

Green Remodeling 305

[Existing Buildings]



Overview

The **2020 NGBS Section 3 Compliance Method** establishes compliance criteria for different building types and details which compliance path should be used. Chapters 5-10 are for buildings generally pre-construction and Chapter 11 is for existing buildings.

Green practices for existing buildings are specifically governed by **§ 305 – Green Remodeling**. The certification path’s name being an activity [remodeling] rather than a building type [existing building] has led to confusion and unnecessary limitations on the NGBS’s use. This has led Home Innovation to formally acknowledge § 305 as applying to existing buildings and as certification agency, adopted the label “Existing Building” for certifications under § 305 – Remodeling.

305 – Green Remodeling prescribes the use of the remodeling path for existing buildings where, in addition to the foundation, “at least 50% of the structural systems of the existing building shall remain in place after the remodel.” However, where a remodeled building includes an addition, § 305.2.1.1 states that the total above-grade conditioned area added during a remodel shall not exceed 75% of the existing building’s above-grade conditioned area.” While not specifically stated, this requirement can be read to mean that if an addition **greater than 75%** of the existing building’s above-grade conditioned area is proposed, the building would be required to follow **§ 303 Green Buildings**, which lays out the new buildings criteria. That means the entire building, both the existing portion plus the new addition, must comply with the NGBS’s requirements for new construction.

305.2 Whole-building rating criteria

305.2.1 Applicability. The provisions of § 305.2 shall apply to remodeling of existing buildings. In addition to the foundation, at least 50% of the structural systems of the existing building shall remain in place after the remodel for the building to be eligible for compliance under § 305.2. Recent new construction projects are not eligible for verification under the remodel path. Projects that would be eligible must have their Certificate of Occupancy at least 5 years prior to NGBS registration.

305.2.1.1 Additions. For a remodeled building that includes an addition, the entire building including the addition shall comply with the criteria of § 305.2. The total above-grade conditioned area added during a remodel shall not exceed 75% of the existing building’s above-grade conditioned area. For multifamily buildings, the above-grade conditioned area shall be based on the entire building including all dwelling units/sleeping units and common areas.

There are several substantive differences in NGBS compliance for new construction versus remodeling. First, the green practices in **Chapter 11 Remodeling** that apply to existing buildings are amended from those that apply to new construction to be more relevant to renovation/remodeling activities. For

example, **Chapter 11** practices are often modified with phrases such as “newly installed,” “for portions of the building that are exposed,” and “new or modified...”

Second, the NGBS explicitly exempts the unaltered portions of existing buildings from compliance with mandatory practices, except when life safety or moisture issues are identified (see below). This exemption is important for existing buildings from both a practical and green perspective. For example, if a building does not need to have the bathroom tub and tiled areas remodeled, and there are no signs of moisture issues, it would be wasteful and not “green” to require the tiled area to be ripped out to comply with the NGBS’s mandatory § 602.1.11 Tile backing materials practice to earn NGBS Green certification.

305.2.3 Mandatory practices. Additions, alterations or repairs to an existing building, building system or portion thereof shall comply with the Mandatory requirements of Chapter 11. Unaltered portions of the existing building shall not be required to meet Mandatory requirements except when life safety or apparent moisture issues exist.

The NGBS’s mandatory practice exemption has another important purpose. Historic buildings are often subject to stringent preservation laws and regulations that prohibit or limit modifications. These buildings would be ineligible to earn NGBS Green certification because preservation restrictions conflict with NGBS compliance. Such a consequence runs counter to the NGBS Consensus Committee’s intent to facilitate reuse and green renovation of existing buildings.

The 2020 NGBS expanded the flexibility for buildings to comply with the Existing Buildings pathway. Sections 305.2.5.1 and 305.2.6.1 identify that remodeling activities performed prior to project registration can contribute toward the building’s energy and water consumption reduction targets.

Compliance Questions:

Can a building earn Green Certified – Existing Building based entirely on features already present in the building?

Yes, the green rating is required to consider the entire building according to § 305.2.2. An [existing building’s] green rating is based upon the construct that the entirety of the building’s attributes is required for the green rating. The green rating is not defined solely by the modifications, but it must be a whole building rating.

Can a building earn Green Certified – Existing Building if there is no renovation activity?

Yes, according to § 305.2.1 Applicability – a building is eligible if the Certificate of Occupancy is at least five years before NGBS registration.

Does § 305.2.1.1 Additions disallow historic buildings with additions greater than 75% of the existing building’s above-grade conditioned area from using the NGBS exemptions?

No. There is nothing in the 2020 NGBS or any previous version that would suggest historic buildings being renovated that also include large additions should be prevented from being NGBS compliant. Furthermore, § 101.3 specifically mentions the intent to be flexible and not abridge the environmental requirements in other applicable laws (see below).

