

**NOTE:** Denver’s Green Buildings Ordinance applies to all new commercial buildings with 25,000 GSF or larger including additions and campuses. For all permits issued after May 1, 2023, the effective code is 2022 Denver Building Code including 2021 IBC & 2021 IECC and all 2022 Denver Amendments.

## 1. Required & Reference Documents

[Click here to view the Green Buildings Ordinance](#)

[Click here to download the GBO Rules & Regulations PDF](#)

[Click here to download the Green Building Declaration Form for New Buildings](#)

### Abbreviations

GBO = Green Buildings Ordinance  
 R+Rs = Rules & Regulations  
 GBDF = Green Building Declaration Form  
 SDP = Site Development Plan  
 IBC = International Building Code  
 IECC = International Energy Conservation Code  
 DBCA = Denver Building Code Amendments

## 2. Project Compliance

- A. All projects must address two areas of compliance:
  - i. Provide a cool roof, and
  - ii. Select an additional green building option (A through I) from the GBDF.
- B. Exemptions are available for certain types of projects. See Section 10-301(c) in the GBO R+Rs for a complete list of available exemptions.

## 3. Site Development Plans

- A. All Site Development Plans must include identification of the selected GBO additional green building option, and any full or partial exemptions taken, on the cover sheet.
  - i. If providing green space, specific GBO notes as defined below in the submittal requirements and final green space calculations after the superstructure CDs are approved, must be included in the SDP for SDP approval.
  - ii. If providing photovoltaics (PV), the superstructure CD approved PV layout and area coverage must be included in the SDP for SDP approval.
- B. A [GBDF for New Buildings](#), including the owner’s signature, must be provided with the SDP submittal.

## 4. Construction Permits

- A. At the time of superstructure permit submittal, provide all applicable materials listed in the submittal requirements table below necessary to demonstrate conformance with requirements specifically outlined in the GBO R+Rs Article III pertaining to cool roof requirements and R+Rs Article IV Section 4.07 pertaining to Payment into the Green Building Fund.
- B. Note – [Roof Permits](#) – Once the superstructure CD submittal has been approved for GBO compliance and construction permit, the roof permit may be issued without any additional GBO review required. In the roof permit submittal, please include the superstructure (COMMCON) permit number and a note that the project has already been reviewed and approved for GBO compliance.

- C. Note – Separate Permits – *If applicable*, please note that beyond the general construction permit, for vegetated roof construction and for at-grade green space included in the selected compliance pathway separate approvals and permits must be received as outlined in the Green Buildings Ordinance (GBO) Rules and Regulations (R+Rs) including but not limited to roofing, fire protection systems, plumbing, irrigation systems, and Zoning. The permit for the vegetated roof must be issued to a Denver licensed green roof installer per GBO R+Rs Article II Section 2.03(e).
- D. Note – Payment into the Green Building Fund is due when the COMMCON is paid for and pulled.

## 5. Project Requirements for Option I:

### Payment into the Green Building Fund

- A. Choose a green space and/or on-site solar % amount from Option A, B or H (GBDF)
  - ❖ Payment = \$50 per square foot of green space or on-site solar required but not provided
- B. Reference R+Rs for specifics including those related to:
  - ❖ If providing green space and/or on-site solar, payments are allowed up to 25% of green space and/or on-site solar required but not provided, or payments may cover 100% of green space and/or on-site solar required.
  - ❖ Payment is due prior to pulling building permits

## 6. Project Requirements for Green Space *(if applicable)*:

### Green Space (Vegetated Roofs + At-Grade Green Space)

- A. Select a coverage area (choose one):
  - i. 10% of Gross Floor Area
  - ii. 60% of Total Roof Area
- B. For Vegetated Roofs, reference R+Rs for specifics including those related to:
  - ❖ Professional qualifications
  - ❖ Irrigation
  - ❖ 80% coverage of vegetated roof within 3 years
  - ❖ Plant selection lists
  - ❖ PVs and vegetation
  - ❖ Trees and groundcover
  - ❖ Maintenance plan
  - ❖ 5" growing media
  - ❖ IBC, IFC, IPC Denver amendments
  - ❖ Standpipes, fire zones, fire clearances, and exit stairs
  - ❖ Wind and gravity loads
- C. For At-Grade Green Space, reference R+Rs for specifics including those related to:
  - ❖ Trees and groundcover
  - ❖ Zoning
  - ❖ Water quality treatment
  - ❖ Right of way

- ❖ Must be new
- ❖ Soil quality
- ❖ Drainage
- ❖ Tree standards
- ❖ Turfgrass
- ❖ Urban agriculture

D. Provide items listed in the [Submittal Requirements Checklist](#) starting on the next page of this guide.

## 7. Project Requirements for On-Site Renewable Energy (*if applicable*):

### On-Site Renewable Energy

A. Select a coverage area (choose one):

- i. 70% of Total Roof Area
- ii. 100% of the estimated annual average electricity used at the building

B. For on-site renewable energy, reference R+Rs for specifics including those related to:

- ❖ 18% minimum efficiency
- ❖ Clearances
- ❖ For energy models:
  - Reference the Denver Building Code, energy code checklist, and 2022 DEC Companion Tool which lists the performance path minimum submittal requirements are available on the [Denver Building and Fire Code website](#).
- ❖ Other renewable equivalency to solar output *if applicable*

