

Climate Resilience Zoning Task Force
City of Cambridge, Massachusetts
Meeting #19 DRAFT Summary
April 1, 2021

Task Force Members Present

1. Jason Alves, East Cambridge Business Association
2. Louis Bacci, Laborers Local 151/East Cambridge/Planning Board
3. John Bolduc, Environmental Planner
4. Doug Brown, West Cambridge Resident
5. Tom Chase, Energy & Resilience Consultant, New Ecology
6. Ted Cohen, North Cambridge/Planning Board
7. Nancy Donohue, Cambridge Chamber of Commerce
8. Iram Farooq, Assistant City Manager for Community Development
9. Brian Goldberg, MIT Office of Sustainability
10. Mark Johnson, Divco West
11. Tom Lucey, Harvard University
12. Rick Malmstrom, Alexandria
13. Lauren Miller, Climate Consultant, CDM Smith
14. Mike Nakagawa, North Cambridge Resident
15. Jim Newman, Resilience Consultant, Linnaean Solutions
16. Craig Nicholson, Just-a-Start
17. Mike Owu, MITIMCo
18. Kathy Watkins, City Engineer/Assistant Commissioner for Public Works

Project Staff 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. Eric Kramer, Reed Hilderbrand
4. Elizabeth Cooper, Facilitator, Consensus Building Institute
5. Mariana Rivera-Torres, Facilitation team, Consensus Building Institute

Meeting Materials

For more details of the discussion summarized below, see the meeting materials available on the CRZTF webpage: <https://www.cambridgema.gov/CDD/Projects/Zoning/climateresiliencezoning>.

Meeting Overview

The City of Cambridge's Climate Resilience Zoning Task Force (CRZTF) held its nineteenth meeting on April 1, 2021. The facilitator and staff from the City's Community Development Department (CDD) reviewed the timeline and process for completing the Task Force's work. The goal of the meetings was to wrap up discussions regarding what recommendations would move forward with consensus support in the Task Force's package of zoning changes. Discussions focused on

the Cool Factor and recommendations regarding cooling in open spaces as well as parking lots. CDD staff provided an overview of next steps as described above. The meeting had a period of public comment at the end.

This meeting was conducted via Zoom webinar as a result of Covid-19 restrictions on in-person meetings. Below is a summary of key themes and next steps discussed at the meeting. This summary is not intended to be a meeting transcript. Rather, it focuses on the main points covered during the Task Force's discussions.

Meeting Summary

Welcome and Housekeeping

Jeff Roberts, Director of Zoning and Development at the City of Cambridge, welcomed Task Force members and public participants to the meeting and recapped the online public meeting guidelines. Elizabeth Cooper, facilitator from the Consensus Building Institute (CBI), reviewed the meeting agenda and objectives. The group also reviewed and approved the past meeting summary (Meeting 18), available on the CRZTF webpage.

City Staff shared with the Task Force that the Ordinance Committee of City Council recently held a hearing on a citizen petition to require green roofs on new development over 25,000 square feet and voted to forward the petition to the full City Council with a positive recommendation. The same petition had been reviewed by the Planning Board, which issued a negative recommendation. If the ordinance is adopted by the City Council, City staff will work to make sure that any zoning amendments that stem from the Task Force's recommendations will complement the new requirements.

Cool Factor

Kathy Watkins, City Engineer/Assistant Commissioner for Public Works, and Eric Kramer, Principal and Partner at Reed Hilderbrand, provided an overview presentation related to the Cool Factor [[Access Slides Here](#)].

Goal: The Cambridge Cool Factor introduces performance-driven standards that contribute to public realm cooling, the mitigation of heat island effects, and a greener Cambridge.

Origin: The Cool Factor emerged from the Brown, et al. zoning petition, the Cambridge Resilience Zoning Task Force (CRZTF) goals and objectives, and existing City standards and requirements. The team evaluated greening approaches employed in other cities and locations to develop a strategy that would be effective, performance-driven, equitable, flexible, scalable, and leading to cooling and open space benefits across the City. The Cool Factor serves as a complement to prescriptive strategies related to stormwater management, flooding, and other issues, and provides additional credits for green strategies.

