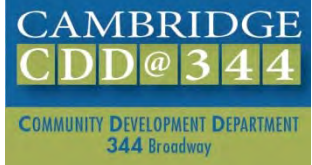




PUD-KS (Volpe Site) Rezoning October 20, 2015

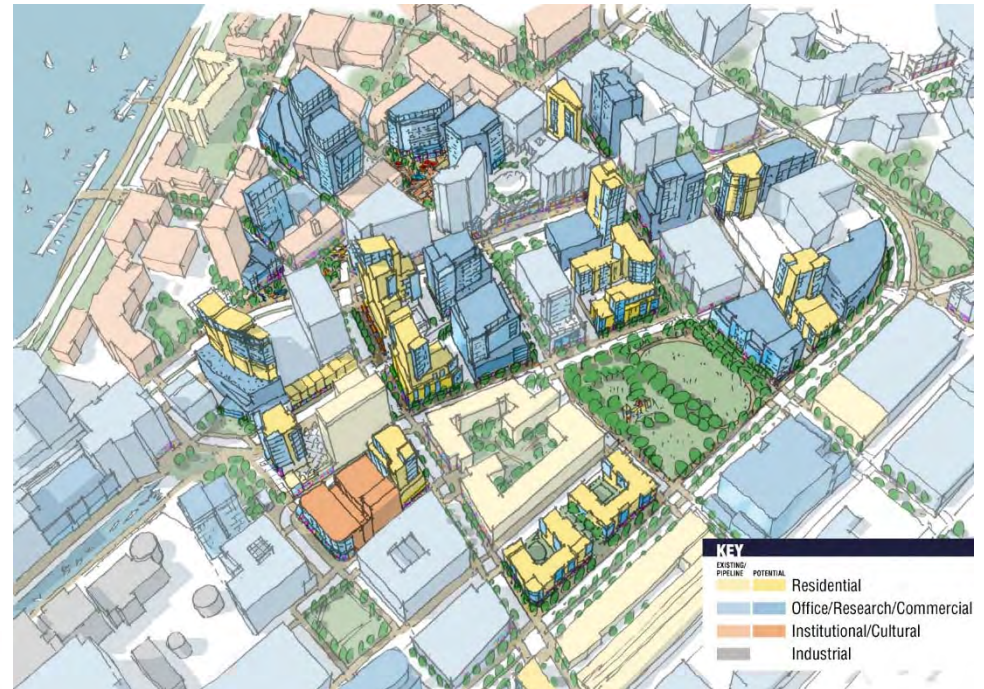


Community Development Department



Vision for Kendall Square

“A dynamic **public realm** connecting diverse choices for **living, working, learning, and playing** to inspire continued success of Cambridge’s **sustainable, globally-significant** innovation community.”



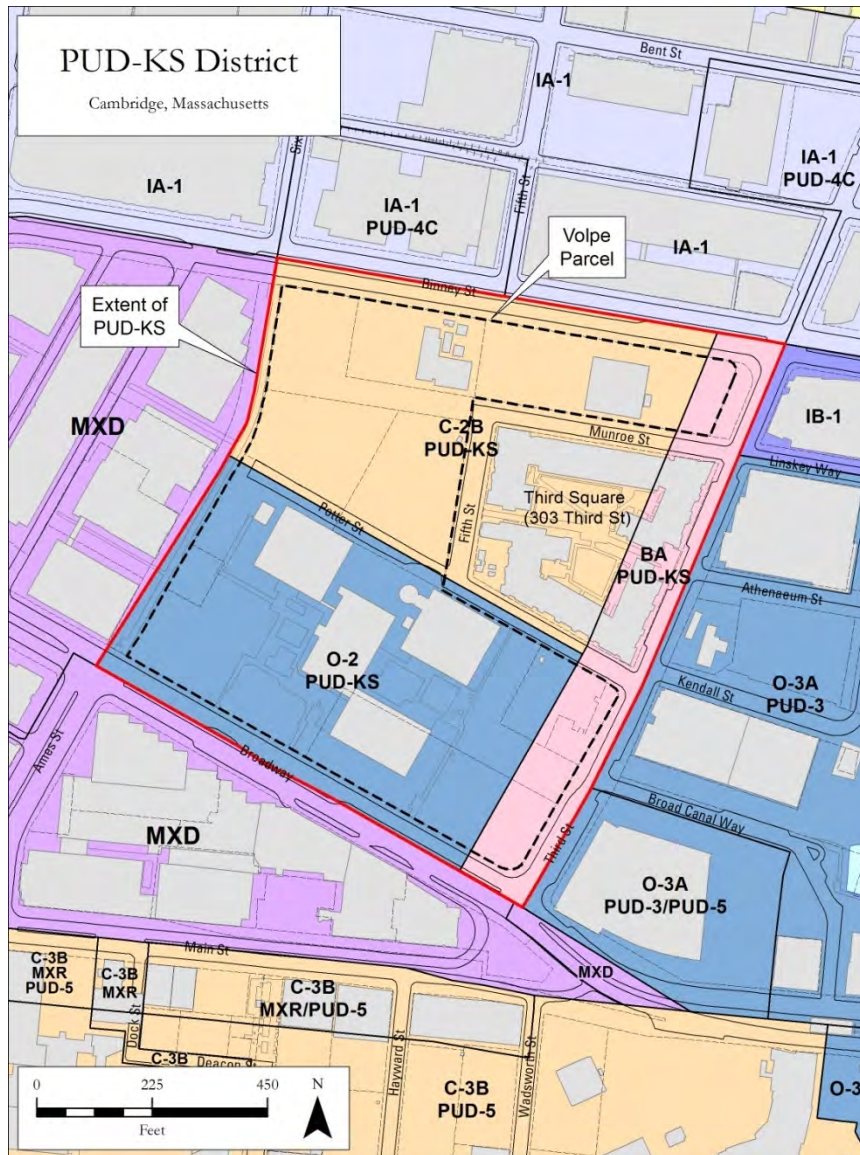
K2 Planning Vision (Goody Clancy)



ECPT Planning Vision (CBT Architects + Planners)

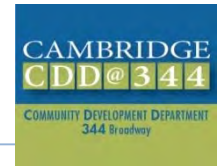


Zoning Process Overview



- Zoned for Planned Unit Development (PUD-KS District)
- Current zoning adopted through Eastern Cambridge Planning Study (2001)
- K2 Study (2011-2012) recommended amendments
- Planning Board discussed January-May 2015, zoning petition filed in June
- Petition refiled, can be considered until February, 2016

Council comments - Joint Hearing June 29, 2015



Housing

- Proportion of housing
- Affordable housing (low-mod, mid)
- Housing for families

Ground floor uses and activities

- Family-friendly restaurants
- Low-price supermarket
- Ground floor retail needs more specificity
- Affordable retail & locally-owned
- Retail to attract people
- Workforce development needs
- Incubator space
- Daycare

Other

- Cost and size of Volpe building & site
- FAR of 4.5 is dense
- Transportation – traffic impacts, red line
- Development feasibility
- Have community conversation

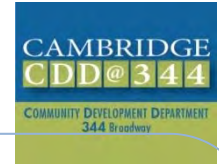
Open space & public realm

- Needs to be very special
- Building facades matter
- Need family-friendly open spaces
- Maximize sunlight & livability
- Contiguous - one primary, a secondary
- Visibility from different vantage points
- Programming
- No gates, needs to face streets
- Welcoming to the neighborhoods
- Engaging & educational indoor & outdoor
- Civic, not corporate space – medieval plaza
- Accessibility of federally-owned open space

