Model Municipal Green Building Ordinance
By Marne Sussman and Jason James
Center for Climate Change Law at Columbia Law School

Introduction
The Center for Climate Change Law (CCCL) develops legal tools to address the challenges presented by climate change. Green building laws are one such tool. Green buildings generally use water, energy and materials more efficiently than conventional buildings and utilize design, construction, and siting features to reduce the negative environmental impact of buildings. Because buildings use nearly 40% of all energy consumed in the United States, these efficiency gains are critical in mitigating the impact of climate change. Green buildings are also better suited to adapt to climate change’s unavoidable impacts.

The model municipal green building ordinance is the product of an empirical analysis of common practices in existing municipal green building regulation and research on possible legal impediments. Its provisions are designed to achieve effective yet feasible improvements in building practices and are drawn, in large measure, from existing ordinances. Recognizing that different municipalities have different resources, constraints, and environmental interests, the model ordinance offers flexibility in the form of “optional add-ons” that individual municipalities can choose to enact along with the standard ordinance to enhance environmental benefits. Municipalities are encouraged to enact the model ordinance with or without the optional add-ons.

The model ordinance seeks to reduce the environmental impact of new construction and major modifications of municipal buildings, commercial buildings, and large residential buildings by mandating that these buildings be constructed to a specific green building standard. Municipal, commercial, and high rise multi-family residential buildings must comply with the Leadership in Energy and Environmental Design for New Construction and Major Renovations (LEED-NC) version 3.0 or LEED for Schools standard, as appropriate, and other residential buildings must comply with the Energy Star Homes standard. Implementing these standards is easier for municipal planners than embarking on the difficult and expensive process of creating a new green building rating system. Under these mandates, new buildings and major modifications will more efficiently use resources and be built with more sustainable materials and practices than conventional buildings.

The model ordinance is enforced before, during, and after construction. Prior to receiving a building permit, an applicant must show that the proposed building is designed to meet the applicable standard. If construction substantially deviates from these approved plans, the applicant may be required to adjust or halt construction. If it is a hardship or infeasible for

---

2 Where the text of the model ordinance is substantially derived from existing ordinances, a footnote identifies the sources. Full citation of the sources and links to the text of the ordinances can be found in the municipal green building ordinance databases on the CCCL website. Center for Climate Change Law, Municipal Climate Change Laws Resource Center, http://www.law.columbia.edu/centers/climatechange/resources/municipal.
3 Some New York State municipalities have enacted ordinances that implement the LEED-NC standard and some, including municipalities in Long Island, have enacted ordinances that implement the Energy Star Homes standard.
an applicant to meet the standard, the applicant may request a partial exemption from regulation. Some buildings are entirely excluded from regulation, such as state and federal buildings.

This model ordinance is but one of several developed by various organizations. However, unlike other model ordinances that detail technical specifications, this ordinance presents a framework for the implementation of existing technical standards and a streamlined procedure for their enforcement. This ordinance is an amalgamation and model restatement of currently enacted green building ordinances and also accommodates the rapidly developing field of substantive green building standards by allowing for the adoption of new standards within the ordinance’s framework.

The full text of the ordinance, without commentary, is available for download on the CCCL website. Throughout the ordinance, bracketed text denotes optional add-ons that a municipality may elect to enact. Bracketed text or blank spaces indicate areas where custom terms, such as the name of the municipality, should be inserted or where the municipality can change the provisions to fit its needs. The following manual presents each section of the model ordinance, then provides commentary on the text of that section, clarifying areas of potential ambiguity and discussing the benefits and drawbacks of optional add-ons. Appendices further detail specific issues related to the ordinance and set out example forms for municipalities to use. Legal issues, including preemption, non-delegation, and antitrust, are discussed in a separate document available on the CCCL website.

This model ordinance is in preliminary draft form and comments are welcome. Please email them to michael.gerrard@law.columbia.edu.

Summary of mandates for new construction and major modifications:

<table>
<thead>
<tr>
<th>Type of building</th>
<th>Type of Work</th>
<th>Certifiable Standard</th>
</tr>
</thead>
</table>
| The following types of buildings with greater than 5,000 square feet of conditioned space:  
  - Municipal buildings  
  - Commercial buildings  
  - High rise multi-family residential buildings | All new construction  
| All one- and two-family dwellings and low rise multi-family residential buildings | All new construction | EPA Energy Star Rating System qualified home |

---

1. Purpose & Intent

A. The [city/town/village] of [ ] is committed to enhancing the public welfare and assuring that further development is consistent with the [city/town/village]'s desire to create a more sustainable community by incorporating green building measures into the design, construction, and maintenance of buildings that minimize short-term and long-term negative impacts on the environment.

B. In recent years, green building design, construction, and operational techniques have become increasingly widespread. Many homeowners, businesses, and building professionals have voluntarily sought to incorporate green building techniques into their buildings. A number of local and national systems have been developed to serve as guides to green building practices. The [city/town/village] finds that requiring certain buildings to incorporate green building measures is necessary and appropriate to realize the benefits of green building.

C. The intent of this article is to mandate green building practices designed to encourage the following: resource conservation; reduction of waste generated by construction; reduction in the use of energy in both initial construction and daily operations; energy efficiency; promoting the health and productivity of residents, workers, and visitors to the [city/town/village]; construction of environmentally sustainable municipal and privately owned buildings; and reduction of greenhouse gas emissions to mitigate the impacts of climate change. A further intent of this article is for the owners and occupants of new commercial buildings, offices, mixed-use buildings, and residences to gain the economic benefits of energy and water savings, and the health benefits of good indoor air quality.

Comment on § 1

The model ordinance connects the text of the ordinance to its broad policy goals by discussing the value of green building practices. This section may help when interpreting possible ambiguity in the ordinance but in most cases has no direct legal impact.

2. Applicability

A. This article shall apply to all applications for building permits in the following categories:

1. All new construction of municipal buildings greater than 5,000 square feet of conditioned space or major modifications to municipal buildings greater than 5,000 square feet of conditioned space;

2. All new construction of commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space or major modifications to commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space;

Language substantially derived from the Greenburgh, NY and Livermore, CA ordinances.
3. All new construction of [or major modifications to] one- and two-family dwellings, and low rise multi-family residential buildings regardless of size.

B. Optional add-on: [This article shall apply to all existing municipal purpose buildings greater than 5,000 square feet of conditioned space.]

C. Optional add-on: [This article shall apply to all existing buildings greater than 5,000 square feet of conditioned space.]

Comment on § 2(A)

The model ordinance distinguishes among three classes of buildings, reflecting common practice among existing green building ordinances. Regulation of municipal buildings typically incurs less public resistance, so these buildings are regulated separately from private buildings. Commercial and high rise multi-family residential buildings must comply with the LEED-NC or LEED for Schools standard while one- and two-family dwellings and low rise multi-family residential buildings must comply with the Energy Star Homes standard. This is because these standards were designed to apply to these respective building types.

The model ordinance only regulates new construction and major modifications of commercial and high rise multi-family residential buildings with more than 5,000 square feet of conditioned space. By contrast, some green building ordinances elect to set a cost minimum to determine building coverage. The benefits of using a cost threshold include the fact that costs are often estimated prior to floor area and that the cost of a building often roughly correlates to the amount of opportunities to “green” a construction project. However, these particular concerns are inapplicable to the model ordinance because of its broad coverage. 5,000 square feet is an intentionally low threshold; the majority of new construction and major modification of commercial and high rise multi-family residential buildings will exceed 5,000 square feet of conditioned space. Furthermore, the conditioned space of a project is easier to verify by the building inspector than a project’s cost, which could be manipulated. However, for municipalities that wish to set a high threshold and have limited coverage, the aforementioned rationales for a cost threshold could be compelling.

Building coverage is based on conditioned space, that is, space artificially heated or cooled by fixed equipment, instead of gross floor area. By focusing coverage on conditioned space, regulation is limited to buildings where the energy savings garnered justify the administrative burden of regulation. Like all quantitative values recommended, this size threshold can be modified to the preference of the municipality.

The ordinance only regulates new construction of one- and two-family dwellings and low rise multi-family dwellings, leaving major modifications of these particular buildings unregulated by this ordinance, though they will still need to comply with otherwise applicable building and energy conservation codes. Many modifications to these buildings will be so minor that requiring compliance with the green building requirements would impose substantial costs on homeowners. However, many municipalities with green building ordinances currently in

---

place do require modifications of these types of buildings to meet green building standards. The municipalities that choose to include these modifications in their ordinances often set size or cost thresholds for modification projects so that minor renovations do not trigger the green building requirements. Municipalities have the option to include major modifications for one- and two-family dwellings and low rise multi-family dwellings in their ordinance.

Comment on §§ 2(B), (C)
If a municipality chooses to regulate existing municipal purpose buildings it should include the applicable definition for “municipal purpose building” and §§ 5(D) and 6(B). If a municipality chooses to regulate existing private buildings, it should include the applicable definitions and §§ 5(E) and 6(C). Given likely political resistance to regulation of existing buildings, the model ordinance offers such regulations as optional add-ons. The distinction between a “municipal building” and a “municipal purpose building” is discussed in detail in the commentary on the definition of “municipal purpose building” below.

