



Little Mountain – UDP Presentation

May 18, 2016

Summary of UDP Evaluation of Dec 2015 Plan

- Transitional edges work well
- Central spine and permeability are strong
- Tree retention is good
- Establish “Big Idea”
- Sameness of built form contributes to lack of sense of place
- Solar performance should drive public realm, particularly: NW corner and community, plaza
- Plaza needs to be larger, better connected to spine, more activated, sunnier in late afternoon
- Consider a grocery store
- More commitment to sustainability of building envelope
- Consider alternatives to district energy

Dec 2015 Site Plan



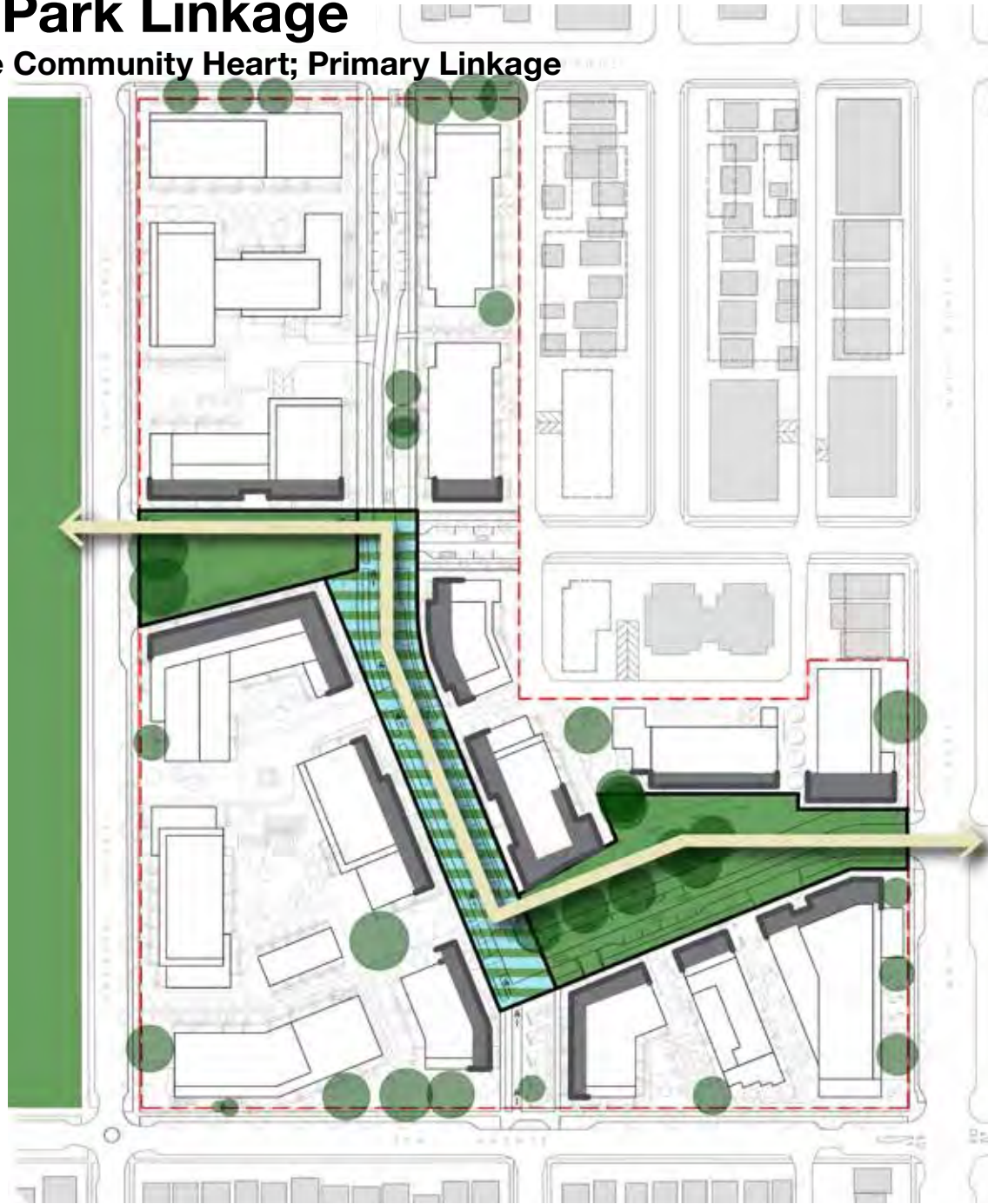
Big Idea: City-Park Linkage

Retained Trees Establish Public Realm Structure



Big Idea: City-Park Linkage

Plaza + Spine + Park are Community Heart; Primary Linkage

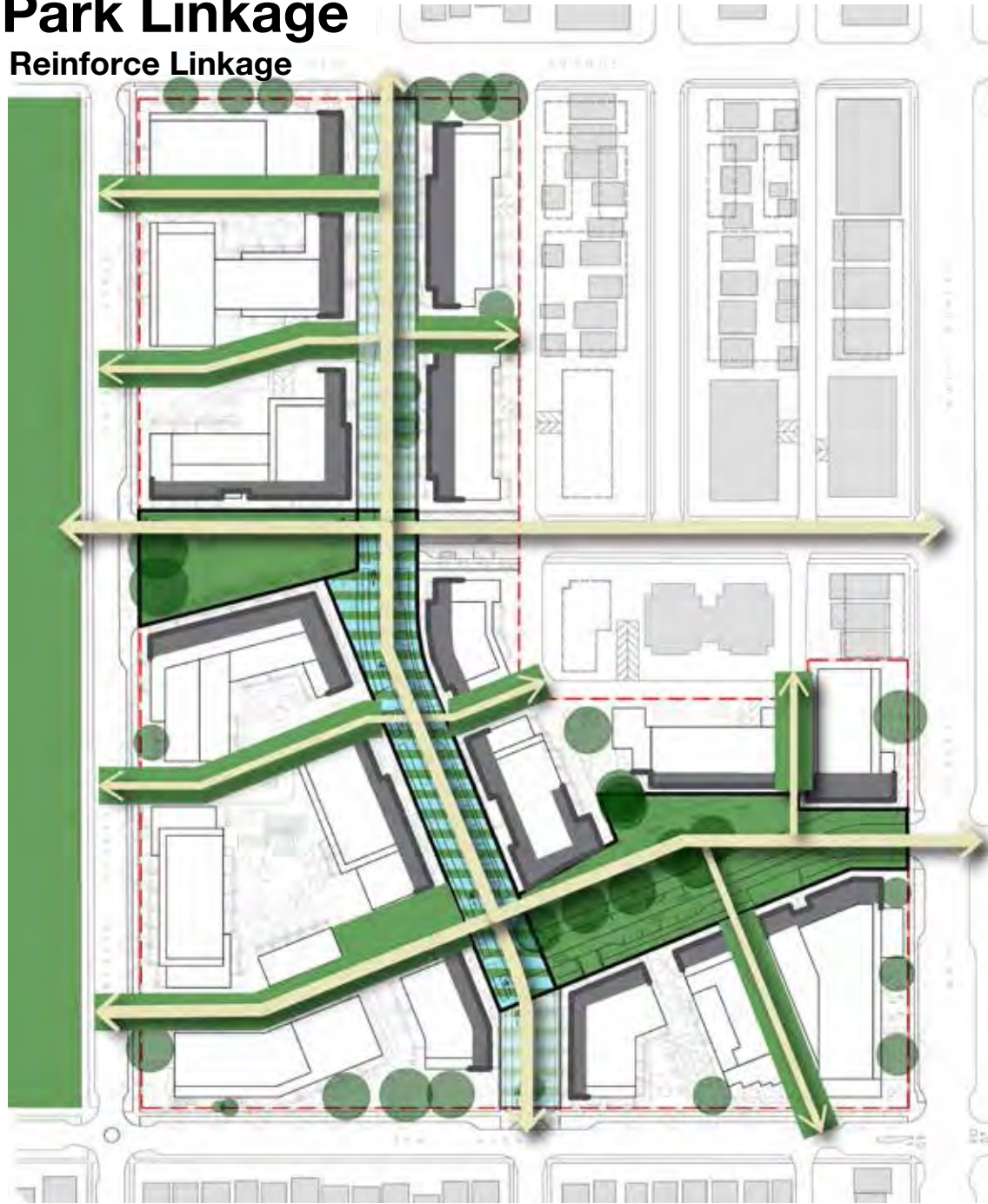


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Big Idea: City-Park Linkage

Secondary Connections Reinforce Linkage



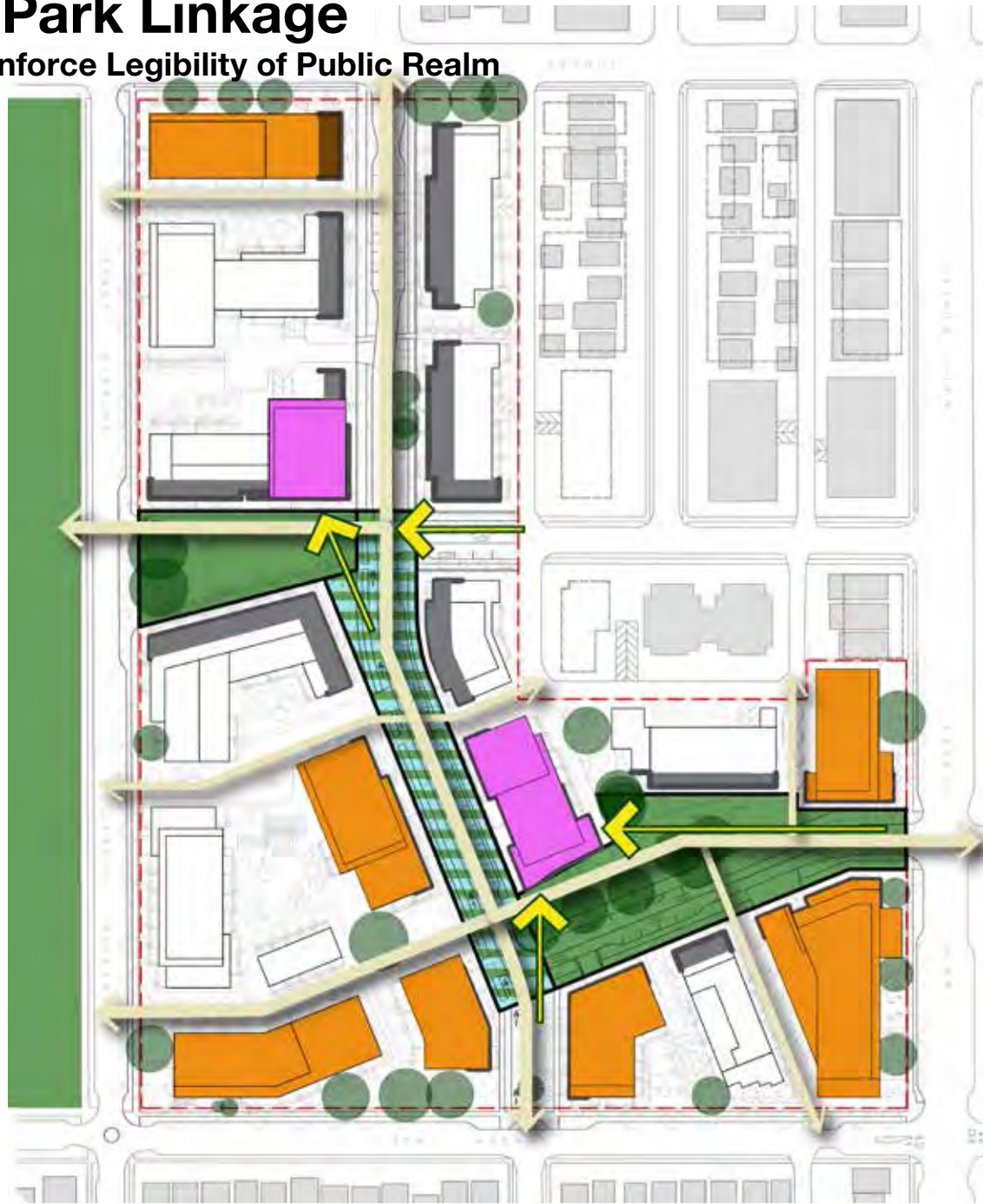
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Big Idea: City-Park Linkage

Landmark Buildings Reinforce Legibility of Public Realm

Primary
Secondary