101.3 Intent. The purpose of this Standard is to establish criteria for rating the environmental impact of design and construction practices to achieve conformance with specified performance levels for green residential buildings, renovation thereof, accessory structures, building sites, and subdivisions. This Standard is intended to provide flexibility to permit the use of innovative approaches and techniques. This Standard is not intended to abridge safety, health, or environmental requirements contained in other applicable laws, codes, or ordinances.

Does § 305.2.1.1 Additions disallow buildings *that are not historic* with additions greater than 75% of the exiting building’s above-grade conditioned area from using the NGBS exemptions?

At first reading, yes; the NGBS would seemingly prohibit buildings with an addition (greater than 75% of the exiting building’s above-grade conditioned area) from using the NGBS exemptions for the mandatory provisions for any unaltered portions of remodeled buildings. However, this scenario requires a deeper investigation and more nuanced interpretation.

Those with buildings undergoing a gut renovation and significant addition will often choose to be compliant with current building and energy codes, or alternatively, may be required by the local jurisdiction to comply with current codes. In these cases, the NGBS requirement for the entire building to be compliant via the new construction path is practical and, of equal importance, ensures the outcome that is greenest and most in keeping with the NGBS’s intent.

However, for some projects, using the new construction path might not be the most reasonable or greenest option. If strict compliance with this provision requires a developer/owner to replace portions of the building that are otherwise functional, do not present a life safety issue, and do not have any apparent moisture issues simply to earn the green building certification, this is not the most sustainable path. In these cases, we believe the buildings should be able to employ the exemptions.

To stay true to the NGBS intent and spirit for these projects, we will offer dual certification: the existing building will earn certification under the remodel path, and the addition portion will earn certification under the new construction path. The two portions of the building will be registered as the same NGBS Green project, but as separate “buildings.” Separate certifications will be issued for the two portions of the building to recognize and clarify the different compliance paths used.

Are remodel activities conducted during the “3-year lookback period” subject to the NGBS mandatory practices? For example, would recently-installed windows be subject to the mandatory fenestration values? Or, would recently-installed insulation need to be verified for Grade I installation quality?

The NGBS does not directly address this question with regard to the 3-year lookback. However, § 305.2.3 Mandatory Practices is sweeping; it does not identify any special exemptions for remodeling activities completed during the lookback period. Section 305.2.3 reads: *“Additions, alterations or repairs to an existing building, building system or portion thereof shall comply with the Mandatory requirements of Chapter 11.”* This implies that all activities contributing toward certification achievement are subject to the NGBS mandatory requirements.

Three Interpretations¹

First, as the certification agency, Home Innovation Research Labs formally acknowledges Section 305 as applying to existing buildings and has adopted the label “Existing Building” for certifications under Section 305 – Remodeling.

Second, existing buildings that will be remodeled and will include an addition that is greater than 75% of the existing building’s above-grade conditioned area are eligible to use the NGBS’s exemptions for mandatory practices that apply to building portions that will remain unaltered, so long as there are no apparent life safety or moisture issues. The remodeled existing building can earn NGBS Green

¹ These two interpretations were previously published separately; we have combined them here in one document for simplicity and clarity.

certification using the remodeling path; the new addition portion of the building must earn certification based on the new construction path and cannot claim exemptions from the NGBS mandatory practices.

Third, remodeling activities conducted during the 3-year lookback period that will be included as part of the consumption reduction analysis are subject to all applicable NGBS mandatory practices.

Certification Process Guidance

For buildings with >75% added above-grade conditioned area:

1. **Registration:** Register the building as one project. The existing part of building should be registered as one “building” for which you must select the remodel path. The new addition should be registered as a separate “building” and must select the new construction path.
2. **Scoring:** Both sections of the building *must use the same NGBS version* for compliance. Two scoring sheets must be prepared – one for the remodeled “building” and one for the new addition “building.” The Verifier will submit two verification reports (rough and final) for each section/building within the project. If the remodel is minor or moderate and does not involve alterations behind the wall, the rough inspection report can be omitted, as usual.
3. **Energy Efficiency Compliance and Model(s):** Each section/building within the project must be compliant on its own. The two sections of the project can select different energy compliance paths. If the Performance Path is selected for either section of the project, there should be an energy model that provides an analysis for just that portion of the building.
4. **Verification:** At rough and at final, the Verifier should submit two verification reports for the project – one for each section/building within the project.
5. **Certificates:** Two NGBS Green certificates will be issued for the project if deemed compliant. The certificates will reflect which compliance path was used (new construction or remodeling).

For buildings applying the “3-year lookback” to energy consumption reduction and/or water consumption reduction path(s):

Remodeling activities can be counted toward the building’s green achievement when they can be verified as meeting all applicable NGBS mandatory requirements.

Where documentation is not available to verify NGBS mandatory requirements, those remodeling activities should simply be excluded from the consumption reduction path analysis. The installed products/systems do not need to be replaced.