

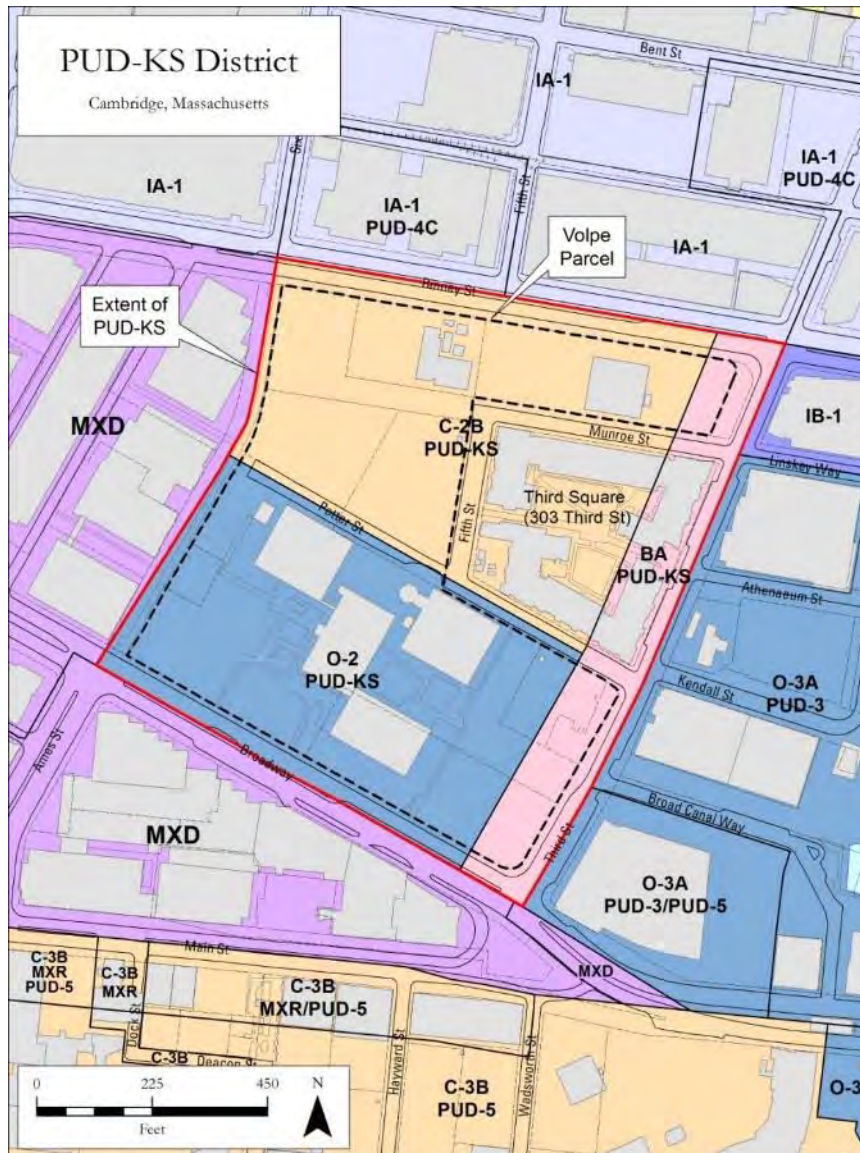


PUD-KS Zoning Proposal Revisions May 5, 2015



Cambridge Planning Board
Community Development Department

Initial Proposal – January, 2015



Retain Current PUD District

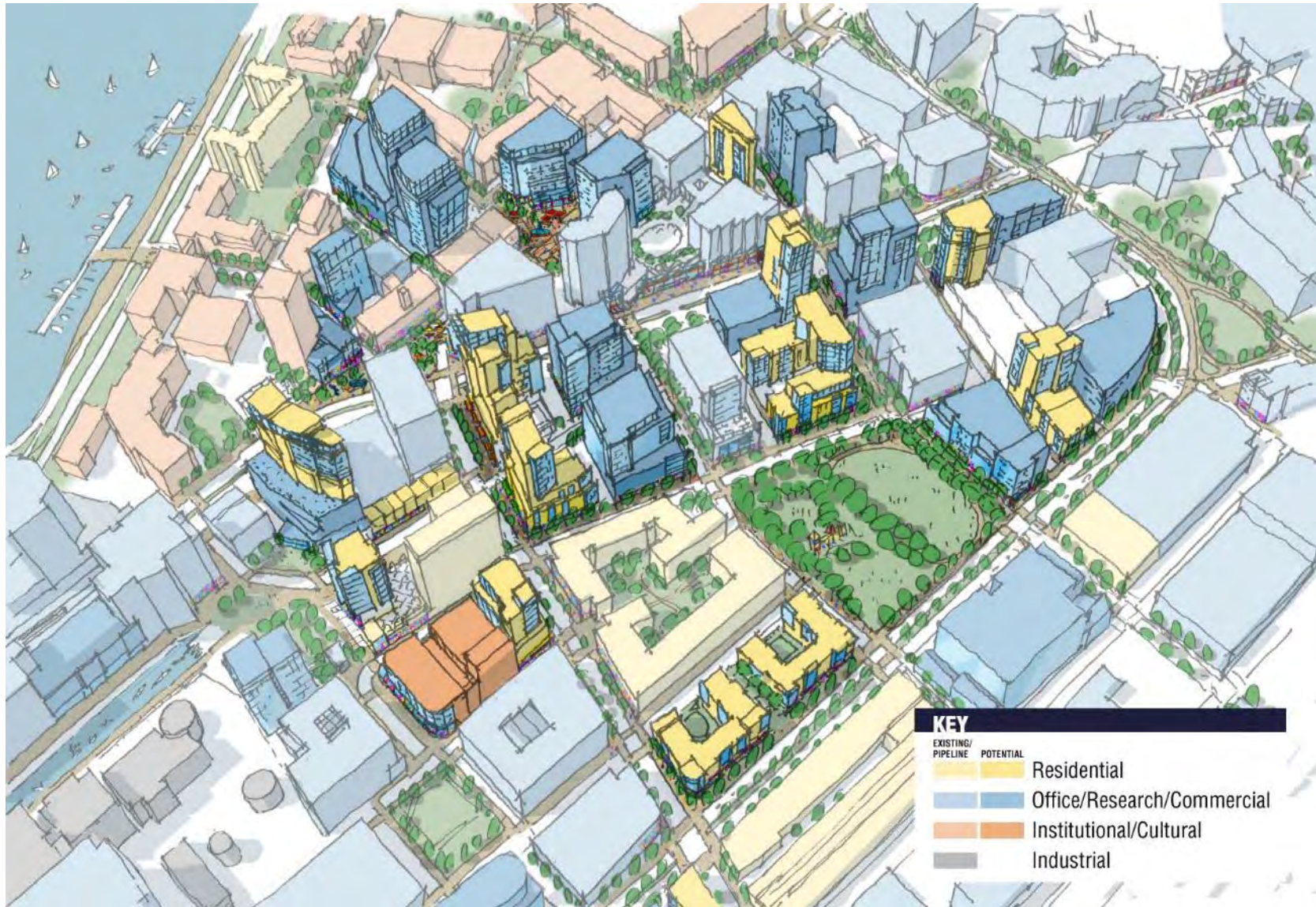
- PUD review
- Minimum 40% housing
- Public open space

