

# Guiding Design Principles + Massing Scenarios

North Berkeley  
BART Study

**May 9<sup>th</sup>, 2019**





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# Overview



# NBB Study: Methodology + Process

## Background Review

- Community Design Proposals and Public Comments
- Site Analysis and Constraints
- Regulatory Requirements (BART TOD Guidelines, AB2923)

## Guiding Design Principles

- Address Community Concerns and Site Constraints
- Establish Design Elements to be Reinforced by Future Development Proposals

## Conceptual Massing Scenarios

- Conceptual Massing to Illustrate Development Scenarios
- Preliminary Analysis for Economic Viability
- Identify Development Trade-Offs





# Guiding Design Principles

# 2



# Guiding Design Principles

## How were these derived?

**Common themes from the community** design proposals and comments in 2018 + **site analysis** and massing studies.

## How will these be used?

The Guiding Principles will **inform future zoning and development standards** for the site.

1

**Pedestrian-Scaled Streets and Blocks**

2

**Buildings Smaller at Edges, Taller in Core**

3

**Multimodal Connectivity and Access**

4

**Connect to the Ohlone Greenway**

5

**A New Public Space as the Central Focus**

6

**Reinforce City and BART Policies**



# 1. Pedestrian-Scaled Streets and Blocks

**Design the site with small blocks and narrow streets as an extension of the existing fabric.**

## **Why is this important?**

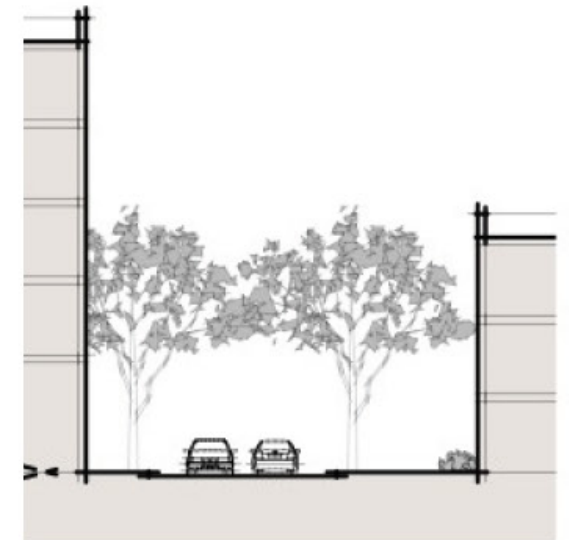
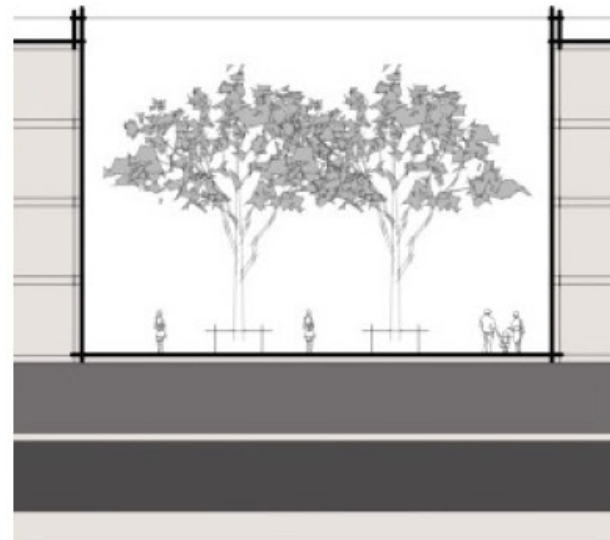
- A pedestrian-scaled development will be **compatible with the existing street and block pattern**.
- A small-block network promotes **greater walkability and connectivity**, which improves safety and more active use of public spaces and amenities.



# Interior Streets as Public Space

## Building size, form and placement affects the scale of interior spaces.

- A variety of public and private open spaces can be created.
- Relationship between scale of open space and buildings framing it.





## 2. Buildings Smaller at Edges, Taller in Core

The scale, form and arrangement of buildings should be contextual and enhance neighborhood character.

### Why is this important?

- Smaller, detached buildings at the edges will **fit the context**, allowing taller buildings in the interior.
- Articulation of façades and heights can **break down the scale** of large buildings.
- Using **a range of building types** can prevent the new development from looking like a 'project'.



