

**Climate Resilience Zoning Task Force
City of Cambridge, Massachusetts
Meeting #10 Summary
November 6, 2019
City Hall Annex**

Project and facilitation team members present

1. Jeff Roberts, Director of Zoning and Development, City of Cambridge
2. Sarah Scott, Associate Zoning Planner, City of Cambridge
3. Elizabeth Cooper, Consensus Building Institute facilitator
4. Angel Suero, Consensus Building Institute
5. Nathalie Beauvais, Kleinfelder
6. Indrani Ghosh, Weston & Sampson

Next steps

- The next Task Force meeting will take place on November 21 at the Citywide Senior Center and will focus on the potential zoning changes to address heat issues.
- The City will provide Task Force members with an updated work plan and schedule, including likely additional meetings in early 2020.

Meeting overview

The meeting focused on eliciting Task Force feedback on a detailed table of potential changes to specific aspects of the City's Zoning Ordinance, categorized under 1) base zoning provisions, 2) citywide review zoning provisions, and 3) area-specific zoning provisions. Task Force members commented on the approaches outlined in the table and gave recommendations to City staff for drafting zoning changes. This discussion focused on strategies to address flooding. The November 21 meeting will focus on heat-impact-related strategies. Meeting materials are available online:

<https://www.cambridgema.gov/CDD/Projects/Zoning/climateresiliencezoning>.

Task Force member comments and discussion are summarized below. *Occasional City staff responses and clarifications are noted in italics.*

Flooding, basements, and height

Potential changes to basement exemption from GFA requirements

- Members in general suggested more targeted approaches to basement rules, focusing on human safety.
 - Could the basement GFA exemption be changed or removed only in areas where the FloodViewer indicates that buildings are at risk of flooding? (However, it was noted that basement flooding can occur without above-grade flooding, and so other standards may be needed to account for groundwater flooding.)
 - Could qualifying criteria for being able to take advantage of the exemption be added (i.e. building cannot be in a flood-prone area)?
 - Could rules about use be changed or added, e.g. to allow storage but not living space in at-risk basements?

- Three zones could be defined: one where the GFA exemption for basements remains in effect because basement flooding is not a high risk; one where the exemption is removed to disincentivize expansion, because the risk is higher; and one where property owners need to communicate with the City to establish what is possible and safe.
- FloodViewer would be a preferable standard to the FEMA flood maps because it accounts for projected flood conditions. However, since there is nuance in determining risk, a process for contesting the FloodViewer should be established if it becomes the standard for this exemption. Also need legal advice on whether a standard can be set by dynamic criteria.
- Removing incentives for basement uses (i.e. through removing the basement GFA exemption) could have an energy efficiency co-benefit, since basements tend to be energy sinks.
- Limiting basement usability can pose a challenge for residential and commercial buildings that may be required to bring mechanical equipment out of basements, reducing usable space at grade and above grade.
- The current GFA exemption has the benefit of reduced ambiguity and closed loopholes, as compared to the previous regime of basement codes. Concern that illegal basement use will return if rules are changed.
- The intent of making it easier to build in basements through the GFA exemption was to increase affordable housing. Removing that exemption and the incentive it provides could impact the housing supply.

Potential changes to height requirements

Addressing the depth/height relationship and incentivizing prudent elevation to protect against flooding

- Height limits can create incentives to build to depth, which can have flooding risk consequences.
 - A blanket limit on depth would not be desirable, because factors such as use, topography, flood risk, flood mitigation features, and others are not suited for a one-size-fits-all approach.
- Additional height could be offered to “make up” for lost space if property owners elevate buildings to protect against flooding risk. Additional height could be offered to equal the amount of elevation done to protect against flooding (up to the level the City considers a useful elevation for flood protection.) There was preliminary agreement among the Task Force that this equivalent allowance would be a good idea.
 - Height could be measured from the flood elevation, rather than from grade.
 - This would be particularly valuable where a building’s roof would have to be totally reconfigured to stay within height limits after elevating. For structures for which no roof modification would be needed, or where the technical hurdles are not so high or costly, might they not need an additional height allowance? I.e. the allowance could differ depending on whether the structure was new, being renovated, or being rebuilt.
- Elevating buildings, if not done with other flood mitigation measures, can have the unintended consequence of increasing the risk of flooding for neighbors. Elevation alone should not be incentivized to the point that other measures that are more protective beyond an individual building are de-prioritized.

Using height as an incentive/bonus

- A height “bonus” could be offered as an incentive to adopt features that the City considers desirable.
- What would be the reason not to offer this incentive for something that is deemed valuable?
 - *Zoning incentives are requirements you do not impose – at some point you may run out of incentives. Also, incentive use must be weighed among competing priorities.*
- Allowing additional height could have other consequences:
 - Offering additional height could incentivize increased density, which may or may not be desired.
 - Tree canopy might be compromised.
 - Inconsistent elevation could lead to extreme variation in building height.
- Could exemptions to height and roof codes be made to facilitate the installation of green roofs? Roofs count as floor area in some cases, but we may want to reexamine these cases.
- What else can be offered as an incentive besides additional height? Incentives tend to be focused on increasing opportunity for development.
 - Because zoning governs development, incentives tend to relate to develop-ability.

Project review criteria

Codifying and clarifying expectations

- There is a benefit to codifying a process and standards for review that are performance-based, site-specific, and/or flexible. Codification is critical to setting expectations and giving the City leverage.
- More clarity on the criteria for project review needs to be communicated. Doing so earlier in the process would be helpful before projects are started so expectations are clear.
- The flexibility of the current planning board process has benefits. The board considers all the factors, including climate resilience. Too much detail in the code would limit the room that the board has to adjust appropriately to different contexts.
- The planning board relies on professional expertise of City staff. The process could make explicit that applicants are required to present their plans to and potentially get sign-off from staff, including those outside of CDD.
- Expectations should be made more explicit, but requirements should be as performance-based as possible to allow more flexibility.
- Criteria are important, but a checklist that doesn’t substantively improve the project should be avoided. The Task Force is generally supportive of establishing a requirement for applicants to submit a “resilience narrative” in which they explain the resilience approaches they have chosen and why, discuss how the various approaches fit together, and demonstrate that they have taken the risks and effects of development decisions into consideration. This narrative would be helpful for Planning Board review and would also increase transparency for those interested in the process.
 - Part of developing this narrative could be the requirement for a resilience study, similar to how developers are required to perform a traffic study and to examine other similar projects before making traffic mitigation proposals. Could the Parking and Transportation Demand Management ordinance serve as a model?

Incenting versus requiring approaches

- Should new development have incentives for adopting resilient approaches, or should these just be required?
 - New developments should have access to incentives
 - Incentives should be used more for existing structures where changes need to be incentivized to occur. New development should be required to build to the levels needed.

On whether changes should focus on larger projects or be deployed more broadly across the city

- As projects increase in size, the potential risk to safety is likely higher, and thus requirements for risk analysis and risk-based decision-making should be higher.
- Incentives are often not relevant to small-scale development, but incentives should be offered even to smaller projects
 - Both higher, tougher requirements and incentives should be considered across the board, from small to large-scale development.
- Need more conversation on urban design guidelines, especially as they relate to small, retail businesses

Flood Plain Overlay District

- Current regulations are more of a formality, don't produce much of an environmental benefit
- Overlay mostly duplicates FEMA standards

There were no comments from the public.

The meeting was adjourned at 8 PM.