



# City of Longmont Residential Building

## Green Points Application

### Green Building Ordinance

City of Longmont, 350 Kimbark Street, Longmont, CO 80501  
 For Green Points information contact:  
 City of Longmont, Building Inspection Division  
 350 Kimbark Street, Longmont, CO 80501  
 Phone: 303-651-8332 Fax: 303-651-8930  
 Web site: <http://www.ci.longmont.co.us/bldginsp/index.htm>

Prior to selecting any measures, consult the Green Points Program Guidelines, which contain information on specific designs, compliance and other details. The Green Points Guidelines are available at the Building Inspection Department (see address above).

*If your project is less than 300 sq. ft., disregard this application form. You do not need to comply with the Green Points Program.*

Determine the floor area of the project. Then refer to the chart below to determine the number of points needed for the project (new construction, interior remodel or addition) and enter the floor area and points required in the spaces provided on page 4 of the *Green Points Program Guidelines*.

*"Floor Area" means the total square footage of all levels included within the outside perimeter of a building or portion thereof, excluding courts, garages usable exclusively for the storage of motor vehicles, and uninhabitable areas located above the highest level (attics) or below the first floor (crawl space) level.*

**Table 1: Point Requirements**

Project Description	Thresholds	Points Required
New construction New construction New construction	Up to 2,000 sq. ft. 2,001 to 3,500 sq. ft. 3,501 sq. ft. or greater (each additional 50 sq. ft.)	30 points 40 points 40 points, plus 1 point for each additional 50 sq. ft. area up to a maximum of 100% of all available Green Points
Interior remodel Interior remodel Interior remodel	300 to 1,000 sq. ft. 1,001 to 2,000 sq. ft. 2,001 sq. ft. or greater	6 points 10 points 15 points
Additions Additions Additions	500 to 1,000 sq. ft. 1,001 to 2,500 sq. ft. 2,501 sq. ft. or greater (each additional 50 sq. ft.)	15 points 30 points 45 points, plus 1 point for each additional 50 sq. ft. area up to a maximum of 100% of all available Green Points

## Energy Code Measures/Green Points Worksheet

If you have chosen to use a software program to demonstrate IECC compliance, you may receive energy code Green Points by calculating the percent increase over the minimum requirements. If you are using the REScheck software or a comparable program to demonstrate your IECC compliance, the program will calculate this percent increase for you. Print the page that gives the percent increase and attach it to this form. Each percentage point equals one Green Point. For example, if you are 25% over the required values, you receive 25 points, etc.

Percent Increase	Green Points
5%	5 points
15%	15 points
30%	30 points

If you have chosen any of the prescriptive or trade-off methods for demonstrating compliance with the International Energy Conservation Code (IECC), you may use the table below to calculate your energy code Green Points. Choose where you will exceed minimum requirements. Green Points are awarded for methods that exceed IECC minimum requirements.

First, fill in the minimum required IECC rating values for your type of project on the "IECC rating" line.

Next, choose the features where you plan to exceed the minimum rating, and write in the values you will be using in the "Green Points" line.

Calculate your Green Points awarded for each value using Table 2. Green Points are determined by the difference between the points awarded for the ratings you use and the minimum required ratings. Calculate the difference between the minimum IECC rating values and your Green Points to find the number of Green Points awarded for energy code features. Write these numbers in the "Green Points Awarded" line and total them on the line below.

**Examples:** (Use the Energy Code Measures/Green Points reference Table 2.)

The compliance value for windows is U-0.35. If your design value is U-0.30 then four points are awarded: (U-0.30 = 4 points) minus (U-0.35 = 0 points) = 4 Green Points.

The compliance value for wall insulation is R-19. If your design value is R-24 then two points are awarded: (R-24 = 2 points) minus (R-19 = 0 points) = 2 Green Points.

The compliance value for basement insulation is R-10. If your design value is R-15 then two points are awarded: (R-15 = 2 point) minus (R-10 = 0 point) = 2 Green Points.

If the compliance value for a furnace efficiency is 84% AFUE and the design value is 94% AFUE then three points are awarded: (94% AFUE = 3 points) minus (84% AFUE = 0 points) = 3 Green Points.