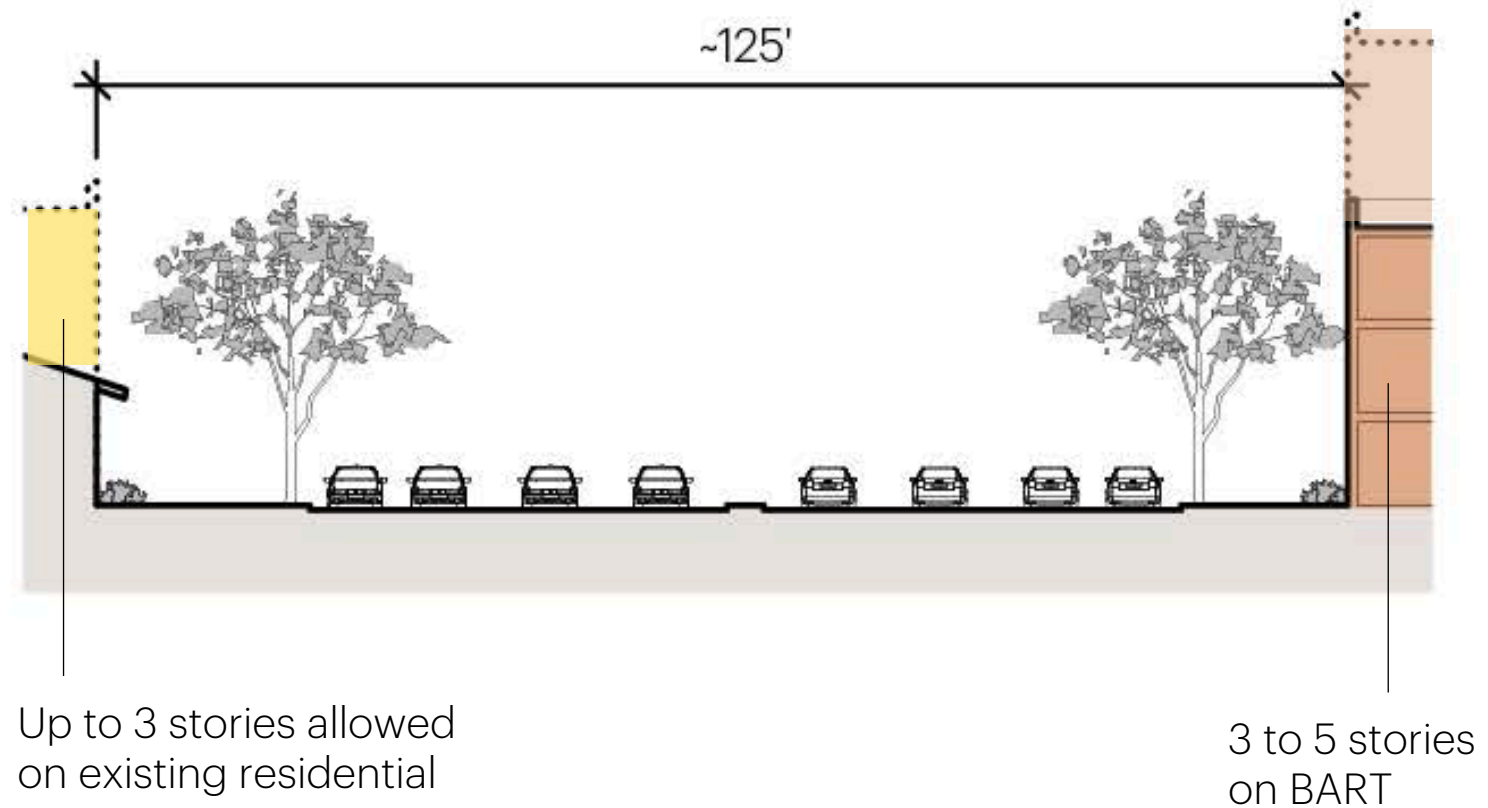
# Edge Transitions

## Right-Sizing Project Buildings at Site Edges.

- Street width can determine **height of new buildings on BART site edges**

### Sacramento Street

- Street width = **90'**, building edge to building edge = approx. **125'**
- Allowed height on existing residential = **up to 3 stories**
- New development on BART can be **3 to 5 stories tall**