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Primary Landmark Buildings



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Secondary Landmark Buildings



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Primary Streetwall



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Secondary Streetwall



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View From Southeast



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Southeast Quadrant

Site Plan – December 2015 (Before)



Site Plan – May 2016 (After)



Southeast Quadrant

- ① Plaza sunlight performance enhanced, particularly in late afternoon
- ② Plaza enlarged and extended to Central Spine
- ③ Active use added to building AA
- ④ Building AA is landmark for views from Main and Quebec Streets
- ⑤ Buildings AA, EC stepped for better edge transition to adjacent area
- ⑥ Building BA reoriented to activate plaza edge, create sunny courtyard



Partial Site Plan



View From Southeast



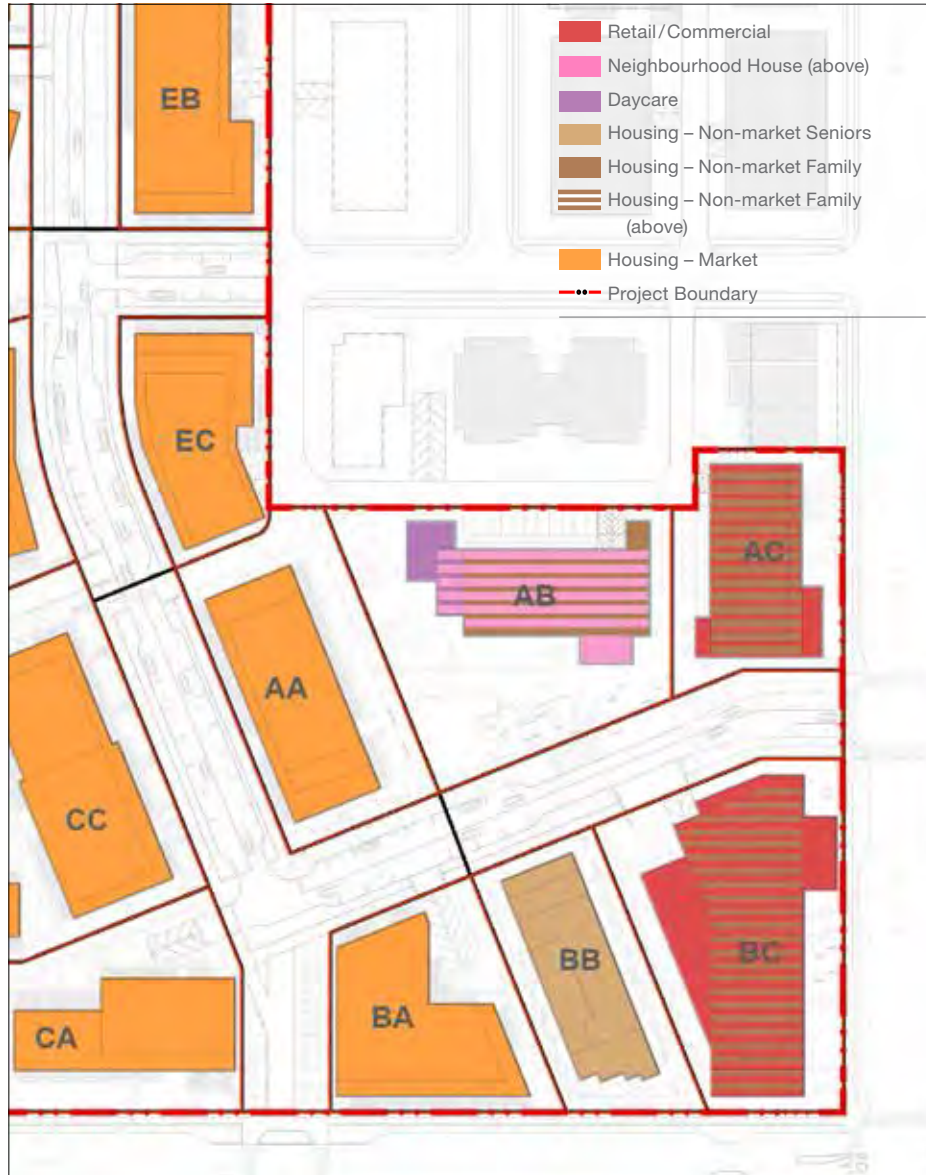
View From Southwest

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Southeast Quadrant

Land Use Plan – December 2015 (Before)



Land Use Plan – May 2016 (After)



Southeast Quadrant

Plaza Area – December 2015 (Before)

