

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 January 1, 2021, the effective code is 2019 Denver Building Code including 2018 IBC & 2018 IECC and all 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](#)

[Click here for Denver's Commercial Energy Modeling Report](#)

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 4.06(b) pertaining to Green Space and Off-Site Solar requirements.
- 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.

5. Project Requirements for Option H(ii):

Green Space (Vegetated Roofs + At-Grade Green Space) AND Off-Site Renewable Energy

A. Select a coverage area (choose one combination + iv):

- i. Green Space = 3% of Gross Floor Area – AND – Solar = 7% of Gross Floor Area
- ii. Green Space = 18% of Total Roof Area – AND – Solar = 42% of Total Roof Area
- iii. Green Space = 30% of Available Roof Area – AND – Solar = 70% of Available Roof Area
- iv. 2.5% energy savings below code (applies to any combination selected)

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
- ❖ 4" 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. For off-site renewable energy, reference R+Rs for specifics including those related to:

- ❖ Providing an energy model
- ❖ Five-year contracts
- ❖ Life of the building

E. Additional notes on purchasing renewable energy:

- ❖ Today, off-site renewable energy can sometimes be purchased from Xcel Energy's Solar*Rewards Community®. Contact SolarRewardsCommunity@xcelenergy.com with questions. Capacity may be limited since new Community Solar*Rewards solar gardens are limited in quantity and often sell out quickly.
- ❖ Learn more or join the waitlist for Xcel's Renewable*Connect program.
- ❖ Xcel's Windsource program does not allow buyers to purchase from dedicated renewable energy resources. Buyers would be purchasing kWh (electricity used) rather than kW

Green Buildings Ordinance

Project & Submittal Requirements

New Buildings

(renewable energy production), so this program does not meet the Green Buildings Ordinance.

If your project is purchasing renewable energy, include an energy model in your permit submittal that indicates the anticipated consumption.

When purchased renewable energy is less than 100% of the building's consumption, the purchased renewable energy must provide the same amount of electricity as the required amount of onsite solar panels would have achieved and the submittal must demonstrate that the building will achieve the requisite energy cost savings.

Before the building can receive a certificate of occupancy (CO), the building owner must present the five-year contract for the renewable energy purchase. A new contract must be submitted every five years or upon expiration of the previous contract for the life of the building. Email contracts to energizedenver@denvergov.org.

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 Green Building Declaration Form for New Buildings 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 stephen.sanderson@denvergov.org or christy.collins@denvergov.org .

Option H(ii): Combination Green Space & Off-Site Renewable Energy – Additional Requirements

Green Space – Additional Green Buildings Requirements:

#	Construction Phase	Applicable Code Section	Submittal Item	Requirement
8	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>
9	SDP		GBO sheet	Provide the required green space calculations and diagrammatic plan (identical to approved landscape CDs).
10	SDP		Landscape sheet	Statement signed by landscape architect stating design is per GBO.
11	Permit		Green space calculations	Provide detailed calculations of green space required including dimensioned roof plan(s) if applicable.
12	Permit		General note	Provide a general note in the landscape documents underscoring the applicability of GBO landscape requirements.
13	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.

14	Permit	R+Rs 4.02 (d)(vi)	Vegetated details and specifications	Provide details and system specifications.
15	Permit		Applicable construction documents	Provide applicable landscape, irrigation, plumbing, and fire protection plans.
16	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).

Off-Site Renewable Energy – Additional Green Buildings Requirements

#	Construction Phase	Applicable Code Section	Submittal Item	Requirement
17	Permit	R+Rs 4.03(b)(i)	Energy model	Denver's Commercial Energy Modeling Report data showing estimated annual average electricity usage including pEUI
18	Permit		Energy model	Statement identifying limiters to energy model accuracy and ROM estimate for swing inaccuracy of pEUI
19	Permit		General	Letter of commitment signed by project Owner stating that an off-site solar contract will be procured
20	Prior to C.O.	R+Rs 4.03(b)(1)	General	If the building owner is the only utility account holder, provide a copy of 5 year+ contract
21	Prior to C.O.	R+Rs 4.03(b)(2)	General	If tenant contracts will contribute, submittal of required aggregation of 5 year+ tenant contracts within 18 months of certificate of occupancy
22	Life of Project	R+Rs 4.03(b)(3)	General	Renewal and resubmittal of copy of 5 year+ contract upon expiration and/or building sale