3. Definitions

APPLICANT
Any person, corporation, partnership, firm, or any other entity making an application to the municipality pursuant to this article.7

BENCHMARKING
Collecting building data regarding the total energy and water usage for the previous calendar year, to be used in comparing data from that building in other calendar years, and data for other similar buildings.8

BENCHMARKING TOOL
The U.S. Environmental Protection Agency's Energy Star Portfolio Manager internet-based database system and any complementary interface used to track and assess the energy and water use of certain buildings relative to similar buildings.9

BUILDING
Any edifice of any kind or any piece of work artificially built or composed of parts joined together in some definite manner and permanently attached to the ground, used or intended for supporting or sheltering any use or occupancy.10

CERTIFIABLE
To attain the number of points, as determined by the Green Building Compliance Official, that are necessary to meet the requirements of the applicable level of the green building rating system. It is not required that the building be certified by the USGBC or other applicable green building authority.

COMMERCIAL BUILDING
Any building other than a residential, manufacturing, utility, or municipal building, including without limitation: offices, retail facilities, warehouses, mixed-use buildings,

---

7 This language is substantially derived from the Greenburgh, NY green building ordinance.
8 This language is substantially derived from the New York, NY benchmarking ordinance.
9 This language is substantially derived from the New York, NY benchmarking ordinance.
10 This language is substantially derived from the Livermore, CA, Davis, CA, and Brisbane, CA green building ordinances and the New York State Building Code.
schools and other educational buildings, houses of worship, and sports and entertainment facilities.\textsuperscript{11}

**CONDITIONED SPACE**
- Any area within a building that is artificially heated or cooled by fixed equipment.\textsuperscript{12}

**CONSTRUCTION**
- The erection of any building or structure or any portion thereof.\textsuperscript{13}

**COVERED BUILDING**
- A building that is required to meet the green building standards of this article.

**ENERGY STAR HOMES RATING SYSTEM**
- A set of guidelines for energy efficiency developed by the EPA and the Department of Energy.

**ENERGY STAR HOME REPORT**
- A report completed by a Home Energy Rating System rater which yields a projected Energy Star rating for a home before construction begins.

**FIXED EQUIPMENT**
- Equipment that is fixed or attached to real property permanently as an appendage and is not readily portable. For example a space heater and a floor fan are not fixed equipment.

**FUNDED**
- To provide direct financial contributions to the building; it does not include to guarantee a loan, provide incentives, or otherwise provide indirect financial assistance.

**GREEN BUILDING**
- A whole systems approach to the design, construction, and operation of buildings that helps mitigate the environmental impact of buildings. Green building practices recognize the relationship between natural and built environments and seek to minimize the use of energy, water, and other natural resources and provide a healthy indoor environment.\textsuperscript{14}
- Green building can also refer to a building built to standards that are more environmentally friendly than normal building standards.

**GREEN BUILDING COMPLIANCE OFFICIAL**
- The [ ] or his or her designee. Optional add-on [The Green Building Compliance Official must be a LEED AP or equivalent or have a LEED AP or equivalent on his or her staff.]

**HERS**
- See Home Energy Rating System.

**HIGH RISE MULTI-FAMILY RESIDENTIAL**
- Multi-family residential construction of four stories or more.

**HISTORIC BUILDING**

\textsuperscript{11} This language is substantially derived from the Greenburgh, NY green building ordinance.

\textsuperscript{12} This language is substantially derived from the Brisbane, CA green building ordinance.

\textsuperscript{13} This language is substantially derived from the Livermore, CA and Greenburgh, NY green building ordinances.

\textsuperscript{14} This language is substantially derived from the Livermore, CA, Los Altos Hills, CA, Brisbane, CA, Greenburgh, NY, and Hayward, CA green building ordinances.
Buildings that are listed in or have been officially declared eligible for listing in the National Register of Historic Places, or are designated as historic under an applicable state or local law.\textsuperscript{15}

**HOME ENERGY RATING SYSTEM (HERS) RATER**
A person who has passed the Residential Energy Services Network (RESNET) National Rater Test.

**HOME ENERGY RATING SYSTEM (HERS) INDEX**
A scoring system established by RESNET in which homes are compared to a HERS Reference Home (based on the 2006 International Energy Conservation Code).

**LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED) STANDARDS**
A voluntary, third-party rating system developed by the USGBC where credits are earned for satisfying specified green building criteria.\textsuperscript{16}

**LEED ACCREDITED PROFESSIONAL (AP)**
Any person who has passed the LEED Professional Accreditation Exam administered by the Green Building Certification Institute.\textsuperscript{17}

**LEED CHECKLIST**
A checklist developed by the USGBC for the purpose of calculating a score on the LEED Rating System.

**LOW RISE MULTI-FAMILY RESIDENTIAL**
Multi-family residential construction, including townhomes, of three stories or less.

**MAJOR MODIFICATION**
Modification of an existing building where the scope of work of the project includes at least one of the following:
1. Rehabilitation work in at least two of the following three systems: electrical, HVAC (heating, ventilating and air conditioning), and plumbing;
2. Construction work which affects at least fifty percent of the building’s floor area; or
3. Construction work which increases the square footage of conditioned space in the building by at least fifty percent.\textsuperscript{18}

**MULTI-FAMILY**
Containing three or more dwelling units.

**MUNICIPAL BUILDING**
Any building that is either:
1. Owned,
2. At least fifty percent funded,
3. Funded with over $2 million,
4. On land owned, or
5. Where greater than fifty percent of the conditioned floor area is leased

\textsuperscript{15} This language is substantially derived from the New York State Building Code and the Hayward, CA green building ordinance.
\textsuperscript{16} This language is substantially derived from the Greenburgh, NY green building ordinance.
\textsuperscript{17} This language is substantially derived from the Annapolis, MD green building ordinance.
\textsuperscript{18} This language is substantially derived from the LEED definition of major modification, New York Law 86, and the Annapolis, MD and Baltimore, MD green building ordinances.
by [city/town/village] or any unit thereof. This definition applies notwithstanding any outside federal or state funding for the building.\(^{19}\)

Optional add-on: [MUNICIPAL PURPOSE BUILDING: Any building that is: at least fifty percent owned by, on land owned by, or where greater than sixty percent of the conditioned floor area is leased for a term of at least \(20\) years by any unit of local government.]

PROJECT

A design and construction undertaking comprised of work related to one or more site improvements. Multiple modifications of the same building or simultaneous related work in conjoined structures under common ownership or control may constitute a single project for the purposes of the size requirements of this article. Separate modifications within a project may have different design professionals and job numbers, and may result in the issuance of one or more permits.

RATING SYSTEM

A system designed to rate green building criteria for particular buildings. For example, LEED for New Construction (LEED-NC), LEED for Existing Buildings: Operations and Maintenance (LEED EB:OM), LEED for Schools, and LEED for Homes are all different rating systems.

REHABILITATION

Renovation, alteration, or reconstruction.

RESIDENTIAL BUILDING

Any building used for living, sleeping, eating, and cooking. Residential buildings include one-family, two-family, and multi-family residences and dormitories. For the purposes of this article, a residential building does not include long term care facilities, assisted-living facilities, or hotels, motels, inns, or any similar commercial enterprises wherein rooms or suites of rooms are occupied transiently. Buildings used for purposes identified in the preceding sentence are considered commercial buildings.\(^{20}\)

SPECIAL PURPOSE UNIT OF GOVERNMENT

Independent governmental units that exist separately from, and with substantial administrative and fiscal independence from, general purpose local governments such as county, city, town, and village governments, and that are created to provide a specific service in a specific region.

VERSION

A particular iteration of a specific LEED green building rating system. For example, LEED-NC 3.0 is a version of the LEED-NC rating system.

Comment on “BENCHMARKING” and “BENCHMARKING TOOL”

Efficiently constructed buildings that are subsequently operated in a wasteful manner undermine the effectiveness of the model ordinance. One way to encourage efficiency in existing buildings is to track the building’s energy and water use. The model ordinance contains optional provisions similar to ordinances in Washington, D.C.\(^{21}\) and New York City\(^{22}\) that require

\(^{19}\) This language is substantially derived from the Berkeley, CA, Brisbane, CA, Clayton, MO, Dublin, CA, Livermore, CA, Madison, WI, Pleasanton, CA, and Richmond, CA green building ordinances.

\(^{20}\) This language is substantially derived from the Brisbane, CA and Davis, CA green building ordinances.

existing buildings to track energy and water use through a process called benchmarking. By using the benchmarking tool, energy and water usage of a building are compared to a building of similar size and purpose; such statistics promote increased operational efficiency. This information may also be made public in § 6(C)(2).

Comment on “BUILDING”

The definition of building in the model ordinance is broadly worded, but not all buildings described under this definition must comply with the ordinance’s green building standards. Size and function requirements, in addition to other exceptions from regulation, narrow the application of the ordinance.

Comment on “CERTIFIABLE”

For a building to be ‘certifiable’ does not mean that it must be certified by the USGBC or Energy Star qualified. Instead, ‘certifiable’ means to attain the required number of points for compliance as determined by the Green Building Compliance Official, even in the absence of third-party certification.

Because this article does not require third-party certification, the municipality holds exclusive power to determine compliance. Adopting an established green building rating system is clearly easier for a municipality than developing a new system. Yet, local enforcement is preferred over the procedures of private entities which are comparatively removed from the view of local constituents. To balance these concerns, the model ordinance adopts the thoroughly tested and extensively used LEED-NC and Energy Star Homes standards as the base of its local ordinance while retaining local control of the compliance process.

