

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BSPM = Points Floor Area				Type/SC	Overhang			Area X SPM X SOF = Points			
.18	4583.0	25.78	21267.0	Ornt	Len	Hgt	Area	X	SPM	X	SOF = Points
				Single,U=0.33,Clear	W	2.0	9.0	30.2	60.72	0.93	1713.4
				Single,U=0.33,Clear	W	2.0	9.5	53.3	60.72	0.94	3050.1
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	59.98	0.93	489.9
				Single,U=0.33,Clear	S	2.0	9.5	16.6	51.31	0.91	771.7
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	63.97	0.93	522.0
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	59.98	0.93	489.9
				Single,U=0.33,Clear	S	2.0	9.5	16.6	51.31	0.91	771.7
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	63.97	0.93	522.0
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	59.98	0.93	489.9
				Single,U=0.33,Clear	S	2.0	9.5	16.6	51.31	0.91	771.7
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	63.97	0.93	522.0
				Single,U=0.33,Clear	S	2.0	9.5	5.3	51.31	0.91	246.4
				Single,U=0.33,Clear	NE	5.0	9.5	43.3	50.33	0.75	1629.4
				Single,U=0.33,Clear	SE	2.0	9.5	30.2	63.97	0.93	1791.5
				Single,U=0.33,Clear	E	2.0	9.5	30.2	66.81	0.94	1903.2
				Single,U=0.33,Clear	NE	2.0	9.5	30.2	50.33	0.95	1438.6
				Single,U=0.33,Clear	N	2.0	9.5	5.3	33.83	0.96	171.6
				Single,U=0.33,Clear	N	2.0	9.5	5.3	33.83	0.96	171.6
				Single,U=0.33,Clear	N	2.0	9.5	5.3	33.83	0.96	171.6
				Single,U=0.33,Clear	N	2.0	9.5	8.3	33.83	0.96	268.8
				Single,U=0.33,Clear	NW	0.0	0.0	21.6	44.17	1.00	954.0
				Single,U=0.33,Clear	W	0.0	0.0	21.6	60.72	1.00	1311.5
				Single,U=0.33,Clear	SW	0.0	0.0	21.6	59.98	1.00	1295.6
				Single,U=0.33,Clear	S	13.0	10.0	48.0	51.31	0.53	1310.1
				Single,U=0.33,Clear	E	13.0	10.0	160.0	66.81	0.47	5001.9
				Single,U=0.33,Clear	N	13.0	10.0	30.0	33.83	0.69	696.5
				Single,U=0.33,Clear	N	2.0	10.0	120.0	33.83	0.96	3904.9
				Single,U=0.33,Clear	E	2.0	10.0	90.0	66.81	0.95	5714.6
				As-Built Total:			862.3		38096.1		

SUMMER CALCULATIONS**Residential Whole Building Performance Method A - Details**

ADDRESS:	PERMIT #:
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BASE				AS-BUILT				
WALL TYPES	Area X BSPM = Points			Type	R-Value	Area X SPM = Points		
Adjacent	255.0	0.70	178.5	Concrete, Int Insul, Exterior	20.0	593.3	0.19	110.2
Exterior	3545.0	1.90	6735.5	Concrete, Int Insul, Exterior	20.0	351.6	0.19	65.3
				Concrete, Int Insul, Exterior	20.0	42.2	0.19	7.8
				Concrete, Int Insul, Exterior	20.0	803.3	0.19	149.2
				Concrete, Int Insul, Exterior	20.0	233.3	0.19	43.3
				Concrete, Int Insul, Exterior	20.0	42.2	0.19	7.8
				Concrete, Int Insul, Exterior	20.0	697.5	0.19	129.5
				Concrete, Int Insul, Exterior	20.0	165.8	0.19	30.8
				Concrete, Int Insul, Exterior	20.0	426.6	0.19	79.2
				Frame, Wood, Adjacent	20.0	255.0	0.29	72.9
				Concrete, Int Insul, Exterior	20.0	31.0	0.19	5.8
				Concrete, Int Insul, Exterior	20.0	43.3	0.19	8.0
				Concrete, Int Insul, Exterior	20.0	83.3	0.19	15.5
				Concrete, Int Insul, Exterior	20.0	31.6	0.19	5.9
Base Total:	3800.0		6914.0	As-Built Total:		3800.0		731.2
DOOR TYPES	Area X BSPM =			Area X SPM = Points				
Adjacent	24.0	1.60	38.4	Exterior Insulated		48.0	4.80	230.4
Exterior	144.0	4.80	691.2	Exterior Insulated		96.0	4.80	460.8
				Adjacent Insulated		24.0	1.60	38.4
Base Total:	168.0		729.6	As-Built Total:		168.0		729.6
CEILING TYPES	Area X BSPM = Points			Type	R-Value	Area X SPM X SCM = Points		
Under Attic	4583.0	2.13	9761.8	Under Attic	30.0	4583.0	2.13 X 1.00	9761.8
Base Total:	4583.0		9761.8	As-Built Total:		4583.0		9761.8
FLOOR TYPES	Area X BSPM = Points			Type	R-Value	Area X SPM = Points		
Slab	389.1(p)	-31.8	-12373.4	Slab-On-Grade Edge Insulation	0.0	389.1(p)	-31.90	-12412.3
Raised	0.0	0.00	0.0					
Base Total:			-12373.4	As-Built Total:		389.1		-12412.3
INFILTRATION	Area X BSPM = Points			Area X SPM = Points				
	4583.0	14.31	65582.7			4583.0	14.31	65582.7