K2 Recommendations

- Increase development capacity
- Reduced parking
- Active ground floors
- Innovation space
- Middle-income housing incentive
- Enhanced sustainability
- Flexible open space requirement, focus on connections

Government Use

K2 – Conceptual Planning Vision



Modifications to Zoning Proposal

Density

- Increase in base zoning from 4.0 to 4.5
- Removal of separate inclusionary housing bonus

Affordable Housing

- Minimum of 13% total low-moderate income
- Minimum of 2% total middle income

Height

- Increase to allow 350 feet for all uses in section north of Broadway
- Increase from 120 feet to 140 feet in section along Binney Street

Open Space

- Minimum 25% of parcel required as Public Open Space (3.5 of 14.2 acres)
- Retain current zoning definition of Public Open Space
(Federal can be considered public)

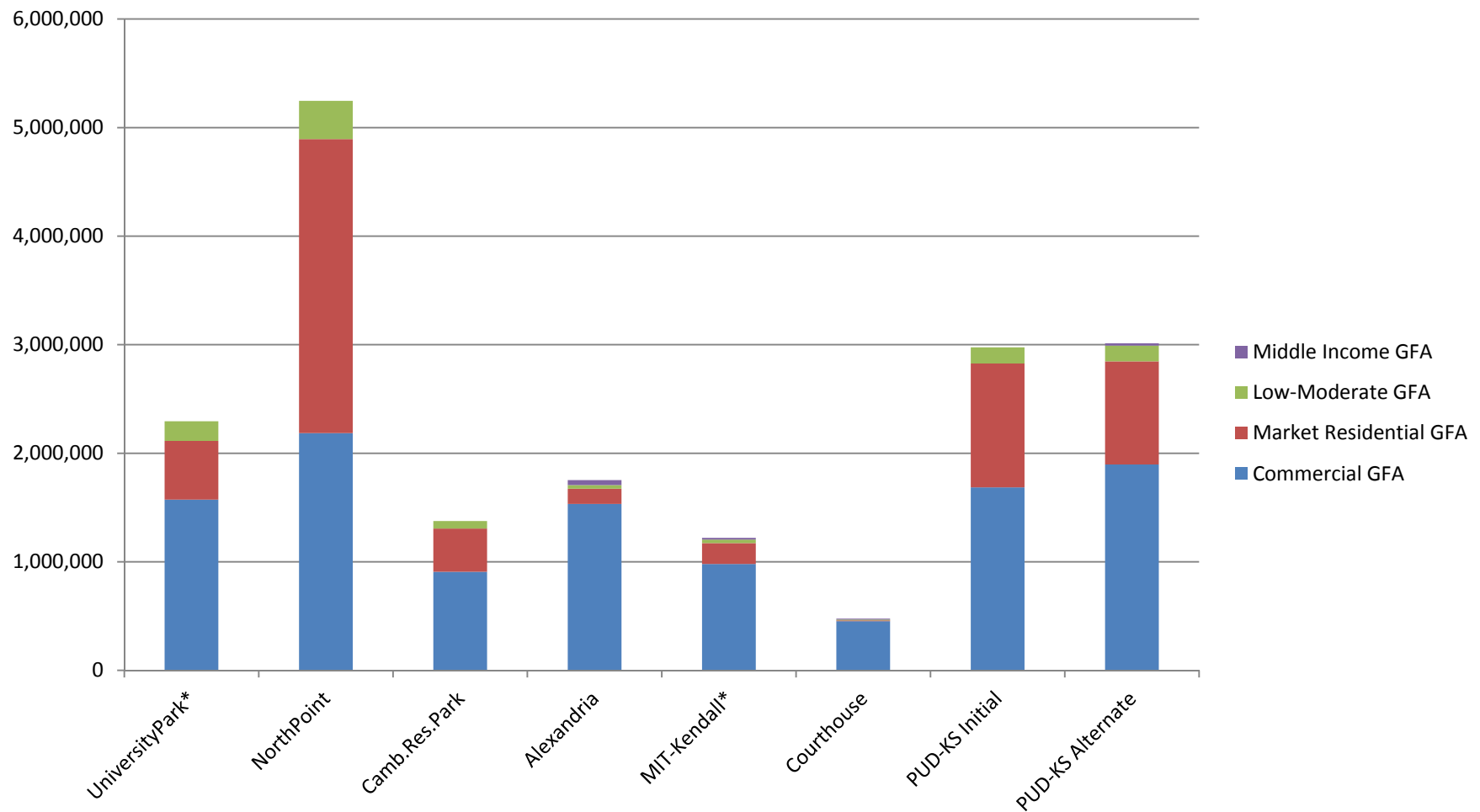
