	7.8	195	14.2	\$2,769	\$12,461	150	3.54	\$531	<b>\$12,992</b>
30	x	6	8	36	7.8	62.4	14.2	\$886	\$3,987	48	3.54	\$170	<b>\$4,157</b>
30	x	20	10	50	10.7	107	14.2	\$1,519	\$6,837	83	3.54	\$295	<b>\$7,132</b>
30	x	8	42	38	8.2	344.4	13.3	\$4,581	\$20,612	266	3.54	\$942	<b>\$21,554</b>
30	x	8	14	38	8.2	114.8	14.2	\$1,630	\$7,336	89	3.54	\$314	<b>\$7,650</b>
30	x	6	43	36	7.8	335.4	13.3	\$4,461	\$20,074	258	3.54	\$913	<b>\$20,987</b>
30	x	18	13	48	10.3	133.9	14.2	\$1,901	\$8,556	104	3.54	\$368	<b>\$8,924</b>
30	x	16	10	46	9.9	99	14.2	\$1,406	\$6,326	77	3.54	\$271	<b>\$6,598</b>
30	x	16	19	46	9.9	188.1	14.2	\$2,671	\$12,020	146	3.54	\$516	<b>\$12,535</b>
30	x	6	9	36	7.8	70.2	14.2	\$997	\$4,486	54	3.54	\$191	<b>\$4,677</b>
30	x	12	34	42	9	306	13.3	\$4,070	\$18,314	238	3.54	\$843	<b>\$19,157</b>
30	x	6	14	36	7.8	109.2	14.2	\$1,551	\$6,978	84	3.54	\$297	<b>\$7,275</b>
30	x	10	10	40	8.6	86	14.2	\$1,221	\$5,495	67	3.54	\$236	<b>\$5,731</b>
30	x	10	100	40	8.6	860	13.3	\$11,438	\$51,471	667	3.54	\$2,360	<b>\$53,831</b>
30	x	10	40	40	8.6	344	13.3	\$4,575	\$20,588	267	3.54	\$944	<b>\$21,532</b>
10	x	14	16	24	5.2	83.2	14.2	\$1,181	\$5,316	64	3.54	\$227	<b>\$5,543</b>
10	x	16	15	26	5.6	84	14.2	\$1,193	\$5,368	65	3.54	\$230	<b>\$5,598</b>
10	x	14	16	24	5.2	83.2	14.2	\$1,181	\$5,316	64	3.54	\$227	<b>\$5,543</b>
4	x	8	7	12	2.6	18.2	14.2	\$258	\$1,163	14	3.54	\$50	<b>\$1,213</b>
						<b>3,849</b>			<b>\$237,057</b>			<b>\$10,540</b>	<b>\$247,597</b>

\* All supply air ductwork sized for 0.08 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings

<b>RTU-4 Return Air</b>													
Return Air Duct								Return Duct Insulation				Overall Total	
Dimension* (in x in)	L (ft)	2-S (in)	W/ L** (lb / ft)	Weight (lb)	Total w/ O&P Cost (\$ / lb)	Sub-Total	Corrected Total	Area (SF)	Total w/ O&P Cost (\$ / SF)	Total			
Second Floor													
20	x	8	15	28	6	90	7.3	\$657	\$2,957	70	3.54	\$248	<b>\$3,204</b>
20	x	12	35	32	6.9	241.5	7.05	\$1,703	\$7,662	187	3.54	\$661	<b>\$8,322</b>
20	x	12	80	32	6.9	552	7.05	\$3,892	\$17,512	427	3.54	\$1,510	<b>\$19,023</b>
20	x	15	43	35	7.5	322.5	7.05	\$2,274	\$10,231	251	3.54	\$888	<b>\$11,119</b>
30	x	16	43	46	9.9	425.7	7.05	\$3,001	\$13,505	330	3.54	\$1,167	<b>\$14,672</b>
30	x	16	44	46	9.9	435.6	7.05	\$3,071	\$13,819	337	3.54	\$1,194	<b>\$15,014</b>
30	x	10	15	40	8.6	129	7.3	\$942	\$4,238	100	3.54	\$354	<b>\$4,592</b>
30	x	18	9	48	10.3	92.7	7.3	\$677	\$3,045	72	3.54	\$255	<b>\$3,300</b>
30	x	10	24	40	8.6	206.4	7.05	\$1,455	\$6,548	160	3.54	\$566	<b>\$7,114</b>
30	x	30	10	60	12.9	129	7.3	\$942	\$4,238	100	3.54	\$354	<b>\$4,592</b>
						<b>2,624</b>			<b>\$83,755</b>			<b>\$7,197</b>	<b>\$90,952</b>

\* All return air ductwork sized for 0.06 inches per 100 ft. of static pressure

\*\* RS Means Reference Table 233100-40 includes allowance for scrap in the figures listed

\*\*\*RS Means Stainless Steel used and assume 25% fittings