

Introduction

Chapter 91 of Massachusetts General Law, the Public Waterfront Act, calls for a certain amount of all tideland development to be allocated for public use. The act has led to a struggle between protectors of the state's tidelands, especially the Massachusetts Department of Environmental Protection, and the development community, who argue that the amount of required Facilities of Public Accommodation (FPA's) is detrimental to maritime commerce.

The National Association of Industrial and Office Properties (NAIOP), a leading organization in the development community, has sponsored a bill in the Massachusetts Senate which would alter the Chapter 91 requirements for Facilities of Public Accommodations on filled tidelands. This study looks at the amount of FPA space that would be required throughout the project area(Central Boston) if this bill were to become law, and compares this to the amount of FPA space currently required under the Chapter 91 regulations.

Project Area

The FPA requirements were analyzed in a specific section of Boston, Massachusetts. The study area was bounded by the Charles River Dam to the north and west, and Black Falcon Pier to the south and east. Figure 1 below shows the extents of the project area.



Figure 1: Project Area

The Regulation, M.G.L. Chapter 91

The current Chapter 91 regulations determine FPA requirements based solely on ground floor area. FPA allocation must be equal to

- the total amount of footprint area on Commonwealth Tidelands, plus
- the total amount of footprint area on Private Tidelands *and* within 100 ft. of shoreline.

However, the total amount of FPA-allocated space need not exceed 75% of the total ground floor area. Thus, if the sum of (a) and (b) exceeds 75% of the ground floor area, than three-quarters of the ground floor must be allocated for FPAs.

Created by Michael Van Saun

The NAIOP Proposal

NAIOP has proposed that the FPA space requirements be amended so that buildings must allocate the greater of

- 25% of all ground floor area that is either (i.) on Commonwealth Tidelands, or (ii.) on Private Tidelands *and* within 100 ft. of the shoreline
- 5% of the building's gross floor area.

Methods

- Calculate Ground Floor Area within Ch. 91 Jurisdiction (see Figure 2(a))
- Calculate Ground Floor Area on Commonwealth Tidelands (see Figure 2(b))
- Calculate Ground Floor Area on Private Tidelands *and* within 100 ft. of shore (see Figure 2(c))
- Calculate Gross Floor Area (calculated using spatial join with parcel data)



Figure 2(a): Jurisdiction Cut

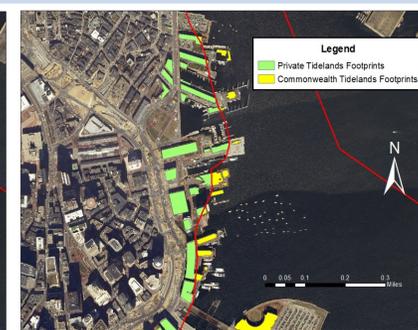


Figure 2(b): Private-Commonwealth Cut

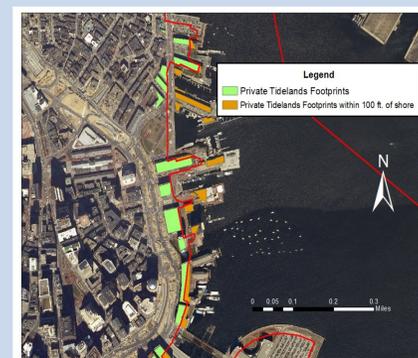


Figure 2(c): Private 100-ft. Cut

Results

Figure 3 displays a comparison of required FPA space under the current regulation and the NAIOP proposal. The heights of the green extrusions represent the amount of FPA space required under the current proposal, distributed across the entire building footprint (as opposed to only the portion of the footprint within jurisdiction). The heights of the red extrusions represent the amount of FPA space required under the NAIOP proposal, also distributed across the entire building footprint.

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Figure 4 displays the amount of FPA space that each building would gain or lose if the NAIOP proposal were to become law. Negative values correspond to lost FPA space, while positive values correspond to gained FPA space.