Built form

- Composition of buildings respect each other, especially at the lower level
- Floor plate sizes important
- Don't wall off site
- 2 setbacks instead of just one
- Design guidelines need more detail

Planning Board comments– June 29 & July 14, 2015



Land use

- Supporting high-tech & innovation is most important goal for site
- Proportion of housing versus commercial/office space
- Affordable housing (low-mod, middle)
- Housing for families (3 beds)

Ground floor uses and activities

- Retail - where it is going to be located, and what sort of retail it is going to be
- Design guidelines can include retail

Other

- Need financial analysis
- FAR of 4.5 is a lot of sqf to assemble across the site
- Transit impacts

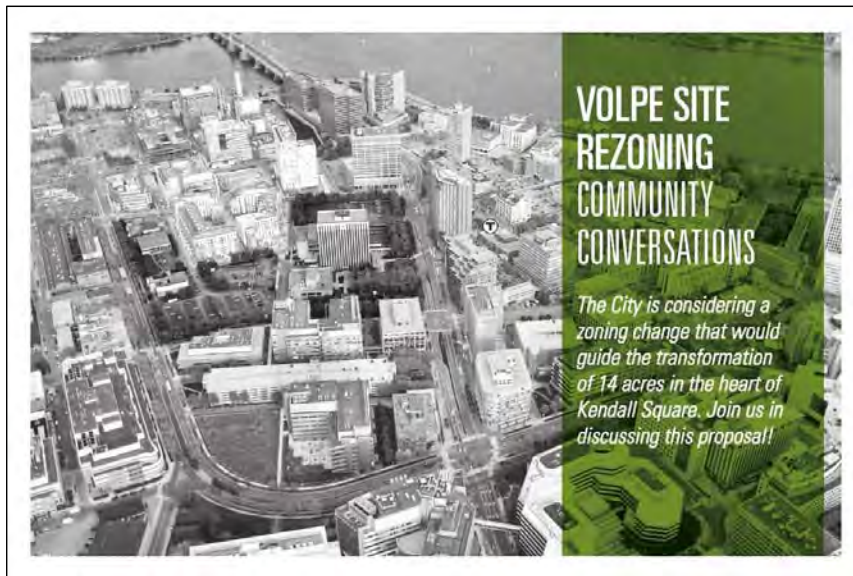
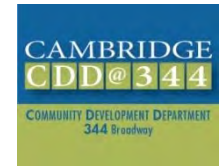
Open space and public realm

- Amount of open space
- Connections are the key for open space
- Connect Kendall shows how to make space function without 5-acre park – it's not the right location for such a large park
- Extend the canal and create more connections through the site

Built form & urban design

- Where taller buildings should be located & whether there's a limitation on that area in which they can be located
- Need human-scale
- Need vision for creating a great space
- Broadway & Third St intersection is important
- Variation in height
- Concentrate on people who live and work there & neighborhoods
- Allowing more height for the residential

Community outreach

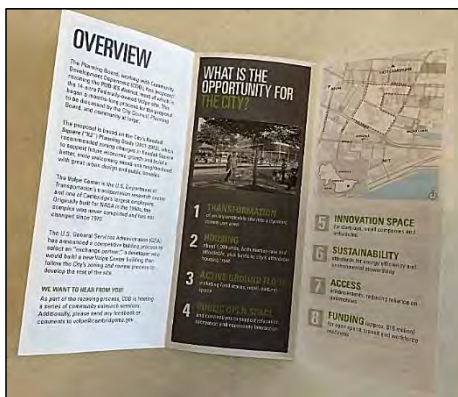


K2 Study (2011 – 2012)

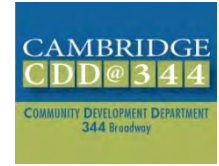
- 24+ advisory committee & public meetings
- City Council roundtable + Planning Board discussions

Volpe Rezoning

- Postcard mail-out
- Volpe web page
- Flyers
- Brochure
- Social Media
- Public meetings



Community outreach



Seven drop-in conversations

1. July 30th, 5-7pm at Clement Morgan Park
2. Aug 5th, 5-7pm at Rogers Street Park
3. Aug 12th, 11am-2pm at Lafayette Square
4. Aug 15th, 2-5 pm at Greene Rose Park
5. Aug 20th, 11am-2pm at Kendall Square Farmers' Market
6. Sept 12th, 11am-4pm at The Pride Day
7. Sept 18th, 9am-4pm at The Parking Day

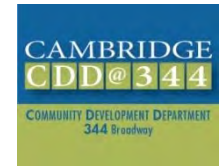
Sit-down forum

Oct 17th, 10am – 12pm Kennedy-Longfellow School

Other meetings

Area 4, ECPT

Community outreach

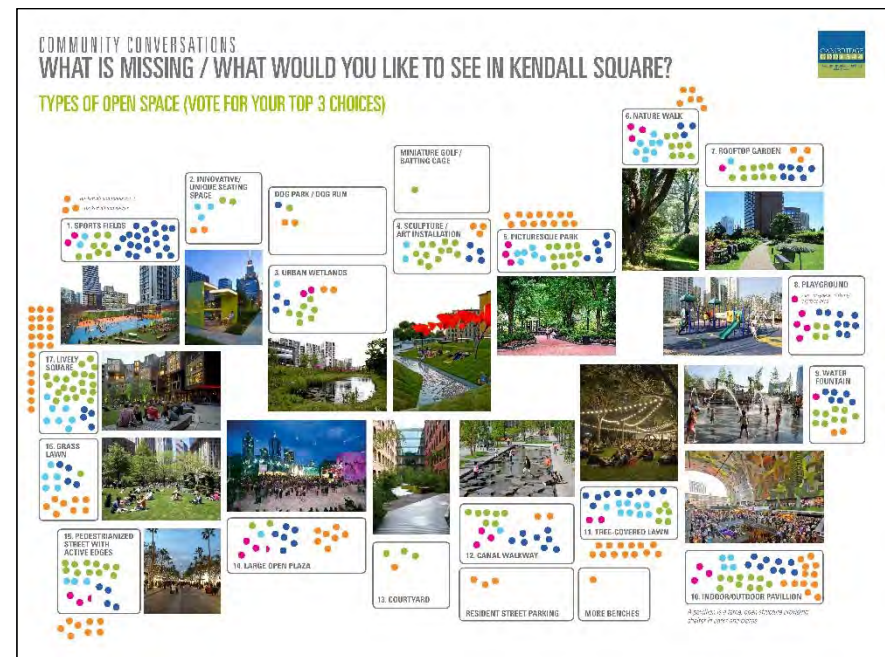


Soliciting community feedback

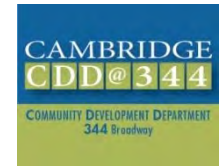
Preferred ground floor uses and amenities



Preferred types of open spaces



Community outreach



Trade-off conversations

COMMUNITY CONVERSATIONS PRIORITIES

WHAT IS THE MOST IMPORTANT ELEMENT TO YOU? (VOTE YOUR TOP CHOICE)

The following elements have emerged as some of the most important priorities that will be furthered through the Volpe site rezoning. As the City Council and the Planning Board are in the process of identifying a desirable balance among the different priorities, we would like to solicit your opinion on what you think is the most important for the Volpe site.

