

AN ORDINANCE AMENDING ENERGY CONSERVATION IN DESIGN AND CONSTRUCTION OF NEW AND RENOVATED TOWN BUILDINGS IN CHAPTER 5, ARTICLE VII, OF THE TOWN CODE OF ORDINANCES (2018-06-20/O-8)

WHEREAS, Chapter 5, Article VII, Energy Conservation in Design and Construction of New and Renovated Town Buildings establishes green building standards for new and renovated Town buildings; and

WHEREAS, the Environmental Stewardship Advisory Board petitioned the Council requesting that all architecture and engineering firms hired by the Town as consultants or as contractors to deliver building renovations and new building designs have adopted the Architecture 2030 Challenge, and that all future Town-owned building renovations and new construction meet the Architecture 2030 Challenge; and

WHEREAS, Architecture 2030 aims to slow the growth rate of greenhouse gas emissions and, thereby, keep the global average temperature below 2° C above pre-industrial levels by establishing a series of ramping fossil fuel reduction targets that end in a goal of carbon-neutral building design by 2030; and

WHEREAS, Town Council finds the Board's petition and the amendments proposed below to be consistent with the intent of the Energy Conservation in Design and Construction of New and Renovated Town Buildings.

NOW, THEREFORE, BE IT ORDAINED by the Council of the Town of Chapel Hill that Article VII, Chapter 5 of Town Code of Ordinances is amended to read as follows:

**"ARTICLE VII. ENERGY CONSERVATION
IN DESIGN AND CONSTRUCTION OF
NEW AND RENOVATED TOWN BUILDINGS**

Sec. 5-121. – Intent.

The council's intent is to take steps so that buildings built or substantially renovated by the Town of Chapel Hill are constructed in the most environmentally sound way.

The Comprehensive Plan for the Town of Chapel Hill says that, "The Town shall encourage site planning, landscaping, and structure design which maximizes the potential for energy conservation by reducing the demand for artificial heating, cooling, ventilation and lighting, and facilitating the use of solar and other energy resources."

The council's intent is to provide the citizens and employees of the town with new and renovated buildings that will reduce the energy requirements of town buildings, give the optimum comfort, ensure the durability of investments for the taxpayer, consider the health of building occupants and provide the greatest awareness possible of the environmental impacts of what we do.

Sec. 5-122. - Energy conservation goals in building design, is amended to read as follows:

Any new or expanded building constructed by and for the town and meeting the applicability criteria in section 5-123 shall employ the Leadership in Energy and Environmental Design (LEED) Green Building Rating System **and the Architecture 2030 fossil fuel energy reduction targets from The 2030 Challenge** throughout their design, construction, and operation unless the town council determines that such certification **and or level of fossil fuel energy reduction** is not in keeping with the use or purpose of the building or is otherwise inappropriate. The LEED Green Building Rating System refers to the most recent version of the Leadership in Energy and Environmental Design (LEED) Commercial Green Building Rating System, or other related LEED Rating System, approved by the U.S. Green Building Council. **The Architecture 2030 fossil fuel energy reduction targets refer to those established as part of The 2030 Challenge.**

Each town building project which meets the applicability criteria of this ordinance shall achieve at least the LEED silver level of certification **and be designed to meet the applicable Architecture 2030 fossil fuel energy reduction target from The 2030 Challenge.** unless the council grants a waiver based on waiver criteria specified in section 5-124 of this article.

The town shall refer to the most current applicable version of the LEED certification system in existence. After registering with the U.S. Green Building Council at the design stage of the project as is required, the town may adhere to that existing version until completion of the project, regardless of any new LEED version that may be released at a later time.

