

# Town of East Lyme Connecticut

# Energy Code Compliance

Based on 2012 IRC Portion & IECC Portion of the 2016 Connecticut Building Code

<b>Project Address:</b>  East Lyme, CT 06333		<b>Permit #:</b>
<b>Name:</b>	<b>Phone: (    )</b>	<b>eMail:</b>

<b>Conditioned Floor Area:</b>		<b>Ft2</b>	
<b>Building Type:</b>	One & 2-Family	Townhouse	Multifamily
<b>Project Type:</b>	New Building	Addition	Renovation
<b>Foundation Type:</b>	Basement	Crawl Space	Slab
	Conditioned	or	Unconditioned

<b>Compliance Approach:</b>	Prescriptive	Trade-Off	Performance
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<b>Software Used:</b>	<b>Above Code Program:</b>
<b>Reviewed By:</b>	<b>Date:</b>

IECC Section #	Item	Prescriptive Value	Plan Value	Field Value	Complies ?
R103.1 R103.2	Drawings and documentation comply with energy code for the building envelope.	X	X	X	Complies Does Not Comply Not Applicable
R103.1 R103.2 R403.7	Documented compliance for lighting & mechanical systems. <i>Systems serving multiple units must comply with Commercial Provisions.</i>	X	X	X	Complies Does Not Comply Not Applicable
R302.1 R303.8 R403.6	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other approved methods.	<b>Heating:</b> 68° Min./72°F Max.  <b>Cooling:</b> 75°F Min.	<b>Heating:</b> Btu/hr _____  <b>Cooling:</b> Btu/hr _____	<b>Heating:</b> Btu/hr _____  <b>Cooling:</b> Btu/hr _____	Complies Does Not Comply Not Applicable

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R402.1.1	Slab edge insulation R-value.	Unheated: R-10 Heated: R-15	R-____ Unheated Heated	R-____ Unheated Heated	Complies Does Not Comply Not Observable Not Applicable
R402.1.1 R402.2.9	Slab edge insulation depth/length. (See Figure N1102.2.9)	2 ft	____ ft	____ ft	Complies Does Not Comply Not Observable Not Applicable
R303.2	Slab edge insulation installed per manufacturer's instructions.	X	X	Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.1.1	Conditioned basement wall insulation R-value.	Continuous: R-15 Cavity: R-19 + R-5	R-____  R-____	R-____  R-____	Complies Does Not Comply Not Observable Not Applicable
R402.2.8	Conditioned basement wall insulation distance from top of wall.	10 ft or to Basement Floor	____ ft	____ ft	Complies Does Not Comply Not Applicable
R303.2	Conditioned basement wall insulation installed per manufacturer's instructions.	X	X	Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.2.10	Unvented crawl space wall insulation R-value.	Continuous: R-15 Cavity: R-19 + R-5	R-____  R-____	R-____  R-____	Complies Does Not Comply Not Observable Not Applicable
R402.2.10	Unvented crawl space wall insulation distance from top of wall.	To finished grade + >= 2Ft vertical and/or horizontal	____ in.	____ in.	Complies Does Not Comply Not Applicable
R303.2 R402.2.10	Unvented crawl space wall insulation installed per manufacturer's instructions.	Permanently fastened to wall	X	Good Fair Poor	Complies Does Not Comply Not Applicable
R402.2.10	Unvented crawl space continuous vapor retarder over exposed earth, joints overlapped by 6 in. and sealed, extending at least 6 in.	Class I (Sheet Poly)		<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R303.2.1	A protective covering is installed to protect exposed exterior insulation.	Extends a minimum of 6 in. below grade	X	<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R402.1.1 R402.3.4 R402.3.6	Door maximum U-factor.	U-0.32 <i>24 ft2 exemption for side hinged door</i>	U-____	U-____	Complies Does Not Comply Not Applicable
R402.1.1, R402.3.1 R402.3.3, R402.3.6 R402.5	Glazing maximum U-factor.	U-0.32 <i>15 ft2 exemption combined w/ skylights</i>	U-____	U-____	Complies Does Not Comply Not Applicable
R303.1.3	U-factors of fenestration products determined in accordance with the NFRC 100 test procedure or taken from the default tables.	<b>Windows &amp; Skylights:</b> Table R303.1.3(1) <b>Doors:</b> Table R303.1.3(2)	U-____  U-____	U-____  U-____	Complies Does Not Comply Not Observable Not Applicable

