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Load Short Form Entire House MiTek Wrightsoft

Job:
Date: Aug 09, 2021
By:

131 Hartwell Ave., Lexington, MA 02421 Phone: 800-225-8697 Fax: 781-861-2058 Web: www.wrightsoft.com

Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH_Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Reviewed for Code Compliance
Universal Engineering Sciences

John P. 42707

Design Information

EXAMINER - LICENSE NO.

	Htg	Clg	Infiltration	
Outside db (°F)	33	92		Blower door
Inside db (°F)	70	75		4 (substantial) / 1
Design TD (°F)	37	17		50 Pa / 1434 cfm
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	11	45		
			Method	
			Shielding / stories	
			Pressure / AVF	

HEATING EQUIPMENT

Make Carrier
Trade CARRIER
Model 25HBC530AP0300
AHRI ref 204837254

Efficiency 8.5 HSPF
Heating input
Heating output 28400 Btuh @ 47°F
Temperature rise 0 °F
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 32 °F

Backup: Carrier KFCEH2601C10
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade CARRIER
Cond 25HBC530AP0300
Coil FX4DNB037L
AHRI ref 204837254

Efficiency 12.5 EER, 15 SEER
Sensible cooling 24070 Btuh
Latent cooling 4930 Btuh
Total cooling 29000 Btuh
Actual air flow 888 cfm
Air flow factor 0.046 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.84

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
BEDROOM 3	149	4630	2957	0	136
BATH 2	54	1355	499	0	23
BEDROOM 4	147	2880	2100	0	96
HVAC	25	0	0	0	0
LAU	42	702	981	0	45
O. BATH	100	1467	774	0	36
O.WIC	65	90	136	0	6
OWNER'S SUITE	217	4654	3278	0	151
GREAT ROOM	268	2466	1938	0	89
FOYER	215	0	0	0	0
BEDROOM 2	152	2406	2247	0	103
PANTRY	20	540	179	0	8
DINING	162	4147	2089	0	96
KITCHEN	160	1352	2155	0	99

Bold/italic values have been manually overridden

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



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...SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH.rup Calc = MJ8 Front Door faces: SW

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Entire House	1774	26688	19332	0	888
Other equip loads		0	0		
Equip. @ 1.00 RSM			19332		
Latent cooling			3792		
TOTALS	1774	26688	23124	0	888

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Loads for Multiple Orientations

Entire House

MiTek Wrightsoft

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Date: Aug 09, 2021
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Project Information

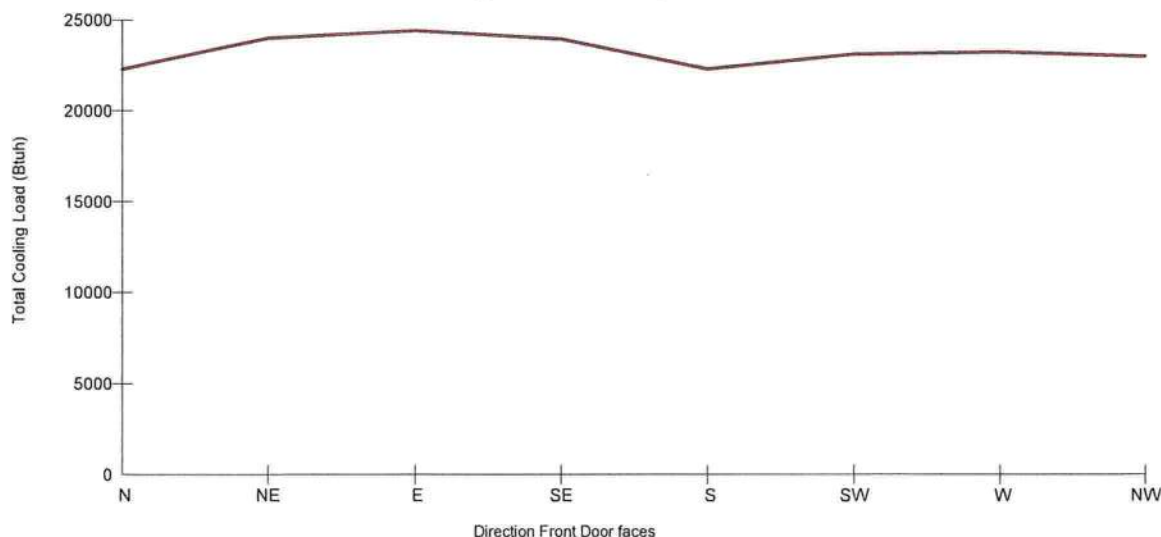
For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		70	75
Elevation: 164 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	45.4
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92			
Daily range (°F)	-	20 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	18514	20200	20602	20154	18500	19332	19437	19186
Latent Load (Btuh)	3792	3792	3792	3792	3792	3792	3792	3792
Total Load (Btuh)	22306	23992	24394	23946	22293	23124	23229	22978
Heating AVF (cfm)	0	0	0	0	0	0	0	0
Cooling AVF (cfm)	888	888	888	888	888	888	888	888