Limiting the role of third parties also enhances the ability of the local legislative process to influence the ordinance’s content, which makes it more responsive to local needs than procedures dominated by a third party. These measures strengthen the ordinance in the face of potential legal challenges, such as delegation challenges, described in the legal commentary that is available on the CCCL website. Furthermore, the long waits that sometimes accompany the USGBC certification process are avoided by not requiring official certification.

LEED is at times criticized for awarding points only for use of wood certified by the Forest Stewardship Council (FSC) and not by other wood certifiers such as the Sustainable Forestry Initiative (SFI). However, in the judgment of USGBC and other environmental organizations, FSC is the most environmentally responsible forestry certification standard. There does not appear to be a compelling reason for the ordinance to tweak LEED to accommodate other potentially less robust forestry certification systems.

Comment on “COMMERCIAL BUILDING”

25 The legal implications of offering points for use of FSC wood are examined in the legal analysis memorandum available on the CCCL website.
The model ordinance broadly defines ‘commercial’ to include buildings used for entertainment, office space, shopping, education, and religious purposes, among other uses. This term’s broad coverage is counterbalanced by the exemptions and exclusions outlined in §§ 8 and 9.

Because of the anticipated political and practical difficulty of requiring manufacturing and utility buildings to comply with LEED-NC, these types of buildings are explicitly excluded from the definition of ‘commercial building’ and hence not regulated in this ordinance. However, those municipalities that prefer to regulate manufacturing and utility buildings can explicitly include them in the definition of commercial building.

Schools are within the broad coverage of ‘commercial building.’ Private schools are regulated as commercial buildings under the ordinance and are subject to the LEED for Schools standard. However, because most public schools in New York State are special purpose units of government, they are excluded from regulation under § 9 of this ordinance. Schools in the five most populous cities in New York State are not special purpose units of government and will be regulated under the ordinance as commercial buildings and subject to the LEED for Schools standard.

Comment on “CONDITIONED SPACE”
The model ordinance measures conditioned space, rather than gross floor area, to avoid regulating buildings that use little energy, such as unenclosed parking garages or sports fields with outdoor bleachers.

Comment on “ENERGY STAR HOMES RATING SYSTEM”
Homes that are Energy Star qualified are typically at least 15% more energy efficient than homes built to the 2006 International Residential Code and include additional energy-saving features that typically make Energy Star homes 20 to 30% more efficient than standard homes.26

Comment on “GREEN BUILDING COMPLIANCE OFFICIAL”
The municipality must delegate administration of the ordinance to a designated individual or department, which this article refers to as the ‘Green Building Compliance Official.’ This responsibility could fall to someone in a newly created position, to the existing building inspector, or to another individual or entity as the municipality deems appropriate. Municipalities with existing green building ordinances have employed Building Inspectors,27 Building Officials,28 Directors of Community Development,29 Building Division Staffs,30 Directors of Planning and Community Environment,31 Directors of Planning and Development,32

27 Babylon, NY, Chamblee, GA, and Conyers, GA delegate to Building Inspectors.
29 Brisbane, CA, Livermore, CA, and Pleasanton, CA delegate to Directors of Community Development.
30 Greenburgh, NY and Huntington, NY delegate to Building Division Staffs.
31 Palo Alto, CA delegates to a Director of Planning and Community Environment.
32 Pasadena, CA delegates to a Director of Planning and Development.
and Directors of Planning in this position. A group of nearby municipalities may also choose to share the services of a single Green Building Compliance Official.

There may be additional costs incurred by the municipality to train the Green Building Compliance Official and/or pay his or her salary. Each municipality will have to decide whether and how it will change its building permit fee structure, add new green building fees, or use general revenues to deal with these increased costs.

The ordinance includes an optional add-on whereby a municipality can require that either the person who is named as the Green Building Compliance Official or someone on his or her staff must be a LEED Accredited Professional (AP) or equivalent. Requiring the Green Building Compliance Official to possess this knowledge about green building is preferable, and the training and testing required to obtain LEED accreditation are not extensive. However, not every municipality will have the funds to ensure this. Thus the provision is an optional add-on.

In addition to monitoring and enforcing the ordinance, the Green Building Compliance Official will often be the municipal official who enforces the New York State Energy and Conservation Construction Code.

Comment on “HERS RATER”

A HERS rater uses specially-designed software to analyze the expected energy use of a home based on construction plans, yielding a projected Energy Star rating for the home. The rater then works with the applicant to identify the energy efficiency improvements needed to ensure the home will meet Energy Star performance guidelines. The rater conducts onsite inspections, including a blower door test and a duct test. Results of these tests, along with data from the software analysis, are used to generate a HERS Index for the home.

Comment on “HIGH RISE MULTI-FAMILY RESIDENTIAL”

The model ordinance requires high rise multi-family residential buildings and commercial buildings to meet the same green building standard due to architectural similarities between these two types of buildings.

Comment on “HOME ENERGY RATING SYSTEM INDEX”

The HERS Index scores homes relative to the HERS Reference Home, representative of energy efficiency in a home based on the 2006 International Energy Conservation Code. The reference home sets the baseline at a HERS index of 100. Each one percentage point decrease in energy consumption relative to the HERS Reference Home corresponds to a one point decrease in the HERS Index. So, for example, a home that scores 85 on the HERS Index is 15% more energy efficient than the HERS Reference Home.

EPA has classified each county in America within one of eight climate zones based on heating days, cooling days, and other factors. For residences in climate zones 1-5, the required HERS Index for an Energy Star qualified home is 85. For residences in climate zones 6-8, the required HERS Index for an Energy Star qualified home is 80. For further explanation see the comment on § 5(A).

33 San Jose, CA delegates to a director of planning.
34 This process is explained in Appendix B. See also New York State Department of State Division of Local Government Services, Shared Services and Consolidation, http://www.dos.state.ny.us/lgss/publications.htm#SharedServices.
Comment on “LEED STANDARDS”
LEED is a national benchmark for design, construction, and operation of high-performance green buildings created by the U.S. Green Building Council. The LEED-NC standard has four tiers of certification: Certified, Silver, Gold, and Platinum.

Comment on “MAJOR MODIFICATION”
Regulating all modifications would be unduly burdensome, thus the model ordinance regulates only major modifications. In order to capture all modifications deemed major enough to regulate, the ordinance approaches modifications from three directions, leading to more comprehensive coverage. Municipalities who wish to be more or less stringent in requiring major modifications to meet the standards of the article can modify the percentages in this definition or add or remove requirements for major modifications as they see fit.

The definition of major modifications does not cover some potentially large building modifications that nonetheless fail to meet any of the three listed criteria. For example, if 40,000 square feet of a building with 100,000 square feet of total conditioned space – the size of an average big box store – is being renovated, it may not be covered by the ordinance. While this is problematic, no rating system used by the ordinance is adequate to address such a situation. LEED-NC is only intended for a major modification of a building in its entirety, not in pieces.35 Certification under LEED-EB:OM is only intended for projects that cover 90% of total floor space, so this standard is similarly inappropriate, particularly for buildings with multiple tenants.36

While a municipality may elect to implement some other type of green building standard more appropriate for this type of situation, such as LEED for Commercial Interiors (LEED-CI),37 none has received sufficiently common usage to merit recommendation by the model ordinance at this point.

Comment on “MUNICIPAL BUILDING”
The model ordinance uses the term ‘any unit of local government’ in the definition of municipal building. This is meant to include buildings owned, funded, or leased by units of local government, and not just the municipality itself, in the definition of municipal buildings. For example, an economic development agency may lease a building and this building would still be considered a municipal building despite the fact that the municipality itself is not party to the lease.

Comment on “MUNICIPAL PURPOSE BUILDING”

36 Furthermore, many aspects of LEED-EB:OM, such as green cleaning and sustainable purchasing have little to do with the major modification itself and more to do with day-to-day building operations, making the standard inappropriate to require of construction projects in addition to the possibly numerous legal issues that mandating LEED-EB:OM of private parties could raise.
The model ordinance offers an optional add-on to regulate existing municipal purpose buildings. The definition of a municipal purpose building covers many but not all of the buildings covered by the definition of a municipal building. This distinction is made because regulation of new construction and major modifications of municipal buildings is far more prevalent than regulation of existing municipal buildings. Because regulating existing buildings is less common and more onerous than regulating new construction, municipalities may wish to limit the number of existing municipal buildings that are required to meet the LEED-EB:OM standard through use of this less inclusive definition. This definition corresponds to optional add-ons in §§ 2(B), 5(D), and 6(B).

Comment on “PROJECT”

Project is defined here, and used in the definition of major modification, to attempt to prevent certain modifications of existing buildings from avoiding the green building standards of this article. The definition of project is meant to encompass multiple modifications to a single building or simultaneous related work in conjoined structures under common ownership and control which a builder may try to break apart into separate modifications. If the builder can break these projects into two, it allows the modifications to avoid falling under the definition of major modification and having to comply with the applicable green building standards. Thus multiple modifications to a building are considered a single project, and the threshold for determining whether a modification is major is based on the project as a whole and not on the separate modifications.

Comment on “RESIDENTIAL BUILDING”

Buildings that are covered by this definition are required to comply with Energy Star Homes. The definition exempts buildings which are arguably used for residential purposes but are more structurally similar to commercial buildings, such as hotels.

