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# CITY OF CAMBRIDGE

## COMMUNITY DEVELOPMENT DEPARTMENT

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To: Planning Board  
From: Jeff Roberts, Land Use and Zoning Planner  
Date: January 20, 2015  
Re: **Mass and Main (Normandy/Twining) Zoning Petition**

The “Mass and Main” zoning petition proposed by the Normandy/Twining Partnership, which controls a number of properties in the Central Square area, proposes significant changes to the zoning regulations of specific parcels located on the block bounded by Mass Ave, Columbia Street, Bishop Allen Drive and Douglass Street and the adjacent block on the opposite side of Bishop Allen Drive.

This memo provides some initial reactions and comments from CDD staff about the overall approach of the zoning and specific zoning and urban design topics, including:

- Residential Density and Affordability
- Height Limits
- Yard Setbacks and Private Open Space
- Parking
- Housing Unit Mix
- Sustainability
- Ground-Floor Retail and Public Space
- Design Guidelines

### **Zoning Construction and Language**

While this memo focuses on broader planning considerations, there are issues with the zoning language itself that require clarification. For instance, the area of the petition is first described as a subdistrict of the Central Square Overlay District, but later treated as a separate overlay district whose requirements supersede the requirements of both base and overlay zoning, which creates some ambiguity. It is further complicating that the map included with the petition contains entire lots of which only portions are located within the current Central Square Overlay District boundaries (shown on the attached map). Also, it is stated that “Divergence from the standards established in this Section may be allowed only by issuance of a Special Permit by the Planning Board as specified in Section 10.40.” The intent of that sentence is not clear, given that the proposed zoning is meant to apply as an alternative to as-of-right requirements.

These issues should be remedied before any zoning amendment is acted upon, and may be better addressed after the planning issues raised by the petition have been discussed more thoroughly.

### Overall Planning Approach

The proposal envisioned in this zoning petition has similar elements to the recommendations of the Central Square (“C2”) Planning Study, conducted in 2012 by CDD, Goody Clancy (the City’s planning consultant) and a community advisory committee and described in the [Central Square Final Report](#). The petition aligns with the approach recommended in the C2 study in that it would increase the potential for new housing, reduce parking requirements, improve the streetscape and public realm with retail and other spaces for public use, and increase affordable housing requirements with a focus on low, moderate and middle-income households and units designed for families with children.

Despite the similarities, the petition differs in its overall strategy. The C2 study recommends modifying zoning requirements throughout the Central Square Overlay District, increasing allowed housing densities and providing the ability for development to be transferred flexibly (but subject to review) across lots within the district. By treating potential housing development in a more fluid way, new housing can be directed to underutilized sites such as surface parking lots and marginal buildings, while protecting more valued resources such as historic buildings and open spaces.

The petition would affect a small portion of the Central Square Overlay District. Moreover, it would affect only a small portion of the land holdings of the petitioner. Rather than allowing transfer of development rights across sites, it would significantly increase the allowed residential density on two individual, non-contiguous sites. While this approach would limit the areas that might be impacted by the rezoning, it raises the following questions to be considered during the public hearing process:

- What future changes might occur on other properties that are within the petitioner’s land holdings?
- How will increasing the density on one lot affect the future use and development opportunities on adjacent properties, such as the City’s municipal parking lot and nearby one-story retail buildings?
- How will this proposal help support positive change across Central Square as a whole?

Another concern is how the proposal relates to some of the citywide and area-specific urban design principles that have guided development for many years. It is a longstanding citywide planning policy and a principle in the [Central Square Design Guidelines](#) (created in 1989 and revised through the C2 study) to encourage parking below-grade instead of in structured garages and surface parking lots, or if parking is at-grade, to surround it with active uses such as housing and retail in order to promote a more pedestrian-friendly streetscape. The approach of the petition suggests that new residential development would be supported by the existing surface parking lots and garage along Bishop Allen Drive, abutting the residential neighborhood. This approach could make it more difficult to move parking below-grade in the future.

The discussion on the following pages addresses the more specific recommendations in the proposal and how they relate to the C2 study recommendations and other city planning objectives.

### Specific Zoning Provisions

#### Residential Density and Affordability

The petition proposes increasing residential density and in exchange requiring a greater amount of affordable housing as a public benefit, which is similar to the recommendation in the C2 study. In either case, the concept of “affordable housing” is expanded beyond the current definition to include low, moderate and middle income households (earning up to 120% of area median income).