Building Orientation Cooling Load



Current Orientation: Front Door faces Southwest
Highest Cooling Load: Front Door faces East

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



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Project Information

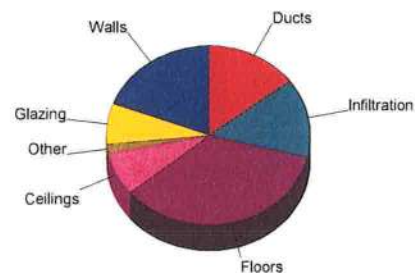
For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Design Conditions

Location:	Gainesville Regional AP, FL, US	Indoor:	Indoor temperature (°F)	70	Heating	Cooling
Elevation:	164 ft		Design TD (°F)	37		75
Latitude:	30°N		Relative humidity (%)	30		17
			Moisture difference (gr/lb)	10.6		50
Outdoor:						45.4
Dry bulb (°F)	33	Heating	Infiltration:			
Daily range (°F)	-		Method	Blower door		
Wet bulb (°F)	-	Cooling	Shielding / stories	4 (substantial) / 1		
Wind speed (mph)	15.0		Pressure / AVF	50 Pa / 1434 cfm		

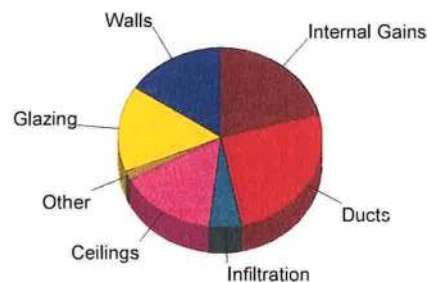
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.4	5153	19.3
Glazing	12.2	1945	7.3
Doors	10.7	429	1.6
Ceilings	1.2	2100	7.9
Floors	5.3	9343	35.0
Infiltration	2.6	3809	14.3
Ducts		3909	14.6
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		26688	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.0	3045	15.8
Glazing	18.7	2973	15.4
Doors	8.3	331	1.7
Ceilings	1.7	2951	15.3
Floors	0	0	0
Infiltration	0.7	1007	5.2
Ducts		4974	25.7
Ventilation		0	0
Internal gains		4050	21.0
Blower		0	0
Adjustments		0	0
Total		19332	100.0



Latent Cooling Load = 3792 Btuh
Overall U-value = 0.097 Btuh/ft²·°F

Data entries checked.



J1 Form - Worksheet A
Entire House
MiTek Wrightsoft

Job:
Date: Aug 09, 2021
By:

131 Hartwell Ave., Lexington, MA 02421 Phone: 800-225-8697 Fax: 781-861-2058 Web: www.wrightsoft.com

Supporting Detail	
Project Name: CMP-FL-39-1776_Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH	Date: Aug 09, 2021
Address: SW Jewel Lake Drive, Lake City, FL 32024	
Phone:	Job ID:

Worksheet A Location and Design Conditions	
Weather Location: Gainesville Regional AP, FL, US	Elevation = 164 Latitude = 30
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %
Table 1 Conditions 99% DB = 33 °F 1% DB = 92 °F Grains Difference = 45 gr/lb	Daily Range = M
Design Temperature Differences	HTD = 37 °F CTD = 17 °F

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



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Component Constructions

Entire House

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Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		70	75
Elevation: 164 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	45.4
Outdoor:	Heating	Cooling			
Dry bulb (°F)	33	92			
Daily range (°F)	-	20 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			
		Infiltration:			
		Method	Blower door		
		Shielding / stories	4 (substantial) / 1		
		Pressure / AVF	50 Pa / 1434 cfm		