Modifications to Zoning Proposal

	Initial	Revised
Total FAR (max)	4.48 (4.0 base + 0.48 inclusionary bonus)	4.50
Non-Residential (@ 60% max)	2.40	2.70
Residential (@ 40% min + bonus, if applicable)	2.08	1.80
Low-moderate income housing required (net % of all residential)	11.5%	13%
Middle-income housing required (net % of all residential)	0%	2%

Modifications to Zoning Proposal

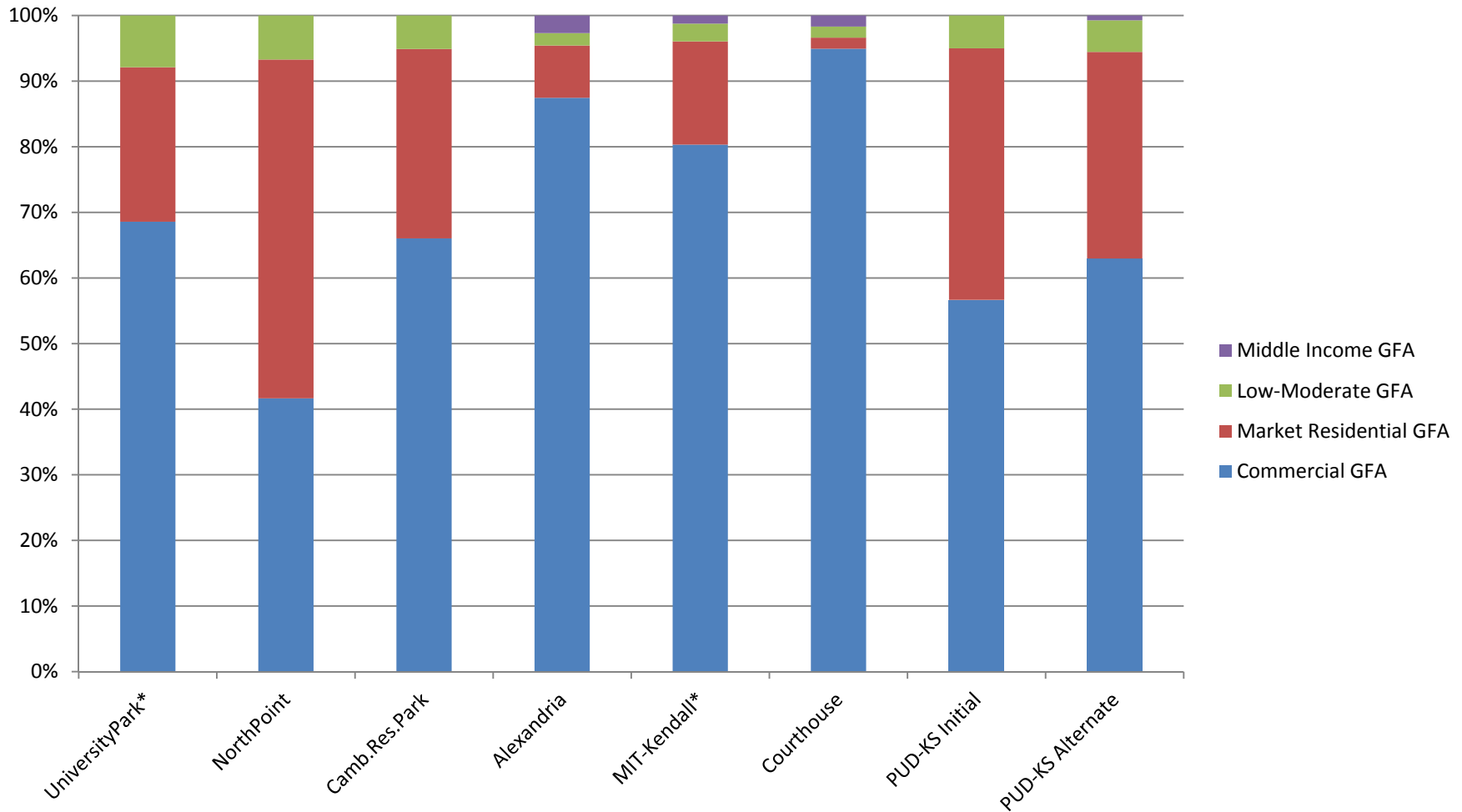
<i>ALL FIGURES APPROXIMATE</i>	Initial (by 1,000 SF)	Revised (by 1,000 SF)	Change (by 1,000 SF)
Total Residential + Commercial GFA	2,976	3,013	+ 37
Commercial GFA (max, including exempted retail, innovation office)	1,686	1,897	+ 211
Market Housing	1,141	949	- 192
Low-Moderate Income Housing (min)	149	145	- 4
Middle Income Housing (min)	0	22	+ 22
<i>Low+Mod+Mid Income Housing (min)</i>	<i>149</i>	<i>167</i>	<i>+ 18</i>