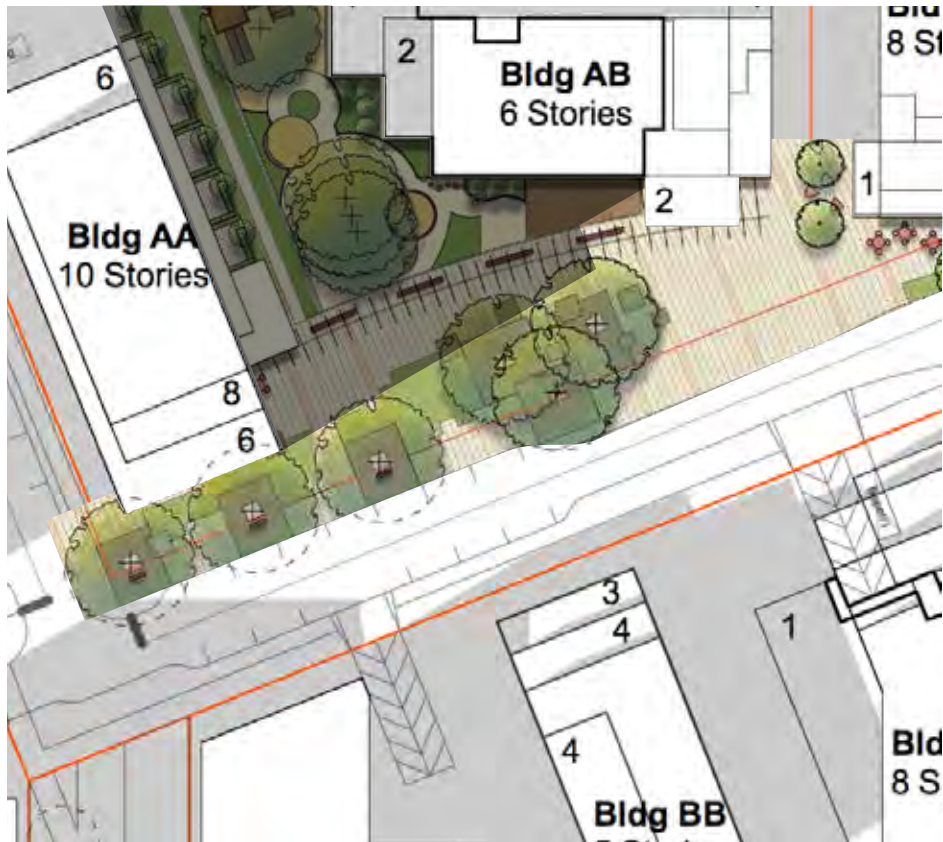


Plaza Area – May 2016 (After)



Plaza Sunlight Performance, Equinox at 4 PM

Previous



Current



Plaza Sunlight Performance, Equinox at 6 PM

Previous



Current



Community Plaza

Daily Use

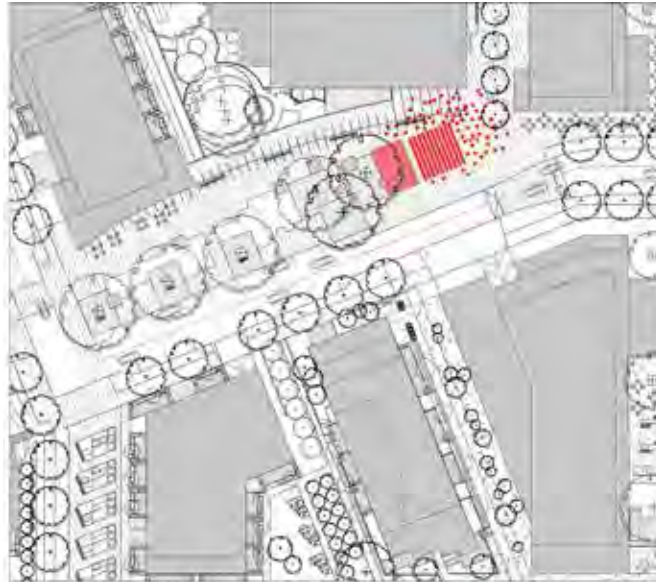


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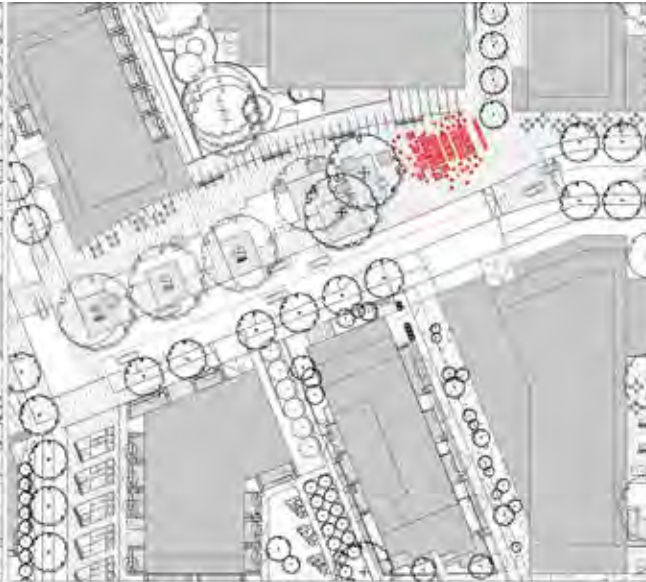
Community Plaza

Neighbourhood House Programming



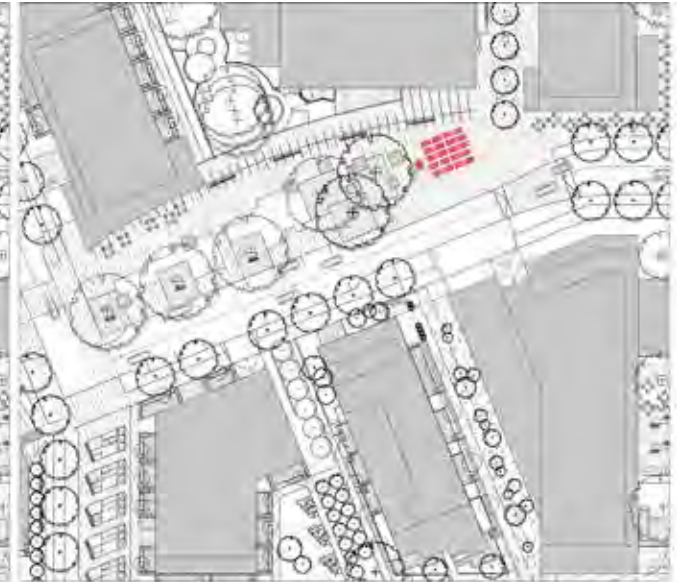
PERFORMANCE (250pp)

STAGE (7m x 10m) | 150 SEATS (5m²) | 1000m STANDING (1m²)



MOVIE NIGHT (100pp)

SCREEN (6.7m x 8m) | 30 BLANKETS (1.5m² each) | 50 STANDING (1m²)



YOGA CLASS (21pp)

21 MATS (7m x 1.5m)



SENIORS' MARKET & CHRISTMAS CRAFT (120pp)

8 TENTS (2m²)



KIDS' DAY / CANADA DAY CELEBRATION (200pp)

8 TABLES (2x5.6m) | 3 PLAYSTATIONS (1.6m²)



PLANT EXCHANGE (50pp)

6 TABLES (7m x 3m)

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Community Plaza

Rendering



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Southwest Quadrant

Site Plan – December 2015 (Before)



Site Plan – May 2016 (After)



Southwest Quadrant

- 1 Continuous pathway connection from plaza to QE Park
- 2 Height and massing varied, particularly on Ontario Street edge
- 3 Building CC-2 pulled north to preserve tree, improve plaza solar performance
- 4 Additional trees retained / protected
- 5 Sunlight performance on Wedge Park very good, similar to previous
- 6 Large, contiguous, south-facing courtyard