Construction descriptions

	Or	Area ft²	U-value Btu/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/ft²	Loss Btu/h	Clg HTM Btu/ft²	Gain Btu/h
Walls								
12C-0sw: Frm wall, wd ext, 1/2" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	222	0.091	13.0	3.37	747	2.14	475
	se	418	0.091	13.0	3.37	1406	2.14	893
	sw	104	0.091	13.0	3.37	349	2.14	222
	nw	535	0.091	13.0	3.37	1800	2.14	1143
	all	1278	0.091	13.0	3.37	4302	2.14	2732
Partitions								
12C-0sw: Frm wall, 1/2" gyp.bd ext, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud		253	0.091	13.0	3.37	851	1.24	313
Windows								
Century Florida Jacksonville SGD: Door; NFRC rated (SHGC=0.29); 50% outdoor insect screen; 9 ft overhang (6.67 ft window ht, 1 ft sep.); 6.67 ft head ht	ne	33	0.330	0	12.2	407	22.6	752
Century Florida Jacksonville Wnd: Window; NFRC rated (SHGC=0.29); 50% blinds 45°, medium; 50% outdoor insect screen; 1 ft overhang (5 ft window ht, 1 ft sep.); 6.67 ft head ht	ne	60	0.330	0	12.2	733	20.0	1198
	se	15	0.330	0	12.2	183	19.6	294
	nw	15	0.330	0	12.2	183	20.0	300
	all	90	0.330	0	12.2	1099	19.9	1792
Century Florida Jacksonville Wnd: Window; NFRC rated (SHGC=0.29); 50% blinds 45°, medium; 50% outdoor insect screen; 1 ft overhang (3 ft window ht, 1 ft sep.); 6.67 ft head ht	se	6	0.330	0	12.2	73	18.6	111
Century Florida Jacksonville Wnd: Window; NFRC rated (SHGC=0.29); 50% blinds 45°, medium; 50% outdoor insect screen; 5 ft overhang (5 ft window ht, 3.75 ft sep.); 6.67 ft head ht	sw	30	0.330	0	12.2	366	10.6	318
Doors								
11P0: Door, mtl pur core type	sw	20	0.290	10.5	10.7	215	8.26	165
	n	20	0.290	10.5	10.7	215	8.26	165
	all	40	0.290	10.5	10.7	429	8.26	331
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 1/2" gypsum board int fnsh		1774	0.032	30.0	1.18	2100	1.66	2951



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Floors

22A-tpm: Bg floor, heavy dry or light damp soil, on grade depth	214	1.180	0	43.7	9343	0	0
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Project Summary

Entire House

MiTek Wrightsoft

Job:
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Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Notes:

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	45 gr/lb

Heating Summary

Structure	22780 Btuh
Ducts	3909 Btuh
Central vent (0 cfm) (none)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	26688 Btuh

Sensible Cooling Equipment Load Sizing

Structure	14357 Btuh
Ducts	4974 Btuh
Central vent (0 cfm) (none)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	19332 Btuh

Infiltration

Method	Blower door
Shielding / stories	4 (substantial) / 1
Pressure / AVF	50 Pa / 1434 cfm

Latent Cooling Equipment Load Sizing

Structure	2664 Btuh
Ducts	1128 Btuh
Central vent (0 cfm) (none)	0 Btuh
Equipment latent load	3792 Btuh
Equipment Total Load (Sen+Lat)	23124 Btuh
Req. total capacity at 0.83 SHR	1.9 ton

	Heating	Cooling
Area (ft²)	1774	1774
Volume (ft³)	14336	14336
Air changes/hour	0.39	0.23
Equiv. AVF (cfm)	94	54

Heating Equipment Summary

Make	Carrier
Trade	CARRIER
Model	25HBC530AP0300
AHRI ref	204837254
Efficiency	8.5 HSPF
Heating input	
Heating output	28400 Btuh @ 47°F
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 32 °F	
Backup: Carrier KFCEH2601C10	
Input = 10 kW, Output = 34121 Btuh, 100 AFUE	

