



CITY OF CAMBRIDGE, MASSACHUSETTS

# PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

Date:	July 27, 2021 (CORRECTED)
Subject:	Article 22.000 Emissions Accounting Zoning Petition
Recommendation:	The Planning Board makes the following report with no positive or negative recommendation.

To the Honorable, the City Council,

On June 29, 2021, the Planning Board (the “Board”) held a public hearing to discuss the City Council Zoning Petition to amend Article 22.000 of the Zoning Ordinance to create requirements related to Emissions Accounting (the “Petition”). City Councillors Dennis Carlone and Quinton Zondervan, with other community representatives, presented the proposal. Staff from the City’s Community Development Department (CDD) also attended the hearing and answered questions from the Board.

The Petition would require most Green Building Projects, with the exception of residential projects that include affordable units, to provide an accounting of the emissions generated by construction to CDD as a condition of receiving an occupancy permit. The submission would include information about expected embodied carbon, annual emissions, lifetime expected emissions, and total emissions. The Petition identifies specific types of emissions that shall and shall not be included in each of these calculations. The amendments would also require applicants to present a payment schedule for how to zero out the total emissions of the building, using a social cost of carbon formula approved by CDD, with the outstanding balance acting as a lien on the property in case it is sold, and a specified list of acceptable offsets.

Following presentation, public comment, and discussion among Board members, the Planning Board voted to transmit a report with comments to the City Council but no recommendation. Board members expressed general support for the goals of the Petition, but raised a number of concerns related to the administration and enforcement of the Petition that could make it impractical. Board members were not convinced that the goals of the Petition would be achieved and suggested that further discussion was needed to create a more effective proposal.

The Planning Board voted to transmit a summary of its discussion, provided below.

## Scope of Petition

Some Board members questioned whether the Petition attempted to address too many different issues and encompass too many different concepts that perhaps should be studied more carefully and advanced as separate initiatives. Some Board members expressed confusion about whether

the purpose of the Petition was to incentivize reductions in greenhouse gas emissions or to raise funding for job programs, since it is not clear how much funding would be raised compared to what the funding needs would be, and the funding would be more limited if buildings reduce their emissions. Other Board members expressed the view that building a workforce to address the issues of climate change is something that will need to be addressed at a regional level.

Board members also noted that the procedures laid out in the Petition are completely different from the procedures in the current Green Building Requirements, and some concepts in the Petition may not be within the scope of zoning at all. Some Board members commented that zoning standards ought to be applied earlier in the design process of a building (as with the current Green Building Requirements) rather than just before or after a project receives an occupancy permit. Other aspects of the Petition, such as funding for job programs, may need to be addressed through separate ordinances or other policy tools. Board members suggested that the City Council consult with the City's Law Department to determine which policies can be pursued through zoning and which policies require other approaches.

Board members also pointed out that some aspects of the Petition affect topics that are addressed in the City's Net Zero Action Plan. Although the Petition identifies some topics that have not been contemplated until recently (including embodied energy, discussed below), some Board members expressed concerns about circumventing the process laid out in that plan.

#### Clarity of Petition

Board members found the language of the Petition difficult to understand, pointing out that while it refers to "Emissions Accounting" and a "payment schedule," it does not explicitly state that the developer has to make a specific payment or how the payment is made. The method of calculating the payment is also not clearly explained, with many of the substantive details delegated to CDD staff. Given the complexity of the analysis, Board members questioned whether so many aspects of the requirement can be delegated to CDD staff rather than being spelled out in the Zoning Ordinance. If any new requirements are adopted, Board members emphasized the need for clarity about exactly what will be required and how the requirements will be enforced.

#### Embodied Energy

Several Board members were supportive of the idea of considering "embodied energy" or "embodied carbon emissions" – referring to the energy consumed and greenhouse gases emitted as a result of the production and transport of building materials – as part of the environmental performance of buildings. Board members cited increasing awareness in recent years of the environmental impacts of embodied energy, particularly in the production of steel, concrete, aluminum, and glass. Some Board members asked that more detailed information about the embodied energy of various types of materials be provided to fully understand the impacts before new requirements are imposed, including materials that might have other environmental benefits such as solar panels and insulation. Some Board members believed that this was a topic area that could be advanced more quickly with more focused study.

Applicability

Several Board members questioned why additional Green Building Requirements should not apply to most residential buildings, since they are also subject to the same development review standards and given the City's plans to accommodate more housing construction in the future. Board members also noted that in meeting the City's greenhouse gas emissions goals, the existing housing stock will need to be addressed, and it would be helpful to know more about cumulative citywide greenhouse gas emissions resulting from both new buildings (which are subject to more stringent standards) and existing buildings.

Respectfully submitted for the Planning Board,

*Catherine Preston Connolly*

Catherine Preston Connolly, Chair.