Sec. 5-123. – Applicability, is amended to read as follows:

This article applies to new buildings constructed by and for the town and additions to existing town buildings whenever the gross occupied area of the new building construction is equal to or greater than five thousand (5,000) square feet. **Renovated buildings with additions of five thousand (5,000) square feet of gross occupied area shall be designed to achieve no less than half of the applicable Architecture 2030 fossil fuel reduction target from The 2030 Challenge.** The council may require new town buildings and building additions of less than five thousand (5,000) square feet of gross occupied area to be built to achieve LEED silver certification **and meet the applicable Architecture 2030 fossil fuel energy reduction target from The 2030 Challenge.**

This article does not apply to projects involving the retrofit and renovation of the town's current buildings, or to the renovation of existing or construction of new public housing units. The council encourages the application of LEED principles **and the applicable Architecture 2030 fossil fuel energy reduction targets from The 2030 Challenge** for these projects.

Sec. 5-124. – Waiver, is amended to read as follows:

At any time during the design and construction process, the council may waive the LEED silver requirement based on a determination by a LEED professional on the project design team that the silver standard could not be met without adding more than seven (7) percent to the project costs.

At any time during the design and construction process, the council may waive the Architecture 2030 fossil fuel energy reduction targets from The 2030 Challenge based on a determination by an architect on the project design team that the applicable fossil fuel target could not be met without adding more than seven (7) percent to the project costs.

Sec. 5-125. – Qualification of architects, is amended to read as follows:

Design and project management teams for buildings meeting the criteria of this ordinance shall include a LEED-accredited architect or engineer who is involved directly in the day-to-day management of the project. **Such teams shall also include an architect from an organization or firm that has adopted The 2030 Challenge.**

The town will carry out its commitment on this policy by assuring that town personnel who administer projects are fully understanding of green building principles and will encourage the selected design teams to maintain and employ these principles through every phase. Criteria for choosing designers, architects, construction managers, and consulting teams shall include demonstrated knowledge of green building practices in their specific fields, and as applicable, a familiarity and experience with life cycle cost analysis, **and LEED ratings, and designing buildings that meet the Architecture 2030 fossil fuel energy reduction targets of The 2030 Challenge.**

Sec. 5-126. – Energy performance monitoring and reporting, is amended to read as follows:

For new construction and building additions required to achieve LEED certification, **and meet the Architecture 2030 fossil fuel energy reduction targets of The 2030 Challenge** under this ordinance, the town shall require either the project architect or engineer to monitor the energy performance of the building and assist the staff in optimizing energy use of the building during the first year.

The contract for project design services shall include the requirement to produce a commissioning plan as part of the construction documents. The commissioning plan shall include provisions for initial commissioning upon completion of the construction project and provisions for a commissioning evaluation to take place after the building has a twelve-month utility billing history. The twelve-month commissioning evaluation will include testing and evaluation of all energy consuming building systems to verify that they are performing as designed, that all required operations and maintenance training has been completed and that the building is being operated and maintained in accordance with the instruction of the designer and equipment manufacturers. The town manager may either require these commissioning services of the project architect or the project engineer.

The town manager's annual report to council will include a section reporting the energy consumption performance of each new town building or town building addition required to comply with the provisions of this article.

Sec. 5-127. – Definitions, is amended to read as follows:

Leadership in Energy and Environmental Design (LEED) Commercial Green Building Rating System. "LEED Green Building Rating System" means the most recent version of the Leadership in Energy and Environmental Design (LEED) Commercial Green Building Rating System, or other related LEED Rating System, approved by the U.S. Green Building Council.

LEED silver level of certification. The project must earn a predetermined number of points from a detailed checklist of environmental features to achieve a LEED silver or other rating as set by the U.S. Green Building Council.

Architecture 2030 Challenge. "Architecture 2030 fossil fuel energy reduction targets" means a percentage reduction below the 2003 regional (or country) average/median for that building type as defined by the 2030 Challenge U.S. Target Tables.

Fossil fuel energy reduction target percentages. The fossil fuel energy reduction target percentages of the 2030 Challenge are as follows and may be met through the implementation of innovative sustainable design strategies, generating on-site renewable power and/or purchasing (20%) renewable energy.

Before 2020 – 70%
2020 – 80%
2025 – 90%
2030 – Carbon Neutral*

***Using no fossil fuel GHG-emitting energy to operate"**

SECTION 2

This ordinance shall be effective upon enactment.

This the 20th day of June, 2018.