

Reinventing Kendall Square for the 21st Century

Draft Vision



**KENDALL SQUARE ADVISORY COMMITTEE
FEBRUARY 9, 2012**



urban design/planning study for
the **central** and **kendall square area**

Agenda

- Vision goals
- Vision framework
 - Public places
 - Building form
- Discussion



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Toward a vision: Priorities we heard

- Enhancing neighborhood identity and sense of place
- Creating a more active and extensive public realm
- Attaining the right mix of land use/activities
- Sustaining Kendall's strong innovation culture
- Expanding the amount and range of housing
- Expanding retail choices
- Making Kendall a global leader in sustainability innovation and practice
- Improving transportation choices
- Ensuring plan implementation delivers effective results



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Plan framework: four perspectives

- Nurturing Kendall's innovation culture
- Demonstrating leadership in environmental sustainability for the world
- Creating places that foster community and vitality
- Integrating activities that support creative interaction



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Translating vision (*what*) into a framework (*how*)

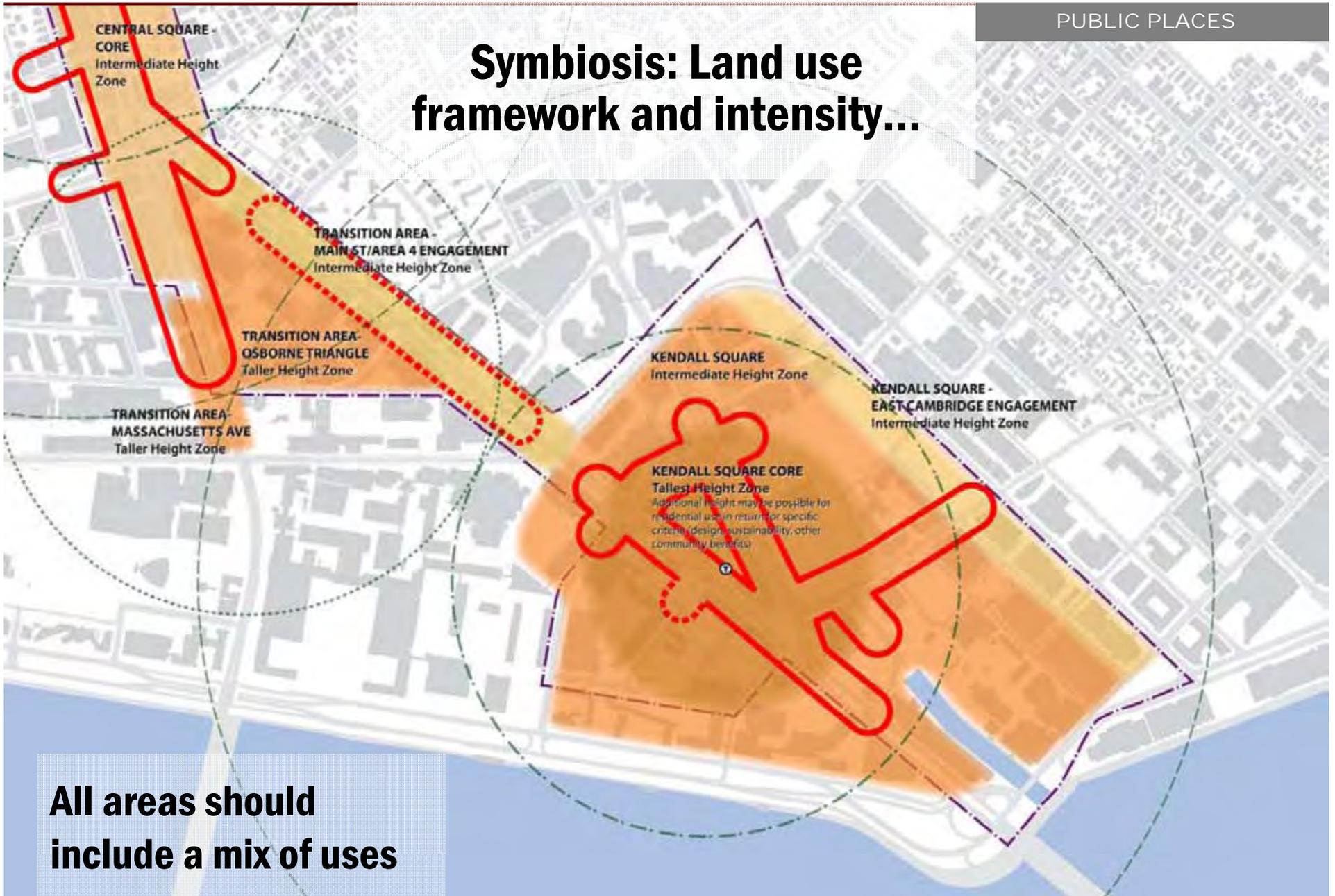
Framework elements  Vision priorities 	Nurturing Kendall's innovation culture	Demonstrating leadership in environmental sustainability	Creating places that foster community and vitality	Integrating complementary activities for creative interaction
Identity/sense of place	Demonstrate innovation through architecture, use	Highlight sustainable infrastructure/practices, especially those in development locally	Create memorable, lively destinations	Shape identity with culture of collaboration
public realm	Display innovation in public areas	Highlight sustainable infrastructure/practices	Enhance/create top quality public environments	Serve multiple uses, users
mix of land use/activities	Support innovation with amplified housing and retail	Reduce transportation, energy and water demands by co-locating workplaces, housing, retail	Foster an 18/7 neighborhood by adding housing and retail	Connect mixed uses with walkable streets, diverse gathering places
strong innovation culture	Provide what innovation needs tomorrow: amenities, workforce, collaboration, flexibility	Attract the right people and create the right conditions to support sustainability breakthroughs	Gather great minds together, formally and informally, to spark new ideas	Inspire innovation outside of the lab
housing choices	Offer the diverse, convenient housing choices innovators need	Minimize sprawl and transportation energy use by adding green housing locally	Turn Kendall into a neighborhood	Provide public spaces and retail enhancing residential quality of life
retail choices	Offer the retail options innovators seek	Minimize sprawl and transportation energy use by adding green retail locally	Support/add dining and retail that serve as centers of community	Support retail businesses by offering a mix of workforce and residential customers
global leader in sustainability	Apply Kendall's innovation power to the greatest environmental challenges	Publicize challenges and opportunities through experiential, interpretive displays	Bring people together on walkable streets and lush parks	Demonstrate the premium quality of life achievable in a lively urban setting
transportation choices	Make Kendall more accessible with improved access choices – emphasizing walking, biking, transit	Reduce energy use with a more balanced, less auto dependent mode share. Promote public health through walking	Build community with people-scaled transportation: walking, biking, transit	Enable more local trips on foot by locating diverse activities near one another
effective results	Enable continued growth of research, commercialization and education enterprises	Monitor reductions in Kendall's carbon footprint and water usage	Invest in quality public places	Achieve visible growth in housing and retail

FRAMEWORK: Public places



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Symbiosis: Land use framework and intensity...



All areas should include a mix of uses



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...with active outdoor spaces...

PUBLIC PLACES

- Existing parks / greenways
- Potential parks
- Existing gardens and courtyards
- Potential gardens and courtyards
- Existing roof gardens
- Potential roof gardens
- Existing plazas
- Potential plazas
- Existing Active interiors
- Potential Active interiors
- Exterior pedestrian realm



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...creating a network of diverse places building community, vitality, innovation

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

- Gardens and Courtyards
 - Roof Gardens
 - Parks
 - Plazas
 - Promenades
- ...connected, energized and animated by*
- Active sidewalks and interiors



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Gardens, courtyards, roof gardens, parks, plazas: Existing and Pipeline*

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

*

*

*

In the study area:

- Existing/pipeline:
Approx. 15 ac

Near the study area in this diagram:

- Existing/pipeline:
Approx. 38 ac



Gardens, courtyards, roof gardens, parks, plazas: with potential new spaces

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

In the study area:

- Existing/pipeline: Approx. 15 ac
- Potential: Approx. 10+ ac
- Total: Approx. 26 ac

Near the study area in this diagram:

- Existing/pipeline: Approx. 38 ac
- Potential: Approx. 2 ac
- Total: Approx. 40 ac

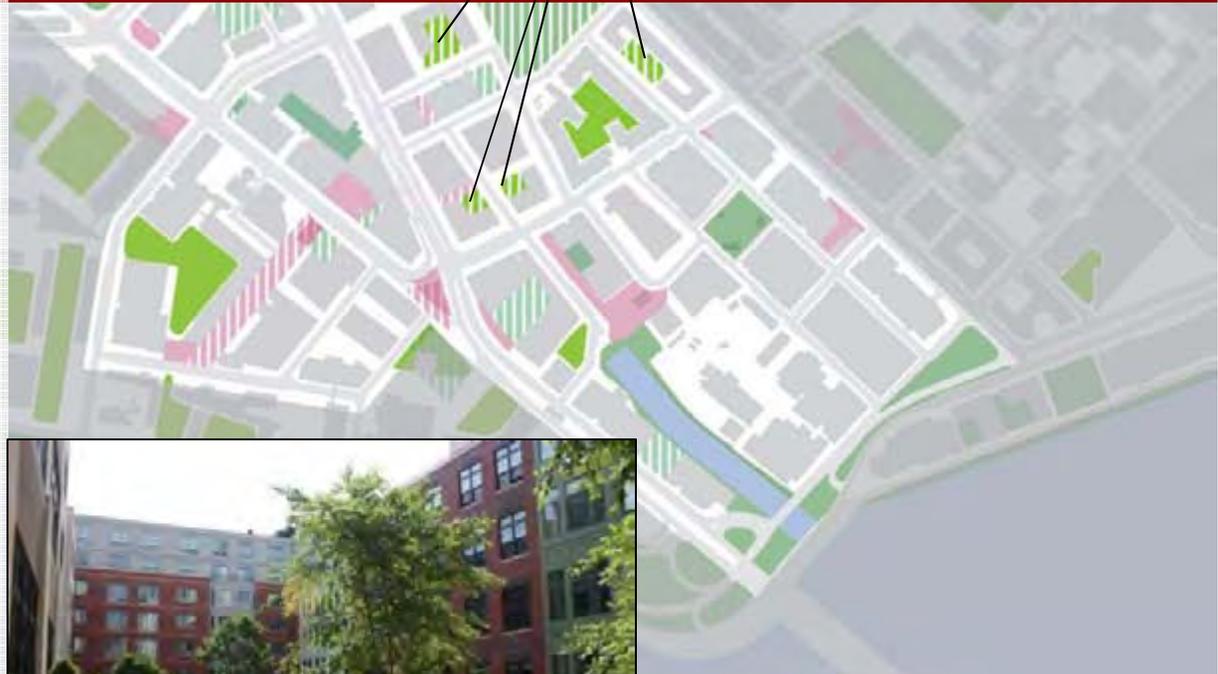
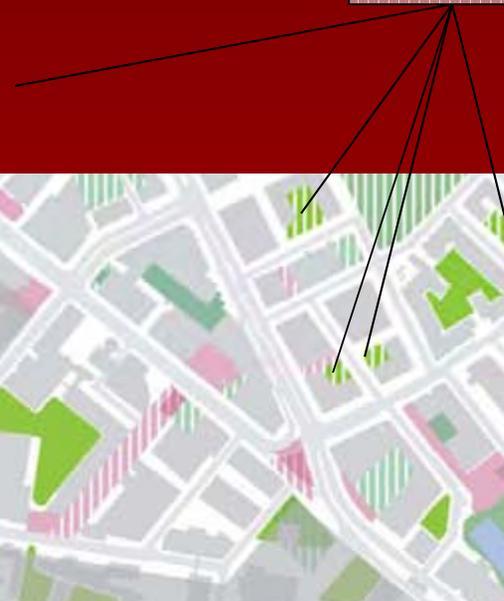


Gardens and Courtyards

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

Potential Courtyards



* *

- Intimate sense of scale
- Distinctive landscape design and plantings
- Typical activities:
 - Sitting: alone, groups
 - Childrens' play
 - Group events
- Primarily serve occupants of adjacent building/block
- Within one block of any housing



One First Street

- Existing: approx. 6 ac.
- Potential: approx. 1 ac.

Gardens and Courtyards



Significant plantings, comfortable microclimates (South End)



Spaces for group gatherings (University Park)



Semi-public character, access (Malmo)

Roof Gardens

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

- Connected to adjacent interior space
- Visible from above
- Overlooking public space below
- Distinctive landscape design and plantings
- Typical activities:
 - Sitting: alone, groups
 - Group events
- Primarily serve occupants of adjacent building/block



Cambridge Center

- Existing: approx. 1 ac.
- Potential: approx. 4 ac.

Roof Gardens



Quality plantings & furniture (West End)



Promoting views, gathering (NYC High Line)



Interior gardens on upper floors (Dana Farber's Stoneman Healing Garden)



Connected to buildings (Back Bay)

- Existing: approx. 1 ac.
- Potential: approx. 4 ac.

Parks

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

Enhanced Park

Potential Park



- Larger scale, prominence
- Significant presence of lawn/field and/or water
- Typical activities:
 - Sitting: alone, groups
 - Informal sports
 - Childrens' play
 - Dogs
 - Community gardens
 - Festivals, concerts
- Serve the general public, especially the immediate neighborhood



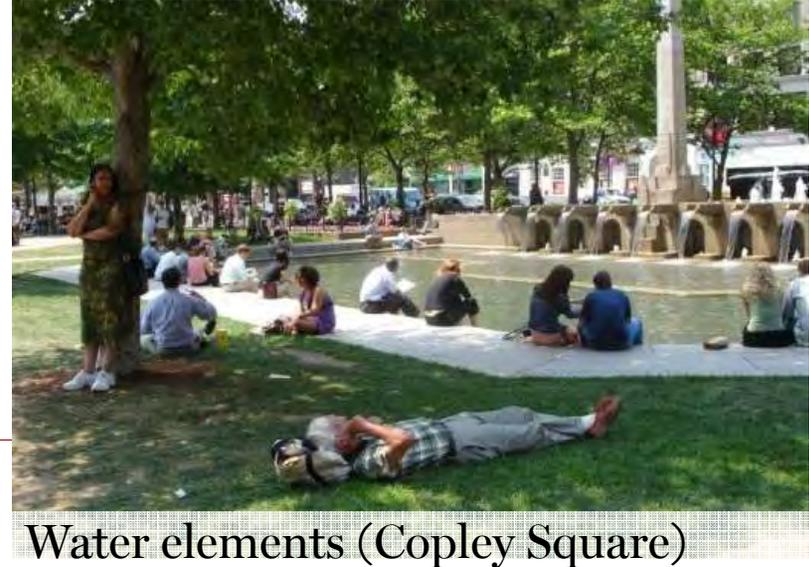
Broad Canal

- Existing: approx. 6 ac.
- Potential: approx. 4 ac.

Parks



Mix of lawn, trees, sun, shade (SF)



Water elements (Copley Square)



Seating and walking areas



Pocket parks (Velluci, Inman Sq.)



Host events

- Existing: approx. 6 ac.
- Potential: approx. 4 ac.

Parks



Plazas

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm

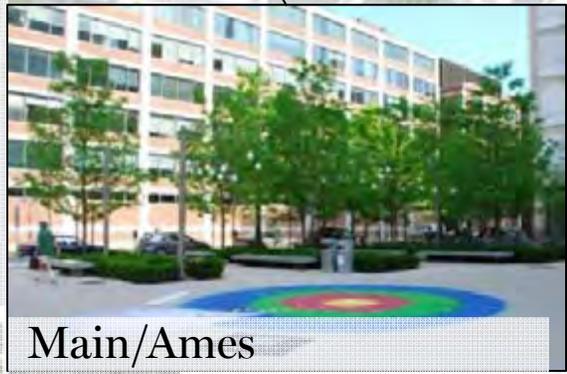
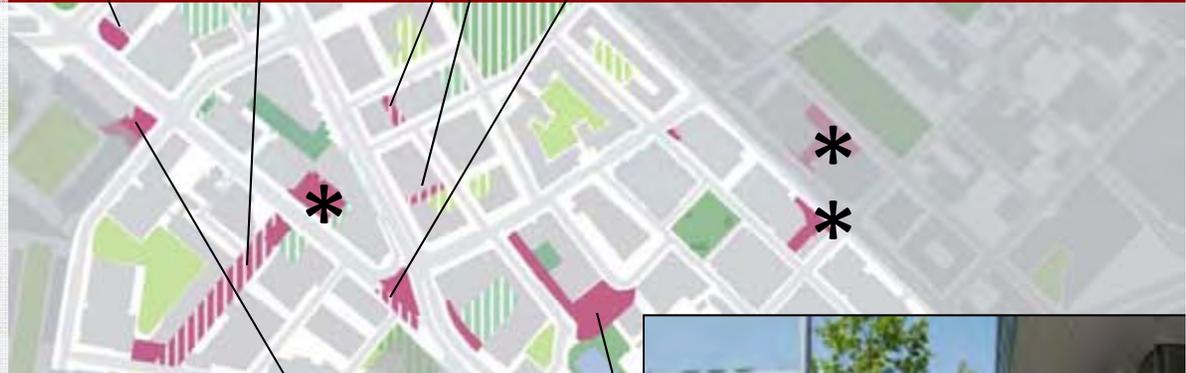
Enhanced
Plazas

Potential
Plaza

Small plaza
opportunities

Enhanced
plaza

- Larger scale, prominence. Mixed-use context.
- Significant pedestrian hardscape, complementary plantings; winter garden?
- Typical activities:
 - Walking to destinations including transit, bike
 - Sitting: alone, groups
 - Engaging public art/media
 - Outdoor dining, retail
 - Outdoor markets, buskers



Main/Ames



South Plaza

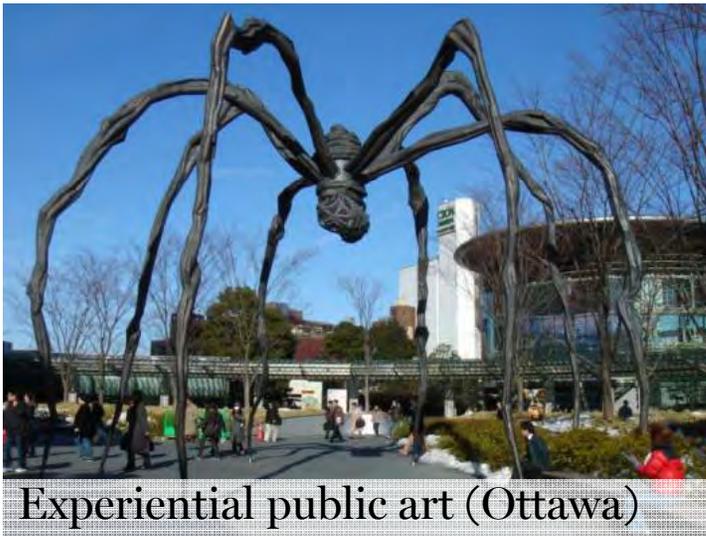
- Existing: approx. 3 ac.
- Potential: approx. 2 ac.

the central and Kendall square area

Plazas



Places to see and be seen; cultural anchors (Montreal Place Des Arts)



Experiential public art (Ottawa)



Engaging media, water (Chicago)

- Existing: approx. 3 ac.
- Potential: approx. 2 ac.

Plazas



Spaces for arts programming
(Rose Kennedy Greenway)

Distinctive nighttime lighting
(Rose Kennedy Greenway)



Mixed hardscape, plantings (MGH)

Retail, seating (New York)



- Existing: approx. 3 ac.
- Potential: approx. 2 ac.

Plazas



Canopies adding scale, weather protection



Winter Garden (Sheffield U.K.)

- Existing: approx. 3 ac.
- Potential: approx. 2 ac.

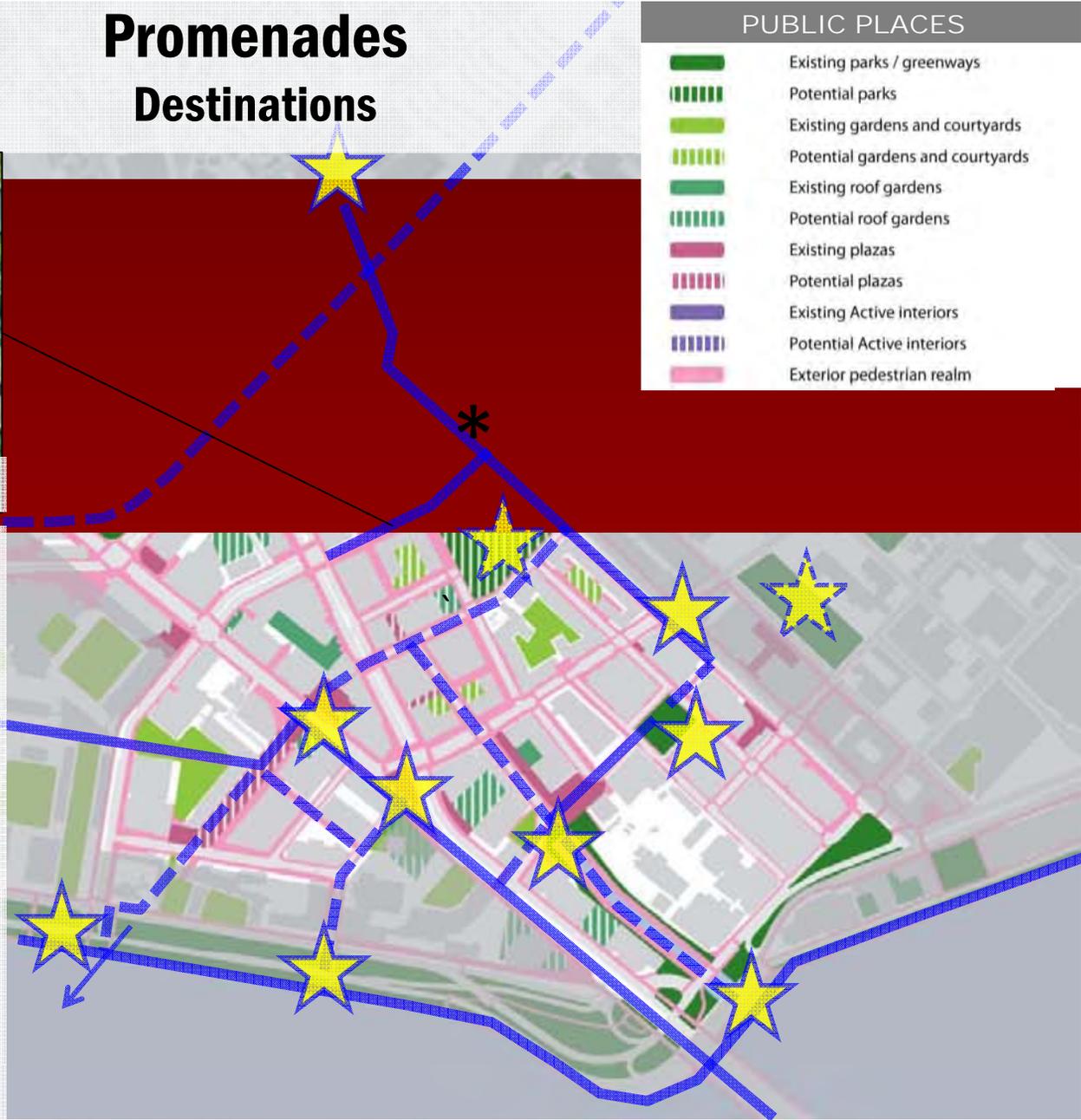
Promenades Destinations

PUBLIC PLACES	
	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm



6th Street Promenade

- Linear walking and view corridor; traffic
- Significant tree and shrub/flower plantings, potentially rain gardens
- Typical roles:
 - Walking: destinations, exercise
 - River park connections
 - Storytelling pathways
 - Stormwater mgmt.
- Serve the general public



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- Existing: approx. 5,600'
- Potential: approx. 7,900'

Promenades

Landscapes



Street, walk or woonerf formats
(Kassel, Germany)



Quality design (Malmo)



Rain gardens (Portland)



Pocket gathering spaces

- Existing: approx. 5,600'
- Potential: approx. 7,900'

Promenades Storytelling



Convey history, future



Experiential art (Kennedy Greenway)



High quality interpretive signage

- Existing: approx. 5,600'
- Potential: approx. 7,900'

Active sidewalks/interiors

PUBLIC PLACES

	Existing parks / greenways
	Potential parks
	Existing gardens and courtyards
	Potential gardens and courtyards
	Existing roof gardens
	Potential roof gardens
	Existing plazas
	Potential plazas
	Existing Active interiors
	Potential Active interiors
	Exterior pedestrian realm



- Continuous network linked to surrounding corridors, neighborhoods
- Welcoming streetscapes, ample space for walking, trees, dining/retail, art
- Typical activities:
 - Walking
 - Engaging in art/media
 - Outdoor dining, retail
 - Public interior activities: dining, culture, education...
- Serve general public



'Za, Broad Canal Street

- Existing: over 350K+ sf
- Potential: over 350K+ sf

Active sidewalks/interiors



Retail/info kiosks (Darmstadt)



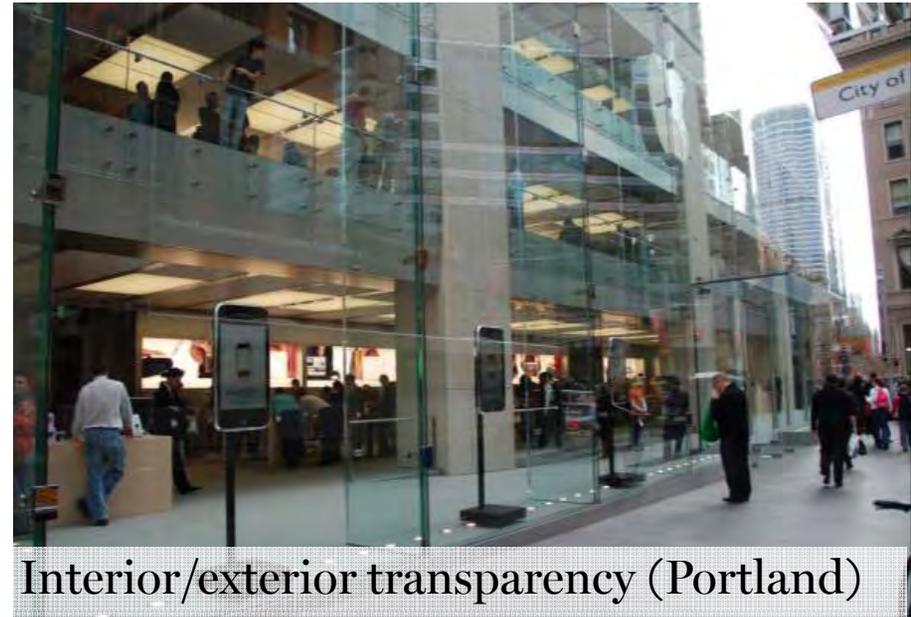
Traffic separation,
interior connection
(Seattle)



Public art/activity at challenging
edges (Charlottesville)



Interior/exterior transparency (Rome)

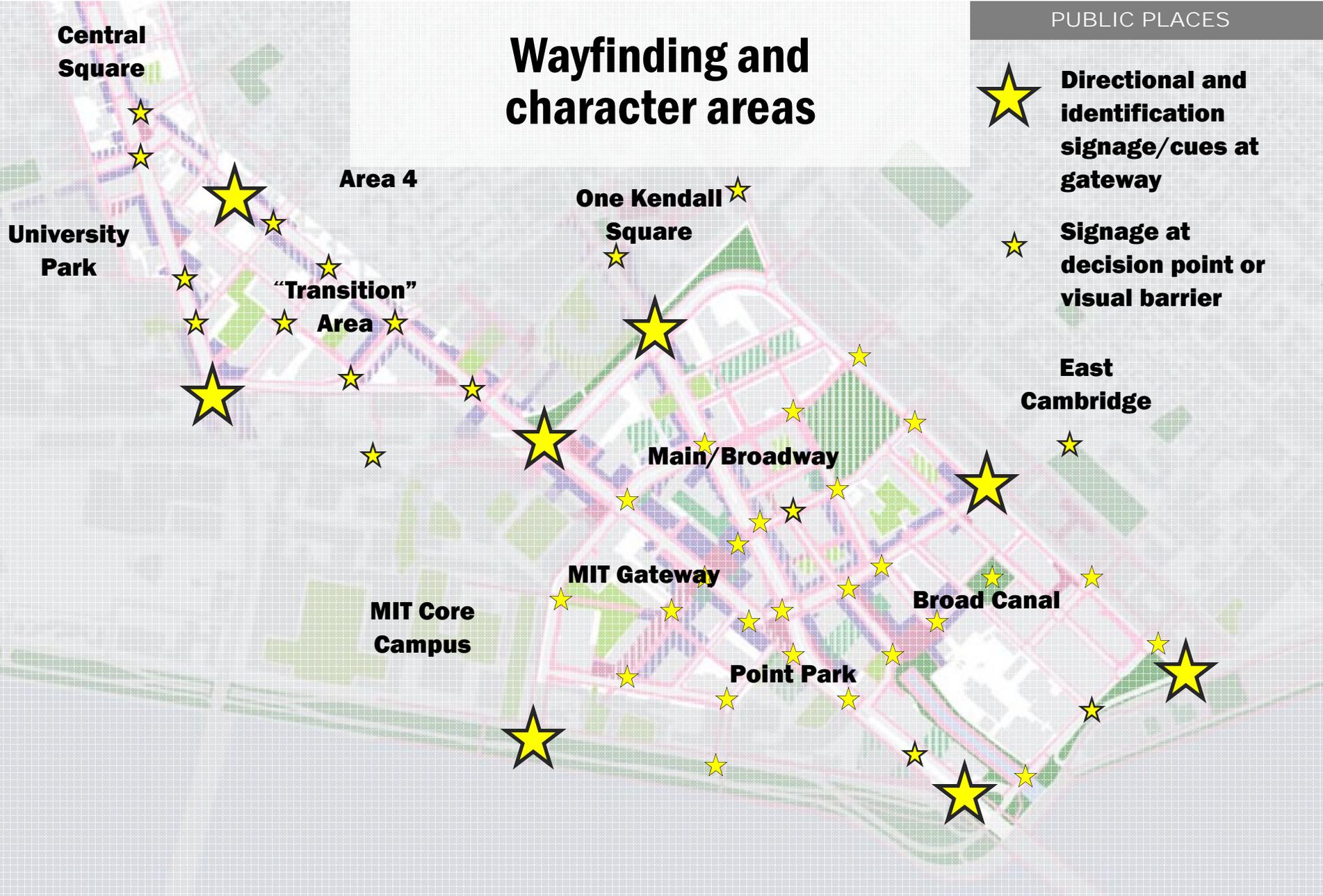


Interior/exterior transparency (Portland)

- Existing: over 350K+ sf
- Potential: over 350K+ sf

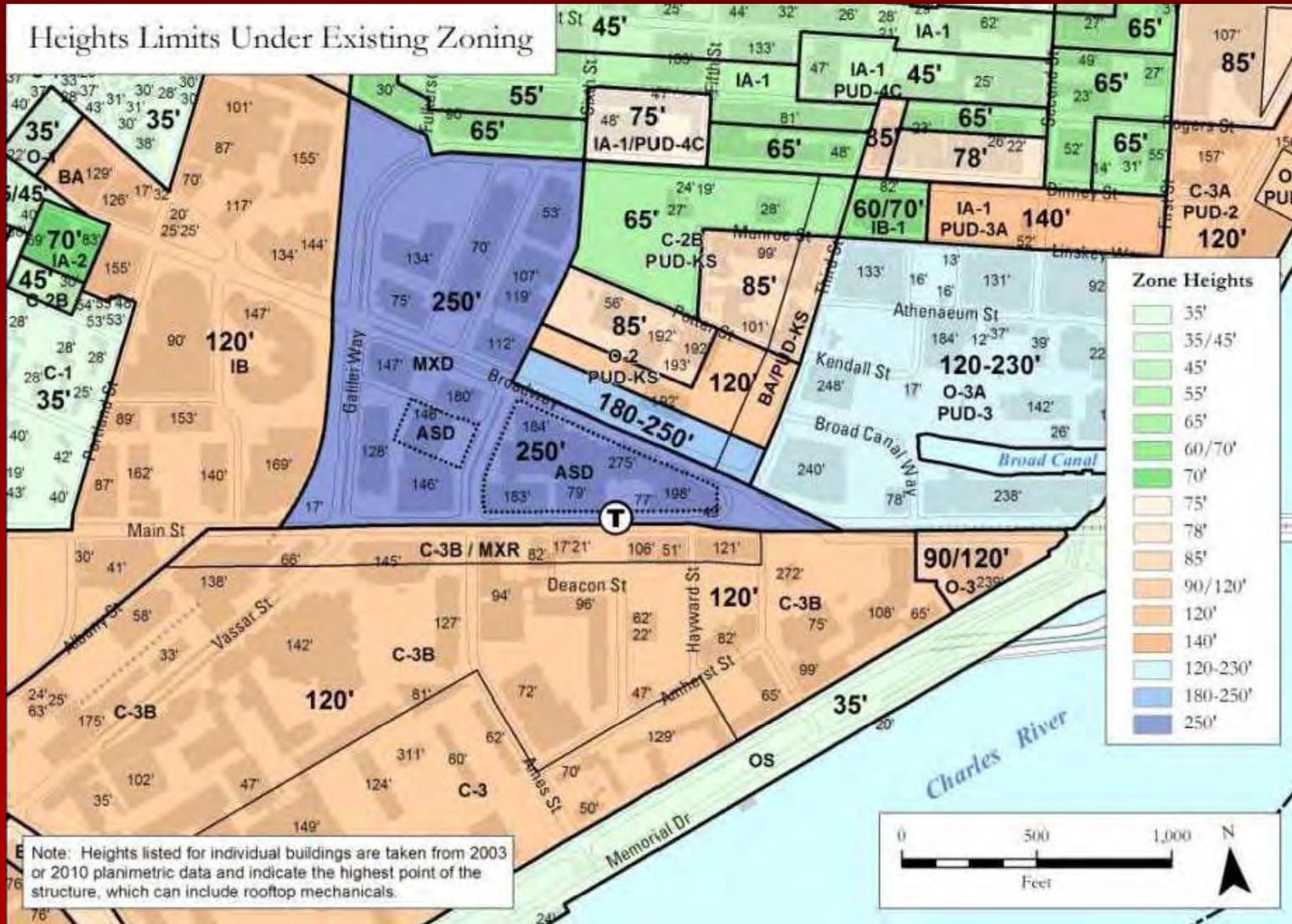
Wayfinding and character areas

PUBLIC PLACES



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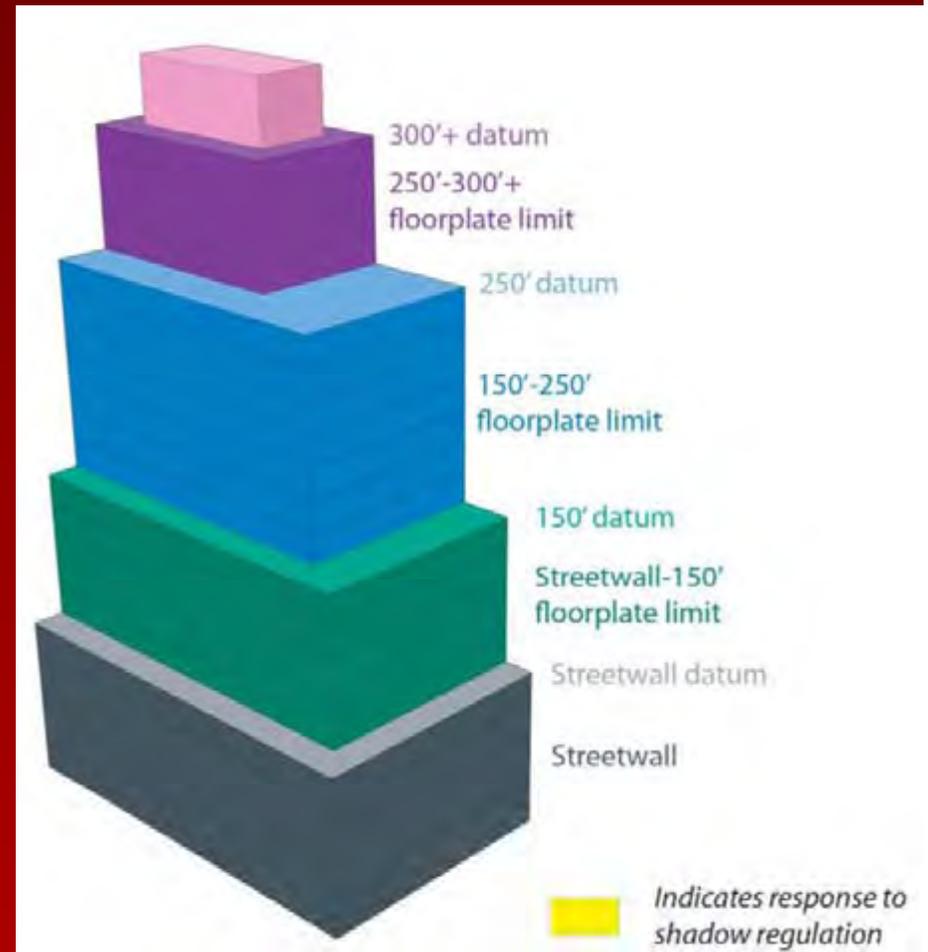
FRAMEWORK: Building form



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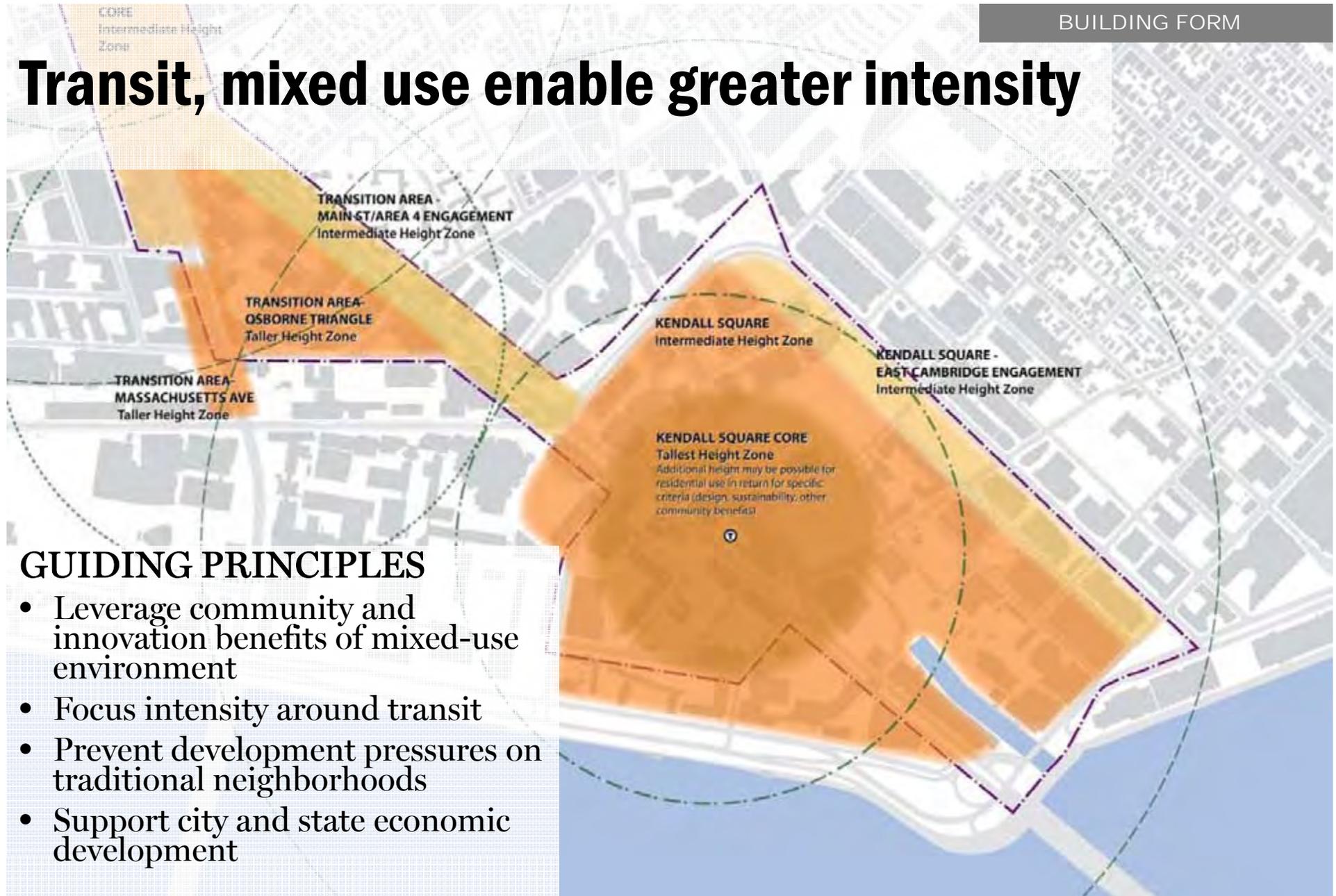
Balancing complementary goals through building form

- Enhance walkability with sun, views *and* development intensity
- Locate greatest intensity in a compact walkable area near transit – to minimize traffic impacts, maximize mixed-use benefit
- Consider shadow impacts on open space and housing, especially during shoulder months
- Encourage housing production
- Mark Kendall Square's core with attractive, distinctive architecture having a variety of heights and massing



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Transit, mixed use enable greater intensity



GUIDING PRINCIPLES

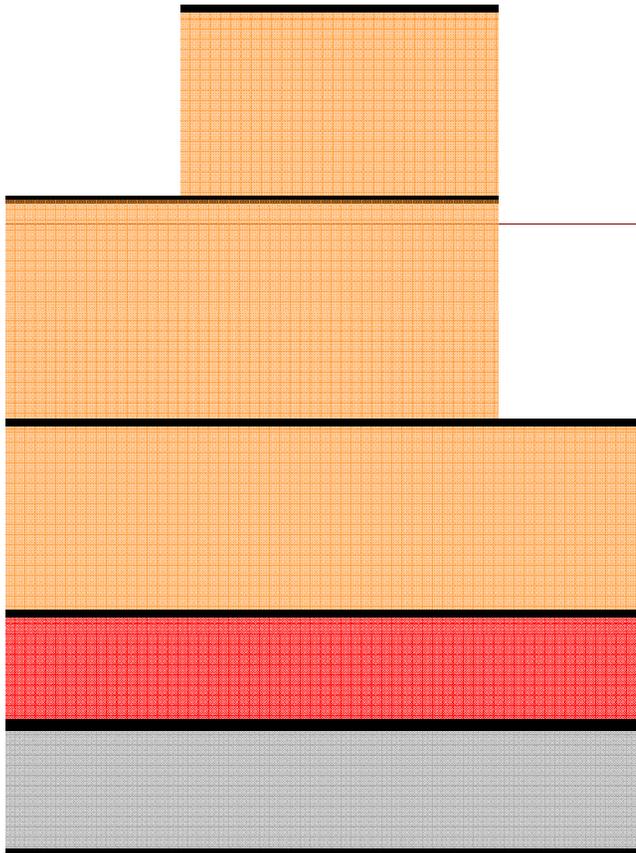
- Leverage community and innovation benefits of mixed-use environment
- Focus intensity around transit
- Prevent development pressures on traditional neighborhoods
- Support city and state economic development



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Vertical land use and building form framework

- Height thresholds vary in different areas per context



**Tallest and Intermediate height bands
(vary per context as appropriate) –**

Required: smaller floorplates, reasonable impacts (shadow, view, sky, traffic etc.), outstanding design.