Comment on “SPECIAL PURPOSE UNIT OF GOVERNMENT”

Special purpose units of government fall into one of several broad categories: school districts, fire districts, local public authorities, other special purpose entities, and town special districts; the most common are school districts and fire districts. Special purpose units of government operate independently from the municipalities in which they operate and often have different jurisdictional boundaries. Municipal green building requirements can be applied to certain special purpose units of government. However, for the sake of simplicity and legal clarity, we have chosen to exempt all special purpose units of government from regulation under § 9 of the ordinance. Special purpose units of government that are exempt from the green building regulations may still voluntary choose to utilize these standards. A municipality may specifically include one or more special purpose entities if it so chooses and is advised that it may do so.

4. Green Building Rating Systems

EPA Energy Star Rating System in effect on the date of adoption of this article. [The [city/town/village] also adopts the USGBC’s LEED for Existing Buildings: Operations and Maintenance (LEED EB:OM) Rating System, Version 3.0.] The [municipal clerk] shall maintain copies of the current green building standards in effect under this article and any additional documents necessary for applicants to comply with the standards of this article.

B. Because green building standards are highly technical and the Green Building Compliance Official has the proper expertise to determine whether new standards are appropriate, he or she shall be in charge of adopting new LEED or Energy Star rating systems, new versions of LEED or Energy Star, a green construction code, or a different green building rating system. Whenever the Green Building Compliance Official considers adopting a new system, version, or code, he or she shall follow the process below.

1. Public notice of the intent to adopt the new rating system, version, or code shall be given in the manner customary for the municipality and public comment on the adoption shall be allowed for [30] days.

2. The Green Building Compliance Official shall determine whether or not to adopt the new rating system, version, or code based on the following standards:
   a. The new rating system, version, or code must have been established by a government agency or by a not for profit organization whose standards have achieved widespread acceptance,
   b. The new rating system, version, or code, looked at as a whole, must be no less protective of the environment than the prior rating system, version, or code,
   c. The new rating system, version, or code must be designed to reflect recent scientific, engineering, and technological knowledge,
   d. The new rating system, version, or code cannot be adopted primarily for the benefit of a particular project or applicant, and

3. If the Green Building Compliance Official decides to adopt the new rating system, version, or code, he or she must make public this adoption by filing the adoption with the [municipal clerk] and giving public notice of the adoption in the manner customary for the municipality.

4. Nothing in this section shall abrogate the authority of the [municipal governing body] to adopt, modify, or repeal green building standards that
have been adopted by the [municipal governing body] or Green Building Compliance Official.

Optional alternative (use in lieu of section B above): [B. The Green Building Compliance Official shall remain informed of changes in rating systems, versions, and codes, and shall notify the [municipal governing body] of these changes so that the [municipal governing body] can adopt these changes should it so choose.]

C. If a different green building rating system other than LEED or Energy Star is adopted pursuant to § 4(B), the same process described in § 4(B) can be used to change other provisions of this article accordingly if and to the extent required by this adoption.

Comment on § 4(A)

Mandating the Energy Star Homes standard may cause citizens to lose eligibility for some incentives awarded by the state. The New York State Energy Research and Development Authority (NYSERDA) awards incentives for voluntarily building a home that attains a HERS score of at least 84. Applicants who are required to meet that standard under the model ordinance would not do so voluntarily and would therefore not receive these financial incentives. There does not appear to be a way for a municipality to avoid this consequence and this problem would likely require a state-level solution. However, applicants are still eligible for other NYSERDA incentives for receiving a HERS score higher than 84.

The model ordinance uses the Energy Star Homes standard as the standard for residential buildings as the model ordinance was initially developed for use in New York State, where the Energy Star Homes standard is the most prevalent. However, other areas of the country have particular residential standards that may be used in lieu of the Energy Star Homes standard, such as California’s Green Point Rated standard, LEED for Homes, Green Globes, or Earth Craft. Some of these standards encompass more comprehensive green building standards than the Energy Star Homes standard which focuses on energy use. In those areas of the country with a different standard in use, the residential standard required by the ordinance can be changed through § 4(B).

The model ordinance provides text in brackets for those municipalities that choose to regulate existing municipal purpose buildings. The optional add-on should be included in the ordinance of those municipalities that choose to adopt §§ 2(B), 5(D), and 6(B). Among existing ordinances that mandate green building practices for existing buildings, LEED-EB:OM is the most commonly used rating system.

Comment on § 4(B)

38 A HERS Score of 84 is equivalent to a HERS Index of 80. See comment on § 5(A), infra, for further explanation.
40 NYSERDA separates its financial incentives into three tiers. A HERS score of 84 is the cut-off for the first tier; second and third tier incentives are awarded to homes attaining a HERS score of 87 and 89, respectively. Note that the model ordinance uses the HERS index, and not the HERS score, but the two methods are easily translatable to each other. NYSERDA, Home Energy Rating System Providers for the New York ENERGY STAR Labeled Homes Program 19 (2007), available at http://www.nyserda.org/funding/1081RFQ.pdf.
The LEED standards are regularly updated and entirely new green building rating systems are being developed, such as the International Code Council’s International Green Construction Code. Automatic adoption of new versions of green building standards in an ordinance is likely a violation of the non-delegation doctrine. Yet, up-to-date standards – either new versions of LEED or entirely new rating systems – are desirable to maintain the ordinance’s environmental effectiveness.

The model ordinance addresses these concerns by incorporating notice-and-comment procedures by which the Green Building Compliance Official may update the standards to incorporate new developments in green building codes. This procedure for updating and incorporating new elements properly sets out standards for the Green Building Compliance Official to follow and thus avoids delegation concerns, discussed in the commentary that is available on the CCCL website. The Green Building Compliance Official should be attentive to developments in green building standards so as to keep the ordinance as up to date as possible. This approach also avoids potentially time-consuming scrutiny under a vote by a municipal governing body. The municipality still retains, as always, the power to amend any municipal ordinance and thus change the green building standards any time it chooses to do so.

Concerns have been raised on whether delegating this authority to the Green Building Compliance Official is permissible. While the legality of such a delegation is supported by CCCL’s legal analysis, municipalities that do not want to delegate the power to adopt new rating systems, versions, or codes to the Green Building Compliance Official for this or other reasons may simply substitute the optional alternative, which leaves the power to adopt new rating systems, version, or codes with the municipal governing body.

Regardless of whether the power to adopt new rating systems is delegated to the Green Building Compliance Official or left in the hands of the municipal governing body, the municipality may consider requiring an official evaluation of standards every three years. Many building codes and green building standards are revised at the pace of once every three years, making this time interval a useful period to evaluate the municipality’s currently used standards. However, because the Green Building Compliance Official is tasked with keeping up to date with developments in green building, this option is only peripherally presented and not included in the main text of the model ordinance.

When a municipality chooses to change the green building rating system used in the model ordinance from LEED or Energy Star to another green building rating system, the municipality should reference Appendix D for a list of the sections of the model ordinance that need to be modified.

5. Standards for compliance

A. All new construction of and major renovations to covered buildings must comply with the following standards:

1. All municipal buildings greater than 5,000 square feet of conditioned space must be LEED Silver certifiable.

2. All commercial and high rise multi-family residential buildings greater than 5,000 square feet of conditioned space must be LEED Silver certifiable.
3. All one- or two-family dwellings and low rise multi-family residential buildings must meet the level of an Energy Star qualified home by achieving a HERS Index of [80 or 85].

B. Applicants for covered buildings are not required to attain LEED certification from the USGBC or to have buildings Energy Star qualified by the EPA nor are they required to share energy and water usage data with USGBC under LEED’s minimum program requirements.41

C. Optional add-on: [In addition to complying with the requirements of § 5(A), all new construction of and major renovations to covered buildings must attain at least [2] points from the Energy and Atmosphere Credit 1 of the LEED-NC checklist.]

D. Optional add-on: [All existing municipal purpose buildings greater than 5,000 square feet of conditioned space must be LEED EB:OM Silver certifiable.]

E. Optional add-on: [All existing buildings greater than 5,000 square feet of conditioned space must complete energy and water benchmarking.]

Comment on § 5(A)

Among the four tiers in LEED-NC, Silver is the level most commonly required in existing green building ordinances. A building becomes LEED Silver certifiable by attaining 50 points on the LEED-NC checklist. A municipality that elects to make the ordinance more or less stringent could require the achievement of a different tier of the LEED-NC rating system.

Based on analysis of local climates, EPA set a HERS Index requirement for homes to become Energy Star Homes qualified. In New York, some localities must achieve a HERS Index of 80 while some must achieve a HERS Index of 85 to qualify as an Energy Star Home. The municipality should consult the 2004 Supplement to the International Residential Code, Table N1101.2, which identifies the required HERS Index on a county-by-county basis, to determine the appropriate level of stringency to qualify as an Energy Star Home.42

Municipalities are encouraged to mandate a HERS Index below what is required for Energy Star Homes qualification. For example, the Massachusetts state “stretch” energy code requires an HERS Index of 65 or 70.

Some ordinances reference the older “HERS Score” scale. The HERS Index is similar to a HERS Score, but is reweighted. The model ordinance uses the more up-to-date HERS Index. A HERS Index of 80 is equivalent to a HERS Score of 84, the typical requirement among ordinances that implement the HERS Score scale.