AFFORDABLE HOUSING

Increase the amount of affordable housing of various levels (with thoughts with regard to the amount of low/mid-range income and middle income housing, please note a preference)

MORE HOUSING DEVELOPMENT

Increase the amount of housing development (includes both affordable and market rental) reduce the amount of commercial development

OPEN SPACE

Increase the amount of open space (greenery, parks, recreation, etc.) reduce the amount of commercial development

RETAIL DIVERSITY

Create incentives/rewards to encourage local retail (possibly market rate) and specialty retail (possibly market rate) development (especially)

FUNDS FOR OPEN SPACE, TRANSIT, WORKFORCE DEVELOPMENT

INNOVATION SPACE

Increase the amount of innovation space required

INTERACTION OF OPEN SPACE & BUILDING SIZE

The following images visualize the maximum amount of development that can occur under the proposed zoning. These three studies together illustrate the interaction between the amount and location of open space and building size.

Open space area: approx. 3.5 acres / Tower floor plate size < 10,000 sq ft

- Tower floor plate size < 10,000 sq ft
- Tower floor plate size < 10,000 sq ft
- A variety of open space types is utilized throughout the site
- A program of open space is required

Open space area: approx. 4 acres / Tower floor plate size < 25,000 sq ft

- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study

Open space area: approx. 4.5 acres / Tower floor plate size < 29,000 sq ft

- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study
- The tower floor plate size is larger than the previous study

Key priorities:

1. Affordable housing
2. More housing
3. Amount of open space
4. Ensuring retail diversity
5. Community funds for open space, transit, and workforce development

Community outreach

Sit-down forum – built form



What we heard

Open Space

- Large, consolidated park vs. collection of smaller, more intimate spaces
- Active play – basketball, playground, water features
- Passive, natural setting to escape city
- More active, lively urban plaza
- Extend Broad Canal
- Indoor/outdoor market pavilion



Common themes

- Active & defined edges
- Sense of safety
- Public feel
- Visible from outside site
- Not overshadowed or overwhelmed by buildings
- Focus on outdoor spaces with some indoor opportunities
- Smaller open spaces need to be well-designed
- Streets to connect with open space
- Quality & character of the place is important

What we heard

Ground Floor Uses

- Grocery – fresh produce
- Family restaurant, incl. fast-order food, chains
- Pharmacy / Convenience Store
- More nightlife
- Affordable Daycare
- Workforce training space
- Connect Cambridge residents to new jobs
- Community & cultural spaces



Common themes

- Diverse & affordable retail
- Flexibility
- Smaller spaces
- Larger spaces to accommodate chains
- Not all needs can be met on the Volpe site
- Need to create destinations & retail attractors

What we heard

Streets & Connections

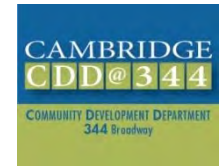
- 6th street walkway is important
- North-south connections for pedestrians & cyclists
- Don't forget connections to East Cambridge & Wellington-Harrington
- Connections though Third Square
- Need some cars so site is not isolated
- Narrow Binney Street
- Transit improvements



Common themes



What we heard



Built Form

- Recognition that this is the right location for density
- Create an urban environment with strong urban form
- Taller buildings distributed throughout site
- Taller buildings clustered towards the middle of the site
- Capitalize on the corner of Broadway & Third St
- Avoid tall buildings on Binney St
- Transition to sensitive uses
- Consider low buildings & strong edge on sixth street connector
- Access open space through buildings
- Buildings need to have Cambridge character

Common themes

- Encourage human scale within an urban setting
- Don't want suburbs
- Start with an assemblage of places (not objects or buildings)
- Design buildings to frame public spaces
- Building height & massing, especially of taller buildings, should not overwhelm streets or open spaces
- Visual & physical permeability

Related Initiative - Connect Kendall Square

- Parallel City process studied systemic improvements to open space, connecting residents, workers, businesses and the natural environment
- Competitive process generated alternative approaches for Volpe Site



Work underway

1. Updating 3d model to show context of all development being considered in Kendall Square – MIT, MXD & PUD-KS
2. Kendall Square Mobility Taskforce
3. Transportation Analysis





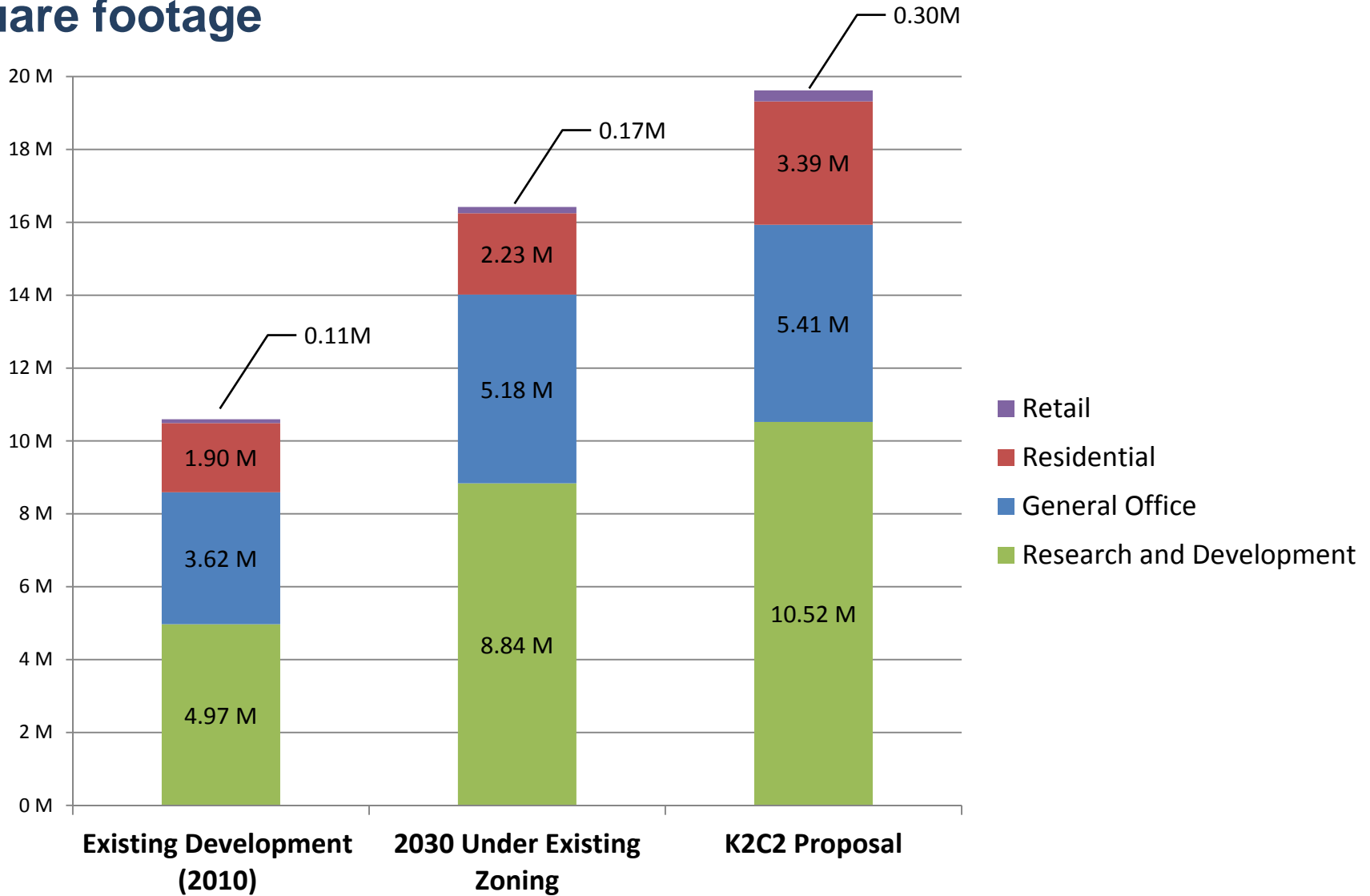
K2C2 Transportation Analysis

Factors in Estimating Traffic Impacts

- Amount of development
- Pace of development
- Trip generation characteristics
 - Land use type
 - Choice of travel mode
- Trends
 - Settlement patterns
 - Travel mode patterns