Cooling Equipment Summary

Make	Carrier
Trade	CARRIER
Cond	25HBC530AP0300
Coil	FX4DNB037L
AHRI ref	204837254
Efficiency	12.5 EER, 15 SEER
Sensible cooling	24070 Btuh
Latent cooling	4930 Btuh
Total cooling	29000 Btuh
Actual air flow	888 cfm
Air flow factor	0.046 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.84

Bold/italic values have been manually overridden

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



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...SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH.rup Calc = MJ8 Front Door faces: SW

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AED Assessment
Entire House
MiTek Wrightsoft

Job:
Date: Aug 09, 2021
By:

131 Hartwell Ave, Lexington, MA 02421 Phone: 800-225-8697 Fax: 781-861-2058 Web: www.wrightsoft.com

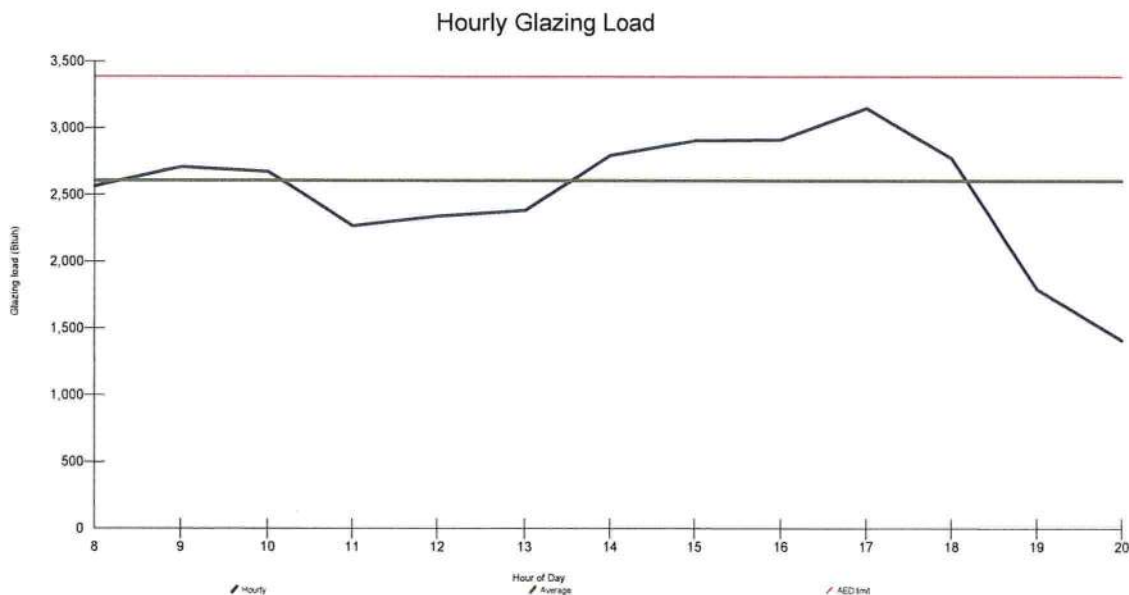
Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional AP, FL, US		Indoor temperature (°F)		70	75
Elevation: 164 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		10.6	45.4
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	33	92			
Daily range (°F)	-	20 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 20.9%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



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Quotation

Job:
Date: Aug 09, 2021
By:

131 Hartwell Ave, Lexington, MA 02421 Phone: 800-225-8697 Fax: 781-861-2058 Web: www.wrightsoft.com

For: Radford_SLAB_Reserve at Jewel Lake
8250 Jewell Lake Drive
Lake City, FL 32024

Notes:

Src	Part#	Description	Qty	Unit price	Extension
CARR	KFCEH2601C10	Equipment 10KW,ELECT HTR,W/CIRC BRKR,1-PH,WIND SEA	1.00	0	0
		Subtotal, Equipment			0
		Duct System Equipment			
WSF	DDVn04	Round vinyl duct, D = 4"	69.0	1.40	96.60
WSF	FBTJ-4	Ceiling rect register, size 4"	7.00	24.00	168.00
HACL	301-8X4	301 Curved-Blade Register 8 x 4	7.00	0	0
WSF	DDVn06	Round vinyl duct, D = 6"	40.0	1.60	64.00
WSF	FBTJ-6	Ceiling rect register, size 6"	4.00	26.80	107.20
HACL	301-10X6	301 Curved-Blade Register 10 x 6	6.00	0	0
WSF	DDVn07	Round vinyl duct, D = 7"	8.00	1.70	13.60
WSF	FBTJ-7	Ceiling rect register, size 7"	1.00	28.20	28.20
WSF	FCLR-7	Collar, d = 7"	1.00	0	0
WSF	FCLR-10	Collar, d = 10"	4.00	0	0
WSF	FCLR-4	Collar, d = 4"	7.00	0	0
WSF	FCLR-6	Collar, d = 6"	4.00	0	0
WSF	FJB-10	Junction box, size 10"	2.00	32.40	64.80
PGM	FRGRMCR-1010	Rectangular metal ceiling register one way, 10" x 10"	1.00	0	0
WSF	DDVn05	Round vinyl duct, D = 5"	41.0	1.50	61.50
WSF	FBTJ-5	Ceiling rect register, size 5"	2.00	25.40	50.80
WSF	FCLR-5	Collar, d = 5"	2.00	0	0
WSF	FCLR-12	Collar, d = 12"	2.00	0	0
WSF	FJB-12	Junction box, size 12"	1.00	35.20	35.20
WSF	DDVn12	Round vinyl duct, D = 12"	24.0	2.20	52.80
PGM	FPLH-12	Plenum rect tapered take off, size 12"	1.00	40.00	40.00
PGM	FJB-15	Junction box, size 20" x 10"	1.00	63.20	63.20
WSF	DRFg2010	Rectangular fiberglass duct, 20" x 10"	9.00	5.10	45.90
WSF	DDVn10	Round vinyl duct, D = 10"	22.0	2.00	44.00
PGM	FPLH-10	Plenum rect tapered take off, size 10"	2.00	40.00	80.00
WSF	DDVn16	Round vinyl duct, D = 16"	4.00	2.60	10.40
WSF	FPLG-16	Plenum side round take off, size 16"	1.00	0	0
PGM	FBTD-16	Vert floor boot from round duct, size 16"	1.00	40.80	40.80
HACL	LW-672-18X24	672 Return Air Grille 18 x 24	1.00	0	0
WSF	FBTS-12	Angle boot without transition, size 12"	2.00	0	0
PGM	FRGRMWG-2404	Rectangular metal high wall grille, 24" x 4"	3.00	0	0
HACL	650-14X14	650 Return Air Grille 14 x 14	2.00	0	0
		Subtotal, Duct System Equipment			1067.00
		Overall total			1067.00



Static Pressure and Friction Rate Entire House MiTek Wrightsoft

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SW Jewel Lake Drive, Lake City, FL 32024

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0	0.05
Heat exchanger	0	0
Supply diffusers	0.05	0.05
Return grilles	0.03	0.03
Filter	0.15	0.15
Humidifier	0	0
Balancing damper	0.02	0.02
Other device	0	0
Available static pressure	0.25	0.19

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	22	4
Measured length of trunk	22	0
Equivalent length of fittings	130	60
Total length		
Total effective length	174	64
		238

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.105	OK	0.082	OK
Return Ducts	0.105	OK	0.082	OK

Fitting Equivalent Length Details

Supply	4AD=60, 11A=20, 11G=5, 11G=5, 11G=5, 1D=10, 11A=20, 11G=5: TotalEL=130
Return	5B=40, 6N=10, 11I=10: TotalEL=60



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...SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH.rup Calc = MJ8 Front Door faces: SW