Modifications to Zoning Proposal

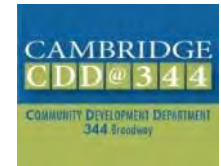


* University Park figures are estimates, and do not include 300 Mass Ave and associated agreements. MIT-Kendall figures based on zoning proposal; development plan not yet approved. **ALL FIGURES APPROXIMATE.**

Modifications to Zoning Proposal



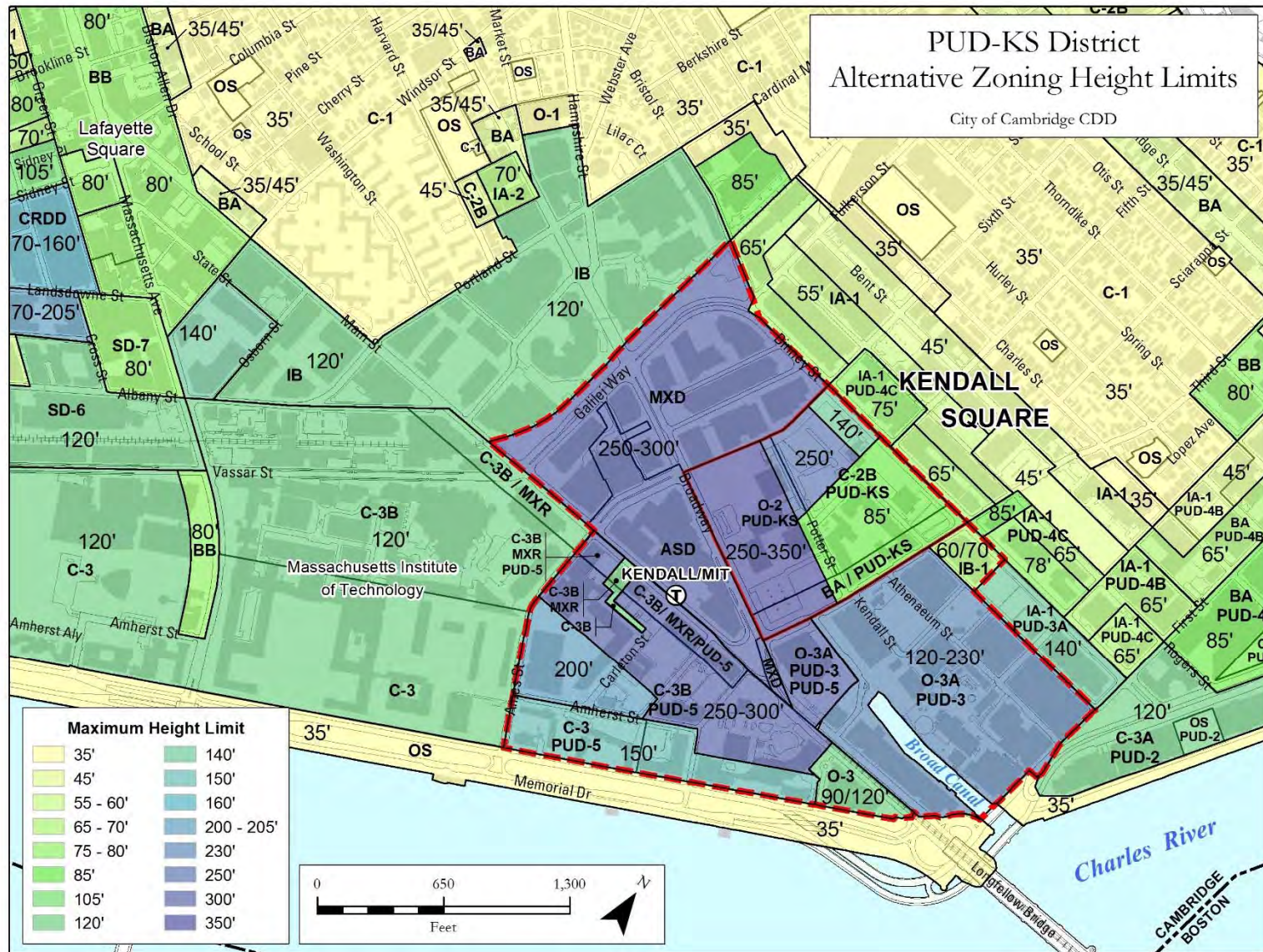
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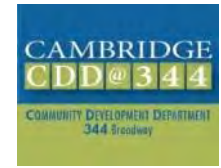


Modifications to Zoning Proposal

<i>ALL FIGURES APPROXIMATE</i>	Initial	Revised
Commercial GFA (max, <i>excluding</i> exempted retail, innovation office)	1,488,000	1,674,000
Incentive Zoning Payments (per \$12/SF Housing Committee recommendation)	\$17,856,000+	\$20,088,000+

Modifications to Zoning Proposal – Height





Modifications to Zoning Proposal – Open Space

	Current Zoning	Initial Proposal	Revised Proposal (1)	Revised Proposal (2)
Total Open Space (min)	42%	36%	40%	n/a
Public Open Space (min)	53%	18%	n/a	25%

<i>ALL FIGURES APPROXIMATE</i>	Current Zoning	Initial Proposal	Revised Proposal (1)	Revised Proposal (2)
Total Open Space (min)	6.0 acres	5.1 acres	5.7 acres	n/a
Public Open Space (min)	7.5 acres	2.6 acres	n/a	3.5 acres

