Climate Resilience Zoning Task Force
City of Cambridge, Massachusetts

Meeting #2 Summary

February 27, 2019
5:30 PM to 8:00 PM
Citywide Senior Center, First Floor
806 Massachusetts Ave, Cambridge, MA

Task Force members present
1. Jason Alves, East Cambridge Business Association
2. John Bolduc, Environmental Planner
3. Doug Brown, West Cambridge
4. Conrad Crawford, East Cambridge/Cambridge Redevelopment Authority
5. Nancy Donohue, Cambridge Chamber of Commerce
6. Iram Farooq, Assistant City Manager for Community Development
7. Brian Goldberg, MIT Office of Sustainability
8. Tom Lucey, Harvard University
9. Joe Maguire, Alexandria
10. Lauren Miller, Climate Consultant, CDM Smith
11. Margaret Moran, Cambridge Housing Authority
12. Mike Nakagawa, North Cambridge
13. Mike Owu, MITIMCo
14. Tom Sullivan, Divco West
15. Kathy Watkins, City Engineer/Assistant Commissioner

Project staff and facilitation team members present
1. Shabnam Bista, City of Cambridge
2. Elizabeth Cooper, facilitation team, Consensus Building Institute
3. Ona Ferguson, facilitation team, Consensus Building Institute
4. Indrani Ghosh Climate Change Preparedness & Resilience Plan consultant, Kleinfelder
5. Eric Kramer, Urban Forest Master Plan consultant, Reed-Hildebrand
6. Jeff Roberts, Director of Zoning and Development, City of Cambridge

Next steps:
- The next meeting, Thursday March 21 at 5:30pm, will include a walking tour in Alewife.
- Staff and facilitation team:
    - Confirm location details for March 21 meeting
    - Create and distribute March 21 meeting agenda
    - Distribute February 27 meeting summary

Cambridge's Climate Change Vulnerability Assessment (CCVA) and
Preparedness and Resilience (CCPR) Planning – *John Bolduc, Environmental Planner and Kathy*
Watkins, City Engineer and Assistant Commissioner of Public Works, Task Force members

High-level presentation overview:
- Cambridge conducted an extensive Climate Change Vulnerability Assessment (CCVA) to project possible impacts to the 2030 and 2070 time horizons and is in the process of developing a Climate Change Preparedness Plan (CCPR), to be completed in summer 2019. The CCVA serves as the technical foundation for the City's climate planning, including the CCPR.
- The City aims to integrate various planning initiatives, including the CCPR, the City's Net Zero Action Plan, the Envision Cambridge citywide planning process, and the Urban Forest Master Plan, prioritizing strategies that benefit multiple priorities.
- Key climate risks for the City to plan for include:
  o Increasing temperatures)
  o Increasing precipitation
  o Increasing sea level rise and emerging storm surge risks
  o Increasing temperatures and rates of precipitation are nearer term concerns; sea level rise is projected to significantly compromise the Amelia Earhart Dam on the Mystic River and the Charles River Dam around mid-century.
- Key City approaches to planning for climate change preparedness and resilience include:
  o *Reducing risk exposure where possible*, e.g. through regional collaboration such as multi-municipality and state efforts to improve the Amelia Earhart Dam, increase watershed-scale climate resilience, and design of storm surge barriers
  o *Preparing for unavoidable risks* through strategies involving social resilience, adapting buildings, more resilient infrastructure, and more resilient ecosystems

Task Force discussion themes and questions (answers from city staff in italics):
- Where will the outflow from new stormwater storage systems go? *Once the storage tanks in The Port are complete and operating, all of the flow will go to the Charles River.*
- Many developments are replacing large trees with decorative trees (and are allowed to do it). There is concern that decorative trees do not sufficiently replace the larger trees removed in terms of ecosystem services and leaf cover.
- Are there nearby municipalities building large stormwater storage tanks? *There is at least some large infrastructure investment occurring in Boston and Somerville. We don't have information about what other communities are doing.*

Intent and Purpose of the Brown et al Zoning Petition – *Doug Brown, Co-Chair of Task Force and co-author of petition*
- The petition aimed to create comprehensive requirements to help address issues of heat, flooding, and sea level rise through zoning. Focus areas were expanding the floodplain maps, reducing flood risk tolerance, introducing new requirements to address flood risk, and encouraging a higher proportion of green infrastructure to address stormwater and heat concerns using a flexible green factor scoring system. Unlike LEED standards, which focus on a broad range of sustainability issues, the green factor

specifically scores the quality of the landscape and the quality and quantity of green infrastructure on a parcel.