Testing and Fine Tuning the Cool Factor: Eric Kramer reviewed the process the Task Force, staff, and consultants have followed to revise, test, and improve the Cool Factor in response to Task Force feedback.

- **Flexible and Scalable:** Added more options, including green walls and shade structures. The Cool Factor is differentiated by zoning district and can be met in multiple ways.
- **Impactful:** Increased minimums and tested using real life projects to ensure improvement. If over time, it becomes easier to meet credits, the score can change.
- **Equitable:** Confirmed scores could be achieved on small lots.
- **Enhances Public Realm:** Increased the value of multiplier by the public realm.
- **Values Green over Gray:** Reduced the value of paving and hard elements to favor green strategies. As density increases, lots are pushed towards greener strategies (e.g., preserving canopy trees, planting trees).

Testing Consensus: Cool Factor Calculation

The Task Force discussed recent changes and outstanding questions related to the Cool Factor. Then, the group sought to reach consensus. Two recent changes were made to the Cool Factor score sheet: (1) Reduced D2 High-SRI Paving multiplier and (2) Revised D3 High-SRI Shade Structure multiplier. Outstanding questions include the weight of green roofs relative to high-SRI shade structures, calculating portion of lot area utilizing green strategies, and the cap on percentage of score coming from D2 High SRI-Paving strategy.

Discussion:

- **Other Resilience Strategies:** A Task Force member highlighted the need to prioritize community resilience to climate change. They would like alternative strategies to be pursued, including insulation standards and electrification. The Task Force's work has focused on flooding and heating through strategies that provide multiple benefits. However, the group may miss other overall benefits of resiliency strategies, including mental health benefits. Others shared the Task Force did consider other elements and strategies at the beginning of the process but decided those were undertaken by other city-wide efforts. Instead, the Task Force decided to focus on zoning strategies targeting heat and flooding. Some criticized the effort for taking too long and suggested avoiding adding to the scope and instead focusing on finalizing the Task Force's work. Staff noted that zoning strategies are just one element in the larger toolbox of resilience strategies. From the City's perspective, the goal is not to trying to accomplish all resilience goals through zoning, as it is not always the best vehicle. Last week, a new climate roadmap legislation was approved, focused on reducing emissions through net-zero requirements in the energy code. The Cool Factor weighs predominantly towards greening strategies, which will provide multiple environmental benefits.
- **Cap on SRI Paving:** A Task Force member shared some comments and questions related to the score sheet. This member shared a couple of scenarios with staff that they believed illustrated how it is much harder for small parcels to achieve the score than large parcels, due to higher open space requirements and less space availability. This member is also concerned with the use of high SRI paving and would like to consider establishing a cap for larger lots to discourage large parking lots. While staff did decrease the value of high-

SRI paving, they welcomed comments related to the suggested cap. A couple Task Force members liked the idea of establishing a cap; others noted that the scoring is already weighed towards green strategies, and the high-SRI paving score is already lower. Further, paving large lots may not be an issue, given current city conditions and development patterns.

- **Trees and Public Realm:** A Task Force member considered the public realm multiplier to be too high. They are concerned with older, large canopy trees being cut down and replaced with a small tree by the public right of way. Another member suggested a different multiplier for understory trees. In response, others highlighted how the new tree protection ordinance protects existing trees.
- A Task Force member encouraged others to avoid focusing too much on individual circumstances and keep in mind the broader picture. Otherwise, it will be almost impossible to design a program that fits all circumstances perfectly. Staff also noted that the Cool Factor will work in concert with other zoning standards (e.g., permeable area, open space). Task Force members agreed that the Cool Factor does not have to be perfect as long as there will be a process to evaluate and refine it.

Outcomes & Next Steps:

- After some discussion, each Task Force member had an opportunity to voice their preference regarding the main issues discussed: establishing a cap on SRI paving, decreasing the public right of way multiplier for trees, and decreasing the SRI multiplier.
- Overall, there was broad consensus among the Task Force with keeping scoring as showed in the revised sheet (current right of way multiplier and no cap on SRI-paving), with the intention of establishing a process to revisit the scoring in an adaptive manner (e.g., every 2-3 years). In addition, Task Force members would like to pursue future ways to minimize parking requirements.