Housing required in Tallest band (above 250')

Streetwall height band

Active, pedestrian-oriented ground floor use

Any new off-street parking below-grade



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Streetwalls frame the street as a place for people

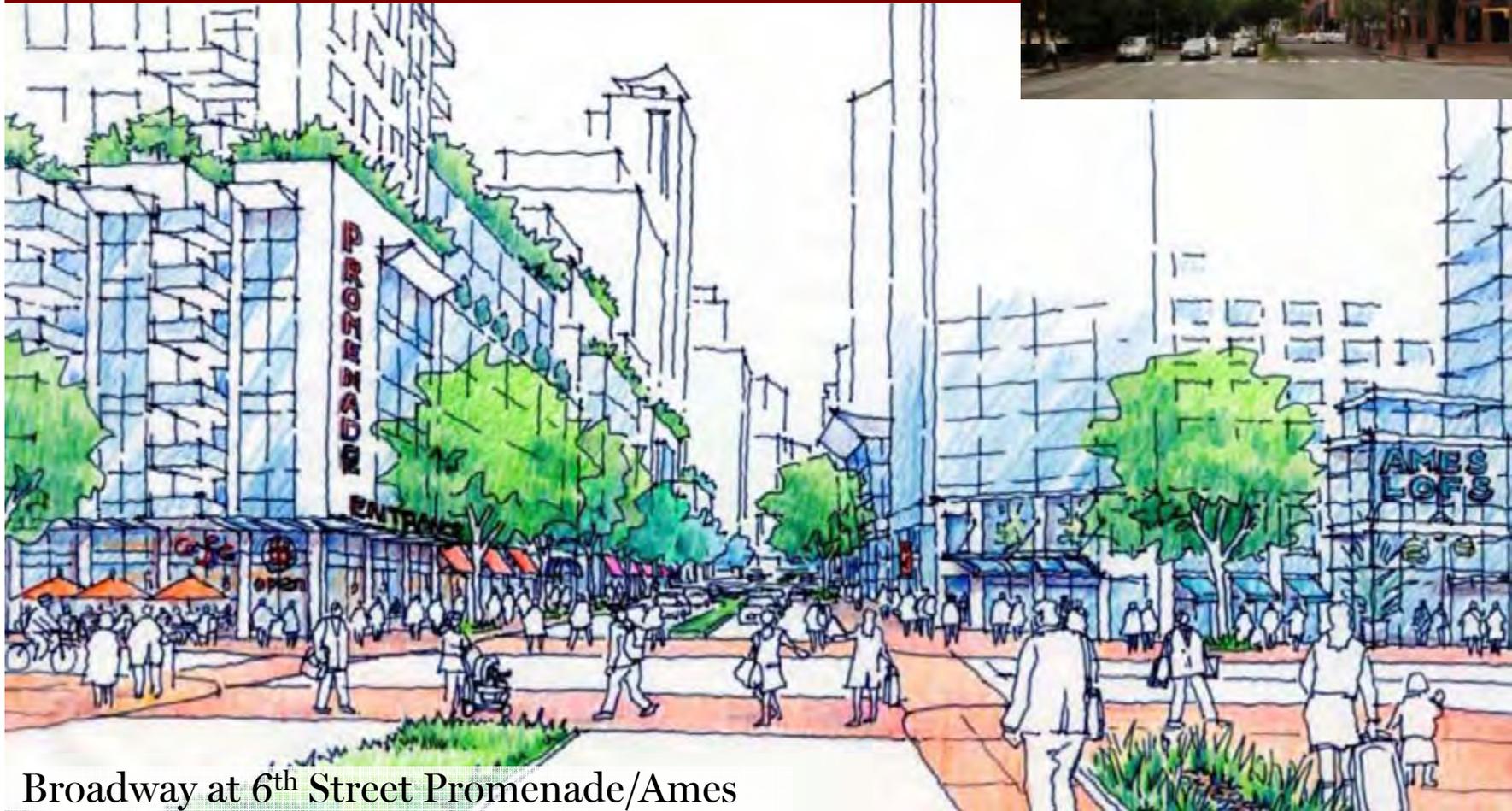


a problem Image Date: August 2009



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Streetwall : Broadway concept



Broadway at 6th Street Promenade/Ames



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Shadow and sky criteria

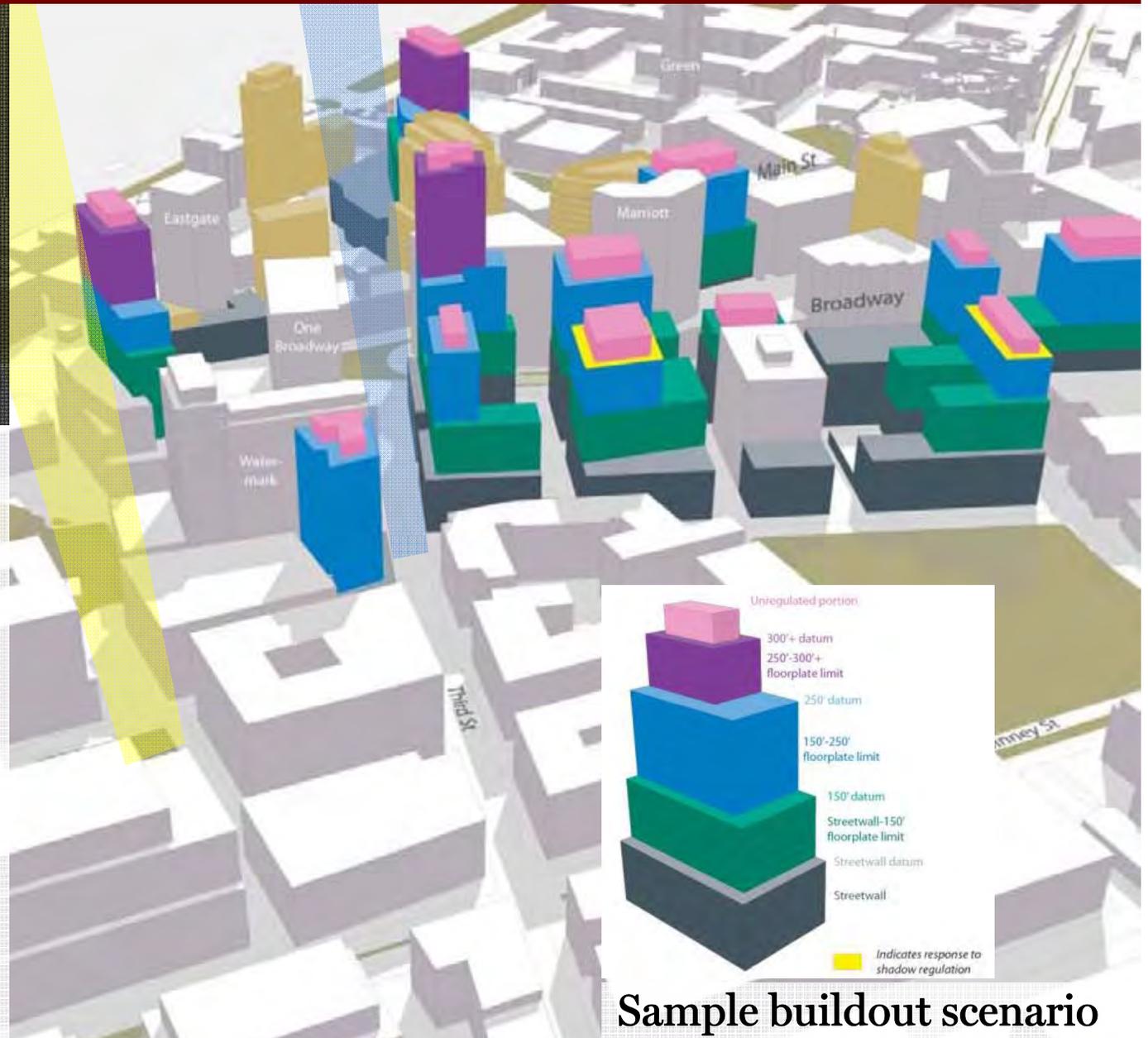
GUIDING PRINCIPLES

- Ensure significant direct solar access to public parks/plazas to encourage more use throughout the year and day
- Maintain pedestrian comfort
- Maintain landmark view corridors to enhance sense of place