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE	AS-BUILT
Summer Base Points: 91881.7	Summer As-Built Points: 102489.1
Total Summer X System = Cooling Points Multiplier Points	Total X Cap X Duct X System X Credit = Cooling Component Ratio Multiplier Multiplier Multiplier Points (System - Points) (DM x DSM x AHU)
91881.7 0.4266 39196.7	<small>(sys 1: Central Unit 45000 btuh ,SEER/EFF(13.0) Ducts:Con(S),Con(R),Int(AH),R6.0(INS)</small> 102489 1.00 (1.00 x 1.000 x 0.90) 0.262 0.902 21836.3 102489.1 1.00 0.900 0.262 0.902 21836.3

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE				AS-BUILT							
GLASS TYPES											
.18 X Conditioned X BWPM = Points Floor Area				Type/SC	Overhang		Area X WPM X WOF = Points				
.18	4583.0	5.86	4834.1	Ornt	Len	Hgt	Area	X WPM	X WOF	= Points	
				Single,U=0.33,Clear	W	2.0	9.0	30.2	2.10	1.01	63.9
				Single,U=0.33,Clear	W	2.0	9.5	53.3	2.10	1.01	112.7
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	0.58	1.02	5.2
				Single,U=0.33,Clear	S	2.0	9.5	16.6	-0.93	1.03	-15.8
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	-0.28	1.04	-2.5
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	0.58	1.02	5.2
				Single,U=0.33,Clear	S	2.0	9.5	16.6	-0.93	1.03	-15.8
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	-0.28	1.04	-2.5
				Single,U=0.33,Clear	SW	2.0	9.5	8.8	0.58	1.02	5.2
				Single,U=0.33,Clear	S	2.0	9.5	16.6	-0.93	1.03	-15.8
				Single,U=0.33,Clear	SE	2.0	9.5	8.8	-0.28	1.04	-2.5
				Single,U=0.33,Clear	S	2.0	9.5	5.3	-0.93	1.03	-5.1
				Single,U=0.33,Clear	NE	5.0	9.5	43.3	3.33	1.00	144.5
				Single,U=0.33,Clear	SE	2.0	9.5	30.2	-0.28	1.04	-8.6
				Single,U=0.33,Clear	E	2.0	9.5	30.2	1.34	1.01	41.0
				Single,U=0.33,Clear	NE	2.0	9.5	30.2	3.33	1.00	100.7
				Single,U=0.33,Clear	N	2.0	9.5	5.3	3.64	1.00	19.2
				Single,U=0.33,Clear	N	2.0	9.5	5.3	3.64	1.00	19.2
				Single,U=0.33,Clear	N	2.0	9.5	5.3	3.64	1.00	19.2
				Single,U=0.33,Clear	N	2.0	9.5	8.3	3.64	1.00	30.1
				Single,U=0.33,Clear	NW	0.0	0.0	21.6	3.55	1.00	76.8
				Single,U=0.33,Clear	W	0.0	0.0	21.6	2.10	1.00	45.4
				Single,U=0.33,Clear	SW	0.0	0.0	21.6	0.58	1.00	12.5
				Single,U=0.33,Clear	S	13.0	10.0	48.0	-0.93	2.03	-90.5
				Single,U=0.33,Clear	E	13.0	10.0	160.0	1.34	1.21	259.8
				Single,U=0.33,Clear	N	13.0	10.0	30.0	3.64	0.99	107.8
				Single,U=0.33,Clear	N	2.0	10.0	120.0	3.64	1.00	435.6
				Single,U=0.33,Clear	E	2.0	10.0	90.0	1.34	1.01	122.1
				As-Built Total:			862.3			1466.9	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE				AS-BUILT				
WALL TYPES	Area X BWPM = Points			Type	R-Value	Area X WPM = Points		
Adjacent	255.0	1.80	459.0	Concrete, Int Insul, Exterior	20.0	593.3	0.76	449.2
Exterior	3545.0	2.00	7090.0	Concrete, Int Insul, Exterior	20.0	351.6	0.76	266.2