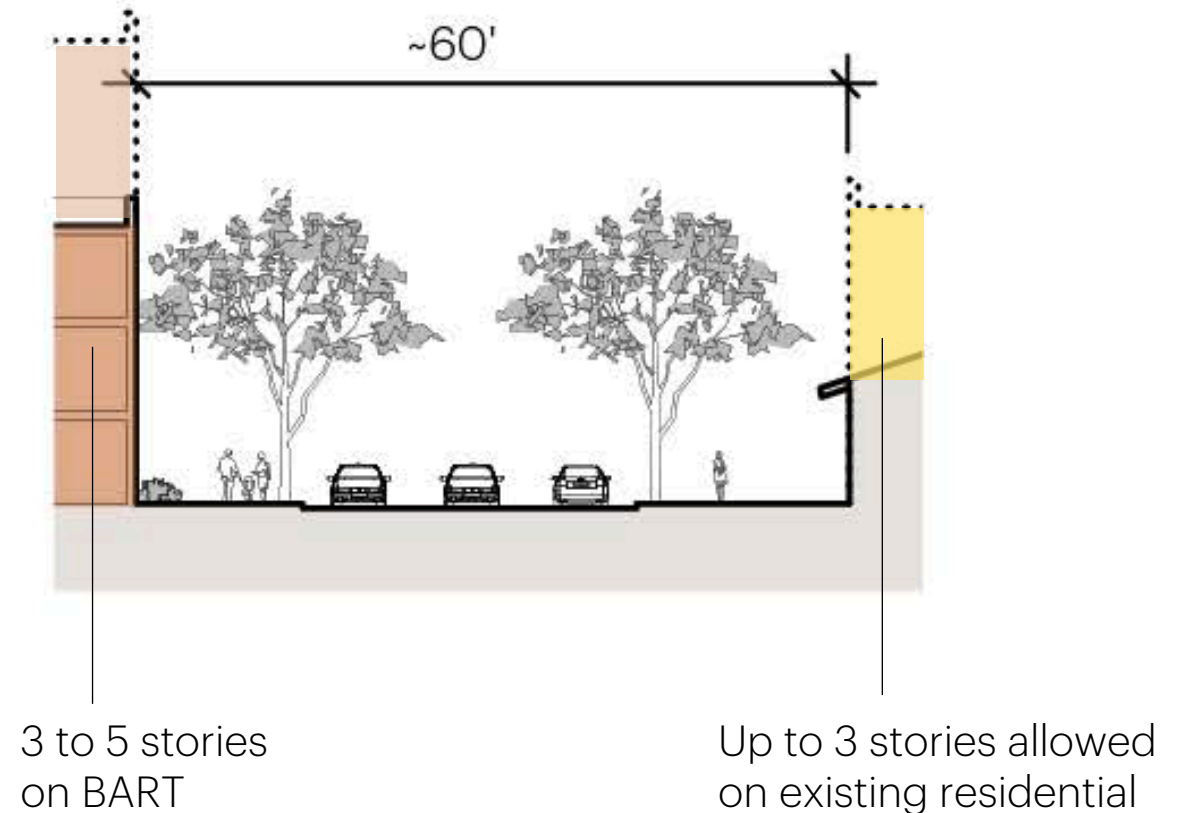




# Edge Transitions

## Acton Street

- Street width = **35'**, building edge to building edge = approx. **60'**
- Allowed height on existing residential = **up to 3 stories**
- New development on BART can be **3-5 stories tall** (with step backs as needed)

