

Project Scott house

Energy Code: 2009 IECC

Location: Cumberland County, Maine

Construction Type: Single-family
Project Type: New Construction

Orientation: Bldg. faces 135 deg. from North

Conditioned Floor Area: **2,364 ft2** Glazing Area **14%**

Climate Zone: **6 (8499 HDD)**

Permit Date: Permit Number:

Construction Site: Owner/Agent: Designer/Contractor:

Compliance: Passes using performance alternative

Compliance: 0.2% Better Than Code

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling: Flat or Scissor Truss	1,412	60.0	60.0	0.010	14
Wall: Wood Frame, 16in. o.c. Orientation: Front	476	26.0	26.0	0.021	3
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	13			0.300	4
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	13			0.300	4
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	13			0.300	4
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	13			0.300	4
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	8			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	8			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	8			0.300	2
	8			0.300	2

Project Title: Scott house Report date: 08/15/17

Data filename:

Page 1 of 9

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	8			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	7			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	7			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	6			0.300	2
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	19			0.300	6
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	19			0.300	6
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	9			0.300	3
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	15			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	15			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Front	15			0.300	5
Door: Glass SHGC: 0.28 Orientation: Front	41			0.300	12
Door: Glass SHGC: 0.28 Orientation: Front	21			0.300	6
Door: Solid Orientation: Front	21			0.300	6
Door: Solid Orientation: Front	21			0.300	6
Door: Solid Orientation: Front	21			0.300	6
Wall: Wood Frame, 16in. o.c. Orientation: Back	1,328	26.0	26.0	0.021	25
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Officiation, buck	16			0.300	5

Project Title: Scott house

Data filename:

Report date: 08/15/17

Page 2 of 9

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	16			0.300	5
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	9			0.300	3
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	9			0.300	3
Window: Vinyl Frame, 2 Pane w/ Low-E SHGC: 0.28 Orientation: Back	9			0.300	3
Wall: Wood Frame, 16in. o.c. Orientation: Left side	527	26.0	26.0	0.021	11
Wall: Wood Frame, 16in. o.c. Orientation: Right side	527	26.0	26.0	0.021	11
Basement: Solid Concrete or Masonry Orientation: Front Wall height: 8.0' Depth below grade: 6.0' Insulation depth: 0.0'	224	0.0	1.1	0.291	65
Basement: Solid Concrete or Masonry Orientation: Back Wall height: 8.0' Depth below grade: 6.0' Insulation depth: 0.0'	224	0.0	1.1	0.291	65
Basement: Solid Concrete or Masonry Orientation: Left side Wall height: 8.0' Depth below grade: 6.0' Insulation depth: 0.0'	248	0.0	1.1	0.291	72
Basement: Solid Concrete or Masonry Orientation: Right side Wall height: 8.0' Depth below grade: 6.0' Insulation depth: 0.0'	248	0.0	1.1	0.291	72
Floor: All-Wood Joist/Truss Over Uncond. Space	952	30.0	30.0	0.016	15

Mechanical Equipment

Description	Fuel type	Efficiency
Other (Except Gas-Fired Steam)		95 AFUE

Compliance Statement: The proposed building design described calculations submitted with the permit application. The propersished Nersion 5.5.0 and to comply with the mandatory responses.	osed building has been designed to meet the 20	009 IECC requirements in
Name - Title	Signature	Date

Project Title: Scott house Data filename: Report date: 08/15/17

Page 3 of 9

REScheck Software Version 5.5.0 Inspection Checklist Energy Code: 2009 IECC

Requirements: 96.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.2 [PR1] ¹	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
103.2, 403.7 [PR3] ¹	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the commercial code.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
403.6 [PR2] ²	Heating and cooling equipment is sized per ACCA Manual S based on loads per ACCA Manual J or other approved methods.	Heating: Btu/hr Cooling: Btu/hr	Heating: Btu/hr Cooling: Btu/hr	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Scott house Report date: 08/15/17
Data filename: Page 4 of 9

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1 [FO4] ¹	Conditioned basement wall insulation R-value. Where interior insulation is used, verification may need to occur during Insulation Inspection. Not required in warm-humid locations in Climate Zone 3.	R	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2 [FO5] ¹	Conditioned basement wall insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.2.7 [FO6] ¹	Conditioned basement wall insulation depth of burial or distance from top of wall.	ft	ft	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2.1 [FO11] ²	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.8 [FO12] ²	Snow- and ice-melting system controls installed.			□Complies □Does Not □Not Observable □Not Applicable	Exception: Requirement is not applicable.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Scott house Data filename:

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1] ¹	Door U-factor.	U	U	□Complies □Does Not □Not Observable	See the Envelope Assemblies table for values.
(2)			 	□Not Applicable	
402.1.1, 402.3.1,	Glazing U-factor (area-weighted average).	U	U	□Complies □Does Not	See the Envelope Assemblies table for values.
402.3.3, 402.5 [FR2] ¹				□Not Observable □Not Applicable	
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance with the NFRC test procedure or			☐Complies ☐Does Not ☐Not Observable	Requirement will be met.
	taken from the default table.			□Not Observable □Not Applicable	
402.4.4 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting			□Complies □Does Not	Requirement will be met.
•	AAMA/WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			□Not Observable □Not Applicable	
402.4.5 [FR16] ²	IC-rated recessed lighting fixtures sealed at housing/interior finish			☐Complies ☐Does Not	
•	and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			□Not Observable □Not Applicable	1 1 1 1 1
405.2 [FR25] ¹	All ducts in unconditioned spaces or outside the building envelope	R	R	□Complies □Does Not	Requirement will be met.
②	are insulated to ≥R-6.		 	□Not Observable □Not Applicable	
403.2.2 [FR13] ¹	All joints and seams of air ducts, air handlers, filter boxes, and			□Complies □Does Not	Requirement will be met.
•	building cavities used as return ducts are sealed.			□Not Observable □Not Applicable	
403.2.3 [FR15] ³	Building cavities are not used for supply ducts.			☐Complies ☐Does Not	Requirement will be met.
•				□Not Observable □Not Applicable	
403.3 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids	R	R	\square Complies \square Does Not	Exception: Requirement is not applicable.
•	below 55 ${}^{Q}F$ are insulated to $\geq R$ -3.			□Not Observable □Not Applicable	
403.4 [FR18] ²	Circulating service hot water pipes are insulated to R-2.	R	R	□Complies □Does Not	Exception: Requirement is not applicable.
(□Not Observable □Not Applicable	1 1 1 1 1 1
403.5 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air			☐Complies ☐Does Not	Requirement will be met.
•	intakes and exhausts.			□Not Observable □Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] ²	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
402.1.1, 402.2.5, 402.2.6 [IN1] ¹	Floor insulation R-value.	R Wood Steel	R Wood Steel	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.6 [IN2] ¹	Floor insulation installed per manufacturer's instructions, and in substantial contact with the underside of the subfloor.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
402.1.1, 402.2.4, 402.2.5 [IN3] ¹	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies.	R	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2 [IN4] ¹	Wall insulation is installed per manufacturer's instructions.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Project Title: Scott house Data filename:

Report date: 08/15/17

Page 7 of 9

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2 [FI1] ¹	Ceiling insulation R-value. Where > R-30 is required, R-30 can be used if insulation is not compressed at eaves. R-30 may be used for 500 ft² or 20% (whichever is less) where sufficient space is not available.	R Wood Steel	R Wood Steel	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [FI2] ¹	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² .			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
402.4.2, 402.4.2.1 [FI17] ¹	Building envelope tightness verified by blower door test result of <7 ACH at 50 Pa. This requirement may instead be met via visual inspection, in which case verification may need to occur during Insulation Inspection.	ACH 50 =	ACH 50 =	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
403.2.2 [FI4] ¹	Post construction duct tightness test result of ≤8 cfm to outdoors, or ≤12 cfm across systems. Or, rough-in test result of ≤6 cfm across systems or ≤4 cfm without air handler. Rough-in test verification may need to occur during Framing Inspection.	cfm	cfm	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
403.6 [FI5] ¹	Heating and cooling equipment type and capacity as per plans.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
403.1.1 [FI9] ²	Programmable thermostats installed on forced air furnaces.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement is not applicable.
403.1.2 [FI10] ²	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement is not applicable.
403.4 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Exception: Requirement is not applicable.
403.9.1 [FI12] ³	Readily accessible switch on heaters for swimming pools.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
403.9.2 [FI19] ³	Timer switches on pool heaters and pumps are present.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
403.9.3 [FI20] ³	Heated swimming pools have a cover. Covers on pools heated over 90 °F are insulated to R-12.			□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

1 High Imp	act (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
401.3 [FI7] ²	Compliance certificate posted.			□Complies □Does Not	Requirement will be met.
•				□Not Observable □Not Applicable	1 1 1 1 1
303.3 [FI18] ³	Manufacturer manuals for mechanical and water heating			□Complies □Does Not	Requirement will be met.
•	equipment have been provided.			□Not Observable □Not Applicable	

1 High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
•	•	•		

Project Title: Scott house Data filename:



Insulation Rating	R-Value			
Above-Grade Wall	52.00			
Below-Grade Wall	1.10			
Floor	60.00			
Ceiling / Roof	120.00			
Ductwork (unconditioned spaces):				
Glass & Door Rating	U-Factor	SHGC		
Window	0.30	0.28		
Door	0.30	0.28		
Heating & Cooling Equipment	Efficiency			
Other (Except Gas-Fired Steam)	95 AFUE			
Cooling System:				
Water Heater:	_			
Name:	Date:			

Comments