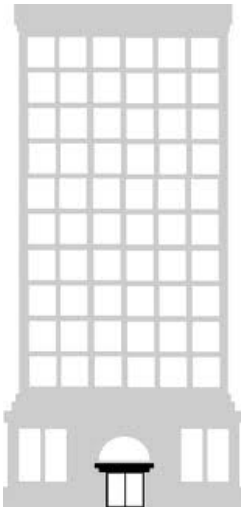
K2C2 Development Scenarios

Square footage



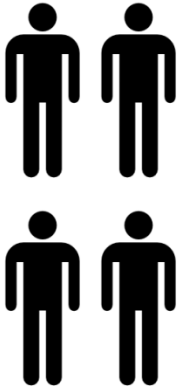
Calculating New Trips

(SQUARE FEET BY LAND USE)



NEW DEVELOPMENT

(ITE RATE AND ACS FACTOR)



PERSON TRIPS

(MODAL SPLIT)



PEDESTRIAN



TRANSIT



BICYCLE



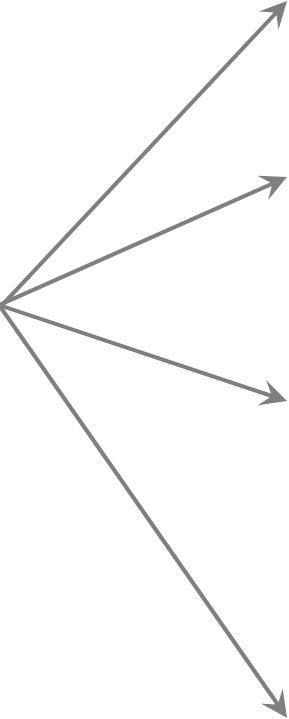
CAR

PERSON TRIP BY MODE

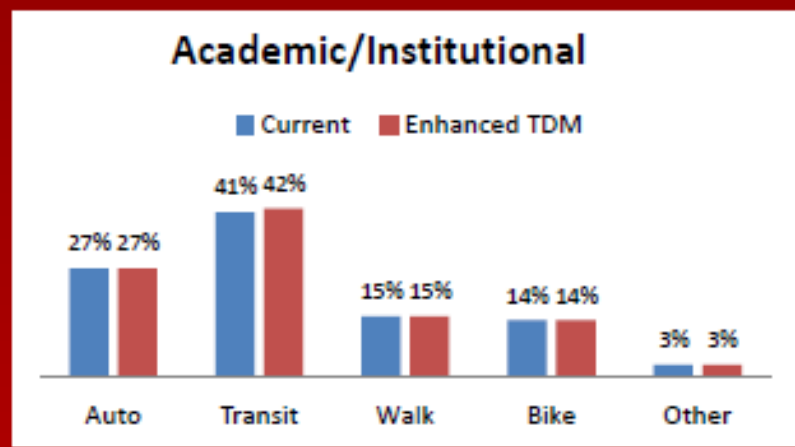
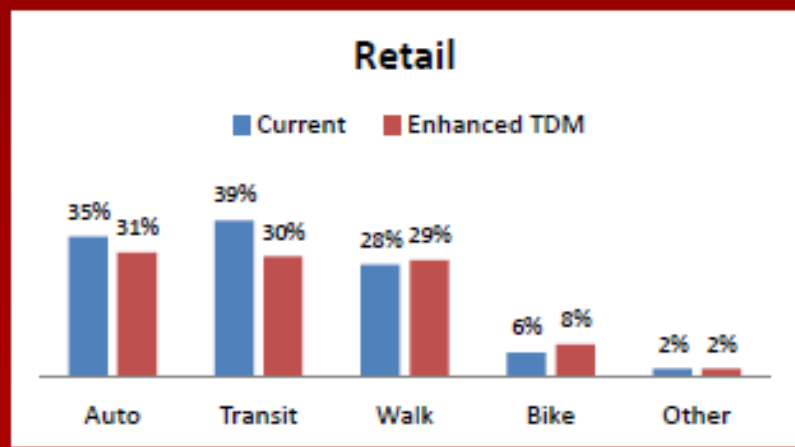
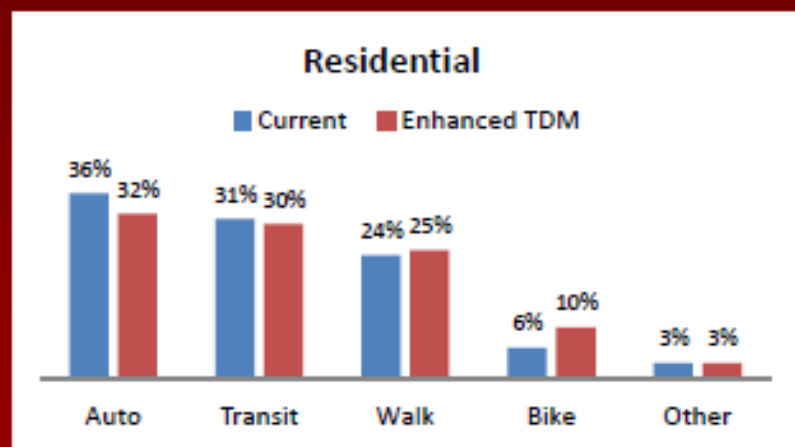
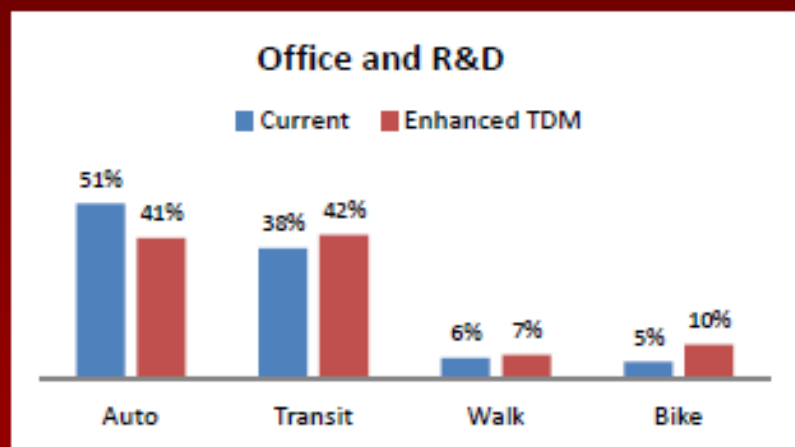
(VEHICLE OCCUPANCY RATE)