				Concrete, Int Insul, Exterior	20.0	42.2	0.76	32.0
				Concrete, Int Insul, Exterior	20.0	803.3	0.76	608.2
				Concrete, Int Insul, Exterior	20.0	233.3	0.76	176.6
				Concrete, Int Insul, Exterior	20.0	42.2	0.76	32.0
				Concrete, Int Insul, Exterior	20.0	697.5	0.76	528.1
				Concrete, Int Insul, Exterior	20.0	165.8	0.76	125.5
				Concrete, Int Insul, Exterior	20.0	426.6	0.76	323.0
				Frame, Wood, Adjacent	20.0	255.0	0.96	244.1
				Concrete, Int Insul, Exterior	20.0	31.0	0.76	23.5
				Concrete, Int Insul, Exterior	20.0	43.3	0.76	32.8
				Concrete, Int Insul, Exterior	20.0	83.3	0.76	63.1
				Concrete, Int Insul, Exterior	20.0	31.6	0.76	23.9
Base Total:	3800.0		7549.0	As-Built Total:		3800.0		2928.1
DOOR TYPES	Area X BWPM = Points			Type		Area X WPM = Points		
Adjacent	24.0	4.00	96.0	Exterior Insulated		48.0	5.10	244.8
Exterior	144.0	5.10	734.4	Exterior Insulated		96.0	5.10	489.6
				Adjacent Insulated		24.0	4.00	96.0
Base Total:	168.0		830.4	As-Built Total:		168.0		830.4
CEILING TYPES	Area X BWPM = Points			Type	R-Value	Area X WPM X WCM = Points		
Under Attic	4583.0	0.64	2933.1	Under Attic	30.0	4583.0	0.64 X 1.00	2933.1
Base Total:	4583.0		2933.1	As-Built Total:		4583.0		2933.1
FLOOR TYPES	Area X BWPM = Points			Type	R-Value	Area X WPM = Points		
Slab	389.1(p)	-1.9	-739.3	Slab-On-Grade Edge Insulation	0.0	389.1(p)	2.50	972.8
Raised	0.0	0.00	0.0					
Base Total:			-739.3	As-Built Total:		389.1		972.8
INFILTRATION	Area X BWPM = Points					Area X WPM = Points		
	4583.0	-0.28	-1283.2			4583.0	-0.28	-1283.2

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE			AS-BUILT					
Winter Base Points:		14124.1	Winter As-Built Points:			7848.0		
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
14124.1	0.6274	8861.5	7848.0	1.00	0.920	0.585	1.000	4221.8

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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BASE				AS-BUILT										
WATER HEATING				Tank	EF	Number of	X	Tank	X	Multiplier	X	Credit	=	Total
Number of	X	Multiplier	=	Volume		Bedrooms		Ratio				Multiplier		
Bedrooms														
4		2460.00	=	80.0	0.90	4		1.00		2514.67		1.00	=	10058.7
As-Built Total:													10058.7	

CODE COMPLIANCE STATUS													
BASE					AS-BUILT								
Cooling	+	Heating	+	Hot Water	=	Total	Cooling	+	Heating	+	Hot Water	=	Total
Points		Points		Points		Points	Points		Points		Points		Points
39197		8861		9840		57898	21836		4222		10059		36117

PASS



Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS:	PERMIT #:
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6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked circ breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	