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R402.4.3	Fenestrations not site built listed and labeled meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.	<b>Most Fenestrations:</b> 0.3 cfm/Ft2 <b>Swinging Doors:</b> 0.cfm/Ft2	U-____  U-____	U-____  U-____	Complies Does Not Comply Not Observable Not Applicable
R402.3.5	Fenestration in conditioned sunrooms maximum U factor.	<b>Thermally Isolated:</b> U-0.45 <b>Not Isolated:</b> U-0.32	U-____ Isolated Not Isolated	U-____ Isolated Not Isolated	Complies Does Not Comply Not Applicable
R402.1.1,R 402.3.3 R402.3.6, R402.5	Skylight maximum U-factor.	U-0.55 <i>15 ft2 exemption combined w/ glazing</i>	U-____	U-____	Complies Does Not Comply Not Applicable
R402.3.5	Skylights in conditioned sunrooms maximum U Factor.	<b>Thermally Isolated:</b> U-0.70 <b>Not Isolated:</b> U-0.55	U-____ Isolated Not Isolated	U-____ Isolated Not Isolated	Complies Does Not Comply Not Applicable
R402.1.1 Table R402.1.3	Mass wall exterior insulation value. If more than 1/2 of the insulation is on the interior, the interior insulation requirement applies.	<b>Exterior:</b> R-13, U-0.082 <b>Interior:</b> R-17, U-0.065	R-____, U-____  R-____, U-____	R-____, U-____  R-____, U-____	Complies Does Not Comply Not Observable Not Applicable
R303.2	Mass wall exterior insulation installed per manufacturer's instructions.			Good Fair Poor	Complies Does Not Comply Not Applicable
R402.4.4	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled.	<= 2.0 cfm leakage @ 75 Pa.		Gasketed  Caulked	Complies Does Not Comply Not Applicable
R402.4.1.1	Air barrier and thermal barrier installed behind electrical and/or communication boxes.	Or air-sealed boxes		Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R403.2.1	Ducts in unconditioned spaces are insulated.	<b>Attic:</b> >= R-8 <b>Other:</b> >= R-6	R-____  R-____	R-____  R-____	Complies Does Not Comply Not Applicable
R403.2.2	All joints and seams of air ducts, air handlers, and filter boxes are sealed.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.2.3	Building cavities are not used as ducts or plenums.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.3	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated.	>= R-3	R-____	R-____	Complies Does Not Comply Not Applicable
R403.3.1	HVAC piping exposed to weather protected.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.4.2	Hot water pipes are insulated. All > 3/4"ø, all to kitchen outlets, Runs > 20' of 1/2"ø, 10' of 3/4"ø	>= R-3	R-____	R-____	Complies Does Not Comply Not Applicable

IECC Section #	Item	Prescriptive Value	Plan Value	Field Value	Complies ?
R403.5	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			Field Verify	Complies Does Not Comply Not Applicable
R402.4.1.1	Contuous exterior air barrier installed per manufacturer's instructions.	Joints Sealed		Good Fair Poor	Complies Does Not Comply Not Applicable
R303.1	All installed insulation labeled or installed R-value report provided.			Field Verify and/or Provide Documentation	Complies Does Not Comply Not Observable Not Applicable
R316.4 R316.5 R316.6	Foam plastic thermal ignition barrier provided.			Field Verify and/or Provide Documentation	Complies Does Not Comply Not Observable Not Applicable
R402.1.1	Floor insulation R-value. <i>(see 402.2.6 for steel framing)</i>	R-30 or fill cavity R-19 min.	R-_____	R-_____	Complies Does Not Comply Not Applicable
R303.2 R402.2.7	Floor insulation installed per manufacturer's instructions.	In permanent substantial contact with underside of subfloor		Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.4.1.1	Rim joists insulated.			Field Verify	Complies Does Not Comply Not Observable Not Applicable
R402.1.5 R702.7	Wall assemblies meet vapor retarder requirements of 702.7.	Class I or II @ Inside Frame	Sheet Poly Unperforated Foil Kraft Paper	Sheet Poly Unperforated Foil Kraft Paper	Complies Does Not Comply Not Observable
R402.1.1	Wall insulation R-value. <i>(see 402.2.5 for mass walls)</i> <i>(See 402.2.6 for steel framing)</i>	R-20 cavity or R-13 cavity + R-5 continuous	R-_____	R-_____	Complies Does Not Comply Not Applicable
R303.2	Wall insulation installed per manufacturer's instructions.			Good Fair Poor	Complies Does Not Comply Not Observable
R402.2.12	Walls of conditioned sunrooms insulated.	<b>Thermally Isolated:</b> R-13 <b>Not Isolated:</b> Code	R-_____ Isolated Not Isolated	R-_____ Isolated Not Isolated	Complies Does Not Comply Not Observable Not Applicable
R303.2	Sunroom wall insulation installed per manufacturer's instructions.			Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.1.1 R402.2.1	Ceilings <b>with</b> attic space insulation R-value. <i>(see 402.2.6 for steel framing)</i>	R-49 or full depth R-38	R-_____	R-_____	Complies Does Not Comply Not Applicable
R402.2.2	Ceiling <b>without</b> attic space insulation R-value. <i>(see 402.2.6 for steel framing)</i>	R-30 <i>Limited to lesser of 500 ft2 or 20% of total ceiling area</i>	R-_____	R-_____	Complies Does Not Comply Not Observable Not Applicable