CAR TRIPS

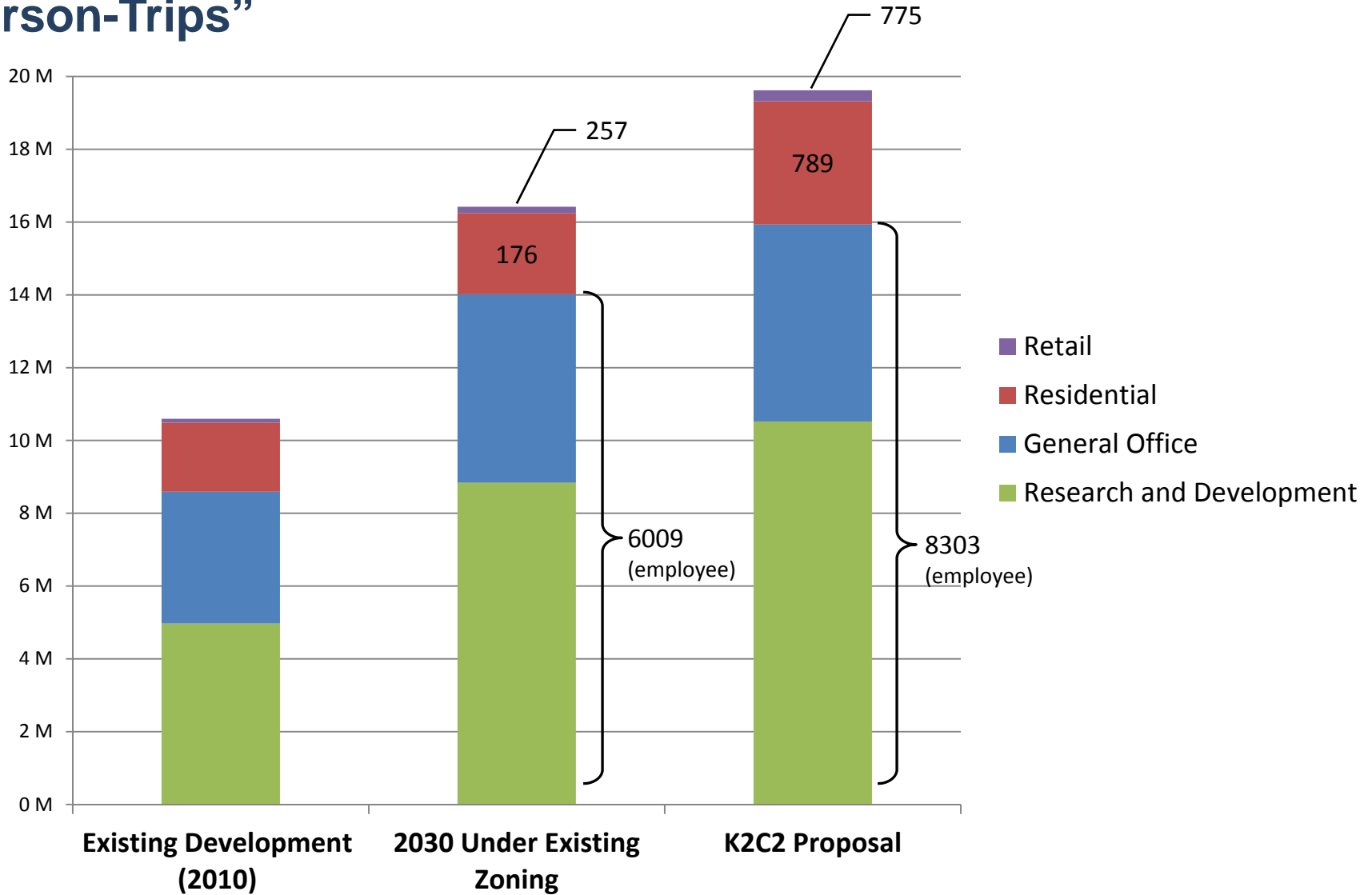


Kendall Square Modal Shares by Land Use

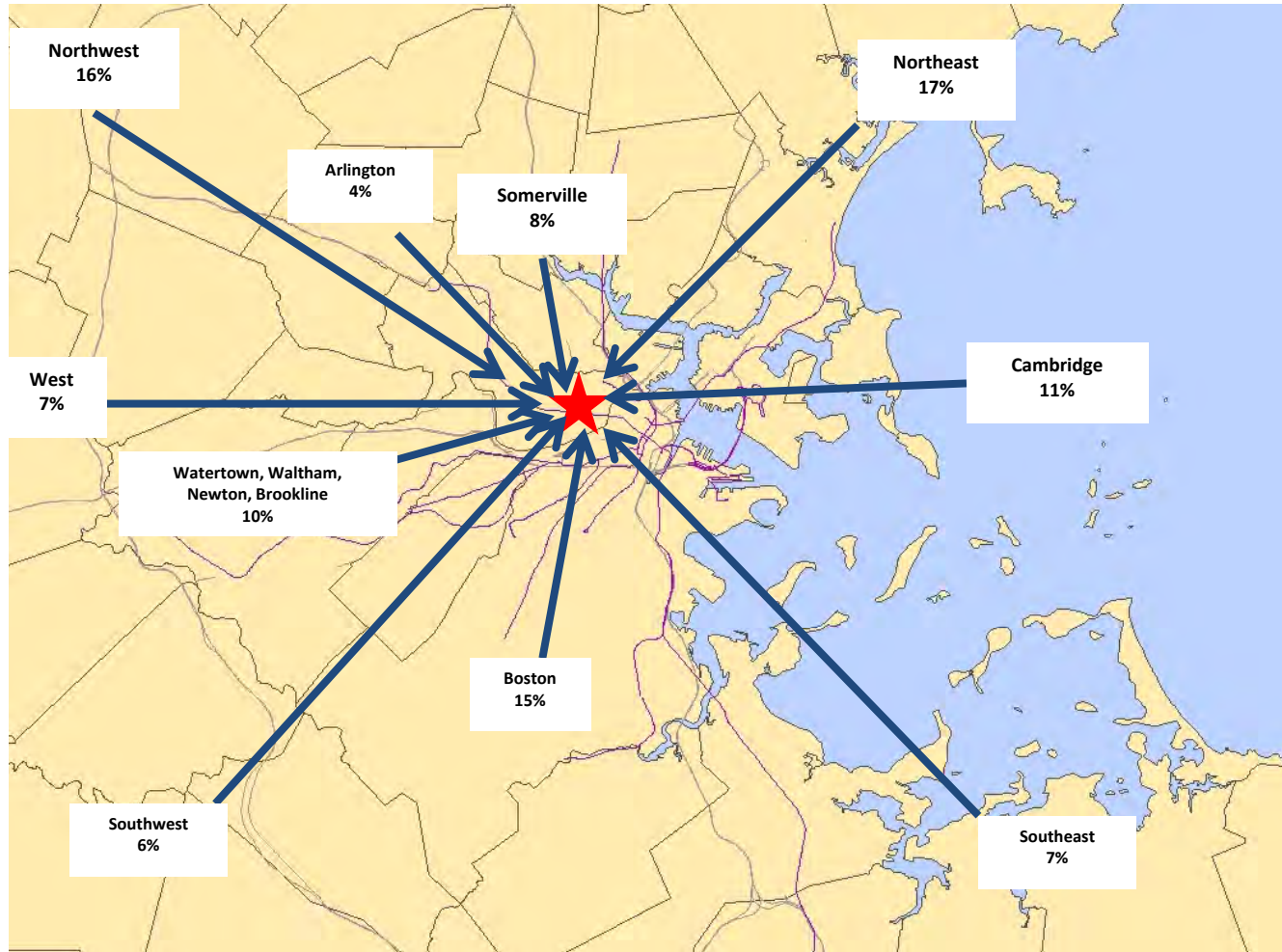


2030 Net New Person Trips by Land Use

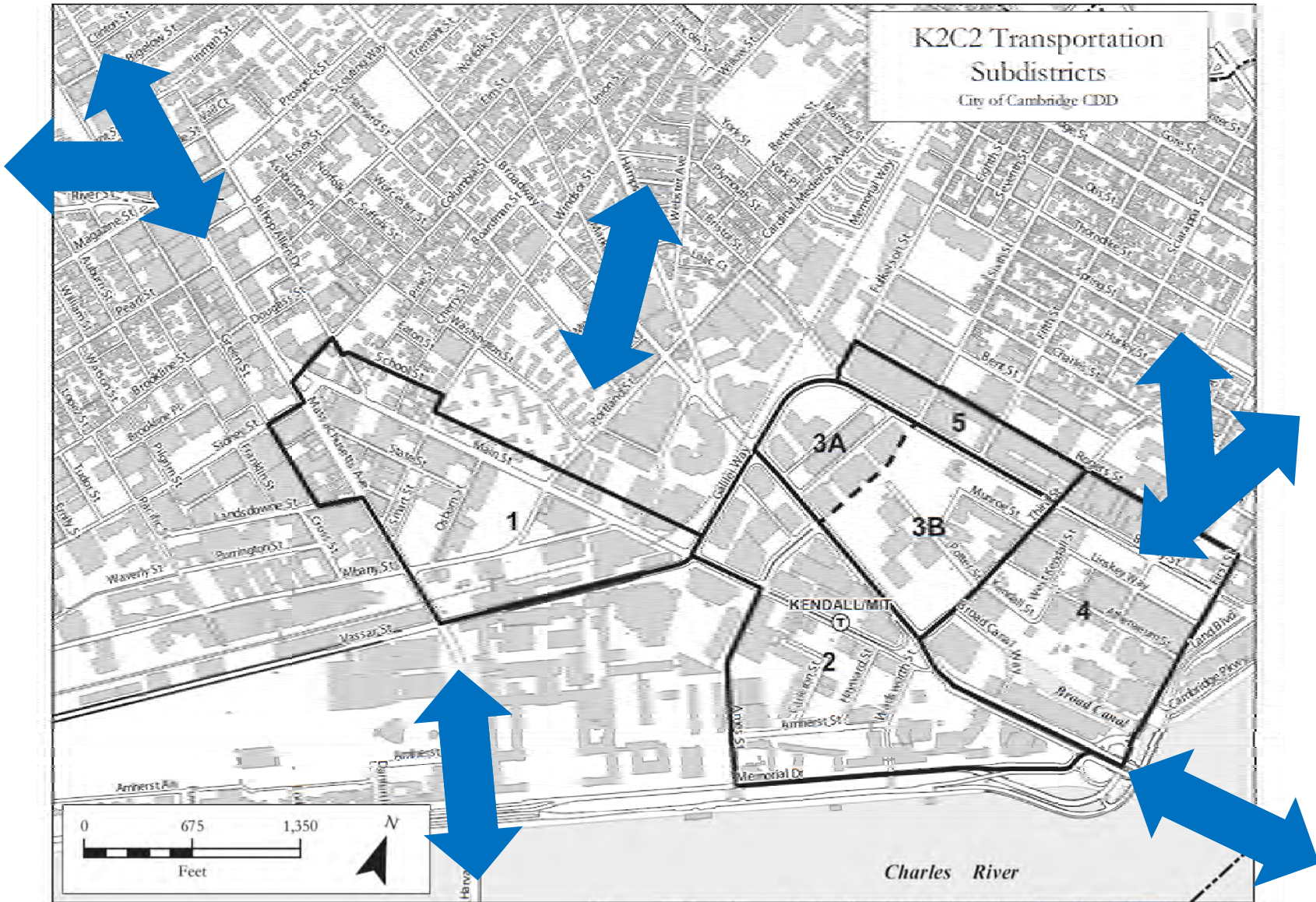
“Person-Trips”



Commmute to Work



Trips for the Study Area

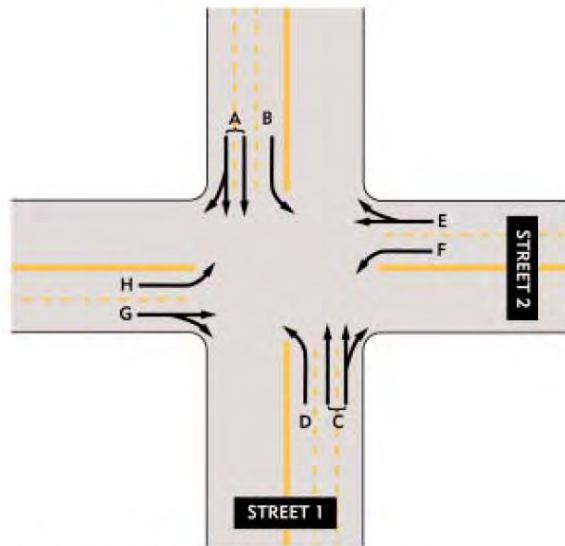


Map prepared by Brendan Monroe on October 5, 2011. CDD GIS C:\Projects\KendallCentralStudy\K2C2\PTDMAreas8x11.mxd

Overview of Critical Sums Analysis

- Critical Sums Analysis is a planning tool used to evaluate build-out scenarios
- Compares how different levels of build-out impacts specific intersections in general way
- Not a traffic engineering tool
- Same methodology used in prior planning studies:
 - 2001 Citywide Rezoning
 - 2001 ECaPS
 - 2004 Concord-Alewife Plan

Critical Sums Methodology



Street 1: $(A+2) + D$ or $(C+2) + B$, whichever is more

Street 2: $E + H$ or $G + F$, whichever is more

Critical Sum = Result of Street 1 + Street 2

Critical movement volume at an intersection is the sum of all conflicting traffic movements (vehicles per hour).

Intersections with 1,500 or fewer vehicles per hour considered to operate adequately, i.e. motorists will wait no more than two light cycles to get through the intersection.