The zoning petition and the C2 study each apply layered approaches to calculating affordable housing requirements and density increases. The C2 study recommends an increase in residential floor area ratio (FAR) from 3.0 to 4.0, with 25% of the incremental increase dedicated to Middle-Income Units. The normal citywide Inclusionary Housing requirements would apply to the portion of the development that is not Middle-Income, resulting in a required number of affordable units and a compensating density bonus.

The zoning petition proposes a modified approach to applying inclusionary housing requirements, by first applying the density bonus to the base zoning, then requiring a number of affordable units to be provided from the resulting amount of development, then applying a separate “incentive” development on top of the base and affordable housing, and finally requiring that a portion of the “incentive” development must be for Middle-Income Units.

It should be noted that the zoning petition uses terms such as “low,” “moderate” and “affordable” in ways that differ from normal usage elsewhere in zoning and by state and federal housing programs. For the purpose of this analysis we have assumed that the following terms are intended:

- *Affordable Units*: Cost is no more than 30% of household income for *low-to-moderate income* households, earning up to 80% of area median income.
- *Middle-Income Units*: Cost is no more than 30% of household income for *middle income* households, earning more than 80% but no more than 120% of area median income.

Also, in the zoning petition, some requirements apply FAR, which controls the amount of floor area that can be built on a lot, and other requirements apply to Lot Area Per Dwelling Unit, which controls the number of dwelling units on a lot. When discussing density controls, the zoning petition varies between references to floor area and dwelling units; in a final regulation, it should be clear which regulations apply to which control. For the purpose of this analysis they are treated as comparable.

The table on the following page assumes a generic development proposal on a generic lot in the Business B district, and calculates the resulting FAR and affordability requirements. Some assumptions have been made to simplify the analysis, such as assuming that the amount of residential floor area and number of dwelling units are proportional across all development scenarios. The area of ground-floor retail uses has been left out of the calculation for simplicity; in either case retail would be assumed to be present but relatively small in proportion to the residential development.

The table compares the current zoning, the zoning recommendations of the C2 study, and the zoning proposed in the current petition.

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<i>Lots In Business B / CSOD District</i>	<b>Current Zoning</b>	<b>C2 Study</b>	<b>Proposal</b>
Base FAR	3.0 (res. only)	4.0 (res. + retail)	3.0 (res. + retail)
Inclusionary Housing Bonus (30%)	0.9	1.125	0.9
“Residential Incentive Bonus FAR”	N/A	N/A	2.6
Total FAR	3.9	5.125	6.5
Affordable Housing FAR (Percent of Total)	0.45 (11.5%)	0.5625 (11%*)	0.585 (9%)
Middle Income Housing FAR (Percent of Total)	N/A	0.25 (5%)	0.52 (8%)
Total Below-Market FAR (Percent of Total)	0.45 (11.5%)	0.8125 (16%)	1.105 (17%)

*\* Note that the lower percentage of affordable housing is because the middle-income housing would not be subject to additional inclusionary housing requirements. ALL FIGURES APPROXIMATE*

The table reveals some differences that result from the different approaches. First, the zoning petition would allow a higher residential density on the lot (by approximately 25%) than would be allowed by the recommended C2 zoning. As recommended in the C2 study, higher densities could be achieved through the use of transfer of development rights (TDR), which would increase the allowed density on a “receiving” site by commensurately reducing the allowed density on a “donating” site. One advantage of a TDR approach is that the “donating” site could be dedicated to a publicly beneficial use such as open space or neighborhood-scale affordable housing. In the case of the zoning petition, the assumption is that the surrounding lots controlled by the Normandy/Twining partnership would continue to be used as private parking facilities in the immediate term, but in the future could be developed privately under base zoning requirements.

Second, it appears that the resulting amount of affordable housing would be similar in both cases, though slightly higher in the Normandy/Twining petition. However, the petition would require a somewhat smaller overall percentage of Affordable (low-to-moderate income) Units, and a somewhat greater overall percentage of Middle-Income Units.

Height Limits

A key element of the recommended C2 zoning strategy is to impose height, setback and other dimensional standards that are more restrictive near residential neighborhoods and more permissive along Mass Ave, which would further help to guide development intensity to areas where it is more desired. The zoning proposal takes a similar overall approach, with some variations.

In the petition, the maximum allowed height for residential development on the site with direct frontage on Mass Ave would be 195 feet. The C2 study recommended that the maximum residential height along Mass Ave should be 140 feet, with heights allowed up to 160 feet if development rights are transferred. The rationale in the C2 study was that such a height would, on a limited number of sites, enable the construction of high-rise housing. Under current building codes, residential buildings taller than 70 feet (6 stories) become much more costly to construct. Therefore, heights would need to reach around 12-14 feet to make housing projects more economically feasible. Those heights were studied in urban design models developed during the C2 study process.

