

Project Information

For: Sample
110 Sample Street, Fredericksburg, TX 78624

Notes: Job Information

Design Information

Weather: San Antonio Intl AP, TX, US

Winter Design Conditions

Outside db	32 °F
Inside db	70 °F
Design TD	38 °F

Summer Design Conditions

Outside db	97 °F
Inside db	75 °F
Design TD	22 °F
Daily range	M
Relative humidity	50 %
Moisture difference	25 gr/lb

Heating Summary

Structure	25319 Btuh
Ducts	3507 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	28826 Btuh

Sensible Cooling Equipment Load Sizing

Structure	20722 Btuh
Ducts	2393 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	23116 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	1 (Tight)

Latent Cooling Equipment Load Sizing

Structure	7066 Btuh
Ducts	545 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	7611 Btuh
Equipment total load	30726 Btuh
Req. total capacity at 0.70 SHR	2.8 ton

	Heating	Cooling
Area (ft ²)	2396	2396
Volume (ft ³)	24061	24061
Air changes/hour	0.10	0.05
Equiv. AVF (cfm)	39	19

Heating Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Model	XP25-036-230-**
AHRI ref	5947679
Efficiency	10 HSPF
Heating input	
Heating output	32000 Btuh @ 47°F
Temperature rise	26 °F
Actual air flow	1147 cfm
Air flow factor	0.040 cfm/Btuh
Static pressure	0.54 in H2O
Space thermostat	

Cooling Equipment Summary

Make	Lennox
Trade	XP25 SERIES
Cond	XP25-036-230-**
Coil	CBX40UHV-036*++TDR
AHRI ref	5947679
Efficiency	13.5 EER, 21.5 SEER
Sensible cooling	24080 Btuh
Latent cooling	10320 Btuh
Total cooling	34400 Btuh
Actual air flow	1147 cfm
Air flow factor	0.050 cfm/Btuh
Static pressure	0.54 in H2O
Load sensible heat ratio	0.75

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Information

For: Sample
 110 Sample Street, Fredericksburg, TX 78624

Notes: Job Information

Design Information

Weather: San Antonio Intl AP, TX, US

Winter Design Conditions

Outside db 32 °F
 Inside db 70 °F
 Design TD 38 °F

Summer Design Conditions

Outside db 97 °F
 Inside db 75 °F
 Design TD 22 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 25 gr/lb

Heating Summary

Structure 26452 Btuh
 Ducts 2955 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 29407 Btuh

Sensible Cooling Equipment Load Sizing

Structure 22056 Btuh
 Ducts 2017 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data y
 Rate/swing multiplier 1.00
 Equipment sensible load 24073 Btuh

Infiltration

Method Simplified
 Construction quality Tight
 Fireplaces 1 (Tight)

	Heating	Cooling
Area (ft ²)	1673	1673
Volume (ft ³)	17842	17842
Air changes/hour	0.10	0.05
Equiv. AVF (cfm)	31	15

Latent Cooling Equipment Load Sizing

Structure 7000 Btuh
 Ducts 453 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 7453 Btuh
 Equipment total load 31526 Btuh
 Req. total capacity at 0.70 SHR 2.9 ton

Heating Equipment Summary

Make Lennox
 Trade XP25 SERIES
 Model XP25-036-230-**
 AHRI ref 5947679

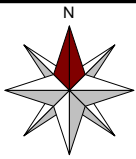
Efficiency 10 HSPF
 Heating input 32000 Btuh @ 47°F
 Heating output 26 °F
 Temperature rise 1147 cfm
 Actual air flow 0.039 cfm/Btuh
 Air flow factor 0.54 in H2O
 Static pressure
 Space thermostat