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Duct System Summary

Entire House

MiTek Wrightsoft

Job:
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Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.25 in H2O	0.31 in H2O
Available static pressure	0.25 in H2O	0.19 in H2O
Supply / return available pressure	0.183 / 0.067 in H2O	0.143 / 0.052 in H2O
Lowest friction rate	0.105 in/100ft	0.082 in/100ft
Actual air flow	0 cfm	888 cfm
Total effective length (TEL)	238 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BATH 2	c 499	0	23	0.115	4.0	0x0	VIFx	8.5	115.0	st2
BEDROOM 2	c 2247	0	103	0.110	6.0	0x0	VIFx	14.6	115.0	st2
BEDROOM 3	c 2957	0	136	0.107	7.0	0x0	VIFx	13.3	120.0	st2
BEDROOM 4	c 2100	0	96	0.096	6.0	0x0	VIFx	27.7	120.0	st1
DINING	c 2089	0	96	0.096	6.0	0x0	VIFx	32.9	115.0	st3
GREAT ROOM-C	c 969	0	45	0.101	4.0	0x0	VIFx	21.8	120.0	st3
GREAT ROOM-D	c 969	0	45	0.094	4.0	0x0	VIFx	31.6	120.0	st3
KITCHEN	c 2155	0	99	0.104	6.0	0x0	VIFx	22.5	115.0	st3
LAU	c 981	0	45	0.095	4.0	0x0	VIFx	30.4	120.0	st1
O. BATH	c 774	0	36	0.091	4.0	0x0	VIFx	36.5	120.0	st1
O.WIC-A	c 136	0	6	0.093	4.0	0x0	VIFx	33.5	120.0	st1
OWNER'S SUITE	c 1639	0	75	0.082	5.0	0x0	VIFx	44.0	130.0	st1
OWNER'S SUITE-A	c 1639	0	75	0.086	5.0	0x0	VIFx	40.0	125.0	st1
PANTRY	c 179	0	8	0.103	4.0	0x0	VIFx	23.3	115.0	st3

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	0	334	0.082	425	12.0	0 x 0	VinIFlx	srs1
srs1	Peak AVF	0	888	0.082	639	14.5	10 x 20	RectFbg	
st2	Peak AVF	0	262	0.107	480	10.0	0 x 0	VinIFlx	srs1
st3	Peak AVF	0	292	0.094	536	10.0	0 x 0	VinIFlx	srs1

Bold/italic values have been manually overridden



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Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x 0	0	888	64.0	0.082	636	16.0	0x 0		MFx	



Manual S Compliance Report

Entire House

MiTek Wrightsoft

Job:
Date: Aug 09, 2021
By:

131 Hartwell Ave., Lexington, MA 02421 Phone: 800-225-8697 Fax: 781-861-2058 Web: www.wrightsoft.com

Project Information

For: Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH, Century CMP Florida
SW Jewel Lake Drive, Lake City, FL 32024

Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	19332	Btuh	Entering coil DB:	75.0°F
Outdoor design WB:	76.0°F	Latent gain:	3792	Btuh	Entering coil WB:	62.5°F
Indoor design DB:	75.0°F	Total gain:	23124	Btuh		
Indoor RH:	50%	Estimated airflow:	888	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25HBC530AP0300+FX4DNB037L
Actual airflow:	888	cfm	
Sensible capacity:	22217	Btuh	115% of load
Latent capacity:	4819	Btuh	127% of load
Total capacity:	27036	Btuh	117% of load SHR: 82%

Heating Equipment

Design Conditions

Outdoor design DB:	33.0°F	Heat loss:	26688	Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25HBC530AP0300+FX4DNB037L
Actual airflow:	0	cfm	
Output capacity:	28400	Btuh	106% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	32	°F	
Economic balance:	-99	°F	

Backup equipment type:	Elec strip		
Manufacturer:	Carrier	Model:	KFCEH2601C10
Actual airflow:	0	cfm	
Output capacity:	10.0	kW	128% of load Temp. rise: 35 °F

Meets all requirements of ACCA Manual S.