Partial Site Plan



View From Southwest



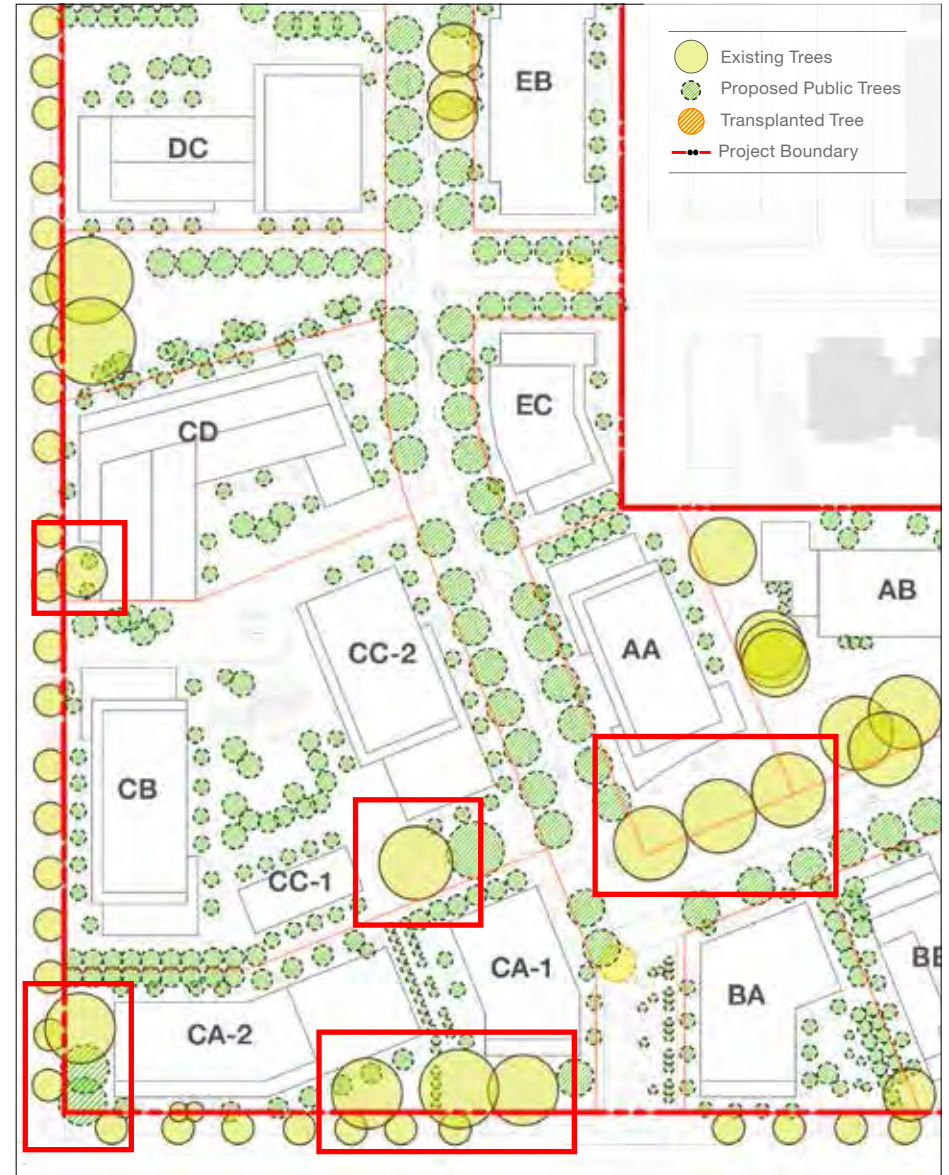
View From Northwest

Southwest Quadrant

Existing and Proposed Trees Plan – December 2015 (Before)

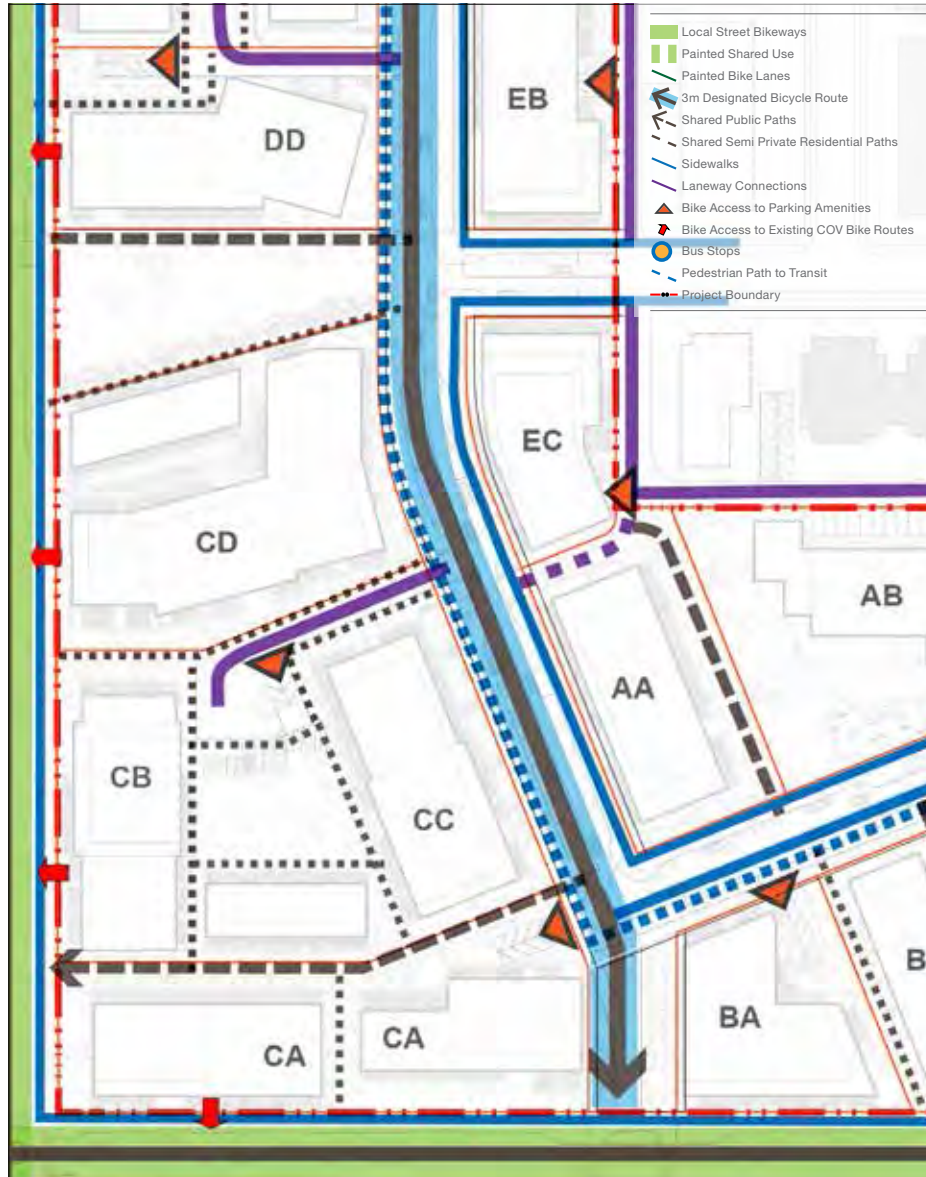


Existing and Proposed Trees – May 2016 (After)

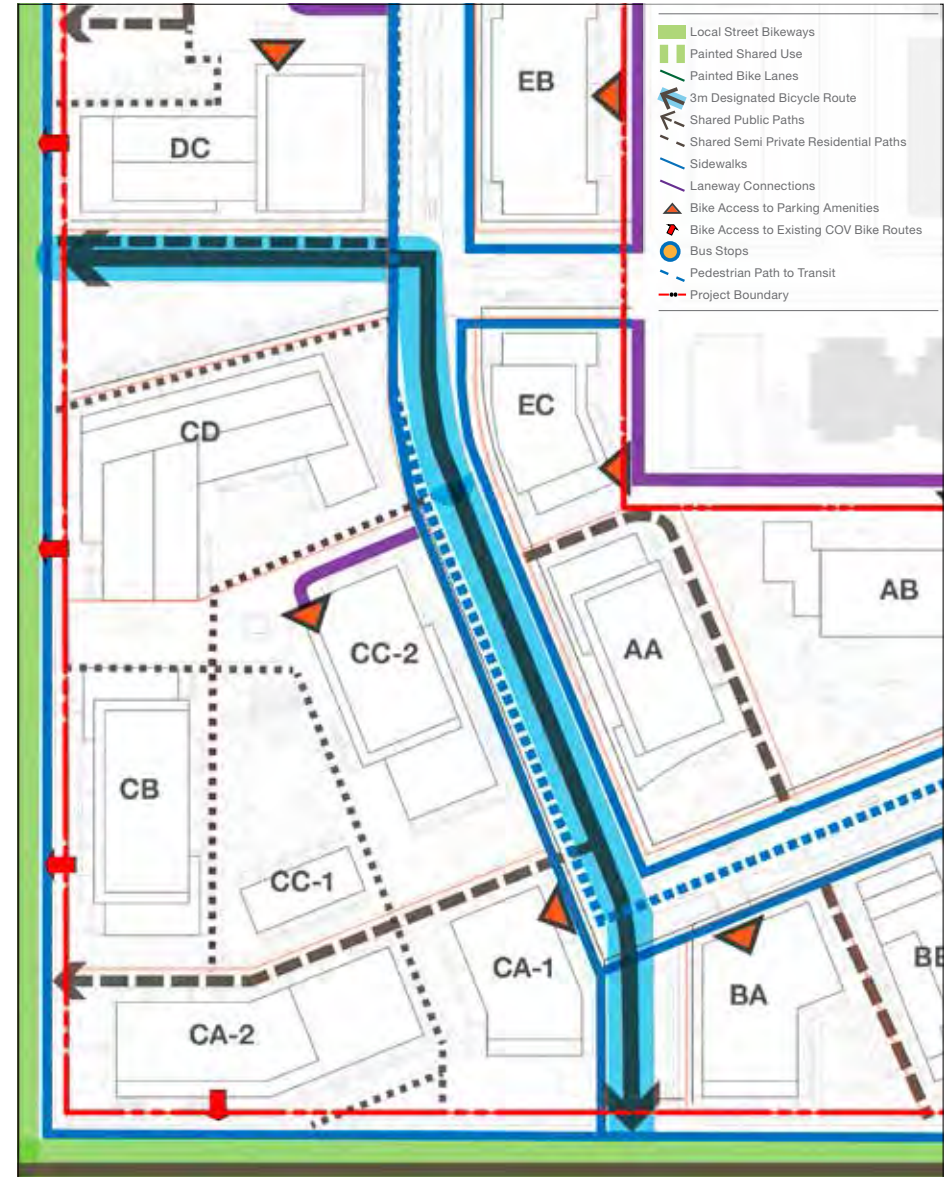


Southwest Quadrant

Mobility – December 2015 (Before)