When thresholds are exceeded, intersection operation starts to deteriorate exponentially.

Critical Sums by Intersection 2030 K2C2 Proposal

	ECaPS 1998 Existing		2010 Existing Conditions		ECaPS 2020		2030 Buildout Existing Zoning		2030 Buildout K2C2	
	Volumes	Critical Sum	Total Volume	Critical Sum	Volumes	Critical Sum	Total Volume	Critical Sum	Total Volume	Critical Sum
1. Broadway/Galilei	2800	1020	2292	768	4330	1670	2692	896	2882	952
2. Broadway/Third	2280	1110	1964	1111	3130	1510	2400	1325	3106	1710
3. Main/Galilei/Vassar	1610	580	1764	711	2620	1050	2144	955	2424	1155
4. Binney/Third	2280	1200	2007	742	3740	1690	2594	980	3004	1136
5. Binney/First	1820	820	1311	590	3130	1260	1439	654	1520	694
6. Binney/Land	3150	1080	2382	654	4540	2010	3019	917	3211	991
7. Memorial Drive / Wadsworth	1270	700	1361	680	1460	780	1638	802	1687	812
8. Mass. Ave/Albany			1850	807			2122	1017	2158	1045
9. Main/Mass./Columbia/Sidney (Lafayette Sq.)			1460	762			1879	1025	2146	1143
Intersections over 1500:				0	4	0	1			

- Total intersection volumes increase 16-58% (avg 35%)
- Broadway/Third exceeds threshold (1,710)