Open Space

Current Zoning Definition (Article 2.000)

Open Space, Public. *An area owned or controlled by the City of Cambridge or other public entity that is intended for public use, that is open to the sky and that is designed for either environmental, scenic, or recreation purposes. Public Open Space may include but is not limited to lawns, decorative plantings, interior walkways, abutting sidewalks, active and passive recreation areas, playgrounds, fountains, and public performance areas. Public Open Space shall not include rooftop areas, patios, balconies, parking lots, or driveways. Limited paved surfaces may be designed to accommodate occasional use by motor vehicles servicing the park facility. If the facility is not held in fee simple by the City of Cambridge or other public entity, the Public Open Space may be land remaining in private ownership but protected for public use by means of a permanent easement, conservation restriction, or other similar legal device acceptable to the City.*

(Underline added for emphasis.)

Federal Open Space



Boston (Moakley Courthouse)



Washington, DC



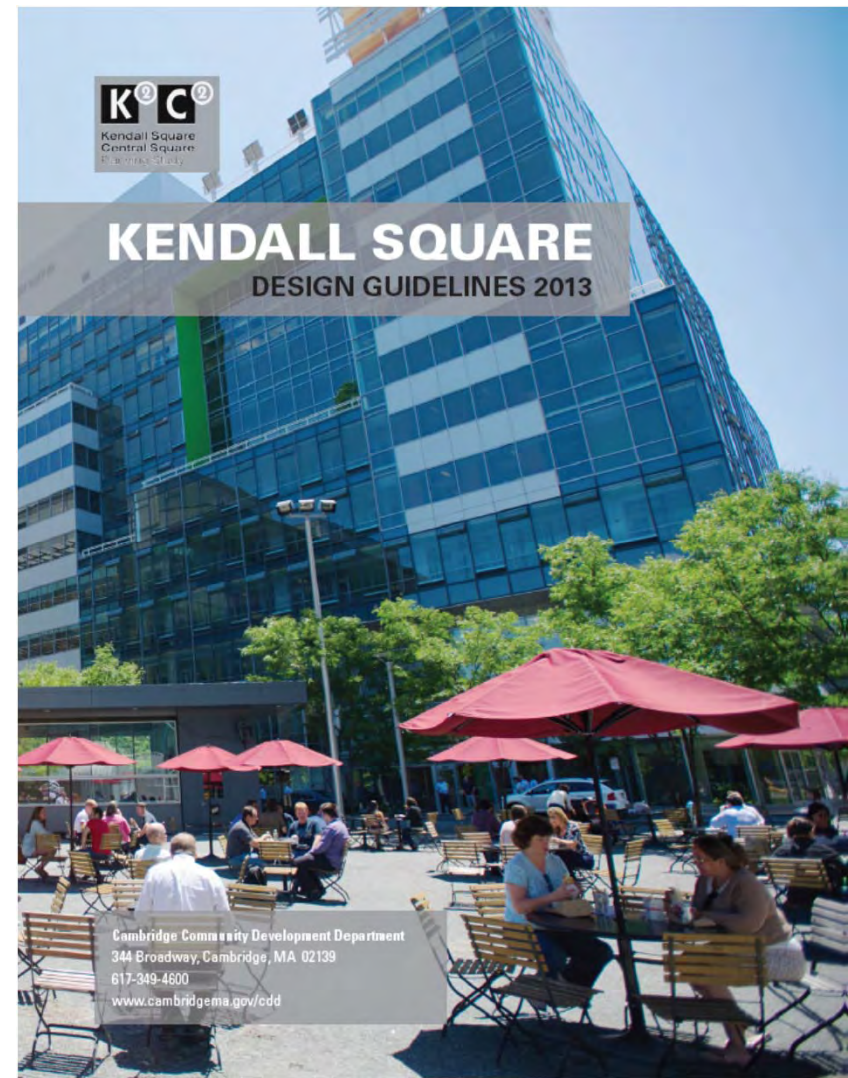
Seattle



Chicago

Modification to zoning proposal - heights

1. Existing building heights (& floor plates)
2. K2 Recommendations
3. Analysis
4. Proposed heights
5. Implications



Existing Building Heights

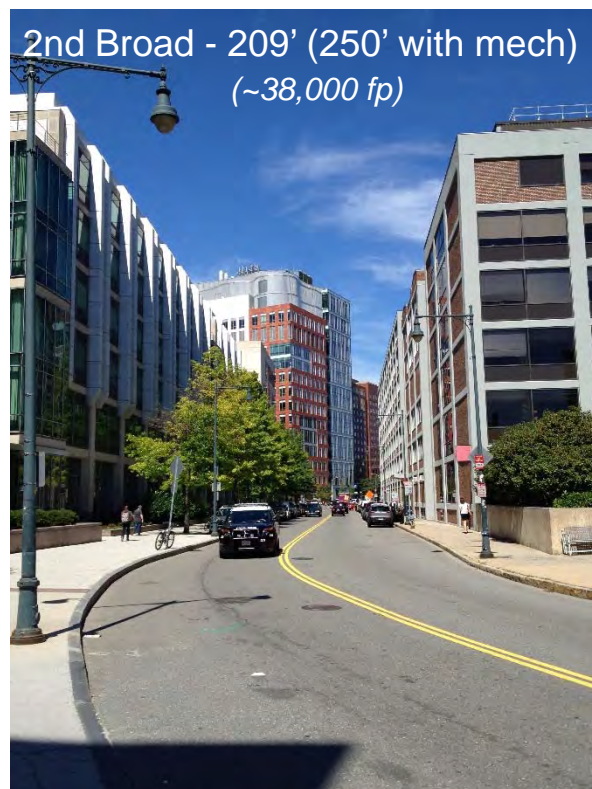
- Many tall buildings were built before 2001
 - By Variance or Comprehensive Permit
 - Or in areas where there had been no height limits
 - Or are Commonwealth and the Federal Government exemptions
- Since several tall buildings have been built under Special Permits