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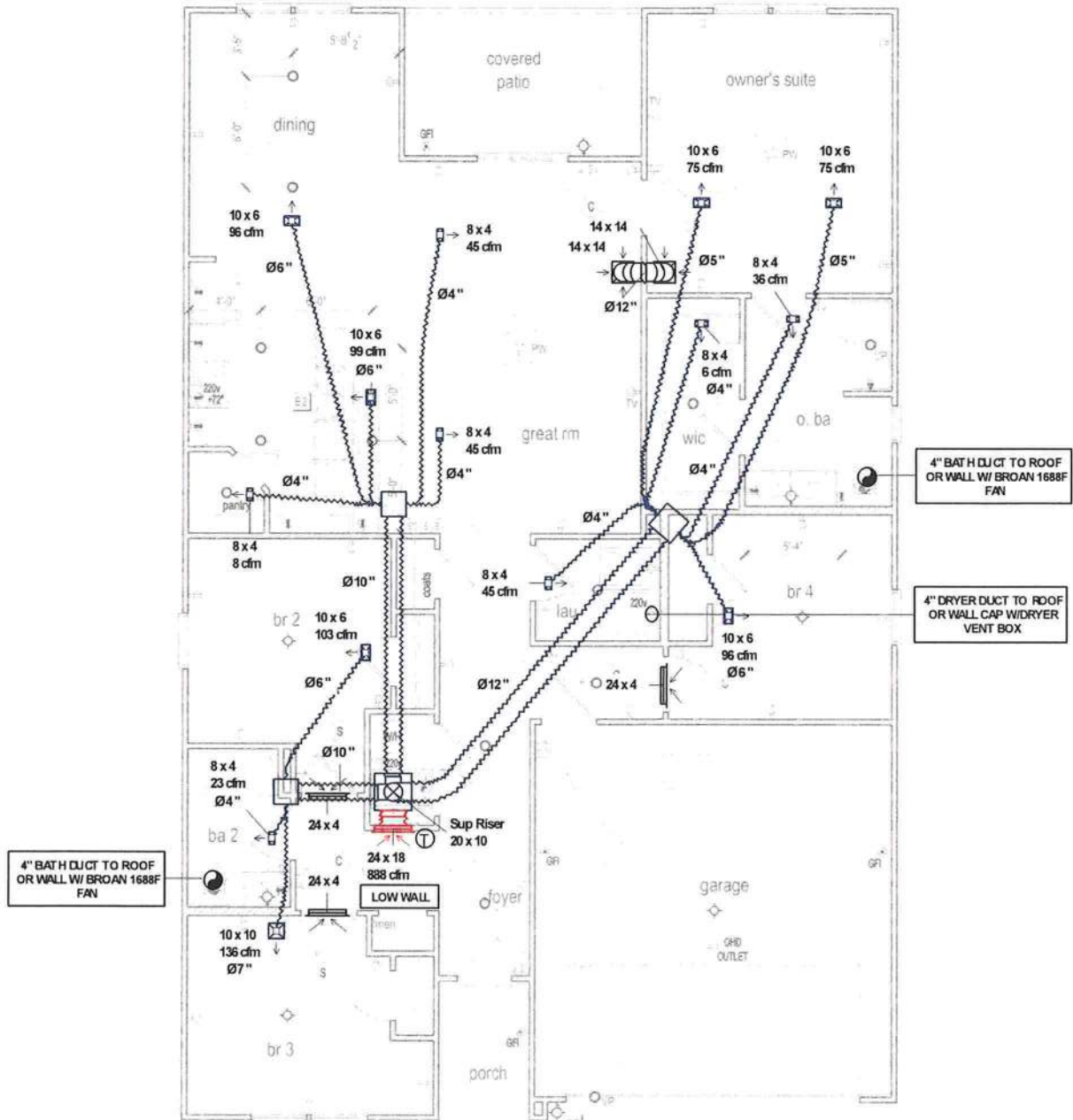
Main Floor

NOTE: MUST PROVIDE UNRESTRICTED 1 INCH UNDERCUT BELOW DOORS TO HABITABLE ROOMS. TRANSFER DUCTS/GRILLES SIZED IN COMPLIANCE WITH FLORIDA RESIDENTIAL BUILDING CODE M160.24. BALANCED RETURN AIR. EXCEPTIONS 1-3

FRONT DOOR ORIENTATION IS SET PER SITE PLAN

IMPORTANT: ANY DEVIATION FROM THIS DESIGN, IE: ORIENTATION, WEATHER LOCATION OR OPTIONS WILL REQUIRE AN UPDATED HVAC DESIGN

SUPPLY REGISTER TYPE: TRUAIRE 401



Job #:
Performed for:

Radford_SLAB_Reserve at Jewel Lake P2_FrmB1_LS42_RH
SW Jewel Lake Drive
Lake City, FL 32024

MiTek Wrightsoft

131 Hartwell Ave
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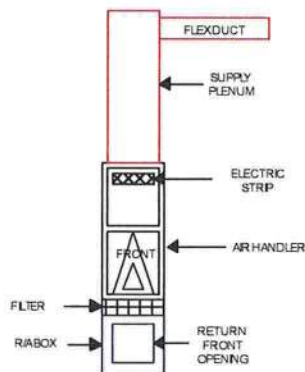
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Notes