**Table 2: Energy Code Measures/Green Points**

	Green Points			Green Points
<b>Glass U-factor</b> (as determined by the National Fenestration Rating Council)			<b>Basement Insulation</b>	
U-0.34	1		R-13	1
U-0.33	2		R-15	2
U.0.30	4		R-19	3
U-0.28 or less	6		R-21	4
			R-24 or greater	5
<b>Wall Insulation</b>			<b>Slab Insulation</b>	
R-21	1		R-11	1
R-24	2		R-12	2
R-26	3		R-13	3
R-28 or greater	4		R-15	4
<b>Ceiling Insulation</b>			<b>Crawl Space Insulation</b>	
R-42	1		R-22	1
R-46	2		R-24	2
R-48 or greater	3		R-25 or greater	3
			<b>Furnaces and Boilers</b>	<b>Furnaces</b>
<b>Air Conditioning</b>			90% AFUE	2
No A.C.	2		94% AFUE	3
14 SEER	2		98% AFUE	4
16 SEER	4		Two Stage Furnace	5
Two Stage A.C.	6			
			<b>Cantilever / Floor over outside</b>	
<b>Floor Insulation over Garage</b>			R-40	1
R-24	1		R-42	2
R-26	2		R-44 or Greater	3
R-28 or greater	3			

## Your Energy Code Measures/Green Points Sample Worksheet (1)

(Use Table 2 to calculate Green Points above IECC compliance.)

Examples:		(1)		(2)		(3)			(4)	
	Glazing%	Glass U-factor	Ceiling R-value	Walls R-value	Floor R-value	Basement R-value	Slab R-value	Crawl Space R-value	Furnace AFUE	Code Compliance
IECC Rating	15%	0.35	38	18	21	10	9	20	84%	X
Green Points	N/A	0.30	38	24	21	15	9	20	94%	
Green Points Awarded*		4		2		2			4	
* Points for Green Points options minus points for IECC requirements. <b>Total Green Points 12</b>										

## Your Energy Code Measures/Green Points Sample Worksheet

(Use Table 2 to calculate Green Points above IECC compliance.)

	Glazing%	Glass U-factor	Ceiling R-value	Walls R-value	Floor R-value	Basement R-value	Slab R-value	Crawl Space R-value	Equipment Efficiency	Code Compliance
IECC Rating										
Green Points										
Green Points Awarded*										
*Points for Green Points options minus points for IECC requirements. Total Green Points _____										

Applicant \_\_\_\_\_ Permit \_\_\_\_\_

Project Address \_\_\_\_\_

Single Family: \_\_\_\_\_ Sq. Ft. Area  New  Remodel  Addition

Points Required: \_\_\_\_\_

Multifamily: \_\_\_\_\_ Sq. Ft. Area \_\_\_\_\_ Units  New  Remodel  Addition

Points Required: \_\_\_\_\_

<b>1 - Construction ❖ Demolition ❖ Use Of Recycled Materials</b>				Official use only/ Points awarded
<input type="checkbox"/>	3 points	1.1	Deconstruction Plan Submitted with Permit Application	
	Max 15 points possible	1.2	Construction Debris Recycled	
<input type="checkbox"/>	5 points		75% of all clean wood waste	
<input type="checkbox"/>	5 points		100% of all metal scrap	
<input type="checkbox"/>	5 points		90% of cardboard generated at the site	
		Provide receipt from supplier at framing inspection for the following items:		
<input type="checkbox"/>	5 points	1.3	Use of Reclaimed Lumber	
<input type="checkbox"/>	5 points	1.4	Deconstruction Materials Donated to a Reseller	
<input type="checkbox"/>	2 points	1.5	Recycled Content Carpeting	
<input type="checkbox"/>	2 points	1.6	Recycled Plastic or Non-CCA Treated Deck Materials	
<input type="checkbox"/>	1 points	1.7	Recycled Content Sheathing	
<input type="checkbox"/>	3 points	1.8	Recycled Content, Fiber Cement or FSC Certified Siding	
<input type="checkbox"/>	3 points	1.9	Recycled Content Roofing	

<b>2 - Land Use ❖ Water Conservation</b>				Official use only/ Points awarded
<input type="checkbox"/>	Max. 6 points possible	2.1	1 point for each additional tree planted above the requirements of the LMC (6 trees max.)	
			Number of extra trees: _____	
	1-4 points	2.2	Xeriscape Landscaping	
<input type="checkbox"/>	1 point		Any two of the items below	
<input type="checkbox"/>	2 points		Any three of the items below	
<input type="checkbox"/>	3 points		Any four of the items below	
		<input type="checkbox"/>	Reduction of turf areas to a minimum.	
		<input type="checkbox"/>	All planting beds mulched with wood chips at least 2" deep. (Except desert plantings.)	
		<input type="checkbox"/>	Appropriate use of low-water-demand plants. (see Building Green Guide, p. 8)	
		<input type="checkbox"/>	Zoned irrigation system.(see <i>Green Points Program Guidelines</i> , p. 8)	
<input type="checkbox"/>	3 points	2.3	Drip Irrigation Installed	