Cooling Equipment Summary

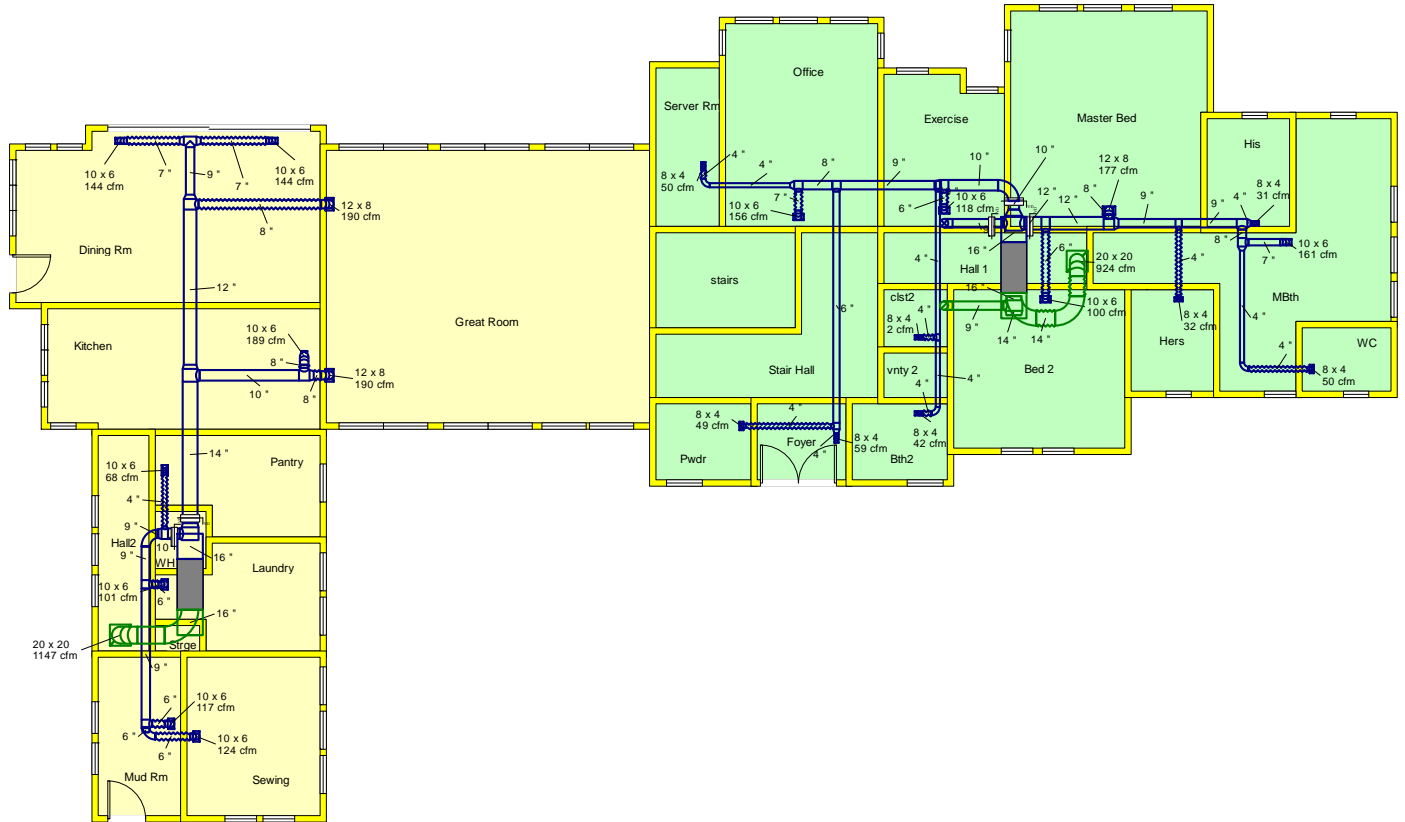
Make Lennox
 Trade XP25 SERIES
 Cond XP25-036-230-**
 Coil CBX40UHV-036*
 AHRI ref 5947679

Efficiency 13.5 EER, 21.5 SEER
 Sensible cooling 24080 Btuh
 Latent cooling 10320 Btuh
 Total cooling 34400 Btuh
 Actual air flow 1147 cfm
 Air flow factor 0.048 cfm/Btuh
 Static pressure 0.54 in H2O
 Load sensible heat ratio 0.76

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



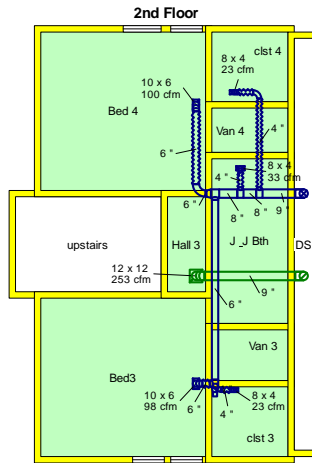
Sheet 1



Job #: Job Information
Performed by Josh Putman for:
Sample
110 Sample Street
Fredericksburg, TX 78624

WebREPS, LLC
1892 Commerce Avenue
Vero Beach, FL 32960
Phone: 800-810-3280 Fax: 888-971-2999
www.webrepswholesale.com sales@webrepsvac.com

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Page 2
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Duct System Summary

AH1

WebREPS, LLC

Job: Job Information

Date: Nov 07, 2013

By: Josh Putman

Plan: Job Information

1892 Commerce Avenue, Vero Beach, FL 32960 Phone: 800-810-3280 Fax: 888-971-2999 Email: sales@webrepshvac.com Web: www.webrepswholesale.com License: CAC0547...

Calculation method: EqualFric

Supply FR (in/100ft): 0.100

Return FR (in/100ft): 0.100

Equipment pressure losses (in H2O):
 Duct system losses (in H2O):
 Total fan pressure (in H2O):
 Fan air flow (cfm):

Heating
 0.230
 0.216
 0.446
 1147

Cooling
 0.230
 0.193
 0.423
 1147

Supply Branch Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Cumm. Loss (in H2O)
Bed 2	2448	2021	c 100	511	Round	6	VinIFlx	0.033
Bed 4	1826	2010	c 100	508	Round	6	VinIFlx	0.047
Bed3	1793	1980	c 98	500	Round	6	VinIFlx	0.066
Bth2	1052	615	h 42	479	Round	4	VinIFlx	0.082
Exercise	1586	2382	c 118	602	Round	6	VinIFlx	0.046
Foyer	1490	778	h 59	679	Round	4	VinIFlx	0.080
Hers	806	335	h 32	367	Round	4	VinIFlx	0.039
His	772	314	h 31	352	Round	4	VinIFlx	0.035
J & J Bth	824	493	h 33	376	Round	4	VinIFlx	0.054
MBth	4040	2789	h 161	601	Round	7	ShtMetl	0.045
Master Bed	4200	3559	c 177	506	Round	8	VinIFlx	0.019
Office	3104	3151	c 156	585	Round	7	VinIFlx	0.055
Pwdr	1221	641	h 49	557	Round	4	VinIFlx	0.094
Server Rm	1226	1002	c 50	570	Round	4	VinIFlx	0.066
WC	1248	399	h 50	569	Round	4	VinIFlx	0.072
clst 3	582	286	h 23	265	Round	4	VinIFlx	0.059
clst 4	577	326	h 23	263	Round	4	VinIFlx	0.036
clst2	32	34	c 2	20	Round	4	VinIFlx	0.066



Supply Trunk Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Pres Loss (in H2O)
st25	1248	399	h 50	569	Round	4	ShtMetl	0.018
st24	5288	3187	h 210	603	Round	8	ShtMetl	0.001
st16	2376	2266	c 112	572	Round	6	ShtMetl	0.016
st17	582	286	h 23	265	Round	4	ShtMetl	0.000
st18	1826	2010	c 100	508	Round	6	ShtMetl	0.001
st15	4201	4276	c 212	608	Round	8	ShtMetl	0.002
st13	5602	5095	c 253	572	Round	9	ShtMetl	0.010
st14	5025	4769	c 237	678	Round	8	ShtMetl	0.002
st12	5602	5095	c 253	572	Round	9	ShtMetl	0.004
st30	1052	615	h 42	479	Round	4	ShtMetl	0.008
st29	1083	649	h 43	494	Round	4	ShtMetl	0.016
st28	8125	6222	h 323	732	Round	9	ShtMetl	0.001
st31	7042	5573	h 280	634	Round	9	ShtMetl	0.006
st32	2711	1419	h 108	549	Round	6	ShtMetl	0.019
st33	4330	4154	c 206	590	Round	8	ShtMetl	0.002
st23	6061	3502	h 241	546	Round	9	ShtMetl	0.003
st22	6866	3836	h 273	618	Round	9	ShtMetl	0.004
st20	13514	9416	h 538	684	Round	12	ShtMetl	0.002
st21	11066	7395	h 440	560	Round	12	ShtMetl	0.002
st2	28826	23116	c 1147	821	Round	16	ShtMetl	0.001
st26	9711	8604	c 427	783	Round	10	ShtMetl	0.003
st27	9711	8604	c 427	783	Round	10	ShtMetl	0.006
st34	1226	1002	c 50	570	Round	4	ShtMetl	0.013