Data Sources

- Building Footprints (2-D, from Lidar) - created and distributed by MassGIS for use by the Massachusetts Executive Office of Environmental Affairs (EOEA) [2005]
- Boston Parcel Data - created by City of Boston Assessors' Office and edited by Barbara Parmenter of Tufts University [2009]
- Ch. 91 Mapping Project - lines mapped in a study by BSC Group for EOEA representing contemporary and historic mean high and low water marks, landlocked tidelands, and first public way [2006]

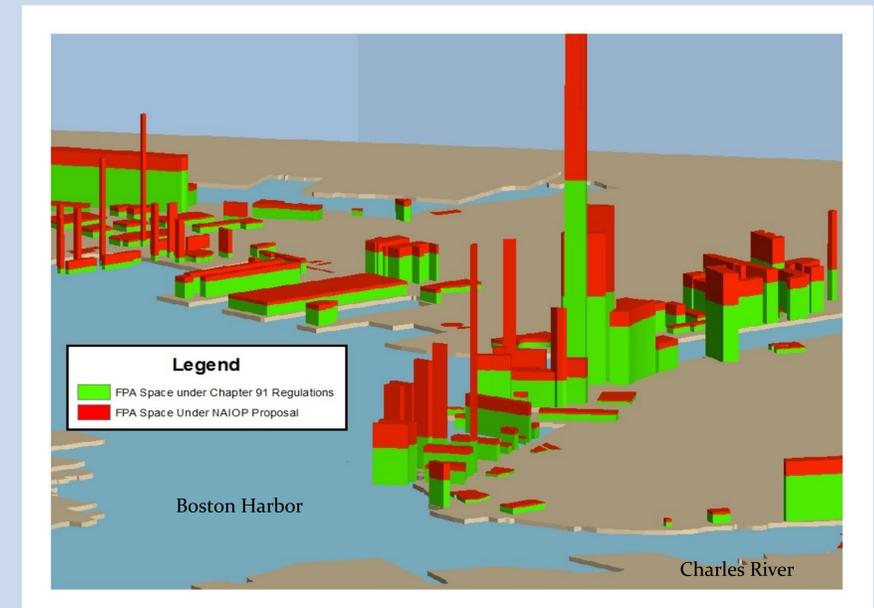


Figure 3: Comparison of FPA Space under Ch. 91 Regulation and NAIOP Proposal

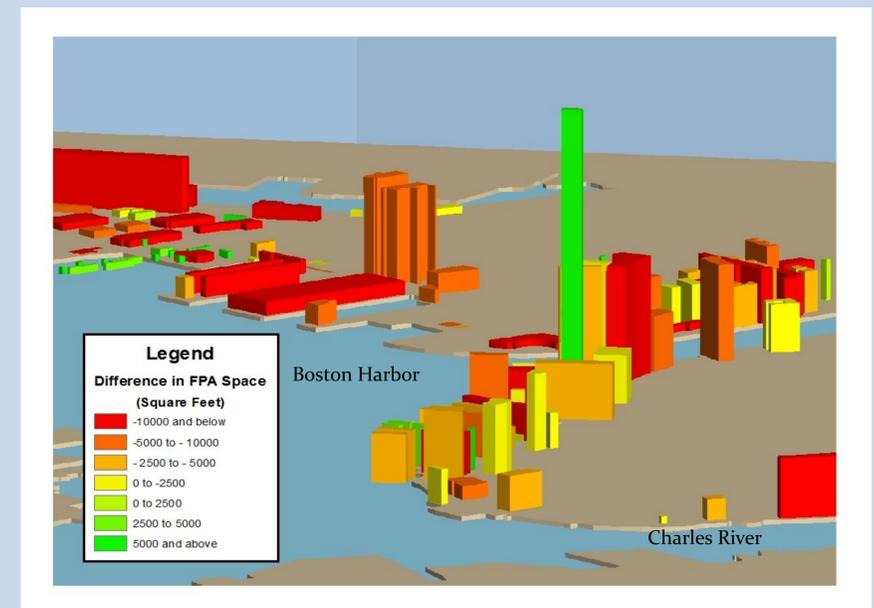


Figure 4: Difference in FPA Space under Ch. 91 Regulation and NAIOP Proposal

Conclusions

Figures 3 and 4 show that a majority of buildings within the project area would allocate less FPA space under the NAIOP proposal than under the current Ch. 91 regulation. Tall buildings with relatively small footprint areas within jurisdiction are the exception to this, as 5% of gross floor area for these buildings becomes significantly larger than any percentage of the ground floor area. The difference between total FPA space under the proposal and the regulation is -1172827 square feet. That is, if the NAIOP proposal were to become law, the amount of FPA space required in this Central Boston project area would be decreased by roughly 1 million square feet. The ArcGIS model created and used for this analysis could be used to analyze other areas of the city or the state, but it is likely that the results would continually show that FPA space is lost under the NAIOP proposal. The relative discrepancies between the respective FPA space allocations would only become more pronounced in study areas that did not contain buildings with very large height-to-ground floor area ratios. The concentration of such buildings is not likely to be much greater in any area other than the area analyzed in this study.