41 This language is substantially derived from the Brisbane, CA and Greenburgh, NY green building ordinances.
42 Bronx, Kings, Nassau, New York, Queens, Richmond, Suffolk, and Westchester Counties are in Zone 4, requiring a HERS Index of 85. Allegany, Broome, Cattaraugus, Chenango, Clinton, Delaware, Essex, Franklin, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Madison, Montgomery, Oneida, Otsego, Schoharie, Schuyler, St. Lawrence, Steuben, Sullivan, Tompkins, Ulster, Warren, and Wyoming Counties are in Zone 6, requiring a HERS Index of 80. All other counties in New York State are in Zone 5, requiring a HERS Index of 85.
Comment on § 5(B)

LEED requires disclosure of energy and water usage data to USGBC under minimum program requirement 6. Because USGBC is not to have any role in enforcement of the ordinance, covered projects are not required to disclose this information to USGBC.

Comment on § 5(C)

A jurisdiction may choose to enhance the energy efficiency requirements of the LEED-NC standard at the Silver level by requiring that commercial buildings receive a certain minimum number of points toward certifiability from EA (Energy and Atmosphere) Credit 1 on the LEED-NC checklist. Note that these required points count toward the total needed to achieve Silver certifiability, which is 50 points. For example, if a municipality required applicants to attain two points from EA Credit 1, the applicant would only need to attain 48 more points to reach 50 points total and would not need to attain 50 points in addition to the two required points from EA Credit 1.

Comment on § 5(D)

While regulating construction of new buildings and major modifications reduces the environmental impact of the overall building stock over time, regulating the energy use and operation of existing buildings has a more immediate consequence. This optional add-on requires some municipal purpose buildings to achieve LEED-EB:OM Silver. Several municipalities have enacted a similar requirement, including Los Angeles, CA, Miami Beach, FL, Bloomington, IN, Portland, OR, and Richmond, VA.

Comment on § 5(E)

The model ordinance proposes tracking the energy use of existing buildings to encourage efficiency. The procedures through which this requirement is enforced are listed in § 6(C).

A proposal in New York City to mandate retrofits to inefficient buildings recently failed to be enacted into law, but could be used as a model for municipalities that regard such a regulation as viable.

6. Compliance Process

A. New construction and major modifications.

1. Applications. Every applicant who files a building permit application for new construction of or major modification to a covered building must submit to the Green Building Compliance Official:

   a. A completed LEED checklist demonstrating the LEED points a building is designed to obtain, or an Energy Star home report conducted by a third party HERS rater, or other equivalent rater as determined by the Green

Building Compliance Official, demonstrating a projected Energy Star rating score for the home,

b. A written explanation of how the building will obtain the LEED points identified in the checklist or the Energy Star rating score shown in the home report,

c. Design plans that demonstrate compliance with the applicable standard required by § 5 of this article, and

d. Any other documents or information the Green Building Compliance Official finds necessary to decide whether the building will achieve the applicable standard required by § 5 of this article.  

e. If the applicant can show a clear and specific inconsistency between meeting a state or federal legal requirement and the attainment of one or more particular LEED points, or that anti-trust laws prevent the municipality from requiring a particular LEED point or set of points, either of which could invalidate this article or a provision thereof, the applicant should document the conflict in the application. The Green Building Compliance Official shall review the documentation in consultation with the municipality’s legal counsel and if such inconsistency exists, will deem the LEED point to have been achieved by the building if otherwise applicable building and energy conservation code requirements have been met.

2. Approval. No building permit shall be issued for any covered building unless the Green Building Compliance Official determines the application demonstrates that the covered building will attain the applicable standard as required by § 5 of this article.  

3. Non-approval. If the Green Building Compliance Official determines that the documentation is incomplete or indicates that the covered building will not meet the required standard in § 5 of this article, the Green Building Compliance Official shall either:

   a. Return the documentation to the applicant marked "denied," including a statement of reasons for the denial; or

---

45 This language is substantially derived from the Annapolis, MD, Brisbane, CA, Davis, CA, Morgan Hill, CA, and Huntington, NY green building ordinances.

46 This language is substantially derived from the Babylon, NY Davis, CA, and Huntington, NY green building ordinances.
b. Return the documentation to the applicant marked "further explanation required," and detail the additional information needed.\(^{47}\)

4. Resubmission. If the documentation is returned to the applicant, the applicant may resubmit the documentation with such additional information as may be required or may apply for a partial exemption under § 8 of this article.\(^{48}\)

5. Decisions by Green Building Compliance Official. All decisions by the Green Building Compliance Official, including but not limited to: approval or non-approval of applications for a building permit, issuance of a stop work order, substitution of LEED points or Energy Star features, and temporary approval and mitigation measures, shall be in writing. These decisions will be provided to the affected applicants. Copies will be retained by the municipality and made available for public inspection.

B. Optional add-on: [Existing municipal purpose buildings that are required to meet the standard in § 5(D).

1. Applications. The following documents must be submitted to the Green Building Compliance Official within [6] months from the date of adoption of this article.

   a. A completed LEED EB:OM checklist demonstrating the LEED EB:OM points a building will obtain,

   b. A written explanation of how the building will obtain the LEED EB:OM points identified in the checklist,

   c. Design plans that demonstrate compliance with the applicable standard required by § 5(D) of this article, and

   d. Any other documents or information the Green Building Compliance Official finds necessary to decide whether the building will achieve the applicable standard required by § 5(D) of this article.

2. Deadline for compliance. Once the application is submitted, the Green Building Compliance Official shall exercise discretion in determining a reasonable deadline for compliance. Once the Green Building Compliance Official reviews the plans and sets a deadline for compliance, the building must complete the necessary retrofits to meet the standard required by § 5(D) by that deadline.

3. Final approval. The Green Building Compliance Official shall conduct a final inspection to verify that the building complies with the standard required by § 5(D)
on or after the deadline specified by the Green Building Compliance Official in § 6(B)(2).]

4. Optional add-on: [The Green Building Compliance Official shall make public via the internet a list of municipal purpose buildings which must comply with § 5(D) and shall indicate whether those buildings comply by the deadline specified by the Green Building Compliance Official in § 6(B)(2).]

C. Optional add-on: [Existing buildings that are required to meet the standard in § 5(E).

1. Benchmarking. Within [1] year from the date of adoption of this article, energy and water benchmarking data must be submitted to the [city/town/village] from the agency or entity responsible for the management of the covered building via the benchmarking tool. Subsequently, benchmarking data must be submitted to the [city/town/village] via the benchmarking tool on an annual basis by [January 1st].

2. Disclosure. The municipality shall make information generated by the benchmarking tool public via the internet no later than [3] months after the data has been generated.]

Comment on § 6(A)

The model ordinance requires applicants to submit a LEED checklist or Energy Star home report that enumerates the LEED points or Energy Star Index applicants expect to achieve upon construction. The Green Building Compliance Official evaluates the application and determines whether the proposed building will meet the applicable standard. Third party organizations, such as the USGBC, are not involved.

Applicants for a commercial or high rise multi-family residential building submit a LEED checklist to the Green Building Compliance Official. Applicants may find a LEED AP helpful in compiling the documentation required by this section but a LEED AP is not required. Applicants required to meet the Energy Star Homes standard must submit an Energy Star home report prepared by a third party HERS rater or other equivalent rater as determined by the Green Building Compliance Official. Allowing an equivalent rater to conduct the Energy Star tests and prepare the home report alleviates anti-trust issues discussed in Part III of the commentary on legal issues that is available on the CCCL website.

In addition to these reports, applicants must submit a written explanation of the methods that will be taken to achieve the requisite LEED points or HERS index, building plans that show how the construction will fulfill the intent stated in the other documents, and other documents required at the discretion of the Green Building Compliance Official. This paperwork is meant to ensure that the applicant plans to construct the building to the requisite standard. An evaluation of the paperwork before granting the building permit reduces the likelihood that the completed building will be noncompliant.

Concerns have been raised as to whether aspects of a municipal green building code may be preempted by or otherwise in conflict with the New York state building code or the federal Energy Policy and Conservation Act (EPCA). To our knowledge no specific inconsistency
between LEED and EPCA or the New York state building code has been identified. However, the model ordinance includes a provision to deal with this situation should it arise. If the applicant can point to a specific inconsistency between one or more LEED points and another mandated requirement, for example, in the state building code, the Green Building Compliance Official may deem the LEED point to have been attained by the building so long as the building meets the standard required by the state building code and any other applicable requirements, thus alleviating preemption issues. This section is also intended to deal with potential anti-trust issues, which while unlikely, are possible. Determinations of preemption and other legal infirmities have both technical and legal aspects, and thus the Green Building Compliance Official should make any such determinations in consultation with the municipality's legal counsel. Further detailed legal commentary on both of these issues is available in the commentary on legal issues that is available on the CCCL website.

The Green Building Compliance Official may deny the building permit, with reasons for the denial stated, or request further information. Applicants may then resubmit the documentation with changes or additional information or seek an exemption. These avenues of recourse for the applicant are advisable to avoid antitrust, non-delegation, and incorporation by reference concerns, as discussed in the commentary on legal issues that is available on the CCCL website.

