



City of Cambridge
Department of Public Works

Owen O'Riordan, Commissioner

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December 21, 2015

To: Richard C. Rossi, City Manger

From: Owen O'Riordan, Commissioner, DPW
Katherine Watkins, City Engineer, DPW
Ranjit Singanayagam, Commissioner, Inspectional Services Department

Re: Council Order 11, dated December 7, 2015
Barrett, et al., Zoning Petition

We are transmitting additional information regarding the Barrett, et al., Zoning Petition, which was passed to a second reading by the City Council on December 7, 2015. The information below addresses conflicts with State Sanitary and Building Codes and concerns regarding encouraging greater use of basement space that is susceptible to flooding, a recurring problem throughout Cambridge that will be exacerbated by the effects of climate change.

State Code Issues

The elimination of Gross Floor Area in the basement from the Ordinance would not help property owners as the State Sanitary Code requires a minimum of seven feet basement height for habitable uses.

In addition, there are significant State Building Code conflicts with the proposed Zoning Petition. The Building Code does not define accessory apartment. Any new accessory units created would be considered as another dwelling unit. Further conversions to two or more dwellings would involve sprinklers and handicapped accessibility requirements.

Increased Risk of Flooding

DPW is concerned with the proposal to encourage greater use of basement space that is susceptible to flooding. DPW recommends that any zoning changes associated with increased use of basement space not proceed independent of the Climate Change Preparedness and Resilience Plan.

Some of the common risks associated with basement living space include overland flooding, sewer backups, and moisture leading to mold or other health concerns. These were the subject of discussion related to the Basement Housing Overlay Zoning in recent years. In some cases, appropriate measures can be taken to mitigate the risks. For instance, the Basement Housing Overlay Zoning requires separated sewer / drainage lines and backflow prevention for all basement units, and various measures can be taken to prevent moisture or remove mold if it occurs.

However, little can be done to avoid impacts on basement spaces when overland flooding occurs. This type of flooding is already a problem in many parts of the city and may be exacerbated over time with the effects of climate change. This issue was also identified in the Basement Housing Overlay Zoning discussion, resulting in the recommendation that an engineering report that assesses the history and risk of overland flooding be submitted by an applicant in connection with any special permit application.

Through the Climate Change Preparedness and Resilience Plan, resiliency recommendations for new buildings and existing buildings will be developed. These recommendations will include:

- Measures to reduce the likelihood of flooding; backwater valves, barriers for floodwater entering below grade areas, etc.; and
- Measures to reduce the impacts of flooding; raising mechanical equipment, using mold resistant building material, etc.

If indeed it is the will of the City Council to proceed with the proposed amendment, city staff will forward to the City Council prior to the January 11, 2016 Council Meeting alternatives for mitigating the issues identified, to the extent possible.