C. Provide items listed in the [Submittal Requirements Checklist](#) starting on the next page of this guide.

### Mandatory Cool Roof Requirements for All New Buildings:

#	Construction Phase	Applicable Code Section	Submittal Item	Requirement
1	SDP	R+Rs 2.03(c)	Green Building Declaration Form	Provide a <a href="#">Green Building Declaration Form for New Buildings</a> with all fields infilled including the owner's signature.
2	Permit	R+Rs 2.03(a)	Roof plan	Provide a roof plan with the total roof area quantified.
3	Permit	R+Rs 3.02(a) R+Rs 3.03(a) R+Rs 3.03(b)	Solar reflectance data	Provide cool roof covering and paver solar reflectance data in conformance with Table 1 - Reflectance Requirements in the GBO R+Rs. This information may be included in the construction document specifications or on the roof plan.
4	Permit		Roof assembly section details	Provide roof assembly section details for all roof types.
5	Permit	IBC 1202.2 IBC 1202.3	Ventilation details (steep slope only)	Provide a roof plan illustrating locations, sizing, and calculations.
6	Permit	R+Rs 3.04	Exemptions	For any exemptions claimed, please provide substantiation.
7	Permit	R+Rs 3.04(a)	Exemptions - Character defining roofs	See applicable GBO R+Rs Section 3.04(a) for additional submittal requirements if claiming a character defining roof. It is recommended that any project considering applying for a character defining cool roof exemption, contact us first at <a href="mailto:stephen.sanderson@denvergov.org">stephen.sanderson@denvergov.org</a> or <a href="mailto:christy.collins@denvergov.org">christy.collins@denvergov.org</a> .

### Option I: Payment into the Green Building Fund – Additional Green Buildings Requirements:

8	Permit	R+Rs 4.07(a)	Green space and/or PV requirements	Detailed calculations of green space and/or on-site PVs required including dimensioned building and/or roof plan(s) where applicable
9	Permit	R+Rs 4.07(a)	Payment	Payment due when the commercial construction superstructure permit is pulled

### If providing Green Space – Additional Green Buildings Requirements:

10	SDP	R+Rs 4.02(b)(v)	GBO sheet	Provide a GBO sheet that includes the building area calculation, site plan, landscape plan and the following note: <i>Green space is shown on this site development plan for compliance with Article XIII of Chapter 10, must be maintained, and cannot be used for purposes other than that shown on this site development plan. Should a future amendment change the amount or location of this green space, then additional green space must be provided to document compliance or payment of cash-in-lieu fees will be required.</i>
11	SDP		GBO sheet	Provide the required green space calculations and diagrammatic plan (identical to approved landscape CDs).
12	SDP		Landscape sheet	Statement signed by landscape architect stating design is per GBO.
13	Permit		Green space calculations	Provide detailed calculations of green space required including dimensioned roof plan(s) if applicable.
14	Permit		General note	Provide a general note in the landscape documents underscoring the applicability of GBO landscape requirements.

#	Construction Phase	Applicable Code Section	Submittal Item	Requirement
15	Permit	R+Rs 4.02 (d)(ii)(2)(b)	Vegetated roof clearances	Provide a roof plan identifying and dimensioning all GBO R+Rs required clearances.
16	Permit	R+Rs 4.02 (d)(vi)	Vegetated details and specifications	Provide details and system specifications.
17	Permit		Applicable construction documents	Provide applicable landscape, irrigation, plumbing, and fire protection plans.
18	Separate Permits	R+Rs 4.02 (d)(i)(1)(b)	Separate CD submittals and permits	<i>If applicable</i> , separate CD submittals are required for fire protection systems; plumbing/backflow preventer; irrigation system; zoning; or vegetated roof system (must include a maintenance plan).

### *If providing On-Site Renewable Energy – Additional Green Buildings Requirements:*

19	SDP	R+Rs 4.03(a)(i)	PV coverage requirements	Required PV coverage calculations and diagrammatic site and/or roof plan (identical to approved CDs)
20	Permit	R+Rs 4.03(a)(i)	PV coverage requirements	Detailed calculations of PV coverage required including dimensioned building and/or roof plan(s) as applicable
21	Permit	R+Rs 4.03 (a)(iv) & (viii)	PV clearances	Roof plan identifying and dimensioning all GBO R+Rs required clearances
22	Permit	R+Rs 4.03(a)(iii)	PV system information	PV panel product data including efficiency rating and system capacity (kW)
23	Permit	R+Rs 4.03(a)(vi)	Energy model	Denver Building Code, energy code checklist, and 2022 DEC Companion Tool which lists the performance path minimum submittal requirements are available on the <a href="#">Denver Building and Fire Code website</a>
24	Permit		General	Additional materials as required to illustrate compliance with GBO R+Rs Section 4.03(a)(i), (iv) through (vi), and (viii) through (x)
25	Separate Permits	R+Rs 2.03(g)	Separate CD submittals and permits	If applicable, separate CD submittals are required for fire protection systems; photovoltaic system; zoning.
26	Post C.O.		Inspections	PV system must be installed and inspected within 12 months of final roof inspection
27	Post C.O.	R+Rs 4.03(c)	Net zero energy buildings	Net zero energy buildings must submit actual energy use data 12 months after certificate of occupancy, showing actual use to be within 10% of predicted