Mobility – May 2016 (After)



Northwest Quadrant

Site Plan – December 2015 (Before)



Site Plan – May 2016 (After)



Northwest Quadrant

- ① Continuous east-west path connecting to Northeast Quadrant path
- ② Generous view corridors from Central Spine to QE Park
- ③ Tall buildings are offset for varied street edges; overlooks are minimized
- ④ Courtyards are generously scaled for daylight and privacy
- ⑤ Ontario Street sunlight performance improved
- ⑥ Generous setback (18 ft) on west side of Central Spine to accommodate stormwater feature



Partial Site Plan



View From Northwest



View From Southwest

Northwest Quadrant – Shadows at 4 PM

Previous

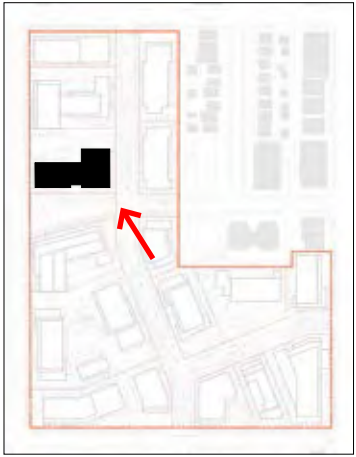


Current



Landmark Building DC

Massing



Landmark Building DC

Parti



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Landmark Building DC

Component Definition

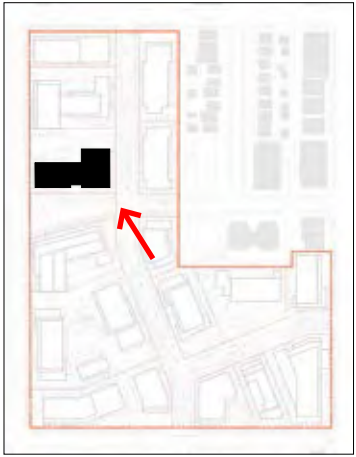


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Landmark Building DC

Schematic Design

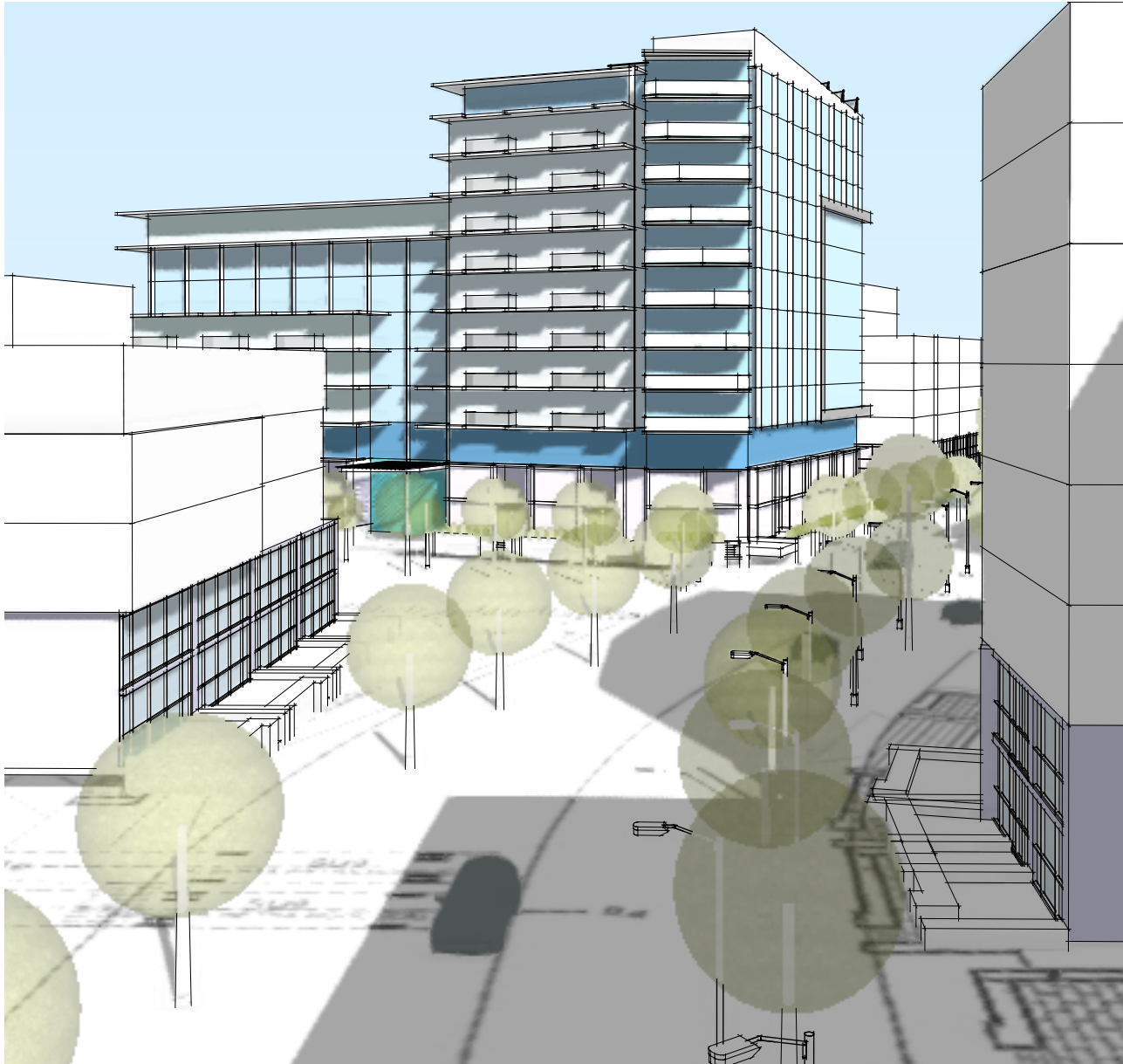
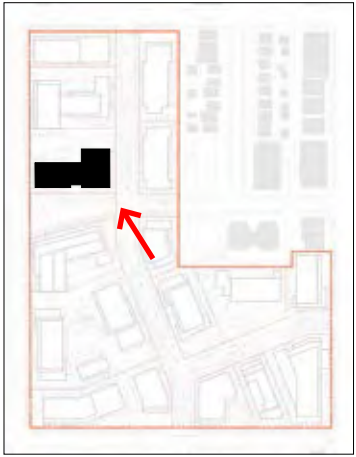