Existing Building Heights



Existing Building Heights



Existing Building Heights

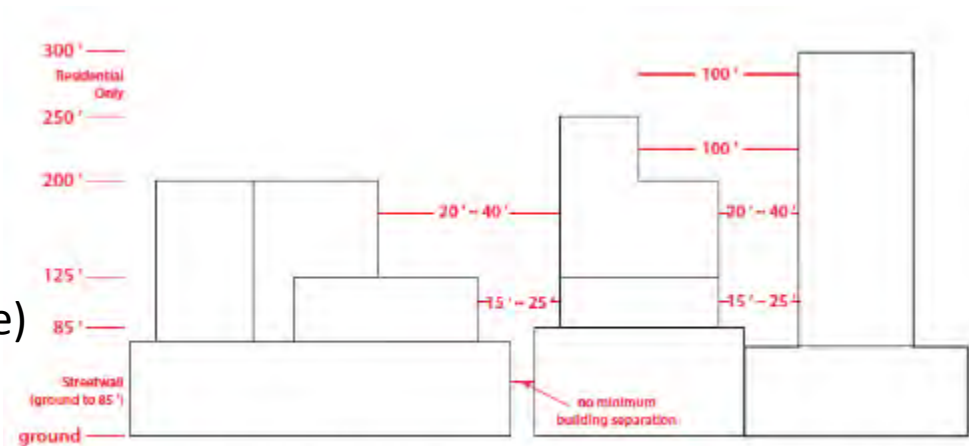
Ames Street Housing – 250'



Marriott Hotel - 250' (275' with mechanicals)
~ 10,000 fp

K2 recommendations

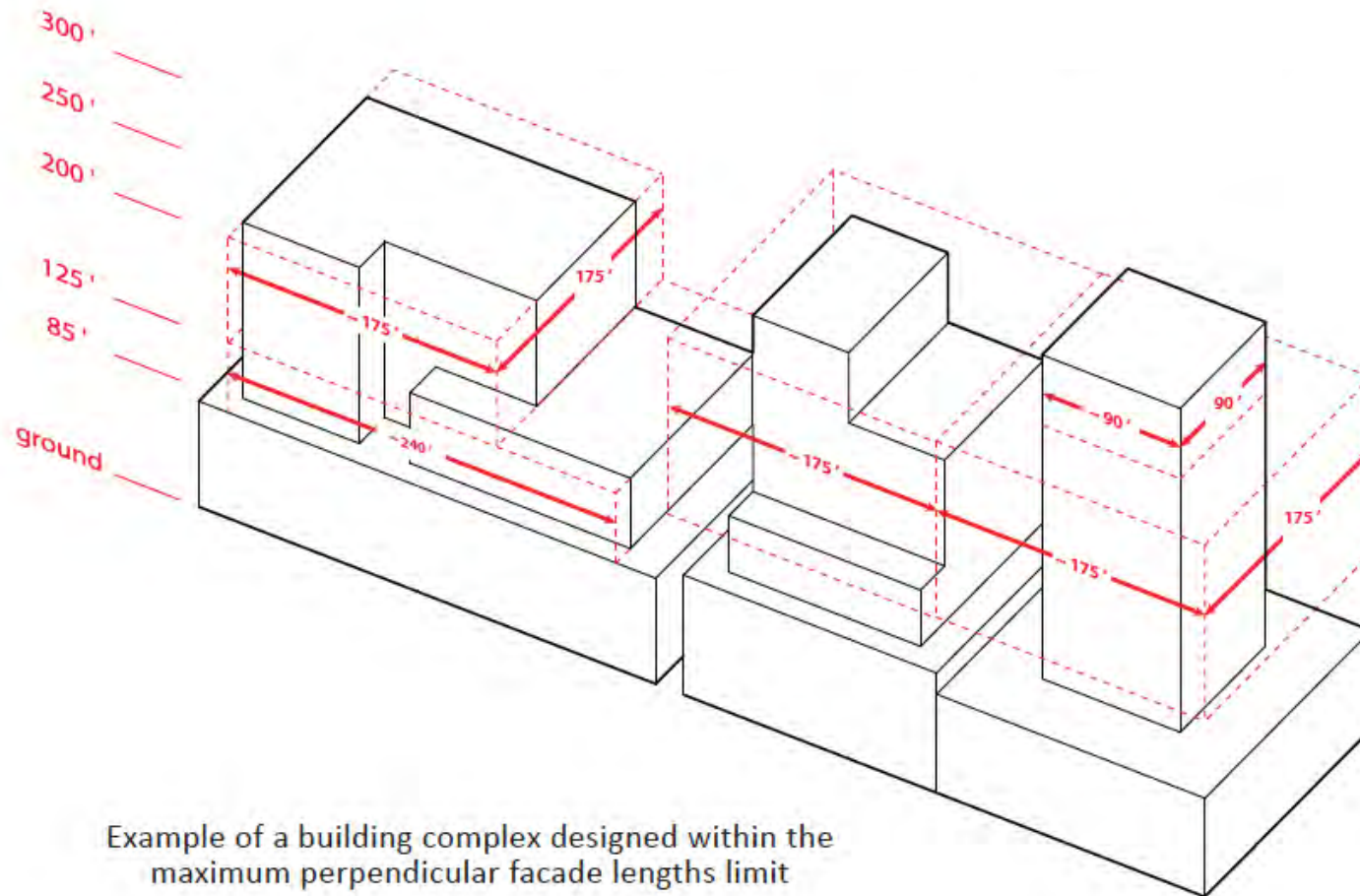
- **Maximum Building Heights**
 - 250' commercial
 - 300' residential
- **Design Guidelines**
 - Maximum plan dimensions (floor plate)
 - Minimum building separation



