



# REScheck Software Version 4.6.4 Compliance Certificate

## Project

Energy Code: **Utah Energy Conservation Code**  
Location: **Ogden, Utah**  
Construction Type: **Single-family**  
Project Type: **New Construction**  
Conditioned Floor Area: **3,072 ft2**  
Glazing Area: **39%**  
Climate Zone: **5 (5557 HDD)**  
Permit Date:  
Permit Number:

Construction Site:

Owner/Agent:

Designer/Contractor:

### Compliance: Passes using UA trade-off

Compliance: **15.7% Better Than Code** Maximum UA: **1016** Your UA: **856**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

## Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Pavilion & Tower Floor: Slab-On-Grade:Heated Insulation depth: 3.0'	201		15.0	0.691	139
Pavilion Deck Over Interior Space: Flat Ceiling or Scissor Truss	115	49.0	0.0	0.026	3
Pavilion Soffit: All-Wood Joist/Truss:Over Outside Air	710	49.0	0.0	0.021	15
Pavilion Roof: Cathedral Ceiling	1,740	49.0	0.0	0.022	38
Pavilion Wall South (L1&2) (Wood): Wood Frame, 16" o.c.	852	20.0	10.0	0.036	13
Windows & Doors: Wood Frame:Double Pane with Low-E	478			0.320	153
Pavilion Wall West (L2) (Wood): Wood Frame, 16" o.c.	223	20.0	10.0	0.036	6
Windows: Wood Frame:Double Pane with Low-E	69			0.320	22
Pavilion Wall North (L1) (Conc.): Solid Concrete or Masonry Wall height: 9.0' Depth below grade: 4.5' Insulation depth: 9.0'	403	0.0	15.0	0.054	19
Windows: Wood Frame:Double Pane with Low-E	42			0.320	13
Pavilion Wall North (L2) (Wood): Wood Frame, 16" o.c.	403	20.0	10.0	0.036	10
Windows & Doors: Wood Frame:Double Pane with Low-E	119			0.320	38
Pavilion Wall East (L1) (Conc.) Below Grade: Solid Concrete or Masonry Wall height: 7.0' Depth below grade: 7.0' Insulation depth: 7.0'	100	20.0	15.0	0.026	3
Pavilion Wall East (L1) (Conc.) Above Grade: Solid Concrete or Masonry:Interior Insulation	75	20.0	0.0	0.057	4

Project Title:

Report date: 01/31/18

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Windows: Wood Frame:Double Pane with Low-E	8			0.320	3
Pavilion Wall East (L1&2) Wood): Wood Frame, 16" o.c.	297	20.0	10.0	0.036	8
Windows & Doors: Wood Frame:Double Pane with Low-E	74			0.320	24
Tower Floor Over Exterior Space: All-Wood Joist/Truss:Over Outside Air	49	30.0	0.0	0.033	2
Green Roof: Flat Ceiling or Scissor Truss	379	49.0	10.0	0.021	8
Tower Roof: Cathedral Ceiling	482	49.0	0.0	0.022	11
Tower Wall South (L1) (Conc.): Solid Concrete or Masonry:Interior Insulation	133	20.0	0.0	0.057	3
Windows & Doors: Wood Frame:Double Pane with Low-E	72			0.320	23
Tower Wall South (L1,2,&3) (Wood): Wood Frame, 16" o.c.	532	20.0	10.0	0.036	9
Windows & Doors: Wood Frame:Double Pane with Low-E	283			0.320	91
Tower Wall West (L1) (Conc.) Below Grade: Solid Concrete or Masonry Wall height: 4.5' Depth below grade: 4.5' Insulation depth: 4.5'	61	20.0	15.0	0.027	2
Tower Wall West (L1) (Conc.) Above Grade: Solid Concrete or Masonry:Interior Insulation	164	20.0	0.0	0.057	6
Windows & Doors: Wood Frame:Double Pane with Low-E	55			0.320	18
Tower Wall West (L2, &3) (Wood): Wood Frame, 16" o.c.	628	20.0	10.0	0.036	17
Windows & Doors: Wood Frame:Double Pane with Low-E	142			0.320	45
Tower Wall North (L1) (Conc.) Below Grade: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 10.0' Insulation depth: 10.0'	346	0.0	15.0	0.040	14
Tower Wall North (L2&3) (Wood): Wood Frame, 16" o.c.	311	20.0	10.0	0.036	6
Windows & Garage Door: Wood Frame:Double Pane with Low-E	131			0.320	42
Tower Wall East (L2&3) (Wood): Wood Frame, 16" o.c.	465	20.0	10.0	0.036	13
Windows & Door: Wood Frame:Double Pane with Low-E	108			0.320	35