Official Use Only

Points this page: \_\_\_\_\_

Total points: \_\_\_\_\_

<b>3 - Framing</b>				Official use only/ Points awarded
<input type="checkbox"/>	3 points	3.1	modular or standard dimensioning (new construction only)	
<input type="checkbox"/>	5 points	3.2	Structural Alternatives to Wood	
<input type="checkbox"/>	3 points	3.3	Incorporate Optimal Value Engineering (OVE) Framing Techniques	
<input type="checkbox"/>	2 points	3.4	Oriented Strand Board (OSB) in Subfloors	
<input type="checkbox"/>	2 points	3.5	OSB or FSC Certified Plywood in Wall Sheathing	
<input type="checkbox"/>	2 points	3.6	Finger-Jointed or Engineered Studs Used for Wall Framing	
<input type="checkbox"/>	5 points	3.7	FSC Certified Sustainably Harvested Lumber Used for Framing	
<input type="checkbox"/>	4 points max	3.8	Engineered Lumber used in Structural Framing	
	1 point	<input type="checkbox"/>	framing roof trusses or wood "I" joists	
	1 point	<input type="checkbox"/>	wood "I" joists or floor framing	
	2 points	<input type="checkbox"/>	use engineered products to replace 2x10s and 2x12s in beams and headers	
	8 points max	3.9	Structural Insulated Panels (SIPs) Used for Exterior Walls and Roofs	
	4 points	<input type="checkbox"/>	SIPs for exterior walls	
	4 points	<input type="checkbox"/>	SIPs for roofs	
<b>4 - Plumbing</b>				
<input type="checkbox"/>	5 points	4.1	Tankless Water Heater	
<input type="checkbox"/>	3 points		For each additional hot water heater	
<input type="checkbox"/>	3 points	4.2	"On-Demand" Water Switch	
<b>5 - Electrical</b>				
<input type="checkbox"/>	1-3 points	5.1	Compact Fluorescent Bulbs Installed (provide receipt from dealer or supplier)	
<input type="checkbox"/>	1 point		4 CFL bulbs	
<input type="checkbox"/>	2 points		8 CFL bulbs	
<input type="checkbox"/>	3 points		12 CFL bulbs	
<input type="checkbox"/>	1-4 points	5.2	Energy-Efficient Appliances	
<input type="checkbox"/>	1 point		1 appliance	
<input type="checkbox"/>	2 points		2 appliances	
<input type="checkbox"/>	3 points		3 appliances	
<input type="checkbox"/>	4 points		4 appliances	
<input type="checkbox"/>	2-4 points	5.3	Efficient Light Controls Installed	
<input type="checkbox"/>	1 points		2 control devices	
<input type="checkbox"/>	2 points		4 control devices	
<input type="checkbox"/>	1 point	5.4	Clothesline	

<b>6 - Windows ❖ Insulation</b>				Official use only/ Points awarded
<input type="checkbox"/>	2 points	6.1	No metal windows installed in basements	
<input type="checkbox"/>	10 points max	6.2	Single-paned windows upgraded (remodels/additions only)	
<input type="checkbox"/>	.5 points/window		Double-glazed (min U-value: 0.35)	
			Number of windows:	
<input type="checkbox"/>	1 points/window		Double-glazed with low e coating (min U-value: .34)	
			Number of windows:	
<input type="checkbox"/>	1.5 points/window		Double-glazed with argon/Heat mirror (max U-value: .33)	
			Number of windows:	
<input type="checkbox"/>	2 points	6.3	Wall insulation is 80% recycled material	
<input type="checkbox"/>	2 points	6.4	Ceiling insulation is 80% recycled material	
<input type="checkbox"/>	2 points	6.5	Wet-spray insulation in walls	
<input type="checkbox"/>	2 points	6.6	Wet-spray insulation in ceiling	
<input type="checkbox"/>	2 points	6.7	Install recycled content, formaldehyde-free fiberglass insulation	
<input type="checkbox"/>	5 points	6.8	Existing ceiling insulated to R-38 or capacity for fixed space (remodels only)	
<input type="checkbox"/>	7 points	6.9	Existing walls insulated to R-38 or capacity or rigid insulation added to exterior (remodels only)	
<b>7 - Heating, Ventilating &amp; Air Conditioning (HVAC)</b>				
<input type="checkbox"/>	5 points	7.1	Natural cooling (see Green Points Program Guidelines, p. 18)	
<input type="checkbox"/>	2 points	7.2	Attic Fan	
<input type="checkbox"/>	3 points	7.3	Hydronic Baseboard Heat	
<input type="checkbox"/>	2 points	7.4	Vapor Permeable Infiltration Barrier	
<input type="checkbox"/>	2-8 points	7.5	Air Infiltration Rate Below Specified Levels	
<input type="checkbox"/>	2 points		0.30 NACH	
<input type="checkbox"/>	4 points		0.25 NACH	
<input type="checkbox"/>	6 points		0.20 NACH	
<input type="checkbox"/>	8 points		0.15 NACH	
<input type="checkbox"/>	2 points	7.6	Whole House Fan	
<input type="checkbox"/>	8 points	7.7	Air to air heat exchanger	
<input type="checkbox"/>	10 points	7.8	Convert Electric Resistance Heat to Gas (additions and remodels only)	
<input type="checkbox"/>	4 points	7.9	Replace Electric Water Heater with a Gas Water Heater (additions and remodels only)	
<input type="checkbox"/>	1 point	7.10	Air Destratification System	
<input type="checkbox"/>	6 points	7.11	Evaporative Cooling	

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Points this page: \_\_\_\_\_

Total points: \_\_\_\_\_

<b>8 - Solar</b>				Official use only/ Points awarded
<input type="checkbox"/>	10 points	8.1	Solar Hot Water Heating System Installed	
<input type="checkbox"/>	6-20 points	8.2	Passive Solar Space Heating	
<input type="checkbox"/>	6 points		Glazing of the protected south wall surface adequate to provide at least 20% passive solar heating fraction of the building	
<input type="checkbox"/>	12 points		Glazing of the protected south wall surface adequate to provide at least 40% passive solar heating fraction of the building, but only if designed in conjunction with an appropriately sized thermal mass so as not to adversely affect cooling loads	
	20 points		Glazing of the protected south wall surface adequate to provide at least 60% passive solar heating fraction of the building, but only if designed in conjunction with an appropriately sized thermal mass so as not to affect adversely cooling loads	
<input type="checkbox"/>	2 points	8.3	Active Solar Pre-plumbing	
	8-20 points	8.4	Active Solar Space Heating	
<input type="checkbox"/>	8 points		30-39 % solar heating	
<input type="checkbox"/>	12 points		40-49 % solar heating	
<input type="checkbox"/>	16 points		50-59 % solar heating	
<input type="checkbox"/>	20 points		60 % or greater solar heating	
<input type="checkbox"/>	20 points	8.5	Solar-Generated Electricity	
<b>9 - Indoor Air Quality • Interior Finishes</b>				
<input type="checkbox"/>	3 points	9.1	Install Infrastructure to Support Current or Future Alternative Vehicle Use	
<input type="checkbox"/>	5-10 points	9.2	Sealed Combustion Gas Furnace/Boiler & Water Heater	
<input type="checkbox"/>	5 points		One appliance	
<input type="checkbox"/>	10 points		Both appliances	
	5 points	<b>or</b>	Separate room for appliances	
<input type="checkbox"/>	3 points	9.3	Exhaust Fan in Attached Garage or Garage is Detached	
<input type="checkbox"/>	1 point	9.4	Low Volatile Organic Compound Interior Paint	
<input type="checkbox"/>	2 points	9.5	Low Solvent Construction Adhesives	
<input type="checkbox"/>	3 points	9.6	Low-toxic, Water-Based Wood and Floor Finishes Used	
<input type="checkbox"/>	2 points	9.7	Carbon Monoxide Detector Installed	
<input type="checkbox"/>	5 points	9.8	Elimination of All Particleboard Inside Envelope of House	
<input type="checkbox"/>	3 points	9.9	Elimination of All Medium Density Fiberboard Made with Urea-Formaldehyde	
<input type="checkbox"/>	2 points	9.10	All Exposed Particleboard and MDF Sealed with Three Coats of Low VOC, Latex Paint	
<input type="checkbox"/>	3 points	9.11	Alternative No-Formaldehyde Products Substituted for Particleboard	

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Points this page: \_\_\_\_\_

Total points: \_\_\_\_\_

<b>10 - Innovation Points</b>				Official use only/ Points awarded
<input type="checkbox"/>	10 points max	10.1	Innovative Product or Design Points (See <i>Green Points Program Guidelines</i> , p. 28 on how to calculate points)	
<input type="checkbox"/>	3 points			
<input type="checkbox"/>	3 points			
<input type="checkbox"/>	3 points			
<input type="checkbox"/>	3 points			
	3 points			
	3 points			

Total Green Points from Green Points Measures (pages 5-9):	
Total Green Points from Energy Code Worksheet (pages 1-4):	
Total Green Points Received	
Total Green Points Required:	

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Points this page: \_\_\_\_\_

Total points: \_\_\_\_\_