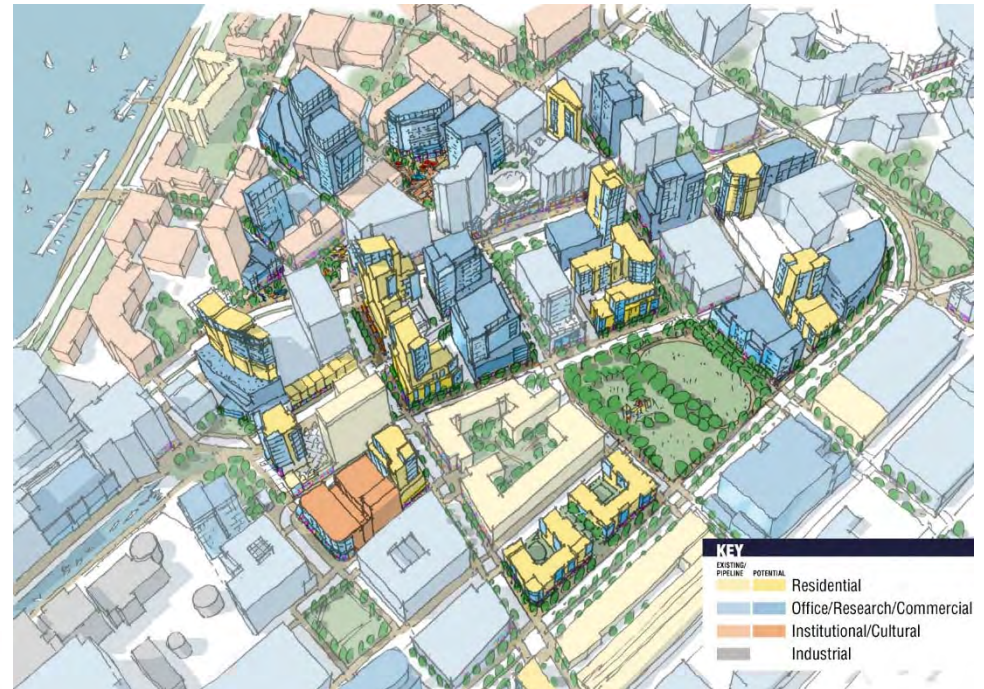
Critical Sums by Intersection

	2010 Existing Conditions		2030 Buildout Existing Zoning		2030 Buildout K2C2		2030 Buildout K2C2 with Enhanced TDM	
	Total Volume	Critical Sum	Total Volume	Critical Sum	Total Volume	Critical Sum	Total Volume	Critical Sum
1. Broadway/Galilei	2292	768	2692	896	2882	952	2774	918
2. Broadway/Third	1964	1111	2400	1325	3106	1710	2893	1599
3. Main/Galilei/Vassar	1764	711	2144	955	2424	1155	2302	1072
4. Binney/Third	2007	742	2594	980	3004	1136	2820	1061
5. Binney/First	1311	590	1439	654	1520	694	1487	678
6. Binney/Land	2382	654	3019	917	3211	991	3057	923
7. Memorial Drive / Wadsworth	1361	680	1638	802	1687	812	1625	787
8. Mass. Ave/Albany	1850	807	2122	1017	2158	1045	2098	998
9. Main/Mass./Columbia /Sidney (Lafayette Sq.)	1460	762	1879	1025	2146	1143	2017	1071

Preferred Scenario

Vision for Kendall Square

“A dynamic **public realm** connecting diverse choices for **living, working, learning, and playing** to inspire continued success of Cambridge’s **sustainable, globally-significant** innovation community.”



K2 Planning Vision (Goody Clancy)



ECPT Planning Vision (CBT Architects + Planners)



Elements of K2 Zoning Recommendations

Housing

- Required for large commercial development
 - Affordable + middle-income units
 - Incentive zoning payments (\$12/SF non-res)
-

Active Ground Floors

- Required on 75% of major street frontage
 - Retail < 5,000 SF exempt from GFA limits
-

Public Open Space

- Part of interconnected network
 - Major public space on Volpe site
-

Innovation Space

- At least 5% of office/lab for small companies
-

Transportation

- Maximum parking ratios
-

Sustainability

- LEED Gold + energy, stormwater requirements
-

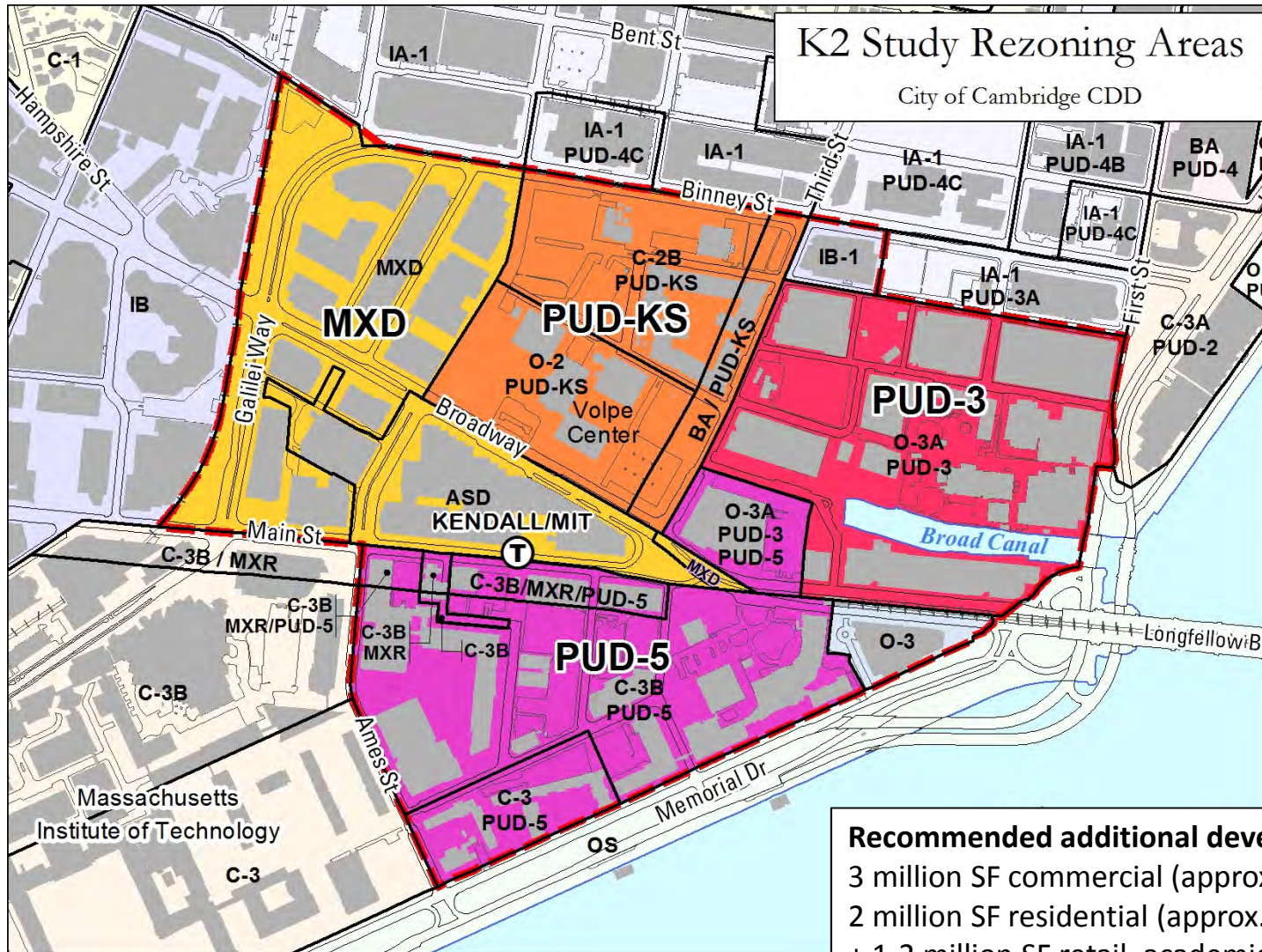
Community Funds

- \$10 per SF office/lab for open space programming, transit improvements, workforce readiness
-