Comment on § 6(B)
Regulation of existing municipal purpose buildings is effective immediately after the ordinance is adopted. From the date the ordinance is passed, owners of covered buildings have six months to assemble documentation outlining a plan to comply with the LEED-EB:OM standard. After this documentation has been submitted to, and approved by, the Green Building Compliance Official, the applicant has a period of time set at the discretion of the Green Building Compliance Official to implement the planned changes. This deadline is discretionary because it is difficult to anticipate the nature of the required retrofits. Given possible large variations, discretion is given to the Green Building Compliance Official to set an appropriate deadline for compliance.

Comment on § 6(C)
The ordinance requires in § 6(C)(1) that benchmarking be completed through the EPA Energy Star Portfolio Manager benchmarking tool which tracks energy and water consumption and is used by New York City and Washington, D.C. Initially, this data must be submitted to the municipality within one year from the date the ordinance is adopted and in subsequent years, the data must be submitted by January 1. Public disclosure of this benchmarking data is mandated by § 6(C)(2), encouraging more efficient energy use.

7. Enforcement
A. Compliance Review. The Green Building Compliance Official shall determine whether the specifications identified in the documentation provided pursuant to § 6(A) have been implemented by conducting inspections at any time during construction or until the issuance of a final certificate of occupancy. The applicant shall provide the Green Building Compliance Official with access to the premises in order to conduct inspections
to ensure compliance with this article. The [city/town/village] may require the applicant to provide information and documents showing use of products, equipment, and materials specified in the documentation provided pursuant to § 6(A). If the [city/town/village] determines that the building is not being constructed in accordance with the documentation, the Green Building Compliance Official may issue a stop work order. This order may apply to a portion of the building or to the entire building and shall remain in effect until the Green Building Compliance Official determines that the building will be brought into compliance with the documentation and the requirements of this article.49

B. Substitution of LEED points or Energy Star features. During compliance review, the Green Building Compliance Official may exercise flexibility to substitute the approved LEED points with other LEED points or to substitute approved Energy Star features with other Energy Star features so long as the building will still attain the green building rating required by this article. Substitution shall occur only at the request of the applicant and when it is determined by the Green Building Compliance Official that the originally approved points or features are no longer feasible or that the substitute point or feature will realize a more favorable result as determined by the Green Building Compliance Official. Substitution is at the discretion of the Green Building Compliance Official.50

C. Final Approval. The [Green Building Compliance Official/Building Department] shall not issue a final certificate of use and occupancy for any construction of a covered building unless [he or she/it] finds that the building has achieved the standard required under § 5 of this article.51

1. Energy Star Homes. For buildings required to achieve Energy Star Homes qualified status, a home energy rating certificate must be submitted to the Green Building Compliance Official from a third party HERS rater, or other equivalent rater as determined by the Green Building Compliance Official, indicating that the building has complied with the applicable standard under § 5 of this article including all performance and field-testing verification.52

2. Temporary Approval and Mitigation. If, upon completion of construction, the building does not comply with the requirements of § 5 of this article, the [Green Building Compliance Official/Building Department] may issue a temporary certificate of occupancy if the deviations are reasonable and there is assurance from the applicant that the deviations will be corrected or mitigated. The Green Building Compliance Official shall determine the reasonable mitigation measures.

49 This language is substantially derived from the Babylon, NY, Brisbane, CA, Chamblee, GA, Conyers, GA, and Huntington, NY green building ordinances.
50 This language is substantially derived from the Brisbane, CA, Morgan Hill, CA, and Huntington, NY green building ordinances.
51 This language is substantially derived from the Annapolis, MD, Brisbane, CA, Livermore, CA, and Healdsburg, CA green building ordinances.
52 This language is substantially derived from the Babylon, NY green building ordinance.
The temporary certificate of occupancy shall be in place for [30] days and may be renewed no more than two times after which the applicant must apply to the [appellate body] for any further temporary certificates of occupancy. Once the building has met the requirements of § 5 of this article or the applicant has completed the necessary mitigation measures, the [Green Building Compliance Official/Building Department] will issue a final certificate of use and occupancy for the building.

a. Optional add-on: [Disclosure of the Issuance of Temporary Certificates of Occupancy. When a temporary certificate of occupancy is issued in accordance with § 7(C)(2), the [Green Building Compliance Official/Building Department] shall make public the date of the issuance of the temporary certificate of occupancy and the address and any other designation of the building that received it.]

Comment on § 7(A)
Once construction begins, the Green Building Compliance Official can track the applicant’s adherence to the goals articulated in the documentation provided pursuant to § 6(A) at any point during construction to ensure that construction is proceeding according to plan and will achieve compliance.

Comment on § 7(B)
Should construction not proceed in accordance with the documentation, the Green Building Compliance Official is authorized to halt construction. However, a stop work order is a heavy burden on development. To avoid this result, if a planned LEED point or Energy Star feature is not implemented during construction, the Green Building Compliance Official may allow the applicant to implement other LEED points or Energy Star features.

This substitution may only be made if the original features or points are no longer feasible or if the substituted points or features are deemed to realize a more favorable result by the Green Building Compliance Official. By ‘more favorable result,’ the ordinance means increased energy or water savings or other changes to reduce environmental impact. The insertion of this language is intended to allow opportunities for improvements on the originally-approved construction plans. This section allows flexibility to cure potentially noncompliant buildings during construction while maintaining focus on the end goal – achieving the applicable green building standard.

Note that the legal standards of hardship and infeasibility, described in § 8, apply only for determinations made prior to awarding the building permit. However, the procedures described in § 7(B) address cases where unexpected conditions discovered during construction affect the applicant’s ability to comply with the ordinance. In other words, applicants may only seek hardship and infeasibility exemptions before construction has begun. Point or feature substitution takes place during or after construction is complete and while intended to mitigate the impact of any unexpected hardship, only deals with hardships that arise during construction.

Comment on § 7(C)
The final determination of compliance can result in approval, temporary approval, or rejection. Measures taken before and during construction, described in §§ 7(A) and (B), would ideally ensure that upon completion the building has adhered to the agreed-upon designs and meets the applicable standard. These early steps are intended to avoid the conundrum of completed but vacant and noncompliant buildings. Approval is given when the applicant has completed the building as planned. If approved, the building will receive its final certificate of use and occupancy.

When completed buildings fail to comply, reconstruction at great expense may be impractical. In these circumstances, the Green Building Compliance Official may grant a temporary certificate of use and occupancy in exchange for assurances that defects will be cured, balancing the interests of full enforcement and allowing a finished building to be used. Where the deviations from the submitted plans are reasonable, the Green Building Compliance Official has the power to determine whether the deviations from the plans must be fully corrected or may simply be mitigated. If the deviations must be fully corrected, the applicant is expected to fulfill the plans in the originally submitted documentation. If the deviations may be mitigated, the applicant must comply with other measures as determined by the Green Building Compliance Official, which could be in the form of LEED points, Energy Star features, or some other green building feature.

This process allows municipalities to avoid the situation of a completed building being unable to obtain a certificate of occupancy and thus remaining empty because it has not complied with the green building standards in the ordinance. Where compliance has not been achieved, a temporary certificate of use and occupancy can be obtained and as long as mitigation measures provided by the Green Building Compliance Official are completed, a permanent certificate of use and occupancy will be granted. Construction cannot begin until the applicant has demonstrated that it will be able to meet the applicable standards, and it is believed that there will always be some type of green measures that a building will be able to undertake to mitigate its shortfalls and thus no buildings will be left vacant for failing to reach the standards in the ordinance.

To promote consistency and transparency, the municipality may choose to require the Green Building Compliance Official to keep records of and publicly disclose details related to the granting of temporary certificates of occupancy. While not included in the text of the optional add-on, a municipality could also choose to include in the required disclosure the mitigation measures taken to cure noncompliance.

8. Exemptions

The provisions of this article apply to all covered buildings with the following exemptions.

A. Hardship or infeasibility. If an applicant believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this article, the applicant may apply for a partial exemption as set forth below. The burden is on the applicant to show hardship or infeasibility.

1. Factors to consider in determining whether hardship or infeasibility exist include, but are not limited to: availability of green building materials and technologies,
compatibility of green building requirements with other government requirements and building standards, and availability of markets for materials to be recycled.

2. "Hardship" means some verifiable level of difficulty or adversity arising from the factors identified in § 8(A)(1) or other circumstances beyond the control of the applicant, by which the applicant cannot reasonably comply with the requirements of this article.

3. "Infeasible" means the existence of verifiable obstacles arising from the factors identified in § 8(A)(1) or other circumstances beyond the control of the applicant which render the applicant incapable of complying with the requirements of this article.

4. Application. The applicant may apply for an exemption at the time of submission of the documentation required in § 6 of this article. The applicant shall indicate the maximum number of credits he or she believes is feasible for the building to obtain and the circumstances that make it a hardship or infeasible to fully comply with this article.

5. Granting of Exemption. If the Green Building Compliance Official determines that it is a hardship or infeasible for the applicant to meet the requirements of this article, he or she shall determine the maximum feasible number of credits reasonably achievable for the building. If an exemption is granted, the applicant shall be required to comply with this article in all other respects and shall be required to attain the number of credits determined to be achievable by the Green Building Compliance Official.

6. Denial of Exemption. If the Green Building Compliance Official determines that it is not a hardship or infeasible for the applicant to meet the requirements of this article, he or she shall so notify the applicant in writing with a statement of reasons for the denial.\(^{53}\)

B. Optional add-on: [Historic buildings. If an applicant believes that circumstances exist under which a historic building should not be required to meet the standards of this article to maintain historic integrity, he or she may apply for a partial exemption. The process for granting a partial exemption shall be the same as that in §§ 8(A)(4) – (6) above.]