In addition to the absolute height, the C2 study recommended design standards and guidelines aimed to ensure that the built form above 80' would have a more slender form that would be less disruptive to surrounding areas. It was recommended that floorplates above 80' be limited to 10,000 square feet, or no more than 25% of the lot area on sites greater than 40,000 square feet.

The zoning petition proposes a maximum height of 195 feet within the "Mass Ave Height Zone," which has an area of approximately 24,500 square feet and about 250 feet of street frontage. However, the petition does not include studies of the impact of such increased height and floorplate size above the limits recommended in the C2 study. The proposed height would be similar to the heights of some of the tallest buildings in Central Square, such as 675 Massachusetts Ave (at the corner of Prospect Street) and the Manning Apartments; however, the tallest elements of each of those buildings have floorplates of less than 10,000 square feet in area.

The Central Square Design Guidelines encourage a "point tower" massing style for buildings taller than 80 feet, with a strong podium element that would continue the cornice line of adjacent buildings on Mass Ave. A 45' height limit at neighborhood edges and use of a 45 degree "bulk control plane" in areas that abut residential districts are also recommended. Another important consideration is the impact of additional height on adjacent historic buildings. The zoning petition does not include the types of standards or guidelines recommended in the C2 study that would inform the desired design outcomes. These should be discussed by the petitioner during the hearing process.

### Yard Setbacks and Private Open Space

The C2 study recommends retaining the current provision in the Central Square Overlay District allowing the Planning Board to grant special permit relief from yard (i.e. setback) requirements if the project follows the established urban design principles for the area. The language in the zoning petition addresses setback requirements but the intent of the language is not entirely clear. The text reads:

*Notwithstanding any other provisions in the Ordinance, including without limitation the provisions of Section 5.28.1(c), the minimum yard requirements for the Business B zoning district shall apply ...*

The reference to Section 5.28.1(c) relates to a longstanding provision in the Zoning Ordinance requiring residential development in the Business B (BB) district to follow the dimensional (including yard) requirements of the Residence C-3 district. While there are no yard requirements for commercial uses in the BB district, there are formula yard requirements for residential buildings that can be somewhat strict, especially in the case of large buildings. This has often presented complications for designers, especially in the case of mixed-use buildings where the commercial component must follow one set of standards while the residential component must follow a different set of standards.

From the wording of the text, it is not clear whether the provisions of 5.28.1(c) are waived (implying that there would be no yard requirements for residential development) or would apply in any case (implying that the Planning Board would not be able to waive the requirements as is currently the case in the Central Square Overlay District zoning). Assuming the former, the impact of allowing yard

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requirements to be waived as-of-right rather than after Planning Board review and approval should be carefully considered. In either case, the intent should be made clear.

The petition includes similar language to private open space requirements, which are applied in a similar way to yard requirements. The same considerations should be taken into account.

### Parking

The petition proposes a reduction in required parking to 0.7 space per unit, except in the case of “Innovation Units” (as discussed below) for which no parking would be required or provided, resulting in an overall minimum rate of 0.665 space per unit. The parking recommendations of the C2 study, which are based on parking demand data that has been gathered and studied by the Traffic, Parking and Transportation Department and CDD over many years, would require a minimum of 0.5 space per unit and a maximum of 0.75 space per unit. While the proposed rate falls within that range, it should be noted that it is only the minimum rate and there is no maximum rate proposed. Establishing a maximum parking ratio is seen as an important tool in managing the traffic impacts of a project.

As mentioned previously, another concern regarding parking is the impact of allowing parking needs for new residential development to be served in off-site facilities. While the City is generally in favor of meeting parking needs in more flexible ways, such as through shared parking among different uses, the intent is not to rely on the continued use of surface parking lots and above-grade facilities that abut residential neighborhoods. Rather, the intent is to reduce the total amount of new parking that would need to be created in new facilities that are either below-grade or otherwise screened from public streets and adjacent uses.

### Housing Unit Mix

The C2 study establishes a preference for encouraging some larger-sized units in new residential development, especially in the case of affordable and middle-income units. The proposed zoning petition responds to this issue by requiring 10% of units in a development to be three-bedroom units. Conversely, the petition defines the term “Innovation Units” (not otherwise used in the Ordinance) to refer to very small units, and limits the number of such units to 5% of the total units in the project.