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R303.1.1.1 R303.2	Ceiling insulation installed per manufacturer's instructions.	Blown insulation marked every 300 ft2		Good Fair Poor	Complies Does Not Comply Not Applicable
R402.2.12	Ceilings of conditioned sunrooms insulated.	<b>Thermally Isolated:</b> R-24 <b>Not Isolated:</b> Code	R-____ Isolated Not Isolated	R-____ Isolated Not Isolated	Complies Does Not Comply Not Observable Not Applicable
R303.2	Sunroom ceiling insulation installed per manufacturer's instructions.			Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.2.3	Baffle over air permeable insulation adjacent to soffit and eave vents.			Good Fair Poor	Complies Does Not Comply Not Observable Not Applicable
R402.2.4	Attic access hatch and door insulation.	Weatherstripped >= R-value of the adjacent assembly	R-____	R-____	Complies Does Not Comply Not Applicable
R402.4.2	Wood burning fireplaces have outdoor air for combustion and tight fitting flue dampers labeled UL 127 or doors labeled UL 907.			<b>Provide Documentation</b>	Complies Does Not Comply Not Applicable
R403.2.2	Duct tightness @ 25 Pa. with entire system in place and registers sealed. <i>Not required when system is entirely within thermal envelope.</i>	<b>Across System:</b> 8 cfm/100 ft2 <b>No Air Handler:</b> 4 cfm/100 ft2		_____ cfm/100 ft2 <b>Per Test Report</b>	Complies Does Not Comply Not Applicable
R403.2.2.1	Air handlers has manufacturers designation for air leakage of <= 2% of design air flow when tested per ASHRE 193.			<b>Provide Documentation</b>	Complies Does Not Comply Not Applicable
R403.5.1	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.	<b>Range Hoods &amp; Fans:</b> 2.8 cfm/watt <b>Bath Fans &lt; 90 cfm:</b> 1.4 cfm/watt		<b>Provide Documentation</b>	Complies Does Not Comply Not Applicable
R403.1.1	Programmable thermostats installed on forced air furnaces.	One per dwelling		<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.1.2	Heat pumps with supplementary electric heat has controls to prevent operation when heat pump can meet heating load.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.4.1	Circulating service hot water systems have automatic or accessible manual controls.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.9.1	Swimming pools or permanent in-ground spas have readily accessible switch on heaters.	No pilot lights on gas-fired heaters		<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.9.2	Timer switches on heaters and pumps serving pools and permanent spas.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable

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R403.9.3	Heated pools and permanent spas have a vapor retardant cover.	Heated above 90°F requires $\geq$ R-12	R-_____	R-_____	Complies Does Not Comply Not Applicable
R404.1	High efficacy lamps provided.	75%		<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R403.8	Snow- and ice-melting system automatic controls installed.	Auto off when pavement is $\geq$ 50°F and no precipitation		<b>Field Verify</b>	Complies Does Not Comply Not Applicable
IRC R303.4 IRC M1507.3.3	Mechanical ventilation provided. <i>CFM per Table IRC M1507.3.3(1)</i>	<b>Intermittent Factor:</b> 100 / % Run Time	_____ CFM	<b>Field Verify</b> Continuous Intermittent	Complies Does Not Comply Not Applicable
IRC R303.3 IRC M1507	Bathroom window opening 1.5 Ft <sup>2</sup> or mechanical exhaust to outside	<b>Continuous:</b> 20 cfm <b>Intermittent:</b> 50 cfm	_____ CFM	<b>Field Verify</b> Continuous Intermittent	Complies Does Not Comply Not Applicable
R402.4.1.2	Blower door test report Fenestrations, vents, ducts, dampers, etc. closed but not sealed. Interior doors open.	$\leq$ 3.0 AC/H @ 50Pa. <i>(see exceptions)</i>		_____ AC/H <b>Per Test Report</b>	Complies Does Not Comply Not Applicable
R401.3	Compliance certificate posted.			<b>Field Verify</b>	Complies Does Not Comply Not Applicable
R303.3	Manufacturer manuals for mechanical and water heating systems have been provided.			<b>Provide Documentation</b>	Complies Does Not Comply Not Applicable

Date:	Inspected By:	Comments: