



City of Boulder Residential Building Guide
Green Building & Green Points
Application

Resource Conservation Ordinance 7565
bouldercolorado.gov/plan-develop/green-building-and-green-points-program

FOR NEW CONSTRUCTION

Before filling out this application, read **Green Building & Green Points Guideline**
Booklet for specific criteria and verification of measures.

Applicant Name: _____ **Company:** _____

Phone: (____) _____

Project Address: _____ **Zip:** _____

Homeowner (if applicable) : _____

<p>1 and 2 Family Dwellings*</p> <p>_____ Total floor area (in sq. ft.) of new construction</p> <p>_____ HERS Rating Proposed</p> <p>_____ Total Green Points selected from worksheet below</p> <p>_____ Total Green Points awarded for HERS rating lower than required (required rating – design/achieved rating)</p>	<p>Multifamily*</p> <p>_____ Total number of units</p> <p>_____ Total floor area (in sq. ft.) of new construction</p> <p>_____ HERS Rating Proposed</p> <p>_____ Total Green Points selected from worksheet below</p> <p>_____ Total Green Points awarded for HERS rating lower than required (required rating – design/achieved rating)</p>
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*Not all fields may apply.

For application information contact:
City of Boulder Planning & Development Services, 1739
Broadway, Third Floor
Mail: P.O. Box 791, Boulder, CO 80306-0791
Phone: 303-441-1880, Fax: 303-441-3241
Web site: www.boulderplandevlop.net

For Green Points Ordinance Information:
City of Boulder Office of Environmental Affairs,
Phone: 303-441-1880, Fax: 303-441-3070
bouldercolorado.gov/plan-develop/green-building-and-green-points-program

<p>For Office Use Only</p> <p>Permit # _____</p> <p>Floor Area Sq. Ft: _____</p> <p><input type="checkbox"/> 1 & 2 Family Dwelling <input type="checkbox"/> Multifamily Dwelling</p> <p>Points Required: _____</p> <p>Points Received: _____</p> <p>Reviewer: _____</p>

Other Resources:
City of Boulder’s Water Conservation Office: 303-413-7407, Web site: www.bouldersaveswater.net
Center for Resource Conservation: 303-441-3278, Web site: www.conservationcenter.org

Instructions

1. Prior to selecting any measures, consult the Green Points Program Guidelines Booklet, which contain information on specific designs, compliance and other details. The Green Points Guidelines are available at the Planning & Development Services Center or online at bouldercolorado.gov/plan-develop/green-building-and-green-points-program.
2. Determine the floor area of the project. Then refer to the chart below to determine the number of points needed for the project and enter the floor area and points required in the spaces provided on the next page.

“Floor Area” means the total square footage of all levels included within the outside of exterior walls of a building or portion thereof, but excluding courts, garages, attics and crawlspaces.

Inspection and Compliance

All approvals and inspections of Green Points applications shall be done in conjunction with a residential building permit application and field inspections. The applicant shall demonstrate compliance with all of the provisions of Chapter 10-7.5 prior to the issuance of a certificate of occupancy.

Exceptions

Any structure that includes dwellings which are pursuing a U.S. Green Building Council’s LEED™ (Leadership in Energy and Environmental Design) Silver Certification or higher or comparable green building rating certification will be exempt from the Green Points requirements. However, all applications must still meet the mandatory requirements for Demolition Waste Management, Construction Waste Recycling, and the applicable GBGP standards for maximum HERS index based on the square footage of the proposed project (even when the GBGP required HERS index is lower than that which will meet LEED Silver standards). No person that applies for this exception shall fail to complete the LEED™ certification process and receive such certification within six months after the final inspection of the building. The city manager may grant an extension if a request is made by the applicant demonstrating good cause why additional time is needed to complete the certification. A temporary certificate of occupancy will be issued for the project until the LEED certification can be provided to the city.

Mandatory Green Building Requirements

Mandatory green building requirements are listed in Table 1 for new dwelling units, including detached owners' accessory units. Each type of project will have mandatory green building requirements and green points requirements based on the type and size of project.

Table 1 - Mandatory Green Building Requirements

Type of Project: New Dwelling Units*
Energy Efficiency and HERS Rating <ul style="list-style-type: none"> • Refer to Sections (a) and (b) • See Table 1A
Construction Waste Recycling and Demolition Management <ul style="list-style-type: none"> • Refer to Sections (c) and (d)
For Mandatory Green Points Requirements, See Table 2

**Includes the construction of a new dwelling unit or the replacement of an existing dwelling unit.*

(a) Energy Efficiency

Applicants for new construction must demonstrate energy efficiency compliance using the Home Energy Rating System (HERS). Table 1A lists the HERS index requirement for different sizes of projects. *HERS index lower than the mandatory requirement can be applied to the Green Points requirements specified in Table 2.*

Table 1A – Tiers for Energy Efficiency Thresholds and Equivalent HERS Index

Type of Project	Square Footage	Required HERS Index	Energy Efficiency Thresholds Above Code
New Construction	Up to 3,000	60	14%
	3,001-5,000	50	43%
	5,001 and up	25	64%
Multi-Unit Dwellings	Applies to all	60	14%

**The city manager is authorized to develop a HERS rating sampling protocol for multi-dwelling projects to ensure compliance with this section.*

(b) Energy Efficiency - HERS Index Rating

A HERS Certificate (example: Attachment A) is used for the verification of energy performance of new construction. A HERS rating shall be performed by a rater accredited by the Residential Energy Services Network (RESNET). A HERS index encompasses the building envelope and equipment components of a house; therefore an applicant will not be awarded green points for these features, as it will be accounted for in the HERS index. *For new construction, the Energy Efficiency and Solar options specified in section 10-7.5-4 (e) and (f) may not be used to satisfy the Green Points requirements in Table 2.*

(c) Construction Waste Recycling

An applicant for a building permit for a new dwelling shall demonstrate that a minimum of 50 percent of construction waste is recycled.

Application: Submit a Deconstruction Plan and Construction Waste Recycling Form (Attachment C) and with the Green Points/building permit applications.

Verification: A completed Construction Waste Diversion Tracking Spreadsheet (Attachment D) must be provided at final inspection which shows that the minimum recycling requirements have been met.

(d) Demolition Management

An applicant proposing to demolish more than 50 percent of exterior walls shall demonstrate that at least 65 percent of material by weight from the deconstruction of the existing structure (including concrete and asphalt) will be diverted from the landfill by providing a deconstruction plan.

Application: Submit a Deconstruction Plan and Construction Waste Recycling Form (Attachment C) with the Demolition Permit or Green Points/building permit applications, whichever is applicable.

Verification: Provide documentation verifying compliance with the Deconstruction Plan to City staff at final inspection.

Green Points Requirements

Green Points are required for all new dwelling units. Each type of project is required to obtain the minimum number of mandatory green points specified in Table 2.

Table 2 – Minimum Green Points Requirements

Project Description	Floor Area	Green Point Requirements
New Dwelling Unit – Single Family	1,501-3,000	20
	3,001-5,000	40
	5,001 and up	60
New Dwelling Unit – Multi-Family	1,001-2000	10
	2,001-3000	20
	3,001 and up	30

Green Points Application – To be completed by Applicant. Must read the Green Building and Green Points Guideline Booklet for verification and point option information

What does this mean?

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
This references the page number in the Green Points Program booklet where this information is located.	This is the maximum amount of points you can earn for this feature.	This refers to the specific Green Points feature you might select. For more information on each feature, consult the Green Building and Green Points Guideline Booklet.	This refers to the documentation needed to verify you are eligible for points for this feature.	Please indicate where this information is included in your application packet.	This column is for the number of points you are applying for.

B.) Site Development

The green points options listed in the following section can be applied for individually, or as a whole. Applicants can choose to submit a “Landscape Package” that includes information to satisfy all of the requirements for each option.

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
1. Landscaping					
	2	Organic Soil Amendments	Inspection at final. Provide copies of receipts.		
	4	Xeriscape Landscaping	Submit landscape plans at application. Inspection at final.		
2. Shading of Hardscapes					
	5 (1 per tree)	Save Mature Trees	Submit tree preservation plan at application. Inspection at final.		
	5 (1 per tree)	Plant New Shade Trees	Inspection at final.		
3. Surface Water Management					
	2	Permeable Site	Submit site or planting plan at application. Inspection at final.		
4. High Efficiency Automatic Irrigation					
	2	High Efficiency Irrigation	Submit Water Conservation Rebate Audit Certificate at final inspection.		

C.) Building Rehabilitation

Not applicable to new construction projects.

D.) Waste Management

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
2. Demolition Waste Diversion					
	3	Additional Deconstruction Waste Diversion	Plan Review (Attachment C) Submit receipts and Attachment D from whole house demolition at final		
3. New Construction Waste Recycling					
	3	New Construction Waste Recycling	Plan Review (Attachment C) Submit receipts and Attachment D at final		

E.) Energy Efficiency

Not applicable to new construction projects, these measures are included in the HERS rating.

F.) Solar

Not applicable to new construction projects, these measures are included in the HERS rating.

G.) Water Efficiency –High Efficiency Fixtures

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
	Up to 6	Water Efficiency- High Efficiency Fixtures	Design Plans due at time of application. Inspected in field.		
	2	25% of all fixtures	Design Plans due at time of application. Inspected in field.		
	4	50% of all fixtures	Design Plans due at time of application. Inspected in field.		
	6	75% of all fixtures	Design Plans due at time of application. Inspected in field.		

H.) Material Efficient Framing and Structure

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
1. Advanced Framing Techniques					
	2	24" On-Center Framing	Design Plans due at time of application. Inspected in field.		
	2	Insulated Headers	Design Plans due at time of application. Inspected in field.		
	2	Energy Efficient Roof Trusses	Design Plans due at time of application. Inspected in field.		
	2	HVAC Ducts within Conditioned Spaces	Design Plans due at time of application. Inspected in field.		
	2	Min. 12" roof overhangs	Design Plans due at time of application.		

2. Structural Insulated Panels (SIPs)					
	Up to 8 (see booklet)	Structural Insulated Panels (SIPs)	Engineered Design due at time of application. Inspected in field.		
3. Structural Alternatives to Wood					
	Up to 8 (see booklet)	Structural Alternatives to Woods	Engineered Design due at time of application. Inspected in field.		

I.) Sustainable Products

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
1. FSC-Certified Framing Techniques					
	Up to 6 (see booklet)	Sustainable Wood Products	Supplier Verification in Building Permit Sleeve at final inspection		
2. Environmentally Preferred Materials					
	Up to 10 (see booklet)	Environmentally Preferred Materials	Supplier Verification in Building Permit Sleeve at final inspection		
3. Locally Sourced Materials					
	2	Locally Sourced Materials	Supplier Verification in Building Permit Sleeve at final inspection		

J.) Indoor Air Quality

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
1. Energy Star's Indoor Air Quality Package Requirements					
	10	Energy Star Indoor Air Quality Package	IAP Certificate in Building Permit Sleeve at final inspection		
2. Mechanical Ventilation					
	Up to 5	Mechanical Ventilation	Final Mechanical Inspection		
	1	Kitchen Exhaust Fan	Final Mechanical Inspection		
	1	Timer or humidistat controlled exhaust fan	Final Mechanical Inspection		
	1	Integrated HVAC ventilation	Final Mechanical Inspection		
	2	Heat Recovery Integrated Ventilation	Final Mechanical Inspection		
3. High-Efficiency HVAC Filter					
	1	High Efficiency HVAC Filter	Final Mechanical Inspection		
4. Radon Mitigation					
	Up to 2	Radon Mitigation	Final Mechanical Inspection		
5. Attached Garage Exhaust Fan					
	1	Attached Garage Exhaust Fan	Final Mechanical Inspection		

K.) Homeowner Information- Operations and Maintenance Binder

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
	1	Binder	Final Inspection	NA	

L.) Design Process and Innovation

Booklet Page	Allowable Points	Feature	Verification	Sheet or Spec #	Applicant Points
1. Green Building Consultants					
	2	Green Building Consultant	Green Building Consultant Sign Application	NA	
2. Energy Star Builder					
	1	Energy Star Builder	Contractor Sign Application	NA	
3. Innovation Points					
	Up to 10	Innovation Points	Staff Approval	NA	

Green Building Consultant (please include verification) **Print Name:** _____

Signature: _____ **Date:** _____

ENERGY STAR Builder (name must be on ENERGY STAR Web site) **Print Name:** _____

Signature: _____ **Date:** _____

Supplier verification

Verification of Accountability by Responsible Party (to be completed by the building projects responsible party/applicant)

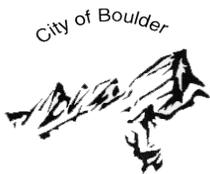
By affixing my signature below, I hereby declare and affirm to the city of Boulder that the Green Points options shown below will be provided/executed during the course of the permitted work, and will meet the specifications and requirements of the Green Points program Guideline Booklet. If audited, I will provide all necessary supporting documentation demonstrating that the requirements of the Green Building and Green Points program have been met for the options that have been selected.

Responsible Party _____ **Date:** _____
Print Name: _____
Project Role/ Title: _____
Company Name: _____
Signature: _____

Sustainable Products

- ___ (i)(1) FSC-Certified Tropical Wood or No Tropical Wood
- ___ (i)(2) Select Environmentally Preferable Materials
- ___ (i)(3) Select Locally Sourced Materials

Permit number: _____



City of Boulder Construction Waste Recycling Application

(Required for all construction and demolition projects involving removal of more than 50% of exterior walls)

PURPOSE: The City of Boulder is working towards establishing a Zero Waste Community. The following program requirements promote the practices of reusing and recycling of building materials through demolition management and construction waste recycling in order to limit the amount of materials sent to landfills.

50% of construction waste generated as part of this project must be reused, donated, or recycled including but not limited to clean wood, metal, and cardboard. Points can be chosen for recycling above the required diversion rate of 50%. Review the Green Points Program Guidelines Booklet for additional point options.

Applicant's Name:	Date:
Property Address:	Phone:

PROJECT DESCRIPTION: Please list all exterior alterations proposed for the property below. Additional resources can be downloaded at www.bouldergreenpoints.com to assist with estimations and/or diversion and waste generation quantities.

Project Address:	Project Date: Start _____ End _____
Permit Number:	Year built:
General Contractor:	Phone:
Property Owner:	Phone:
Project Description:	

DECONSTRUCTION/CONSTRUCTION WASTE RECYCLING MANAGER: Who will manage the job site construction waste recycling?

Waste Recycling Contractor: _____ Name: _____

Phone: _____ Email: _____

Permit number: _____

ESTIMATED DIVERSION: Please fill out the tables below to estimate the diversion rate for the project.

Total Project Waste is estimated at 4 lbs per square foot of new construction. Use formula below:

_____	x 4 =	_____	÷ 2000 =	_____
Square Feet		Total Project Waste (lbs)		Total Project Waste (tons)

To comply with the permitting requirements, this project must achieve a diversion rate of 65% for Deconstruction/Demolition and 50% for New Construction activities. Estimate your total waste diversion rate by using the table below to indicate the building materials that you plan to reuse, or recycle.

(Actual diversion will be tracked on the attached Construction and Demolition tracking spreadsheet)

MATERIAL TYPE	TONS DIVERTED (Reuse/recycle)	COMMENTS
WOOD <i>(lumber plywood, trusses, clean wood)</i>		
METAL <i>(steel, HVAC, ductwork)</i>		
MASONRY <i>(Brick, stone, block, concrete)</i>		
CARDBOARD		
APPLIANCES		
FLOORING <i>(wood, tile, vinyl, carpet, pad)</i>		
DOORS/WINDOWS <i>(cabinets/fixtures)</i>		
=		Total Waste Diverted
÷		Total Project Waste (from formula above)
%		Diversion rate

List all registered transporters that will be moving material off site.

Transporter	Phone #	Print Name	Signature	Date

Permit number: _____

I AGREE TO SUBMIT A FINAL REPORT WITHIN 30 DAYS AFTER COMPLETION OF THE PROJECT; FINAL REPORT MUST VERIFY THE ACTUAL DIVERSION ACHIEVED. **COMPLETE TRACKING SPREADSHEET (ATTACHMENT D) & INCLUDE ALL HAULER RECEIPTS, WEIGHT TICKETS, AND FACILITY SIGN-OFFS AND/OR INVOICES (PLACE IN PERMIT SLEEVE PRIOR TO FINAL INSPECTION).**

ESTIMATED DATE OF COMPLETION: _____

Submitted by (signature): _____ **Date** _____

Print Name _____ **Title** _____

If Your Diversion Rate is less than 50% for new construction waste, provide justification why the project cannot meet the diversion requirement:

FOR OFFICIAL PERMITTING OFFICE USE ONLY

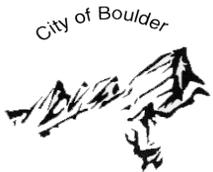
DATE PLAN/REPORT/TRACKING SPREADSHEET RECEIVED BY PERMITTING OFFICE:

APPROVED _____ NOT APPROVED _____ DATE _____

COMMENTS _____

APPROVED BY _____ TITLE _____

Permit number: _____



City of Boulder Demolition Waste Recycling Application

(Required for all construction and demolition projects involving removal of more than 50% of exterior walls)

PURPOSE: The City of Boulder is working towards establishing a Zero Waste Community. The following program requirements are meant to promote the practices of reusing and recycling of building materials through demolition management and construction waste recycling in order to limit the amount of materials sent to landfills.