Shadows:

- Consider shadow impacts on open space and housing, especially during shoulder months
- North Plaza ice rink winter sun corridor

Sky: Kendall building sky corridor



Sample buildout scenario

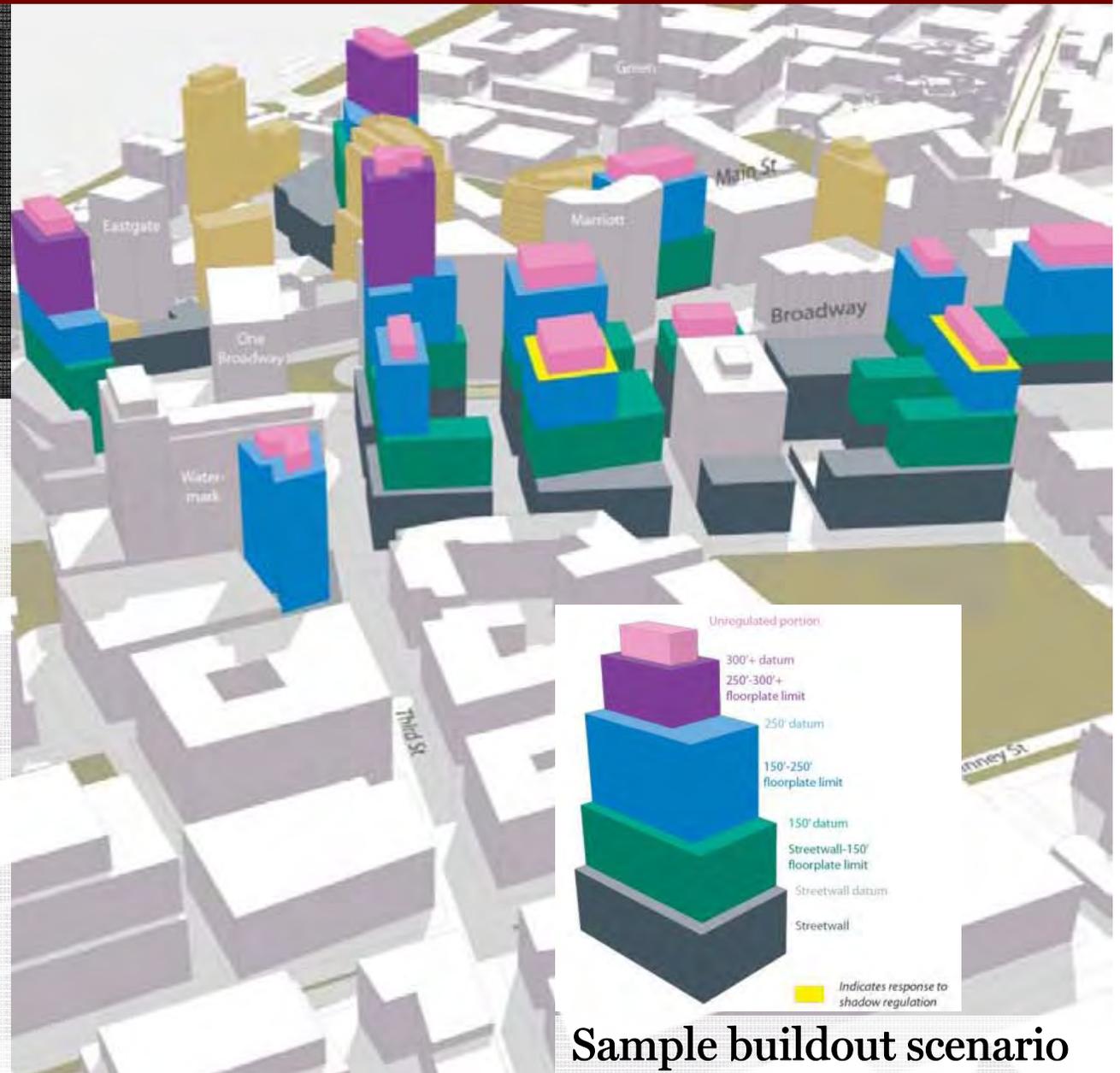
Three height thresholds: Streetwall...

GUIDING PRINCIPLES

- Frame streets as outdoor rooms to support their perception and use as public spaces
- Create an appropriate pedestrian scale
- Relate new development to scale of context buildings

Streetwall: up to 75'/85'

- 16' step-back at datum height
- Main, Broadway, Third, Volpe park: 75' datum
- Binney: 85' datum



Sample buildout scenario

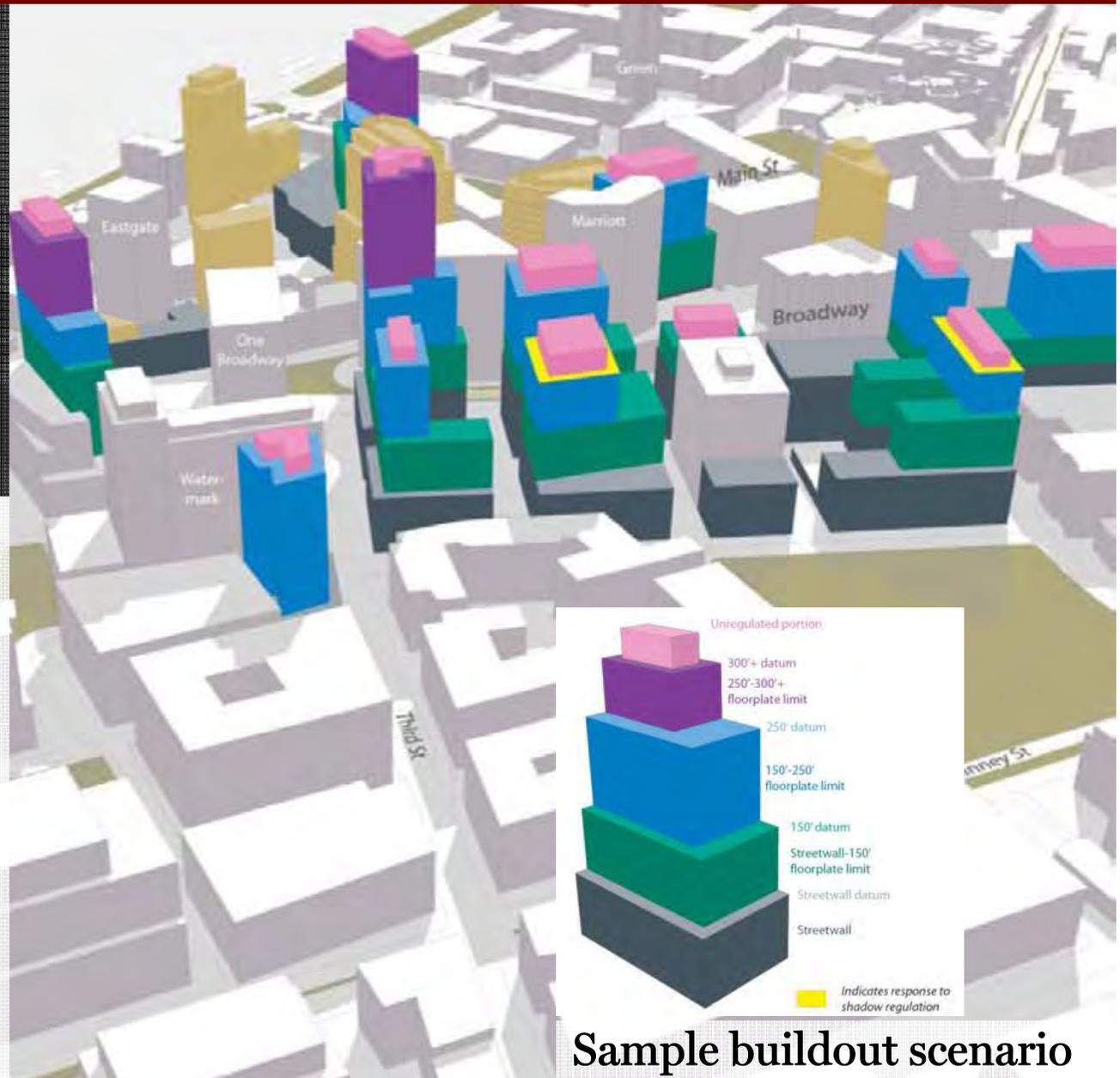
Three height thresholds: Intermediate...