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Landmark Building DC

Street View

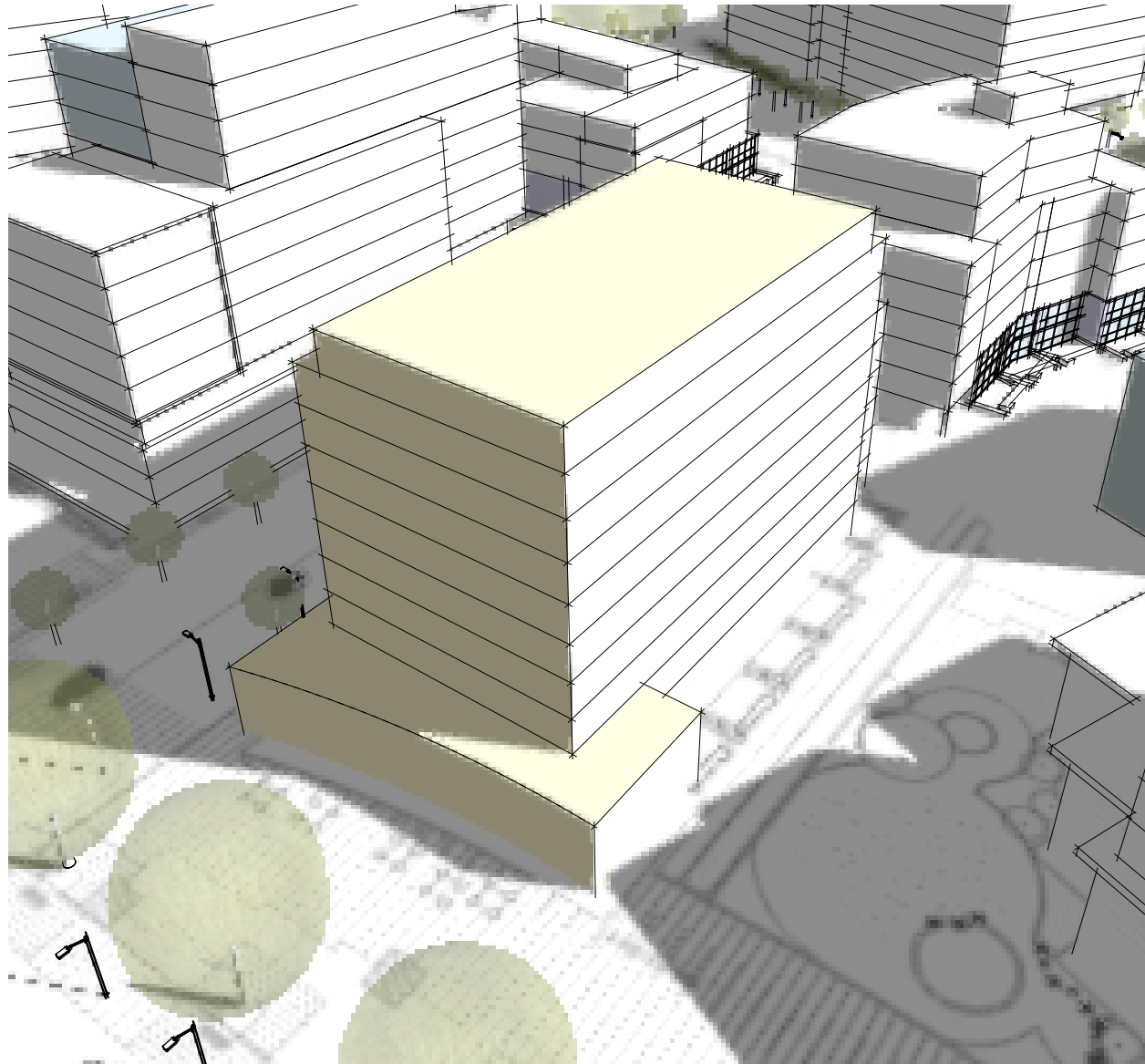
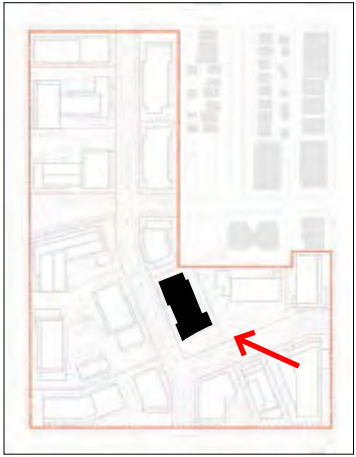


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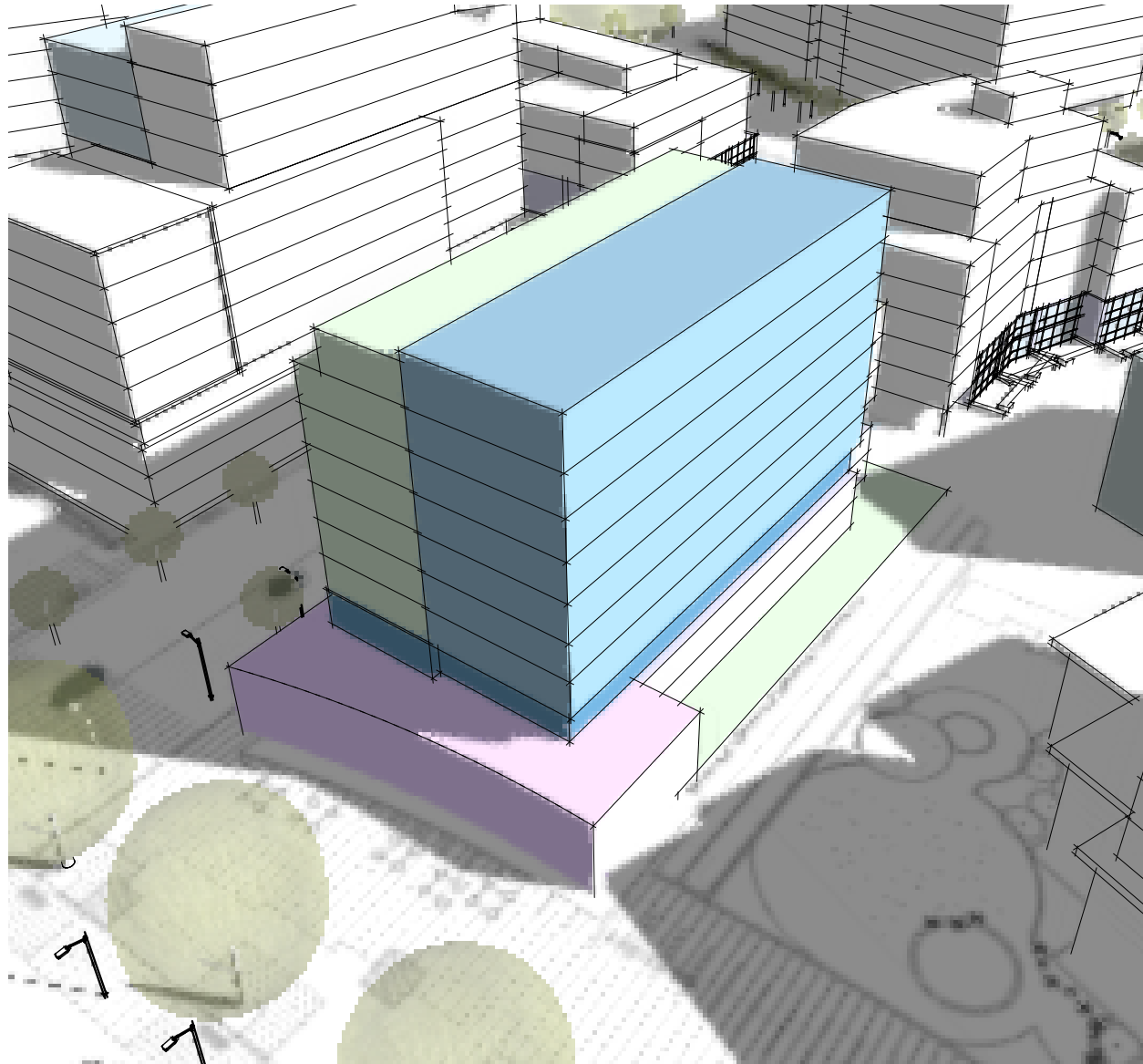
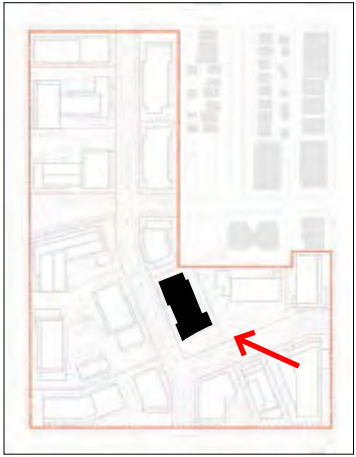
Landmark Building AA