*Compliance Statement:* The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the Utah Energy Conservation Code requirements in REScheck Version 4.6.4 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

E. J. Elliott \_\_\_\_\_ Signature \_\_\_\_\_ Date 01.30.2018  
 Name - Title





# Inspection Checklist

Energy Code: Utah Energy Conservation Code

Requirements: 0.0% 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
103.1, 103.2 [PR1] <sup>1</sup> 	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
302.1, 403.6 [PR2] <sup>2</sup> 	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr _____ Cooling: Btu/hr _____	Heating: Btu/hr _____ Cooling: Btu/hr _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1 [FO1] <sup>1</sup>	Slab edge insulation R-value.	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	R-____ <input type="checkbox"/> Unheated <input type="checkbox"/> Heated	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.9 [FO2] <sup>1</sup>	Slab edge insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.1.1 [FO3] <sup>1</sup>	Slab edge insulation depth/length.	____ ft	____ ft	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
402.1.1 [FO4] <sup>1</sup>	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-____	R-____ R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2 [FO5] <sup>1</sup>	Conditioned basement wall insulation installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.2.8 [FO6] <sup>1</sup>	Conditioned basement wall insulation depth of burial or distance from top of wall.	____ ft	____ ft	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2.1 [FO11] <sup>2</sup>	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.8 [FO12] <sup>2</sup>	Snow- and ice-melting system controls installed.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.1, 402.3.3, 402.3.6, 402.5 [FR2] <sup>1</sup>	Glazing U-factor (area-weighted average).	U-____	U-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.3 [FR4] <sup>1</sup>	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.3 [FR20] <sup>1</sup>	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.4 [FR16] <sup>2</sup>	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.2.1 [FR12] <sup>1</sup>	Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.	R-____ R-____	R-____ R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.2.2 [FR13] <sup>1</sup>	All joints and seams of air ducts, air handlers, and filter boxes are sealed.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3 [FR17] <sup>2</sup>	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.1 [FR24] <sup>2</sup>	Protection of insulation on HVAC piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4.2 [FR18] <sup>2</sup>	Hot water pipes are insulated to ≥R-3.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5 [FR19] <sup>2</sup>	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	










**Additional Comments/Assumptions:**

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] <sup>2</sup>	All installed insulation is labeled or the installed R-values provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.1.1, 402.2.6 [IN1] <sup>1</sup>	Floor insulation R-value.	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.7 [IN2] <sup>1</sup>	Floor insulation installed per manufacturer's instructions, and in substantial contact with the underside of the subfloor.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3] <sup>1</sup>	Wall insulation R-value. If this is a mass wall with at least 1/2 of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.2 [IN4] <sup>1</sup>	Wall insulation is installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1] <sup>1</sup> 	Ceiling insulation R-value.	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values.
303.1.1.1, 303.2 [FI2] <sup>1</sup> 	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft <sup>2</sup> .			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.2.3 [FI22] <sup>2</sup>	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.2.4 [FI3] <sup>1</sup> 	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.2.2 [FI4] <sup>1</sup> 	Duct tightness test result of ≤10 cfm/100 ft <sup>2</sup> across the system or ≤7.5 cfm/100 ft <sup>2</sup> without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft <sup>2</sup>	____ cfm/100 ft <sup>2</sup>	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.2.2.1 [FI24] <sup>1</sup>	Air handler leakage designated by manufacturer at ≤2% of design air flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.1.1 [FI9] <sup>2</sup> 	Programmable thermostats installed on forced air furnaces.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.1.2 [FI10] <sup>2</sup> 	Heat pump thermostat installed on heat pumps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4.1 [FI11] <sup>2</sup> 	Circulating service hot water systems have automatic or accessible manual controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1 [FI25] <sup>2</sup>	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
401.3 [FI7] <sup>2</sup> 	Compliance certificate posted.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
303.3 [FI18] <sup>3</sup> 	Manufacturer manuals for mechanical and water heating systems have been provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

**Additional Comments/Assumptions:**

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# Utah Energy Conservation Code Energy Efficiency Certificate

Insulation Rating	R-Value
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<b>Above-Grade Wall</b>	<b>30.00</b>
<b>Below-Grade Wall</b>	<b>15.00</b>
<b>Floor</b>	<b>49.00</b>
<b>Ceiling / Roof</b>	<b>49.00</b>
<b>Ductwork (unconditioned spaces):</b>	_____

Glass & Door Rating	U-Factor	SHGC
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<b>Window</b>	<b>0.32</b>	
<b>Door</b>		

Heating & Cooling Equipment	Efficiency
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<b>Heating System:</b> _____	_____
<b>Cooling System:</b> _____	_____
<b>Water Heater:</b> _____	_____

Name: _____		Date: _____
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Comments \_\_\_\_\_