Urban Design

- Urban Design Guidelines
 - PUD/Project Review Process
-

K2 Zoning Recommendations



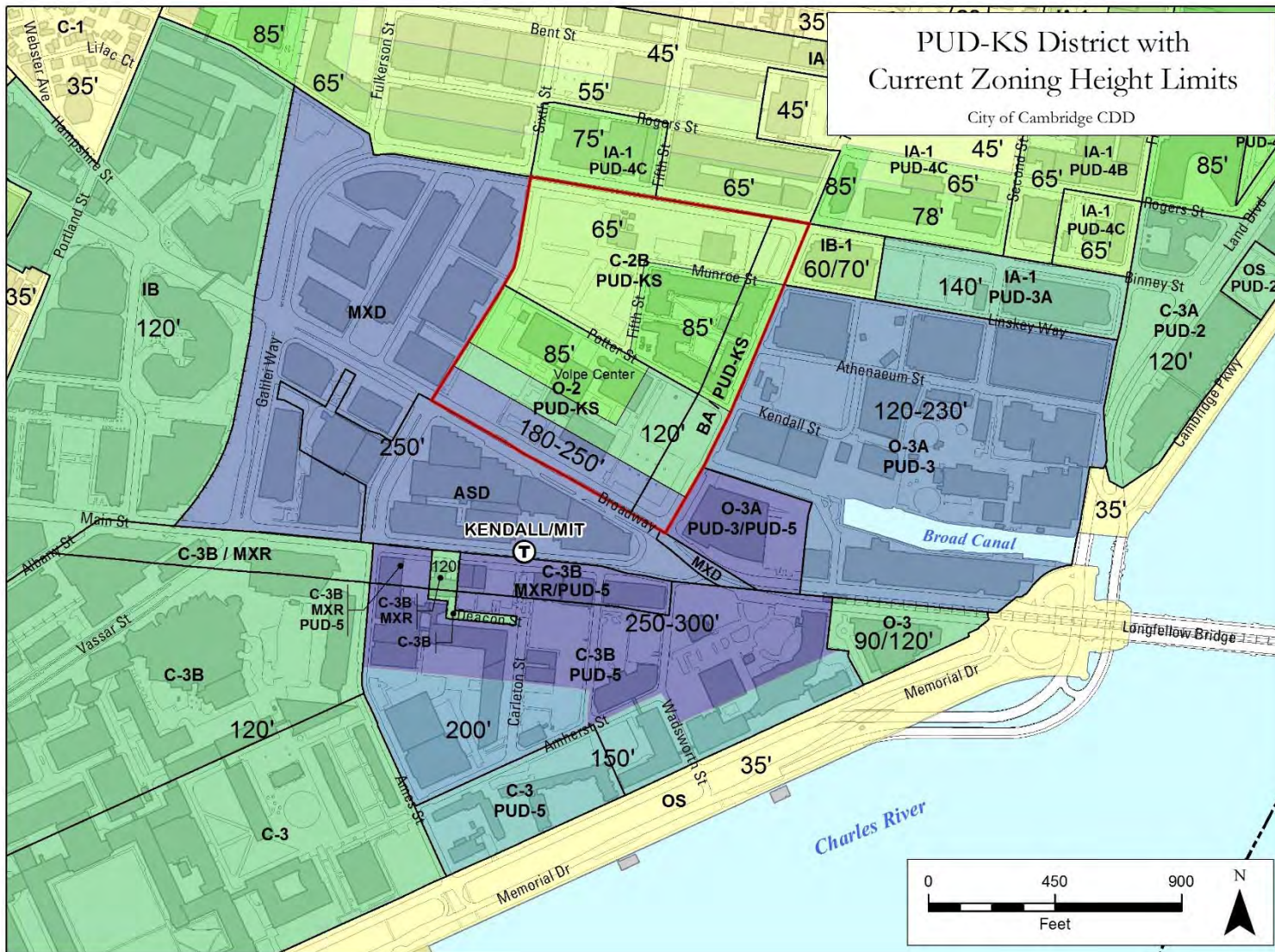
K2 Study Rezoning Areas
City of Cambridge CDD

Recommended additional development:
 3 million SF commercial (approx.)
 2 million SF residential (approx.)
 + 1-2 million SF retail, academic, other
Note: in addition to current zoning

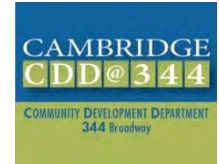
PUD-KS: Initial Zoning Proposal

	Current Zoning	Proposed Zoning
Allowed “Base” FAR	3.0 / 3.36 (w/inclusionary bonus)	4.5 (no additional bonus)
Housing	40% minimum	40% minimum
Affordable Housing (as % of total housing)	11.5% low-moderate (effective after bonus)	10% low-moderate 5% middle income 15% total
Public Open Space (as % of parcel area)	42% / 53% (7.5 acres)	At least 25% (3.5+ acres)
Parking	Minimums	Maximums
Ground Floor Retail	Incentivized	Required (major streets)
Innovation Space	N/A	Min. 5% of office/lab
Sustainability/Environmental	LEED Silver	LEED Gold + other req’s
Community Funds	N/A	\$10/sq.ft. commercial
Government Facility	Flexibility allowed	Encouraged in PUD

Height Limits: Current



Volpe Site: Initial Zoning Proposal



	Current Zoning	Proposed Zoning
Site Area	620,000	620,000
Residential	967,000 (min)	1,116,000 (min)
Office / Lab (not including Innovation Space)	1,086,000 (max)	1,632,000 (max)
Retail	50,000	140,000
Innovation Space (min)	0	84,000
Total Private Development	2,103,000	2,972,000

Figures in Square Feet of Gross Floor Area

ALL FIGURES APPROXIMATE

Benefits of Initial PUD-KS Zoning Proposal

Housing

- 1,000 units minimum (approx.)
 - 100 affordable, 50 middle-income (approx.)
 - \$20+ million in total incentive zoning payments
-

Active Ground Floors

- Continuous active use on Third Street, Broadway
 - Up to 140,000 SF ground-floor retail
-

Public Open Space

- At least 3.5+ acres Public Open Space
 - Connections to adjacent streets and spaces
-

Innovation Space

- 84,000 SF (approx.) at full commercial buildout
-

Transportation

- Cap on total parking
-

Sustainability

- LEED Gold + energy, stormwater requirements
 - Additional requirements from Net Zero Plan
-

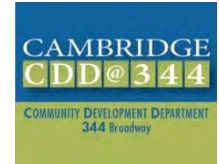
Community Funds

- \$16+ million total for open space programming, transit improvements, workforce readiness
-

Urban Design

- General K2 Design Guidelines
 - Site-Specific PUD-KS Urban Design Guidelines
-

Outstanding zoning & urban design issues



Issue

Considerations

Housing

- Increased requirements for affordability?
- Overall amount required?

Open Space and Public Amenities

- Required/encouraged size and configuration?
- Relationship between Federal and City sites?
- Requirements/guidelines for intent, purpose and character of public space?

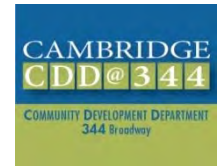
Retail Affordability and Diversity

- Expand diversity of required/encouraged uses – e.g., grocery, department stores, recreation, child care, indoor public space

Built Form, Height and Urban Design

- Greater flexibility in massing and orientation of buildings?
 - Develop an Urban Design Framework
-

Parallel Approaches



Zoning Requirements

- Sets overall “boundaries” of allowed development plan
- Relies on strict, measurable requirements
- Incentives may encourage additional public benefits
- Flexibility only where it is expressly allowed

Design Guidelines/Framework

- Sets aspirational goals and design objectives
- Illustrations, examples, suggestions for how the objectives can be met
- Flexibility to consider alternative options during development review process