Massing



Landmark Building AA

Parti

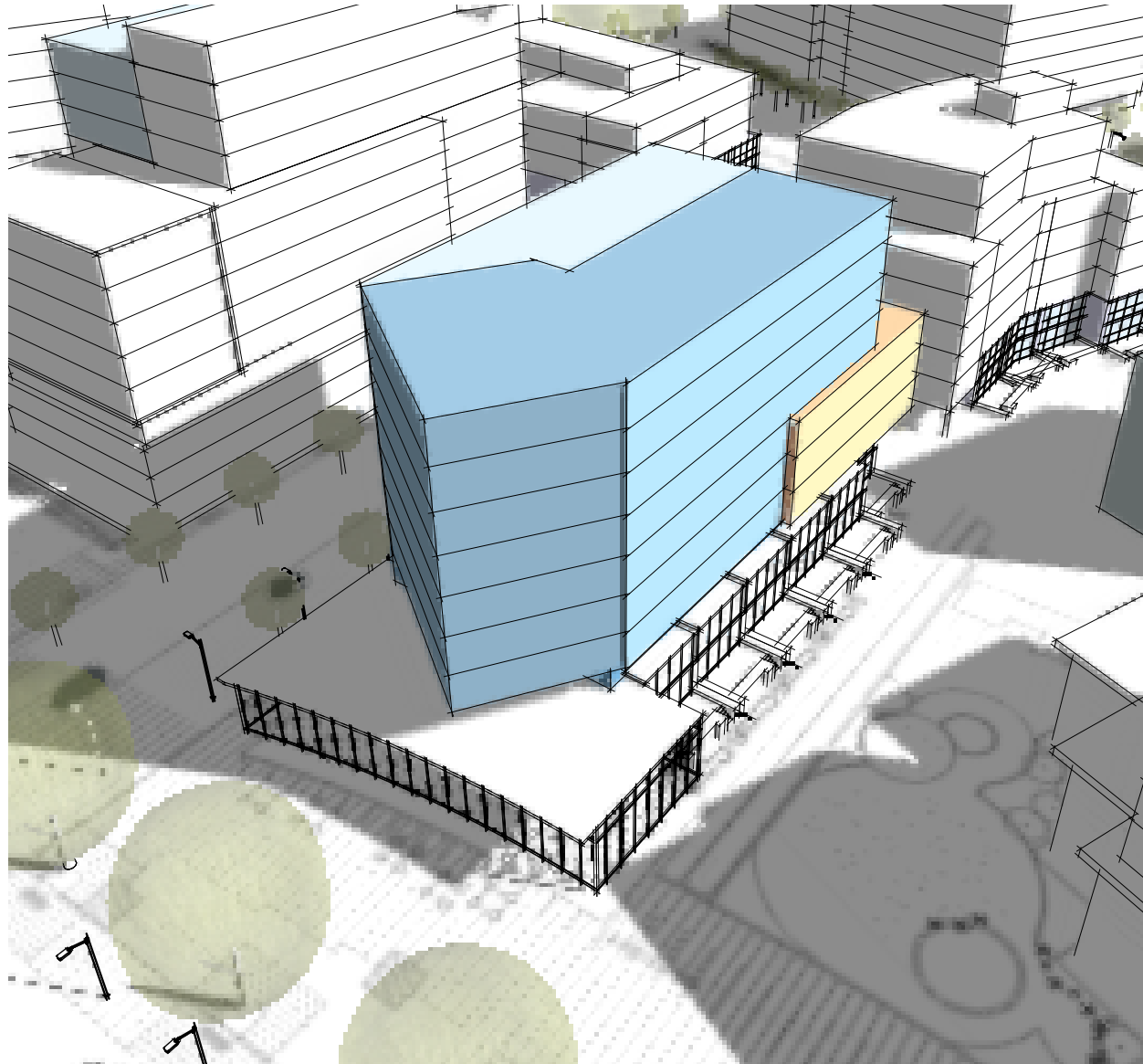
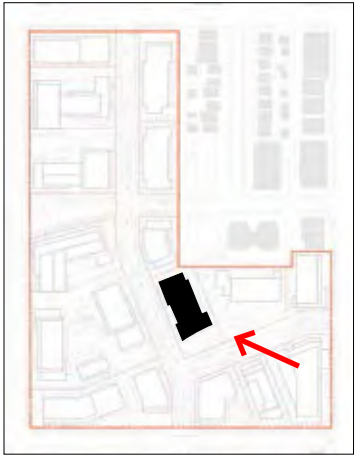


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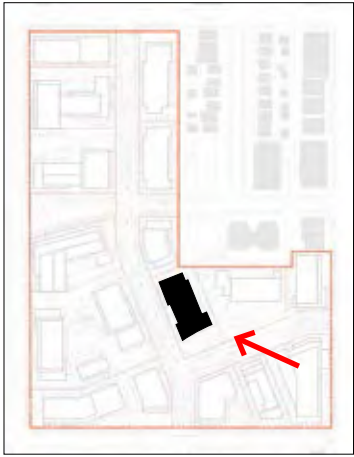
Landmark Building AA

Component Definition



Landmark Building AA

Schematic Design

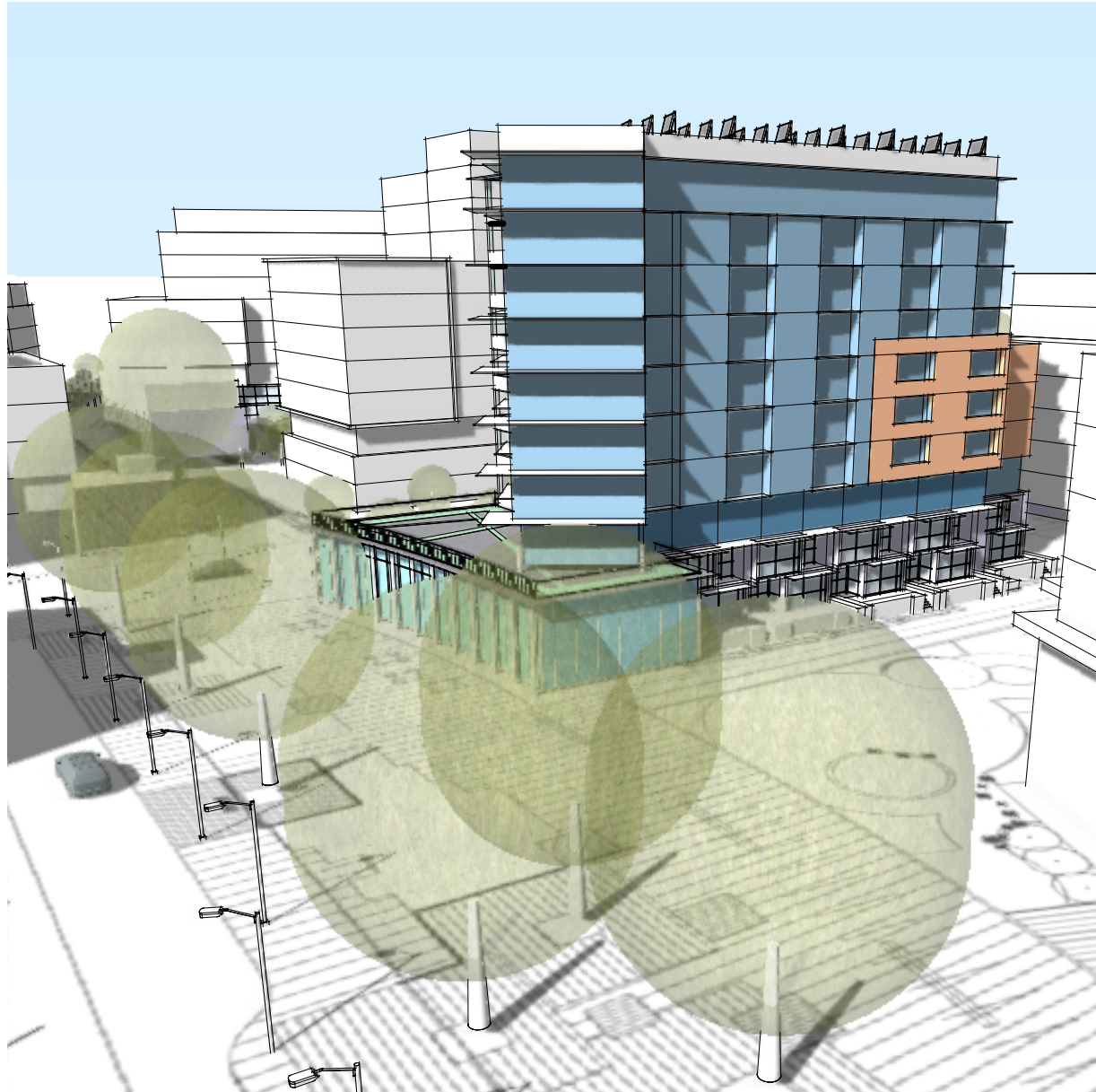
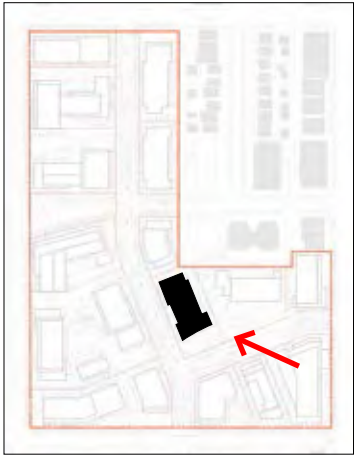


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Landmark Building AA

Street View

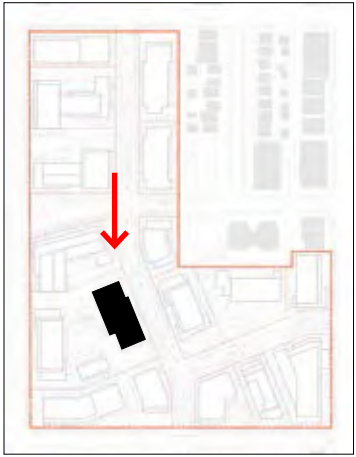


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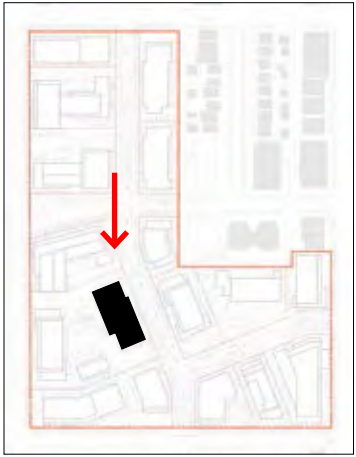
Landmark Building CC-2