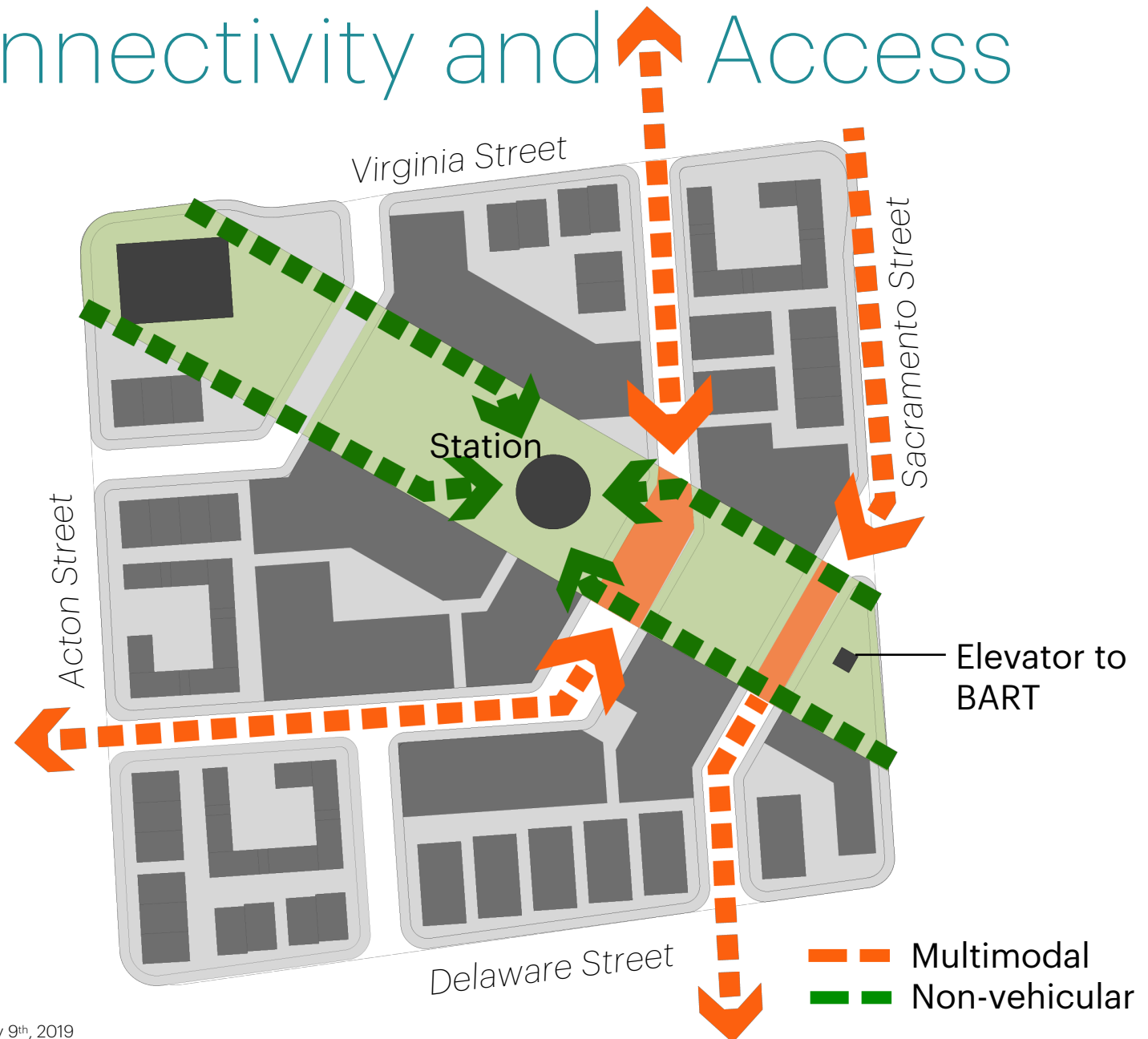


# 3. Multimodal Connectivity and Access

Ensure multimodal connectivity both within and through the site, and improve access to BART.

## Why is this important?

- Improved station **access for residents and commuters**, supported by new uses and amenities, can promote BART ridership.
- Planning for all modes, including pick-up and drop-off, ride-sharing, buses, carpooling, etc. can **simplify circulation and avoid traffic impacts**.





# 4. Connect to the Ohlone Greenway

The BART easement can be used to create a bike-pedestrian route across the site, connecting to the Ohlone Greenway.

## Why is this important?

- Provides a **direct, safe route** across the site for pedestrians, cyclists and other non-vehicular modes.
- Improves **access to BART** for non-vehicular modes.
- Connection strengthens the overall bike-pedestrian network.