C. Optional add-on: [Cost. If compliance with this article would cause the cost of construction of the covered building to increase by [25]%, the building is exempt from the requirements of this article.]

*Comment on § 8(A)*

\(^{53}\) This language is substantially derived from the Albany, CA, Brisbane, CA, Davis, CA, Napa, CA, and Huntington, NY green building ordinances.
Exemptions add flexibility to the compliance process. Applicants for whom compliance with the ordinance is infeasible or a hardship, as defined in §§ 8(A)(2) and (3), can apply for a partial exemption. If the Green Building Compliance Official agrees that compliance is a hardship or is infeasible, the building is subject to a revised standard. For example, if an applicant shows that it is infeasible for the building to attain LEED Silver (50 points) but the Green Building Compliance official determines that the building can attain 40 points, the applicant would be required to instead attain 40 points.

Comment on § 8(B)
If a municipality offers a partial exemption for historic buildings, a building’s status as a historic building is determined by the appropriate historic building authorities and not by the Green Building Compliance Official. Buildings regarded as historic by the proper authorities must still follow the procedures listed in § 8(A)(4) – (6) to receive an exemption, though historic status is a presumptive justification for an exemption. The Green Building Compliance Official can then mandate the number of LEED points or Energy Star Homes features determined to be achievable by the historic building.

Comment on § 8(C)
A municipality may choose to exempt buildings whose cost would dramatically increase due to compliance with the ordinance. The majority of enacted green building ordinances do not include an exemption for cost. Yet, some municipalities may wish to adopt a provision providing relief for exceptionally costly projects.

9. Exclusions

County, state, and federal facilities, special purpose unit of government facilities, buildings of municipalities other than the one enacting this article [., houses of worship][., and healthcare facilities] are excluded from the requirements of this article.

Comment on § 9
A municipality may fully exclude some buildings from regulation. State and federal facilities are excluded as municipalities do not have the power to enforce green building standards on these buildings.

Special purpose unit of government facilities are also excluded from the green building standards. These units of government can include school districts and fire districts, among other things, and there are legal uncertainties concerning whether a municipal green building ordinance can regulate buildings that are in the custody of other governmental units but within the borders of the municipality. Although some buildings of special purpose units of government can be regulated by the municipality, the court uses a balancing test to make this determination on an ad hoc basis. Thus the ordinance exempts buildings of special purpose units of government from the green building regulations to maintain simplicity and consistency in the ordinance.

Further legal analysis on this issue is available on the CCCL website. A municipality may specifically include one or more special purpose entities if it so chooses and is advised that it may do so.
With respect to schools, in all cities, towns, and villages in New York State except for the five most populous cities, school districts are considered special purpose units of government and have their own regulatory powers. In these jurisdictions, municipalities may not be able to enforce green building ordinances on school buildings built in the home municipality. In the five most populous cities in New York, the school districts are not special purpose units of government as they are run by the city and are part of the municipal government, thus the municipality can enforce a green building ordinance on school buildings in the municipality. Therefore, schools in the five most populous cities in New York would have to comply with the model ordinance if those cities adopted it, while schools in all other towns, villages, and cities would not.

Municipalities may also choose to exclude houses of worship or healthcare facilities for political and practical reasons. The Religious Land Use and Institutionalized Persons Act (RLUIPA) may present a problem for ordinances that treat religious buildings differently from other buildings. However, RLUIPA should not be relevant in relation to the model ordinance as the model ordinance, like a building or plumbing code, applies uniformly to all buildings. There is therefore no legal reason to exempt houses of worship from the ordinance but if the municipality chooses to do so for other reasons it can add houses of worship as an exemption.

USGBC has developed LEED for Healthcare and other specific rating systems for specific types of structures. This reflects the different ways these types of facilities use energy and other resources. Because LEED for Healthcare has not been implemented into many municipal ordinances, the model ordinance does not implement it and exempts healthcare facilities. However, a municipality may consider implementing these systems through the process in § 4(B) in lieu of excluding these types of buildings from regulation.

10. Appeals

Any person aggrieved may appeal in writing any decision or determination by the Green Building Compliance Official under this article including the granting or denial of an exemption or compliance with the article to the [appellate body]. Any appeal must be filed with the secretary of the [appellate body] not more than [30] days after the decision or determination by the Green Building Compliance Official is furnished to the applicant. The appeal shall state the alleged error or reason for the appeal. The [appellate body] shall review the decision or determination under the same standard of review the [appellate body] would generally use in its appellate capacity and may uphold, reverse or modify the decision or determination, or refer the matter back to the Green Building Compliance Official for such further action as may be directed by the [appellate body].

Comment on § 10

An appellate process is legally advisable, as described in the commentary on legal issues that is available on the CCCL website. The board of zoning appeals administers such processes in most municipal zoning codes; however, the municipality may choose a different body to administer the appellate process. The board of zoning appeals conducts review of the decisions.

---

55 This language is substantially derived from the Annapolis, MD and Brisbane, CA green building ordinances.
of the Green Building Compliance Official in accordance with state law and the municipal code. Generally, this means the board of zoning appeals will make the determination that they believe the Green Building Compliance Official should have made in the first place. ‘Any person aggrieved’ has standing to bring an appeal in front of the board of zoning appeals under New York State law.\(^\text{56}\)

11. Severability

If any subsection, subdivision, paragraph, sentence, clause or phrase of this article, or any part thereof, is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions or any part thereof.\(^\text{57}\)

12. Other Applicable Regulations

Notwithstanding anything in this article, nothing in this article obviates the need to comply with otherwise applicable building code requirements for building permits, temporary certificates of use and occupancy, final certificates of use and occupancy, fire, safety and electrical codes, and any other applicable land use or environmental requirements such as subdivision regulations, site plan review, or special use permit approval.

**Comment on § 12**

This section reinforces the notion that the green building ordinance is not meant to supplant or interfere in any way with current municipal building codes or other environmental, land use, or site plan approvals with which the applicant is required to comply. The model ordinance will work in conjunction with other building and land use laws already in place in the municipality as part of the building and land use approval process.

\(^\text{56}\) 2 N.Y. Zoning Law & Prac. § 28:03.

\(^\text{57}\) This language is substantially derived from the Albany, CA green building ordinance.
Comment on former Appendix A

In the previous version of the ordinance, Appendix A contained statutory language to implement a PACE, or property assessed clean energy, program using federal grant assistance or federal credit support. However, even though recently passed legislation in New York State authorized municipalities to create a PACE program, PACE has largely been put on hold by actions taken by Fannie Mae and Freddie Mac. Therefore, this appendix has been eliminated. However, if the program is revived, the relevant language will be added.

Appendix A: Intermunicipal Agreements

Intermunicipal agreements are allowed pursuant to Article 9, § 1 of the State Constitution and Article 5-G § 119-o of the General Municipal Law. Article 5-G provides broad authority for municipal corporations and districts to cooperate with each other in carrying out their responsibilities. A municipal corporation is defined to include any county outside the City of New York, a city, town, village, board of cooperative educational services, fire district, or school district. These intermunicipal agreements can help small municipalities share costs and officers thus saving money and work for the municipalities.

Under Article 5-G, municipal corporations and districts have the power to enter into, amend, cancel and terminate agreements for the performance among themselves, or one for the other, of their respective functions, powers, and duties on a cooperative or contract basis or for the provision of a joint service. These agreements may only extend to a maximum term of five years but may be renewed. Each participant in the agreement must have statutory authority, independent of Article 5-G, to perform the function that is the subject of the cooperation agreement.

In the context of the green building ordinance, municipalities may want to share resources through an intermunicipal agreement to share a Green Building Compliance Official or other enforcement or inspection officials that are necessary for the implementation and enforcement of the ordinance. In this way, municipalities can pool resources and green building knowledge without having to spend a large amount of money or time training an employee to be a green building specialist. The following two sample intermunicipal agreements show the form that such an agreement could take. The samples state that the officer being shared is the Green Building Compliance Official, but municipalities could specify any other officer of the municipality to be shared between them. The municipalities would need to specify what services will be provided and how payment will be calculated as these are not fully detailed in the sample agreements.

SAMPLE INTERMUNICIPAL AGREEMENT #1

THIS AGREEMENT is made as of the ___ day of _______, 201_ between the Town of ________, a municipal corporation located at [address], New York (“[Town #1]”), and the Town of ________, a municipal corporation located at [address], New York (“[Town #2]”).

Whereas, the [Green Building Compliance Official (“GBCO”)] is responsible for enforcing the green building ordinance and the [GBCO] and/or Building Department staff also receive applications and issue permits or certificates in connection with various green building and construction-related activities; and

Whereas, Town #1 currently has a fully staffed office for the purpose of undertaking the aforementioned green building enforcement duties; and

Whereas, it is in the interest of the taxpayers of the aforementioned Towns to share resources in the undertaking of such green building enforcement and inspection services; and

Whereas, Town #1 and Town #2 are authorized, pursuant to both Article 9, § 1 of the State Constitution and Article 5-G of the General Municipal Law to enter into intermunicipal agreements; and

Whereas, it is expected that assistance, in whatever form, will be reciprocal and proportionally equitable over a period of time, and that the exchange and sharing of office equipment and personnel will result in more cost effective work performance at manageable cost to either party; and

Whereas, flexibility in operating local governments and their green building enforcement programs is necessary to insure efficiency and maximum benefits; and

Whereas, general oversight by appropriate Town officials will be accomplished through monthly and annual log reports by the appropriate [GBCO] to the respective Town Boards.