Massing



Landmark Building CC-2

Parti

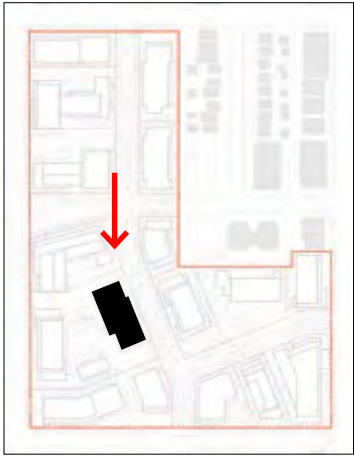


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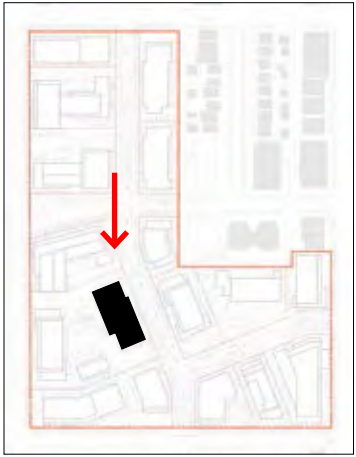
Landmark Building CC-2

Component Definition



Landmark Building CC-2

Schematic Design

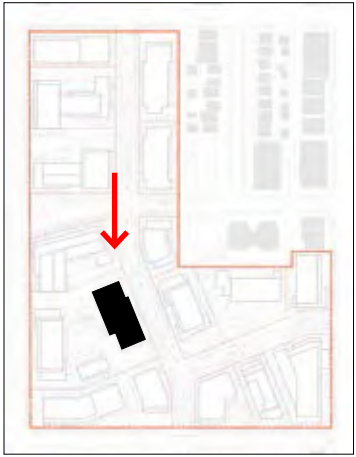


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Landmark Building CC-2

Street View



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Sustainable Buildings

Provide solar shading on south, east and west façades to reduce solar heat gain

Where appropriate, roof-top gardens reduce heat island effect and moderate storm flows

Building envelope to use durable materials; Cladding with continuous insulation

Maintain $\pm 50\%$ window to wall area ratio for a passive approach to building envelope design

R-values for suspended floor to be $\neq R20$

Underground parking to be held back in some locations to improve storm infiltration and preserve existing trees

R-value for roof to be $\neq R30$

Possible inclusion of solar panels

R-value for exterior wall to be R15 depending upon wall construction system

All windows double glazing with low e coating; concrete buildings with metal framing systems, $u-0.35$; wood building with PVC windows, $u-0.26$

Provide landscaped patios to reduce heat island effect and moderate storm flows. May incorporate edible landscaping

Explore exterior solar shades and louvres where overhangs are impractical

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Sustainability – Site-Wide



Green Mobility

- Separated, vegetated walking paths across the site
- Separated bike facility through site from Wedge Park to Quebec Street
- Bike and pedestrian access only from Ontario, 37th and 33rd
- Bicycle parking and electric bicycle charging for visitors and residents
- Shared bicycle repair and tool area for residents.
- Designated off-street car-share parking
- Electric-vehicle ready parking spaces for residents
- Walking, cycling, transit and car-sharing will be promoted with residents



Sustainable Site Design

- Buildings orientation and narrow floorplates prioritize resident sunlight access
- Compact, mid-rise buildings increase energy efficiency
- Passive design elements will increase energy efficiency and unit livability
- Cross-ventilation opportunities at building corners and stand-alone townhomes
- Paved surfaces minimized to reduce heat island effect
- Surface parking only on public streets and for daycare drop-off
- Deciduous trees will be planted in front of buildings along west and south façades to reduce heat gain in summer



Access to Nature & Habitat Creation

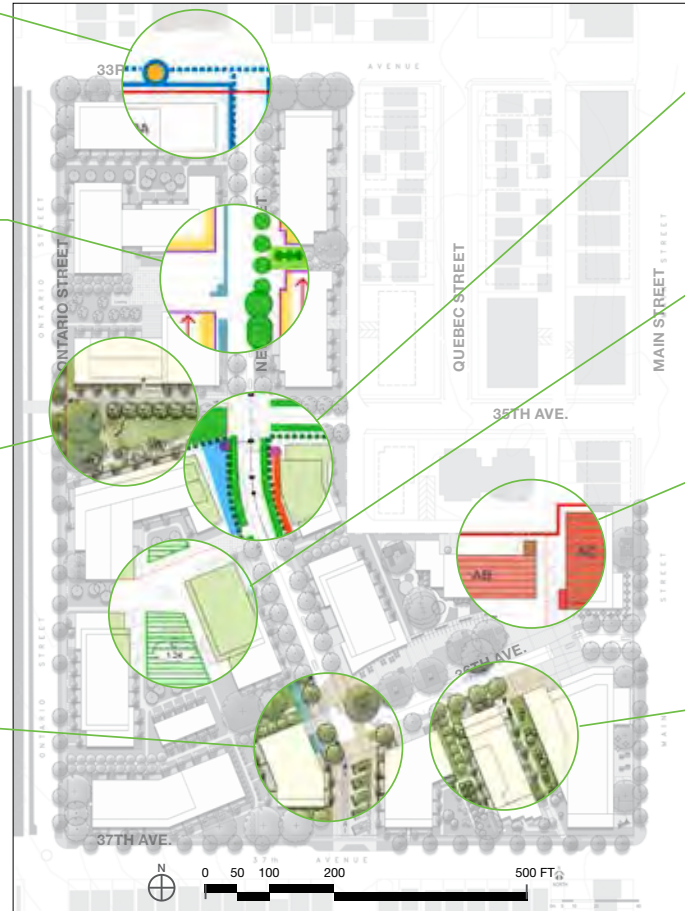
- Safe, legible and accessible connections to open spaces and Queen Elizabeth Park
- Bird-friendly landscape and building design
- Bird and insect friendly green roof design
- All off-site street trees are kept; most existing large and healthy trees within the site are maintained
- Over 350 new trees will be planted (7:1 tree replacement rate)
- Continuous tree canopy and shrub plantings create an uninterrupted habitat for birds and other small species



Sustainable Food Systems

- Community Gardens of ~425 m² at the Quebec Street Extension
- Food-bearing trees planted where appropriate
- Holborn will facilitate the creation of a Neighbourhood Garden Association
- Edible landscaping to supplement ornamental landscaping will be actively promoted in public and private areas
- A community kitchen in the Neighbourhood House and a Farmers' Market at the Community Plaza will bring "local food to the table"

Sustainability Highlights



Rainwater Management

- Permeable paving and vegetated areas minimize hardscape and heat island effect
- Increased infiltration from linear rain garden feature, green roofs and vegetated areas
- Rooftop and hardscape collection through combination of cisterns and detention tanks
- Detention tanks will have filtration and slow-release to City storm system



Zero Waste Design

- 90% waste diversion targeted for 2020
- Visual cues and convenient recycling collection for residents
- Secure, in-building composting, recycling and garbage
- Secure, in-building collection of resident e-waste, batteries and lamps
- Resident education and outreach initiatives



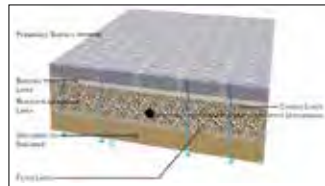
Low Carbon Energy

- All buildings will be "district energy ready," prepared to connect to the Cambie Corridor District Energy Program
- A district energy peaking plant will be located below the Community Plaza
- Until connection to district energy source, the plant may double-up as the site's main thermal energy supply
- Increased energy efficiency and reduced greenhouse gas emissions

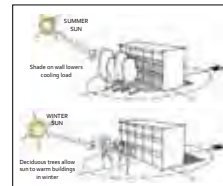


Affordable Housing

- 282 new non-market housing units; most delivered in early phases
- 224 non-market units are replacement housing for prior Little Mountain residents
- 10 non-market units available to the Musqueam Nation
- 48 non-market units in a City-owned building above the Daycare and Neighbourhood House
- Mix of unit types, sizes, and construction technology ensures more than 50% of family-oriented units and a greater variety of tenures and price ranges



Courtesy of Richard Layman, Rebuilding Place in the Urban Space



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3D Massing – 2015 (Previous)

View From Southwest



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3D Massing – 2016 (Current)

View From Southwest



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3D Massing – 2015 (Previous)

View From Southeast



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3D Massing – 2016 (Current)

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