- With respect to flooding, the petition aimed to draw flood maps that covered more area than the FEMA 2010 100-year floodplain maps, which are currently used. It proposed a lower risk tolerance in terms of storm probability and encouraged planning for impacts at longer time horizons, particularly for crucial infrastructure such as hospitals.
- In response to Task Force member question about the effectiveness of green infrastructure as compared to gray, city staff replied: *All of the above will be needed. While green infrastructure has many co-benefits and can reduce impacts for more frequent storms, gray infrastructure is needed to address more extreme impacts of precipitation driven flooding and storm surges.*

Zoning Basics, Tools, and Strategies – *Jeff Roberts, Director of Zoning and Development*

- [View the presentation on Zoning Basics, Tools, and Strategies from the project web page](#).
- Zoning regulates land use, which includes the overall type, size, and scale of development. The city is divided into districts based on the character of land use, and each district has a uniform set of rules (development standards) governing development in those districts.
- Some aspects of development are regulated by other laws and codes, such as the building code, and are not regulated by zoning.
- Zoning allows non-conforming uses and buildings to remain. Requirements become effective when a new use or building is established or when a use or building is substantially altered.
- Some development standards can be applied through "overlay" zoning, which modifies the base zoning. There are development standards that apply citywide, as well as standards that apply in specific overlay districts.
- Development standards can include prescriptive standards, performance standards, discretionary criteria applied through special permit processes, and incentives.
- In response to Task Force member question regarding changing zoning rules to expand the flood overlay: *There are several complications with the Flood Plain Overlay District. It can be challenging to apply rules in a district determined by our current flood plain map (which has very jagged boundaries). The current rules require any activity within the flood plain to receive a special permit from the Planning Board. Expanding the Flood Plain Overlay District would apply these complications to a much larger number of parcels.*

Public Comment

- Can the committee make recommendations for expanding our tree canopy?
  - *Iram replied that the most important work on this issue is occurring in the Urban Forest Master Plan and in DPW's urban forestry work. Because this Task Force's scope is focused on zoning, its tools are more focused, but it can consider*

requirements for trees in open space in future development. This is an important tool to use to address tree loss on private property.

Additional comments from Task Force members
- How will the effectiveness of the zoning tools we discuss be evaluated? How will this committee process account for the interaction between these zoning measures and other local urban design goals (e.g. density, putting parking below grade, etc.)?
    - *This will need to be discussed by the group. The technical team will help answer questions about the effectiveness of tools we are considering. The specific focus on new development and redevelopment will help focus our efforts. Very diverse interests are represented at the table, and the goal is to develop recommendations with the buy-in of the wide range of stakeholders this group represents.*

Closing remarks – *Jeff Roberts and Ona Ferguson*
- A revised work plan and ground rules document was circulated, which will be considered final if no additional comments are made within a week. *[Additional note: No comments were received within a week; the posted documents are final.]*
- The Task Force will use the information presented today, which will be explored in more depth over the course of the process, to determine the issues and priorities that can be effectively addressed through zoning.
- Ona reported out briefly on some of the high-level themes from introductory calls she and Pat Field (the facilitators) conducted with Task Force members. Members expressed the goal of working toward a meaningful outcome that is science-based, that meets the interests of all members to the greatest extent possible, and that is feasible within the time and space available to the group. One important early step will be to develop a shared understanding of the scope of impacts being considered and the types of development activities that should be included in the Task Force's final recommendations. Members expressed interest in being proactive, developing new strategies and techniques and ideas, using the Brown petition and other zoning work done by city staff and consultants as fodder for discussion. Members said that addressing climate impacts is urgent, and that with much development occurring in the city, this is the right time to do this work. Finally, members indicated their interest in drawing on expertise of the individuals and organizations represented on the Task Force.