Example of a building complex with appropriate building separation

Height Range (feet)	Minimum building separation	Maximum length of plan dimension
251' to 300' (for residential use only)	100'	160' x 65' or 90' x 90'
201' to 250'	100'	175' x 175'
126' to 200'	20-40'	175' x 175'
85' to 125'	15-25'	240' x 175'
Streetwall (ground to 85')	None	None

K2 recommendations



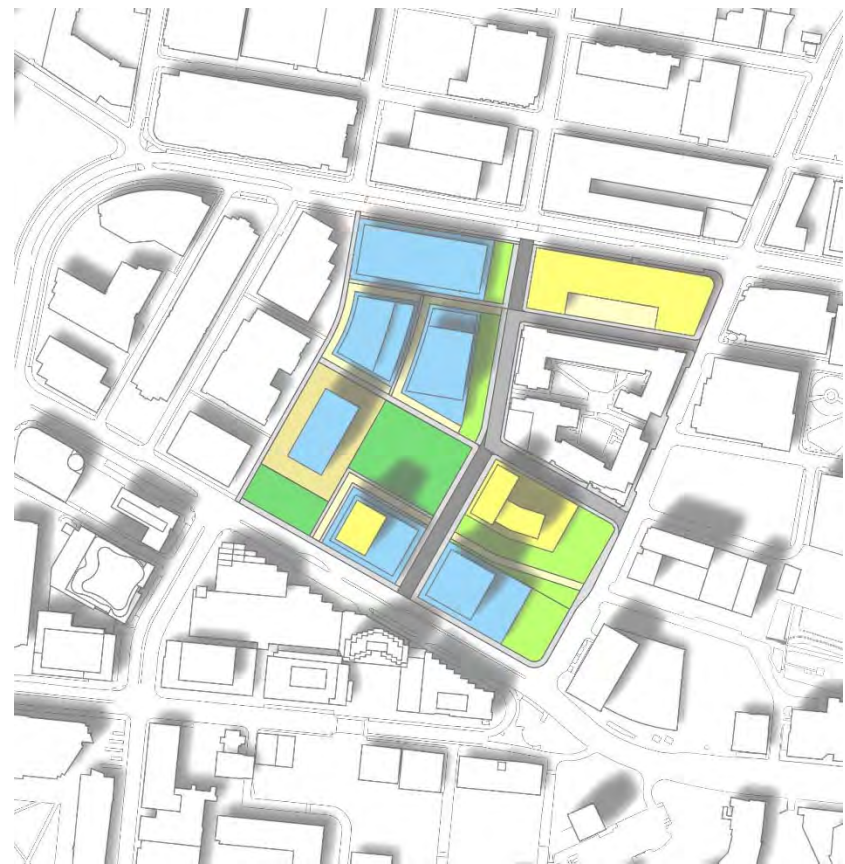
Example of a building complex designed within the maximum perpendicular facade lengths limit

Exploration of height

- PB asked staff to investigate additional height

In response we:

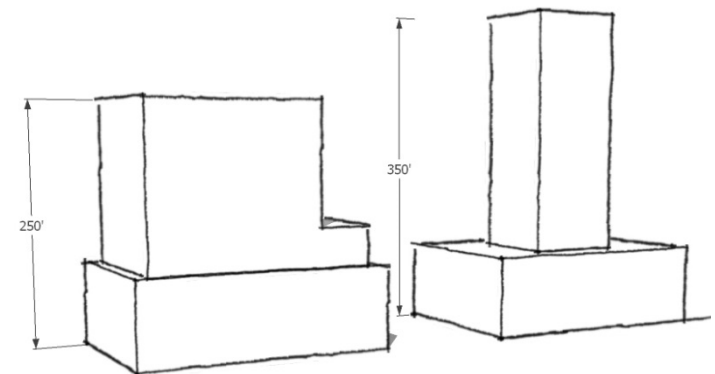
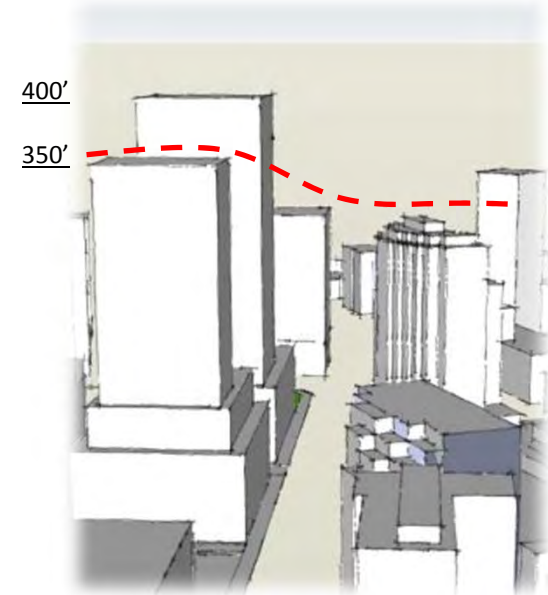
- More deliberately applied K2 Design Guidelines to sketch model
- Used conservative building floor heights - residential 12', office 15' & lab 20'
- Assumed DOT building is ~ 400,000 sqf with a 50' buffer
- Assumed commercial space in podiums
- Provided street connections & links (~ 2.6 ac.)
- Considered open space connections, interfaces and locations
- Looked to accommodate the revised 4.5 FAR (Non-residential 1,674,000 sf, Residential 1,116,000 sf)



For illustration purposes only. Not a development plan.