GUIDING PRINCIPLES

- Accommodate significant additional research and housing development
- Leverage future development to provide community benefits such as enhanced parks and plazas, local retail, affordable housing
- Produce variety of building height and massing to enhance aesthetics, place-identity

Intermediate: Streetwall to 250'

- Floorplate limits
 - Streetwall to 150' tall: up to 25,000sf (accommodates prevailing research configurations)
 - 150' to 250' tall: up to 15,000sf, 150' wide
- Blocks south of Binney: existing zoning
- Volpe, MIT: up to 250'-300' as appropriate
- Comparable to tallest existing buildings



Sample buildout scenario

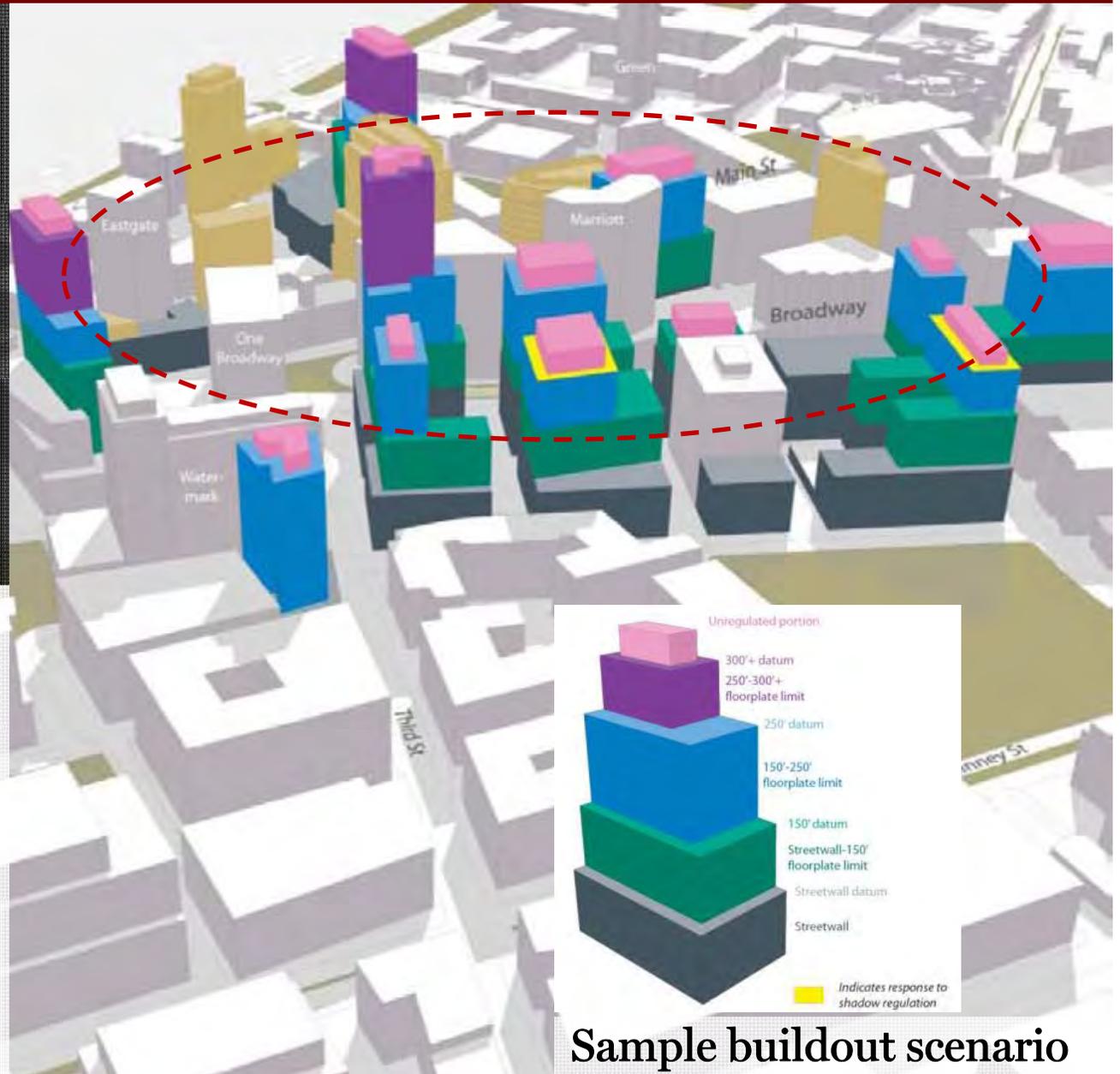
Three height thresholds: Tallest

GUIDING PRINCIPLES

- Locate added intensity where infrastructure and mixed-use concentrations best support it – and vice-versa
- Physically define the center of Kendall Square to improve place identity
- Leverage future development to provide community benefits
- Produce variety of building height and massing to enhance aesthetics, place-identity

Tallest: 250'-300' +

- Within 2 blocks or 800' of Red Line
- Space above 250' must be housing
- Floorplate limit: 6,500sf



Sample buildout scenario

Use mix: existing



Sample buildout scenario

Use mix: pipeline

-  Housing
-  Office/research
-  Retail/active ground floor



Sample buildout scenario

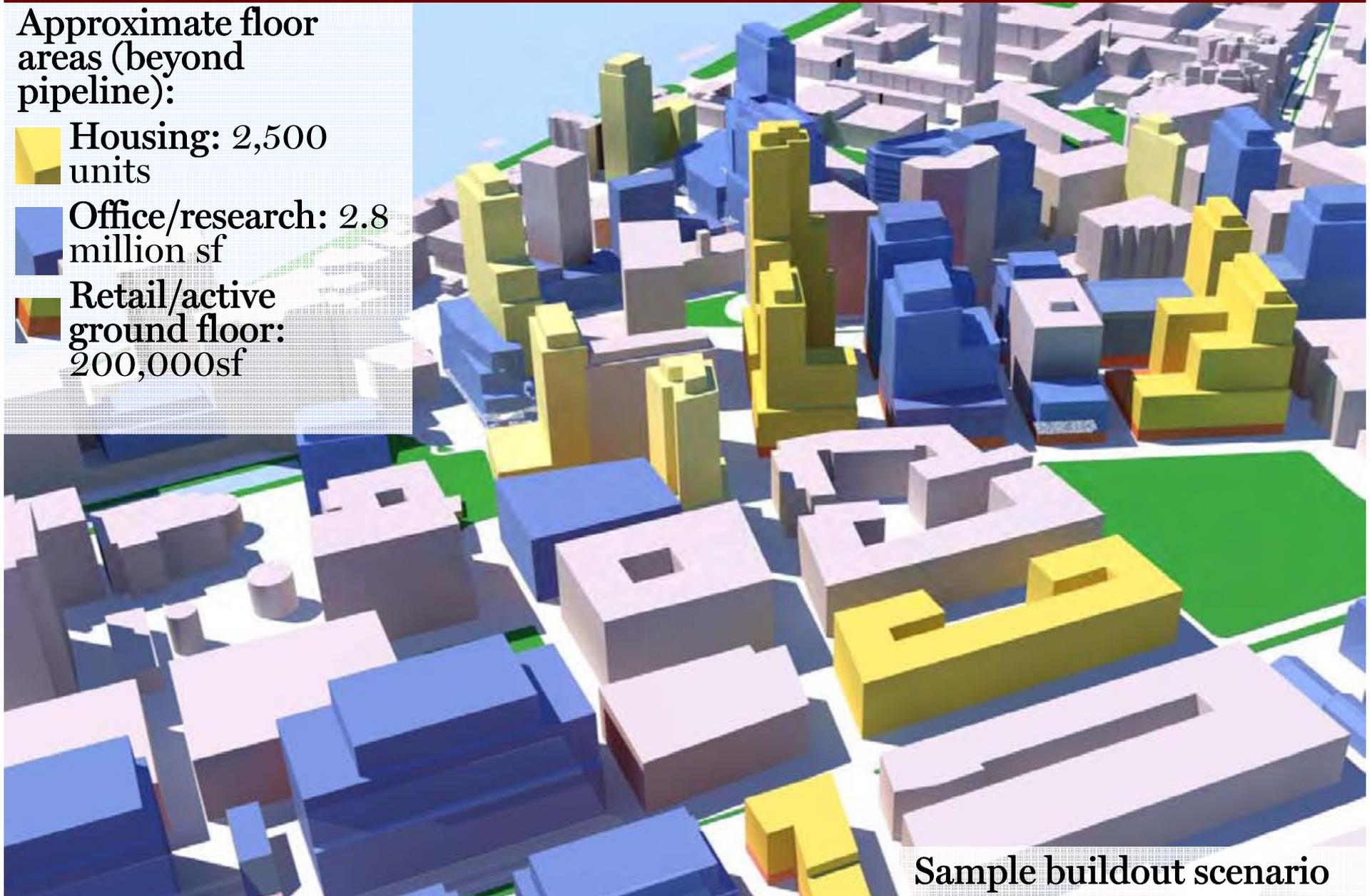
Use mix: potential

Approximate floor areas (beyond pipeline):

 Housing: 2,500 units

 Office/research: 2.8 million sf

 Retail/active ground floor: 200,000sf



Sample buildout scenario

Concepts: Point Park



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Concepts: Main/Ames



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DISCUSSION



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