65% of demolition waste generated as part of this project must be reused, donated, or recycled including but not limited to clean wood, metal, and cardboard. Points can be chosen for recycling above the required diversion rate of 65%. Review the Green Points Program Guidelines Booklet for additional point options.

Applicant's Name:	Date:
Property Address:	Phone:

PROJECT DESCRIPTION: Please list all exterior alterations proposed for the property below. Additional resources can be downloaded at www.bouldergreenpoints.com to assist with estimations and/or diversion and waste generation quantities.

Permit Number:	Year built:
General Contractor:	Phone:
Property Owner:	Phone:
Type of Dwelling: <input type="checkbox"/> Single-unit <input type="checkbox"/> Multi-unit <input type="checkbox"/> Townhome	
Accessory Structure: Y/N _____ <input type="checkbox"/> Detached <input type="checkbox"/> Attached	
Total Structure _____ sq ft	Deconstruction _____ sq ft
Remaining _____ sq ft	
Greater than 50% of exterior wall area to be removed? Y/N _____ <i>(deconstruction activities in which less than 50% of the exterior walls are removed are exempt from recycling requirements)</i>	
Project description:	

ON-SITE DECONSTRUCTION ASSESSMENT: Prior to submitting this application, schedule an on-site deconstruction assessment and complete fields below.

Ben Weisz
ReSource Deconstruction Coordinator
(303) 419-5418 ext.102

Deconstruction Professional (performed deconstruction eval):	Company Name:
Deconstruction Professional sign-off:	Date:

Permit number: _____

DECONSTRUCTION/CONSTRUCTION WASTE RECYCLING MANAGER: Who will manage the job site construction waste recycling?

Waste Recycling Contractor: _____ Name: _____

Phone: _____ Email: _____

ESTIMATED DIVERSION: Please fill out the tables below to estimate the diversion rate for the project.

To comply with the permitting requirements, this project must achieve a diversion rate of 65% for Deconstruction/Demolition and 50% for New Construction activities. Estimate your total waste diversion rate by using the table below to indicate the building materials that you plan to reuse, or recycle.

(Actual diversion will be tracked on the attached Construction and Demolition tracking spreadsheet)

MATERIAL TYPE	TONS DIVERTED (Reuse/recycle)	COMMENTS
WOOD <i>(lumber plywood, trusses, clean wood)</i>		
METAL <i>(steel, HVAC, ductwork)</i>		
MASONRY <i>(Brick, stone, block, concrete)</i>		
CARDBOARD		
APPLIANCES		
FLOORING <i>(wood, tile, vinyl, carpet, pad)</i>		
DOORS/WINDOWS <i>(cabinets/fixtures)</i>		
	=	Total Waste Diverted
	÷	Total Project Waste (estimate)
	%	Diversion rate

List all registered transporters that will be moving material off site.

Transporter	Phone #	Print Name	Signature	Date

Permit number: _____

I AGREE TO SUBMIT A FINAL REPORT WITHIN 30 DAYS AFTER COMPLETION OF THE PROJECT; FINAL REPORT MUST VERIFY THE ACTUAL DIVERSION ACHIEVED. **COMPLETE TRACKING SPREADSHEET (ATTACHMENT D) & INCLUDE ALL HAULER RECEIPTS, WEIGHT TICKETS, AND FACILITY SIGN-OFFS AND/OR INVOICES (PLACE IN PERMIT SLEEVE PRIOR TO FINAL INSPECTION).**

ESTIMATED DATE OF COMPLETION: _____

Submitted by (signature): _____ **Date** _____

Print Name _____ **Title** _____

If Your Diversion Rate is less than 65% for deconstruction, provide justification why the project cannot meet the diversion requirement:

FOR OFFICIAL PERMITTING OFFICE USE ONLY

DATE PLAN/REPORT/TRACKING SPREADSHEET RECEIVED BY PERMITTING OFFICE:

APPROVED _____ NOT APPROVED _____ DATE _____

COMMENTS _____

APPROVED BY _____ TITLE _____
