

CITY OF NEWTON

IN CITY COUNCIL

ORDINANCE NO. C-28

May 1, 2023

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEWTON AS FOLLOWS:

That the Revised Ordinances of Newton, Massachusetts, 2017, as amended, be and are hereby further amended with respect to **Chapter 30 ZONING** as follows:

1. **INSERT** after subsection D of **Sec. 5.13.1. Intent and Purpose** a new subsection E as follows:
 - E. Encouraging sustainable material selection and the responsible reuse of existing structures.
2. **INSERT** after subsection F of **Sec. 5.13.2. Definitions** new subsections G, H, and I as follows:
 - G. **Embodied Carbon.** The sum of greenhouse gas emissions associated with the building materials throughout multiple stages of the materials' lifecycle. Greenhouse gas emissions are calculated relative to the impact of one molecule of carbon dioxide and reported as carbon dioxide equivalent (CO₂e) with units of mass. In Life Cycle Assessment reports and Environmental Product Declarations (EPDs), embodied carbon is equivalent to Global Warming Potential (GWP).
 - H. **Whole Building Life- Cycle Assessment.** A method for estimating the potential environmental impacts of a whole building throughout its life cycle.
 - I. **Environmental Product Declaration (EPD).** A standardized report of the environmental impacts of a product, process, or service based on a life-cycle assessment.
3. **DELETE** subsection D of **Sec. 5.13.4. Sustainable Development Requirements** and **INSERT** in place thereof a new subsection D as follows:
 - D. **Embodied Carbon** A green building project must provide an analysis that estimates the embodied carbon of a project. The type of analysis is determined based on gross square footage of the green building project:[reserved]
 1. For projects under 50,000 sf, only structural materials must be evaluated using Life Cycle Analysis tools or Environmental Product Declarations.
 2. For projects over 50,000 sf, the design team must use a Whole Building Life-Cycle Assessment tool to estimate the embodied carbon of both structural and enclosure materials, and the CO₂e per square foot of the project compared to an average CO₂e intensity (kg CO₂e/unit floor area) for projects of comparable use, and provide explanation why the building materials and systems were chosen. This requirement may be met by using one of the following methods:

- a. LEED Credit for Whole Building Life-Cycle Assessment
 - b. Green Building Initiative's (GBI) Green Globes for New Construction (NC) Credit for Whole Building Life-Cycle Assessment
 - c. International Living Future Institute's (ILFI) Zero Carbon Standard.
 - d. Another method approved by the Planning Director.
3. Projects where at least 50% of the floor area comprises re-use of a pre-existing structure are not subject to these provisions.
4. **DELETE** subsection A of **Sec. 5.13.5. Authorized Green Building Rating Programs** in its entirety and **RELETTER** the remaining subsections accordingly.
5. **DELETE** the word "determined" where it appears in subsection A of **Sec. 5.13.5. Authorized Green Building Rating Programs** and insert in place thereof the word "approved".
6. **DELETE** subsection A.3. of **Sec. 5.13.6. Sustainable Development Review Procedures** and **INSERT** in place thereof a new subsection A.3. as follows:
 3. Sustainability Narrative. A written description of the energy efficiency, renewable energy, and other technical and design elements of the green building project that serve to minimize energy use, make use of renewable energy sources, and otherwise demonstrate how close the project is to achieving net zero energy use status. This narrative should include the following, referencing how the requirements listed in Section 5.13.4 are achieved:
 - A. Descriptions of building envelope performance, anticipated energy loads, mechanical systems, and site planning strategies;
 - B. Description of on-site and off-site renewable energy systems;
 - C. Description of how the building could be made to achieve net zero status in the future;
 - D. Specified commitment to electric vehicle charging infrastructure; and
 - E. Specified procedure that will be used to analyze embodied carbon.
7. **DELETE** the words "he/she" where they appear in subsection A.5. of **Sec. 5.13.6. Sustainable Development Review Procedures** and insert in place thereof the words "the Professional".
8. **DELETE** the word "their" where it appears in subsection A.5. of **Sec. 5.13.6. Sustainable Development Review Procedures** and **INSERT** in place thereof the words "the Professional's".

9. **INSERT** after subsection B.2. of **Sec. 5.13.6. Sustainable Development Review Procedures** a new subsection B.3. as follows:
3. Embodied carbon analysis as required by section 5.13.4.D and affidavit signed by a Registered Design Professional or Green Building Professional confirming the embodied carbon analysis follows the requirements of 5.13.4.D.
10. **DELETE** the words "he/she" where they first appear in subsection C.3. of **Sec. 5.13.6. Sustainable Development Review Procedures** and **INSERT** in place thereof the words "the Professional", and **DELETE** the words "he/she" in the second place they appear in said subsection C.3. and **INSERT** the words "the Professional's".

Approved as to legal form and character:

Alissa O. Giuliani
Alissa O. Giuliani
City Solicitor

Under Suspension of Rules
Readings Waived and Approved
22 Yeas, 0 Nays, 2 Absent (Councilors Markiewicz and Norton)

Cassie Moore
(SGD) Carol Moore

Actly City Clerk

Ruthanne Fuller
(SGD) RUTHANNE FULLER

Mayor
Date: 5/25/2023