Return Branch Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Cumm. Loss (in H2O)
rb3	5602	5095	c 253	572	Round	9	ShtMetl	0.081
rb1	23224	18020	h 924	864	Round	14	VinIFix	0.124

Return Trunk Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Pres Loss (in H2O)
rt2	28826	23116	c 1147	821	Round	16	ShtMetl	0.001
rt3	23224	18020	h 924	864	Round	14	ShtMetl	0.001



Duct System Summary

AH2

WebREPS, LLC

Job: Job Information

Date: Nov 07, 2013

By: Josh Putman

Plan: Job Information

1892 Commerce Avenue, Vero Beach, FL 32960 Phone: 800-810-3280 Fax: 888-971-2999 Email: sales@webrepshvac.com Web: www.webrepswholesale.com License: CAC0547...

Calculation method: EqualFric

Supply FR (in/100ft): 0.100

Return FR (in/100ft): 0.100

	Heating	Cooling
Equipment pressure losses (in H2O):	0.230	0.230
Duct system losses (in H2O):	0.119	0.117
Total fan pressure (in H2O):	0.349	0.347
Fan air flow (cfm):	1147	1147

Supply Branch Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Cumm. Loss (in H2O)
Dining Rm	3697	2666	h 144	540	Round	7	VinIFlx	0.051
Dining Rm-A	3697	2666	h 144	540	Round	7	VinIFlx	0.052
Great Room	4882	3376	h 190	546	Round	8	VinIFlx	0.049
Great Room-A	4882	3376	h 190	545	Round	8	VinIFlx	0.048
Kitchen	2572	3972	c 189	542	Round	8	VinIFlx	0.048
Laundry	1773	2124	c 101	515	Round	6	VinIFlx	0.055
Mud Rm	2987	2067	h 117	593	Round	6	VinIFlx	0.059
Pantry	1747	1317	h 68	781	Round	4	VinIFlx	0.077
Sewing	3170	2509	h 124	630	Round	6	VinIFlx	0.064

Supply Trunk Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Pres Loss (in H2O)
st10	7394	5332	h 288	653	Round	9	ShtMetl	0.004
st9	12275	8708	h 479	610	Round	12	ShtMetl	0.007
st11	7454	7348	c 350	642	Round	10	ShtMetl	0.006
st3	9677	8016	c 382	700	Round	10	ShtMetl	0.002
st4	7930	6699	c 319	723	Round	9	ShtMetl	0.001
st5	7930	6699	c 319	723	Round	9	ShtMetl	0.004
st6	6157	4575	h 240	544	Round	9	ShtMetl	0.006
st7	3170	2509	h 124	630	Round	6	ShtMetl	0.001
st1	29407	24072	c 1147	821	Round	16	ShtMetl	0.001
st8	19730	16056	h 770	720	Round	14	ShtMetl	0.007



Return Branch Summary

Name	Htg Load (Btuh)	Clg Load (Btuh)	Design AVF (cfm)	Veloc (fpm)	Shape	Duct Size (in)	Duct Matl	Cumm. Loss (in H2O)
rb2	29407	24072	c 1147	821	Round	16	ShtMetl	0.043