Now, therefore, be it hereby agreed as follows:

1. Town #1 hereby contracts with Town #2 to provide services by Town #1 [GBCO] to Town #2.

2. The services to be provided are to be those set forth on Schedule A hereof.

3. In return for said services Town #2 shall reimburse Town #1 pursuant to the rates set forth on Schedule B hereof.

4. Town #2 hereby indemnifies and holds Town #1 harmless for any claim or liabilities arising against Town #1 from actions performed by the [GBCO] on behalf of Town #2.

5. Town #1 hereby indemnifies and holds Town #2 harmless for any claim or liabilities arising against Town #2 from actions performed by the [GBCO] on behalf of Town #1.

6. This Agreement shall expire one (1) year from the date hereof unless extended in writing by the parties hereto.
SAMPLE INTERMUNICIPAL AGREEMENT #2

THIS AGREEMENT, is made and entered into this [date] between the TOWN OF [TOWN 1], a municipal corporation of the State of New York [mailing address] ("[Town 1]"), the TOWN OF [TOWN 2], a municipal corporation of the State of New York [mailing address] ("[Town 2]"), and the TOWN OF [TOWN 3], a municipal corporation of the State of New York [mailing address] ("[Town 3]").

WITNESSETH:

WHEREAS, [Town 1], [Town 2] and [Town 3] have each enacted local green building ordinances which require the appointment of a [Green Building Compliance Official (“GBCO”)] to enforce the provisions of said ordinances, and

WHEREAS, the Town Boards of [Town 1], [Town 2] and [Town 3], pursuant to the provisions of General Municipal Law section 119-o, are desirous of joining together to share a duly qualified and trained [Green Building Compliance Official]

NOW, THEREFORE, IT IS HEREBY AGREED, by the Towns of [Town 1], [Town 2], and [Town 3] as follows:

1. [Town 1], [Town 2] and [Town 3] each agree to cooperate with each other in hiring and sharing a [GBCO] to implement and enforce their green building ordinances.

2. The services to be provided by the [GBCO] are those set forth in Schedule A hereof.

3. The payment for said services shall be provided as set forth in Schedule B hereof.

4. Each municipal corporation shall respond to any need and request for the [GBCO] as soon as able.

5. Each municipal corporation shall:
   (a) be responsible for injury to the [GBCO] providing cooperative services for the municipality if it is a workers’ compensation injury.
Center for Climate Change Law at Columbia Law School  
Model Municipal Green Building Ordinance  
Last updated October 6, 2010

(b) pay the [GBCO] for green building inspection and compliance services according to the payment schedule in Schedule B.
(c) be liable for negligence of the [GBCO] occurring in the performance of his/her duties for the municipal corporation.

6. [Town 1], [Town 2] and [Town 3] do each hereby agree to obtain and thereafter continue to keep in full force and effect general liability insurance, and public officers’ liability insurance relative to this Agreement during all phases of the performance of the various provisions to be performed herein.

7. The term of this Agreement shall be from the date of acceptance through to [date], and shall be renewed automatically for additional terms of one (1) year each, unless either party shall notify the other, no later than sixty (60) days prior to the end of the term, of its election not to renew.

8. Should any dispute arise between the parties respecting the terms of this Agreement, the disputed matter shall be settled by arbitration, in accordance with the laws of the State of New York, by three arbitrators, one of whom shall be selected by each of the parties hereto, and the third by the two arbitrators so selected. If the selection of any arbitrator shall not be made within 15 days of the time that either party shall notify the other of the name of the arbitrator selected by the notifying party, then the arbitrator or arbitrators not selected shall be appointed in the manner provided by the laws of the State of New York.

9. This Agreement constitutes the complete understanding of the parties. No modification of any provisions thereof shall be valid unless in writing and signed by both parties.

10. [Town 1] represents and warrants that the Supervisor of the Town of [Town 1] has executed this Agreement pursuant to a Resolution adopted by the [Town 1] Town Board at a meeting thereof held on____________, 201_. [Name], Supervisor whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 1].

11. [Town 2] represents and warrants that the Supervisor of the Town of [Town 2] has executed this Agreement pursuant to a Resolution adopted by the [Town 2] Town Board at a meeting thereof held on____________, 201_. [Name], Supervisor, whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 2].

12. [Town 3] represents and warrants that the Supervisor of the Town of [Town 3] has executed this Agreement pursuant to a Resolution adopted by the [Town 3] Town Board at a meeting thereof held on____________, 201_. [Name] Supervisor, whose signature appears hereafter, is duly authorized and empowered to execute this instrument and enter into such an agreement on behalf of the Town of [Town 3].
13. This Agreement shall be executed in duplicate. At least one copy shall be permanently filed, after execution thereof, in the offices of the Town of [Town 1] Town Clerk, the Town of [Town 2] Town Clerk and the Town of [Town 3] Town Clerk.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement as of the date first above written.

[Add signatures and acknowledgment]
Appendix B: SEQRA review

The New York State Environmental Quality Review Act (SEQRA) governs the discretionary decisions of state and local governments, including municipal governing bodies. Thus the Model Green Building Ordinance would be subject to SEQRA. It does not fit the description of any of the types of actions that are classified under SEQRA as Type I (meaning actions that are more likely than others to require an environmental impact statement (EIS)) or as Type II (meaning that it is of the sort that never requires an EIS). Therefore it would be classified as an “unlisted” action.

Under DEC’s regulations, unlisted actions may be analyzed under the Short Environmental Assessment Form (EAF). A completed sample Short EAF for the model ordinance is available on the CCCL website. The Short EAF form can be found as a pdf document here: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/shorteaf.pdf. As the Short EAF does not identify any impacts or conditions that could require an EIS, the CCCL website also includes a completed sample Negative Declaration -- a document concluding that no EIS is needed. The Negative Declaration form can be found as a pdf document here: http://www.dec.ny.gov/docs/permits_ej_operations_pdf/negdec.pdf.

Each municipality should carefully review these model forms before acting on them, in order to ensure that they are accurate with respect to the municipality’s own circumstances, and make any appropriate changes. If the municipality decides to issue a Negative Declaration, issuance would complete the SEQRA process for a proposed action. The resolution declaring the municipal governing body to be the lead agency, the Short EAF, and the Negative Declaration may all be adopted at the same time, which may be simultaneously with or prior to the ordinance itself. For unlisted actions involving only one agency, no advance public notices or hearings are required by state law.
Appendix C: Changing the green building rating system

Under § 4(B) of the model ordinance, a municipality may change either or both of the green building rating systems used in the ordinance from LEED and Energy Star to another green building rating system. If a municipality chooses to do this, there are multiple sections of the model ordinance that need to be changed to reflect the new green building rating system that is being used. Below is a comprehensive list of the sections of the model ordinance that mention LEED or Energy Star and the changes that are necessary to make to them if a municipality adopts a different green building rating system.

If LEED is changed to a different green building rating system the following sections of the model ordinance will need to be amended:

§ 3: Remove the definitions for Leadership in Energy and Environmental Design (LEED) Standards, LEED Accredited Professional (AP), and LEED checklist. The definitions for Rating System and Version will also need to be changed or removed to reflect the new green building rating system. New definitions will need to be added to reflect the new green building rating system that is in place.

§ 4(A): Change the names of the green building rating systems that are adopted in the ordinance to reflect the new green building rating system or systems.

§ 4(B): Change the name of the green building rating system.

§ 5(A): Change the name of the standard required under the new green building rating system.

§ 5(B): Change the name of the green building rating system or delete if no longer applicable.

§ 5(C) and 5(D) (optional provisions): If adopted, change to the new green building rating system or delete if no longer applicable.

§ 6 (A)(1): (a) Change LEED checklist and LEED points, (b) Change LEED points, (e) Change LEED points to the new green building rating system.

§ 6(A)(5): Change LEED points to the new green building rating system.

§ 6(B)(1)(a) (optional provision): If adopted, change LEED EB:OM checklist and LEED EB:OM points to the new green building rating system.

§ 7(B): Change LEED points to the new green building rating system.

If Energy Star is changed to another green building rating system the following sections of the model ordinance will need to be amended:

§ 3: Remove the definitions for Energy Star Homes Rating System, Energy Star Home Report, HERS, Home Energy Rating System (HERS) Rater, and Home Energy Rating System (HERS) Index. New definitions will need to be added to reflect the new green building rating system that is in place.

§ 4(A): Change the names of the green building rating systems that are adopted in the ordinance to reflect the new green building rating system or systems.

§ 4(B): Change the name of the green building rating system.

§ 5(A): Change the name of the standard required under the new green building rating system.
§ 5(B): Change the name of the green building rating system or delete if no longer applicable.

§ 5(C) and 5(D) (optional provisions): If adopted, change to the new green building rating system or delete if no longer applicable.

§ 6(A)(1)(a): Change Energy Star home report conducted by third party HERS rater to the new green building rating system.

§ 6(A)(5): Change Energy Star features to the new green building rating system.

§ 7(B): Change Energy Star features to the new green building rating system.

§ 7(C)(1): Change Energy Star Homes to the new green building rating system or delete if no longer applicable.