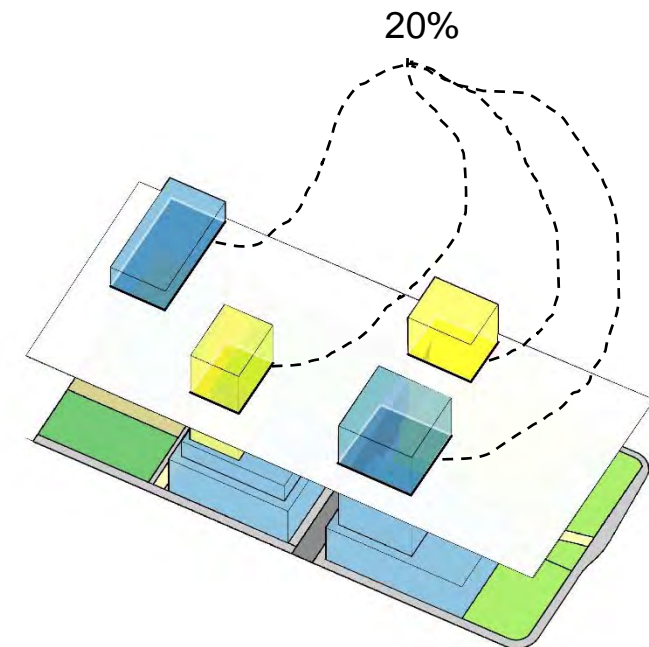
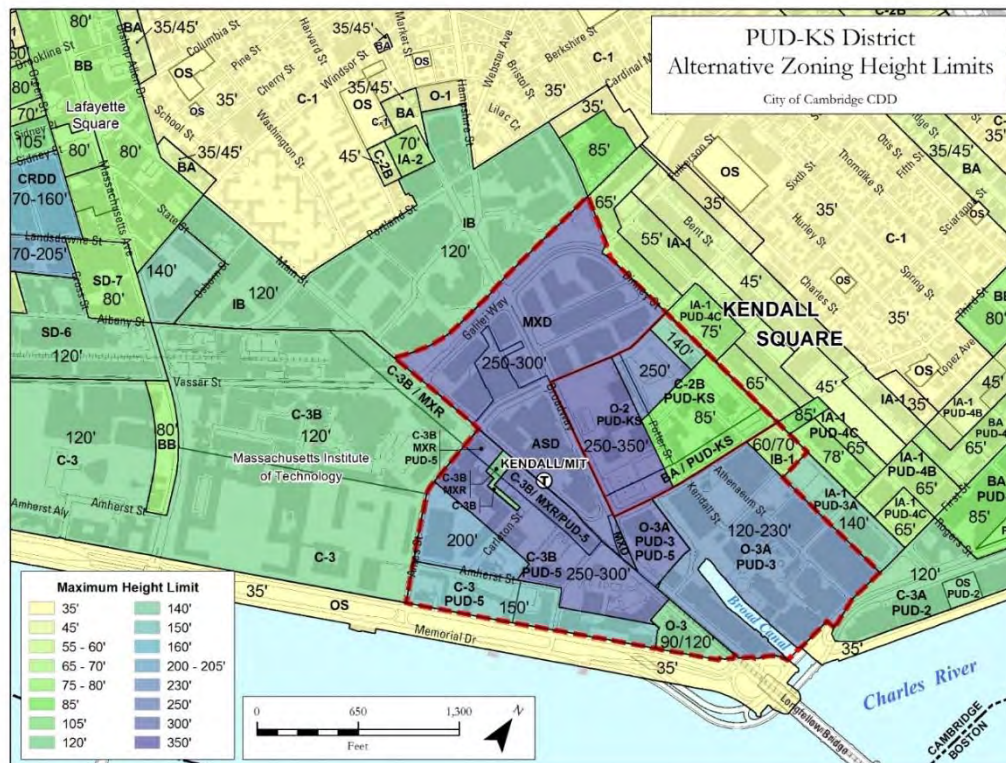
Analysis

- Very dense development once constraints are considered
- Preferred location for taller buildings is Broadway
- Need to consider transition from south side of Broadway
- Slender towers are preferred for buildings above 250'. I.e. the taller the building the smaller the floor plate
- Therefore increasing building heights does not necessarily lead to more floor area
- Not much is gained on the ground by increasing to 400' (podium requirements are large)
- A modest height increase achieves some flexibility & enables clarification of 25% open space req.
- Binney Street is a wide, tree-lined street can accommodate some taller forms subject to step back above 85' and no sensitive interfaces



Proposed modifications – building heights

- Increase height on Binney Street from 120' to 140' (Most likely a commercial building)
- Height on Broadway to increase to 350' with a maximum of 20% of the building height area covered by buildings exceeding 250'.



Design review implications

- Slenderness (floor plate and façade width dimensions important)
- Tower profile
- Consider impacts on views, sun, shadow, sky exposure and wind on open space, streets, sidewalks, and neighbors
 - Require thorough analysis of shadow impacts
 - Require separation to allow light, views and access
- Design quality – needs to be extraordinary

Consider changes to the design guidelines to clarify expectations for buildings above 250'