In general, the proposed requirements are consistent with the longstanding city policy of encouraging a mix of unit sizes in a residential development, including some larger units suitable for families with children. However, because the affordability requirements vary somewhat from the standard inclusionary housing requirements (which require affordable units to be provided as a representative mix of units in the building), it should be clarified how the three-bedroom units and Innovation Units will be allocated to meet affordability requirements.

The requirement that Innovation Units should be neither allowed nor required to provide parking is a concept that should be discussed further with the Traffic, Parking and Transportation Department. It is possible that there might be some small demand for parking among those residents, which would likely be accommodated somewhere off-site. Also, the imposition of lease restrictions prohibiting a tenant from applying for a Residential Parking Permit is not a concept that would typically be enforced through zoning, and should be discussed in more detail with the City Solicitor.

### Sustainability

The C2 study recommended that new residential development should not be required to meet a higher standard of sustainability than other projects throughout the city (while it did recommend that commercial development should be designed to LEED Gold), but that all new development would be encouraged to meet higher standards of sustainable design. The petition does not propose any change to the Green Building Requirements and therefore the citywide requirements would apply. It should be noted that additional sustainability standards are expected in the future as the City completes studies on “Net Zero” development goals and climate change resiliency.

### Ground-Floor Retail and Public Space

The inclusion of a plan for street-activating, ground-level retail and public space is a core element of the C2 study. The zoning petition includes a set of provisions that seem similar in intent but are somewhat different than those in the C2 zoning recommendations.

The petition would require street frontage to be dedicated to retail use, similar to the recommendation of the C2 study, but the proposed zoning also allows that space to be occupied by “spaces required for accessory uses and other building functions serving the other floors of such building which are typically located at the ground level, including without limitation lobby space, building security, access/egress, mailrooms, mechanical spaces and bike storage.” These are precisely the types of spaces that should have limited frontage because they do not actively serve the public. While it is reasonable to allow those uses on the ground floor, standards or guidelines should be provided to limit the extent to which they would occupy street frontage.

The proposed requirement that 25% of retail space be occupied by enterprises defined as “Independent and Local Retailers” requires further examination. In general, zoning regulations can place restrictions only on the use of land, not the owner or operator who occupies that land. In the C2 study, it is recommended that requirements and incentives be used to encourage smaller-sized retail spaces, which are generally more desirable to local retailers than they are to larger national chains.

The “Public Market” concept emerged as a major desire from the C2 study as a public benefit that would be included with large-scale property redevelopment or adaptive reuse. The definition in the proposed zoning does not provide much detail as to how such a space would be designed, located and operated. The C2 study recommends that such a facility be located near areas of heavy pedestrian traffic and well connected to existing and proposed residential areas and public spaces. Further objectives for indoor public space are articulated in the Design Guidelines. It would be important to have more discussion on that topic at the public hearings.

The petition also does not discuss how the creation, programming or activation of public open space would be incorporated into new development. In an area such as Central Square, it is important to consider development proposals as arrangements of buildings and open spaces that integrate with the spaces around them in a holistic way. Pedestrian connections, loading and servicing, building siting and design, and public open space are all important factors in achieving a development plan that results in improvements to the entire area and does not negatively influence the potential of other parcels.

### Design Guidelines

As previously mentioned, the [Central Square Design Guidelines](#) applicable to the area were revised during the C2 study to guide project designers and to inform the review of projects requiring approval by the Planning Board or other review authorities. While some of the guidelines are very detailed, they are necessary to articulate several of the key built form requirements in the zoning language in order to more clearly express the City's desired outcomes for the site.

The key urban design issues to consider are how the petition establishes an overall vision for the site and shapes the future urban form. In many respects the future vision for the area is encapsulated in the following C2 study goals:

- *Enrich the Square's public realm to invite community interaction at many levels from meeting a friend to citywide festivals.*
- *Celebrate the mix of old and new, venerable and funky, culture and business and other sources of diverse activities that make the Square a great Main Street and Cultural District.*
- *Support a diverse community through more and varied housing choices.*
- *Enrich neighborhood walkability and livability with safe, green streets and improved access choices.*
- *Enhance the Central Square environment by making "green" development choices.*

The petition itself focuses more on the provision of mixed income housing than on urban design characteristics, and does not provide reference to the Central Square Design Guidelines or any alternative guidelines. While the site is recognized as possessing some landmark potential, an urban design context analysis should be provided to explain the proposed deviations from the City's own planning study. For instance, a more nuanced discussion of building height and massing provisions is needed to consider whether or not more height is appropriate and the best location for such height. In addition, the proposed building heights need to be considered in full cognizance of their likely impact on the immediate surroundings and the wider neighborhood.



# Existing Central Square Overlay District