CITED NOTES	
①	NOT INCLUDING MAKE UP AIR PER EXISTING DESIGN
②	RANGE EXHAUST DUCT SIZE AS PER MANF. REQ. 3.25 X 10 DUCT, CW WALL HOOD AND BACKDRAFT DAMPER (FOR ELECTRIC RANGE)
③	LAUNDRY ROOM COMBUSTION AIR FOR OPTIONAL GAS DRYER, SEE LOCAL CODES AND MANF. SPEC TO VERIFY
④	4" OR 6" VENT TO OUTSIDE, CW BACKDRAFT DAMPER AND HOOD (ROOF)
⑤	4" OR 6" VENT TO OUTSIDE, CW BACKDRAFT DAMPER AND HOOD (WALL)
GENERAL NOTES	
VERIFY NO STRUCTURAL INTERFERENCE BEFORE CUTTING OPENING FOR TRANSFER GRILLE ABOVE DOOR	
THERMOSTAT HEIGHT OF 60" TO THE TOP. WHEN A DESIGN MUST MEET A/D REQUIREMENTS, THERMOSTAT HEIGHT SHALL BE SPECIFIED AT 48" TO THE TOP.	



Carrier
25HBC530AP0300
FX4DNB037L
Elec strip Carrier KFCBH2601C10
FILTER TYPE: FLANDERS PRE PLEATED 40 LPD MERV 8 FILTER THICKNESS: 1" FILTER PRESSURE DROP: 0.15 IWC
FX4D CORRECTION COMPONENT PRESSURE DROP (DRY TO WET COIL): 0.055 IWC @ 888 CFM
FAN SPEED TAP: 2

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MITEK-WRIGHTSOFT DESIGN DETAIL SUMMARY

MITEK'S RESPONSIBILITY IS SOLELY FOR DESIGN OF THE HVAC SYSTEM BASED UPON THE DESIGN INFORMATION AND CONDITIONS PROVIDED TO IT THAT ARE SPECIFIED IN THE DRAWING AND ACCOMPANYING ACCA MANUAL J, S, D AND T REPORTS. THE HVAC DESIGN IS BASED ONLY UPON THE DESIGN INFORMATION AND CONDITIONS SHOWN, WHICH HAVE NOT BEEN VERIFIED BY THE MITEK-WRIGHTSOFT DESIGN TEAM.

BEFORE USE, THE BUILDING DESIGNER MUST VERIFY THE APPLICABILITY OF THE DESIGN INFORMATION AND CONDITIONS, AND PROPERLY INCORPORATE THIS HVAC DESIGN INTO THE OVERALL BUILDING DESIGN. THE HVAC DESIGN SHOWN IS ONLY VALID FOR THE BUILDING LAYOUT, ELEVATIONS, ORIENTATION, INTERIOR FLOOR PLAN, CONSTRUCTION MATERIALS, EQUIPMENT, AND WEATHER BIN DATA SPECIFIED IN THE DRAWING.

ANY CHANGE TO THE DESIGN INFORMATION AND CONDITIONS, OR DEVIATION FROM THIS DESIGN WILL REQUIRE AN UPDATED HVAC DESIGN. MITEK TAKES NO RESPONSIBILITY FOR DEVIATIONS FROM ITS HVAC DESIGN, USE OF ITS DESIGNS FOR PURPOSE OTHER THAN AS INTENDED BY MITEK-WRIGHTSOFT, OR FOR THE IMPROPER CONSTRUCTION OR INSTALLATION OF HVAC SYSTEMS BASED ON ITS DESIGNS.

MITEK IS NOT RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEM OR THE PERFORMANCE OF EQUIPMENT REFERENCED IN THE HVAC DESIGN. THE HVAC DESIGN ASSUMES FABRICATION AND INSTALLATION BY A CERTIFIED HVAC CONTRACTOR IN STRICT CONFORMANCE WITH HVAC DESIGNS AND THE GUIDELINES PUBLISHED BY ACCA RESIDENTIAL QUALITY INSTALLATION CHECKLIST. FOR GENERAL GUIDANCE REGARDING THE INSTALLATION AND TESTING OF THE HVAC SYSTEM(S), PLEASE SEE ACCA MANUAL D, ACCA MANUAL B, BC, IMC, AND IRC.

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