Testing Consensus: Cool Factor Application

The Task Force engaged in discussion to test consensus regarding how the Cool Factor would be applied through base zoning. The options are summarized in the table below.

Table 1. Cool Factor Application Options

| | Development type | Requirement | Application/trigger | Modifications | Task Force Agreement? |
|---|-----------------------|---|---|-------------------------------|--|
| 1 | 25k+ new construction | Cool Factor shall apply to Project Review projects through the Section 19.50 Building and Site Plan Requirements (25,000+ sf) with base zoning OS requirement as multiplier (20% minimum) | All new construction | Planning Board special permit | A couple members supported an increase to 25%; all others approve as is. |
| 2 | 25k+ alteration | <ul style="list-style-type: none"> • Meet requirement above • If existing condition is non-conforming, compensate for any reduction to existing Cool Factor Score | If subject to Green Building requirements | Planning Board special permit | Overall support. Need to define "compensate." |

| | | | | | |
|---|--------------------------------------|---|---|--|---|
| 3 | Under 25k new construction | Cool Factor shall apply with base zoning OS requirement as multiplier (20% minimum) | All new construction | <ul style="list-style-type: none"> Special permit BZA app for variance | Strong majority in support; not total agreement. Allow for special permits. |
| 4 | Under 25k alterations or renovations | Option A – Do no harm: <ul style="list-style-type: none"> Comply with Cool factor or If existing score is below 1, show that the change does not reduce the score further. | <ul style="list-style-type: none"> creation of 10% or x% new square footage creation of 150sf or x% impervious area other? | <ul style="list-style-type: none"> Special permit BZA app for variance | The Task Force needs more information to make a clear recommendation. Overall, Task Force members supported having all properties contribute to cooling, but felt more research was needed to make an appropriate, tailored requirement, and so the group referred it to future study by the City. |
| Option B – Enhance performance: <ul style="list-style-type: none"> Comply with Cool Factor; or If existing score is below 1, increase score by x% | | | | | |
| Option C – Progressive/graduated application of Cool Factor: <ul style="list-style-type: none"> Cool factor with base zoning OS requirement as multiplier (no 20% minimum, or alternative minimum of 5, 10% etc.) | | | | | |
| Option D – Citywide uniform application: <ul style="list-style-type: none"> Cool factor with 20% as multiplier all for projects in all zoning districts | | | | | |

Discussion:

- Task Force members requested more analysis of the impact of these requirements on smaller parcels.
- A Task Force member shared that they think meeting Option 4C in areas with higher open space requirements would be more difficult than in Option 4D.
- A Task Force member asked for clarification on projects with multiple buildings. Would the requirement be per building or across the parcel? Staff replied that the Cool Factor would be calculated for the entire lot.

Additional Task Force Feedback on Options Proposed:

3. Under 25k new construction

Some Task Force members were concerned that applying the Cool Factor to smaller projects could create tension with the dire need for housing. Other Task Force members noted that it is key to have avenues to accommodate special circumstances through a special permit. The strong majority of the Task Force supported this proposal, though some members had reservations.

4. Under 25k alterations and renovations

Task Force members offered differing perspectives related to category 4 and the four options outlined in the table above. Overall, Task Force members agreed that there should be some kind of requirement for smaller properties, though they noted that there is a significant difference between a project that is slightly smaller than 25,000 square feet and one that is significantly smaller. The Task Force also agreed that more information and analysis was needed to assess

the impacts, possible benefits, and implications of category 4 suggestions. In particular, Task Force members noted the follow unresolved questions and considerations:

- The trigger of 150 square feet (sf) may negatively impact small businesses. For example, what if a small restaurant installs a new patio. Staff shared that the figure of 150 sf is the size of a standard parking space and acknowledge that further tested was needed to determine an appropriate trigger.
- Some Task Force members suggested that any requirements should include mechanisms for exceptions, so applicants are not required to seek a variance. This was especially important for projects being developed under the Affordable Housing Overlay (AHO).
- Equity should be a key consideration. Consider establishing tiers triggering specific requirements to make it achievable particularly for low-income households. Consider economic impacts for homeowners doing small alterations at home. Staff could also consider language used in Boston’s ordinance on accessibility modifications.
- A Task Force member suggested increasing the minimum Cool Factor multiplier above 20%. Others think that 20% will be hard to achieve for all properties citywide. Some Task Force members suggested exempting lots smaller than 5,000 square feet.
- A Task Force member suggested flipping the trigger around, so it’s based on decreasing open space, rather than increasing the built portion of a lot.
- Overall, Task Force members were most supportive of Options A and B, though they still requested further analysis.

Category 5: Future Study

The Task Force briefly discussed Category 5, which includes other initiatives that could directly or indirectly advance resilience planning, and efforts to undertake as new zoning is implemented. Task Force members will have the opportunity to suggest additional items for future study through the review period on the draft report.

Parking Requirements:

- Task Force members suggested that the City study setting parking maximums.

Evaluate Impact of Zoning:

- **Metrics & indicators:** Task Force members suggested specifying metrics and indicators of success that could help the group evaluate impact over time in a public manner. Transparently reporting impact and progress is key.
- **Baseline:** Task Force members suggested setting baselines and benchmarks to evaluate success. A suggestion could be to set current and proposed dimension on a case-by-case basis.
- **Gaming the system:** A Task Force member expressed concern with possibly gaming the system for Cool Factor. This member suggested comparing various properties with similar scores to evaluate their relative contribution.

Other

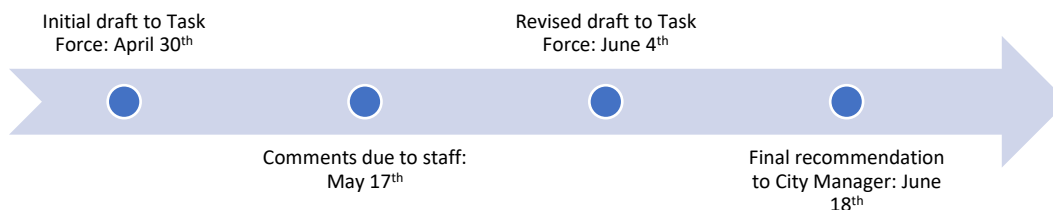
- Task Force members suggested adding Cool Factor application to under 25k alterations or renovations as a category for future study. See full discussion above.

Public Comment

- A member of the public expressed concern that existing open space requirements are insufficient to guarantee the space needed for the public. They expressed support for the Cool Factor to help guarantee quality open space, as well as the idea of ending parking lot requirements. Lastly, they highlighted urban infill as the most important strategy in a city like Cambridge to reduce GHG emissions. They hope the Cool Factor applies to small lots but not in a way that slows down or limits growth and affordable housing.
- Another member of the public shared that climate resiliency in Cambridge is of utmost importance. They would encourage protecting large trees near the public way. They reiterated the difference between density and fighting climate change. They suggested fostering ways to reduce commuting and pushing people towards the suburbs by building more housing. Trees and open space are important, embraces eliminating parking minimums, and encourages more housing affordable in the city. Lastly, they acknowledged limitations of some developments to implement strategies like green roofs and green walls.

Next Steps

- Per the Charge and Operating Procedures, City staff will draft a final report detailing the set of recommendations given by the Task Force. The draft report will be shared with the Task Force for comments using an online form before a final version is submitted to the City Manager.
- The purpose of the comment period is for Task Force members to provide feedback on language clarity, missing information, and instances where the content does not accurately reflect Task Force discussions. After receiving comments, staff will compile and share them with the Task Force, noting what action, if any, was taken to address the comments. A revised report will also be re-circulated with citations that indicate where any changes were made as a result of the comments. Staff will not ask for additional comments at this time but will accept requests to fix any errors. All documents shared with the Task Force will be publicly available on the CRZTF webpage.



The meeting was adjourned at 8:09 PM.