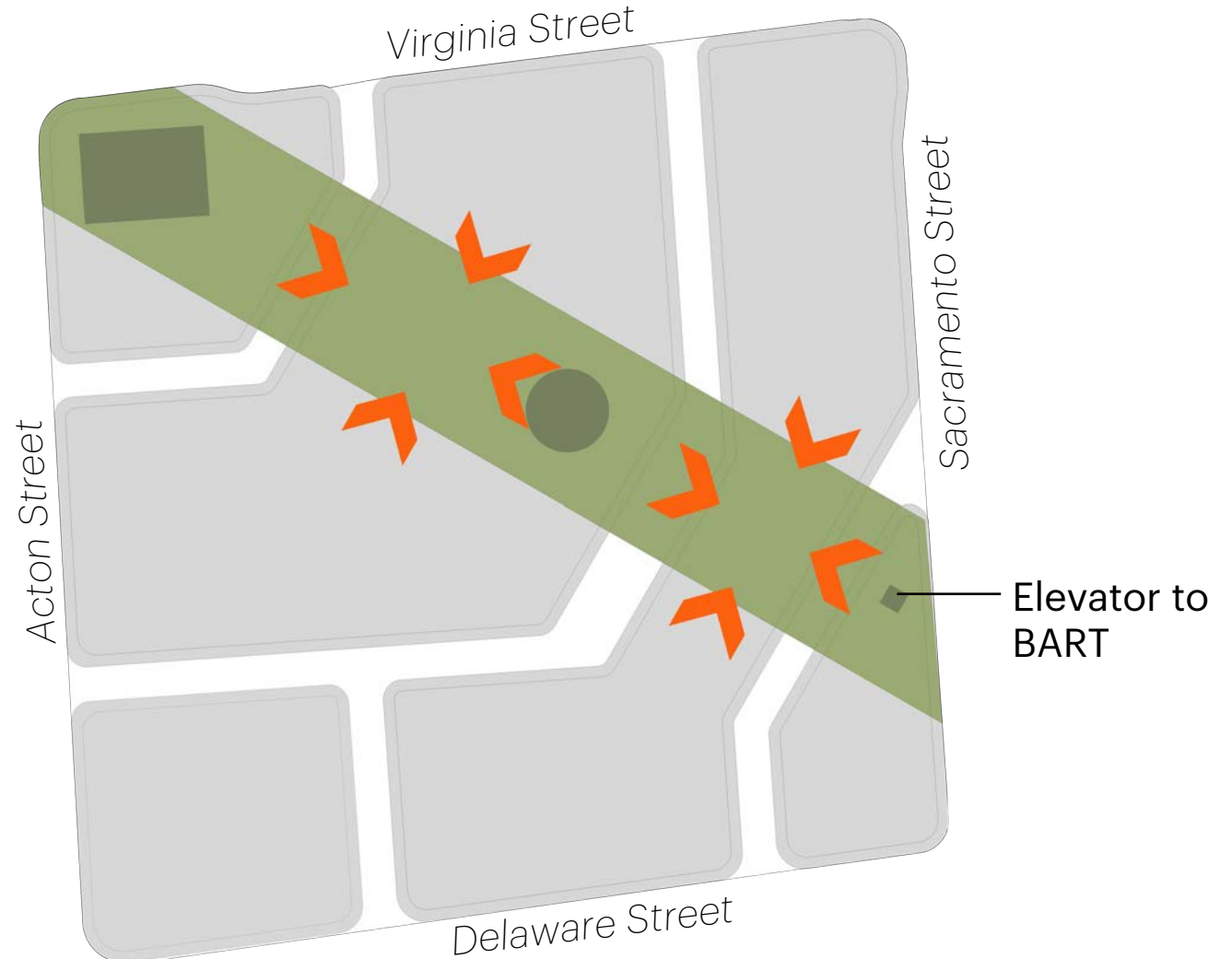


# 5. A New Public Space as Central Focus

**Prioritizing public open space at a central location where the community can gather, will also strengthen the connection to Ohlone Way and BART.**

## Why is this important?

- The easement can provide a new open space of **approx. 2.5 – 3.0 acres**
- A well-designed, active public space can **support BART ridership** and new non-residential uses.
- It can be a **venue for community activities and events**, both for the new development and established neighborhoods.





# 6. Reinforce City + BART Policies

**The project is an opportunity to implement City policies on growth, affordable housing and sustainability.**

## **General Plan Housing Element:**

### **Policy H-12 Transit-Oriented New Construction**

Action E: Consider adjusting zoning to allow for greater residential density and specified commercial uses along certain transit corridors and in proximity to the Downtown Berkeley, Ashby, and North Berkeley BART stations.

## **General Plan Transportation Element:**

Policy T-42 'Bicycle Planning' + Policy T-43 'Bicycle Network'

## **Climate Action Plan:**

D. Sustainable Transportation and Land Use Actions

Goal 1: Increase density along transit corridors







# Conceptual Massing Scenarios



# Elements to Consider

## Interrelated Elements that Affect Each Other and Project Feasibility.

- Each element informs the vision, physical and spatial character, and economic viability of the project.
- Inherent trade-offs need to be understood, discussed and prioritized.

1	Parking	
2	Building Scale	
3	Edge Transitions	
4	Affordable Housing	
5	Mix of Uses, Open Space, and Other Community Amenities	



# Massing Scenarios

Opticos created massing scenarios to illustrate development possibilities. The intent is not to choose one, but to inform community discussion.

## Design Approach

- Studied an option with 2 and 4 story buildings. **The resulting density (66 du/ac) was below BART requirements.**
- The team then developed massing scenarios using a mix of economically feasible building types.
- Scenarios, including street and block network, are **conceptual and do not reflect an actual design scheme.**

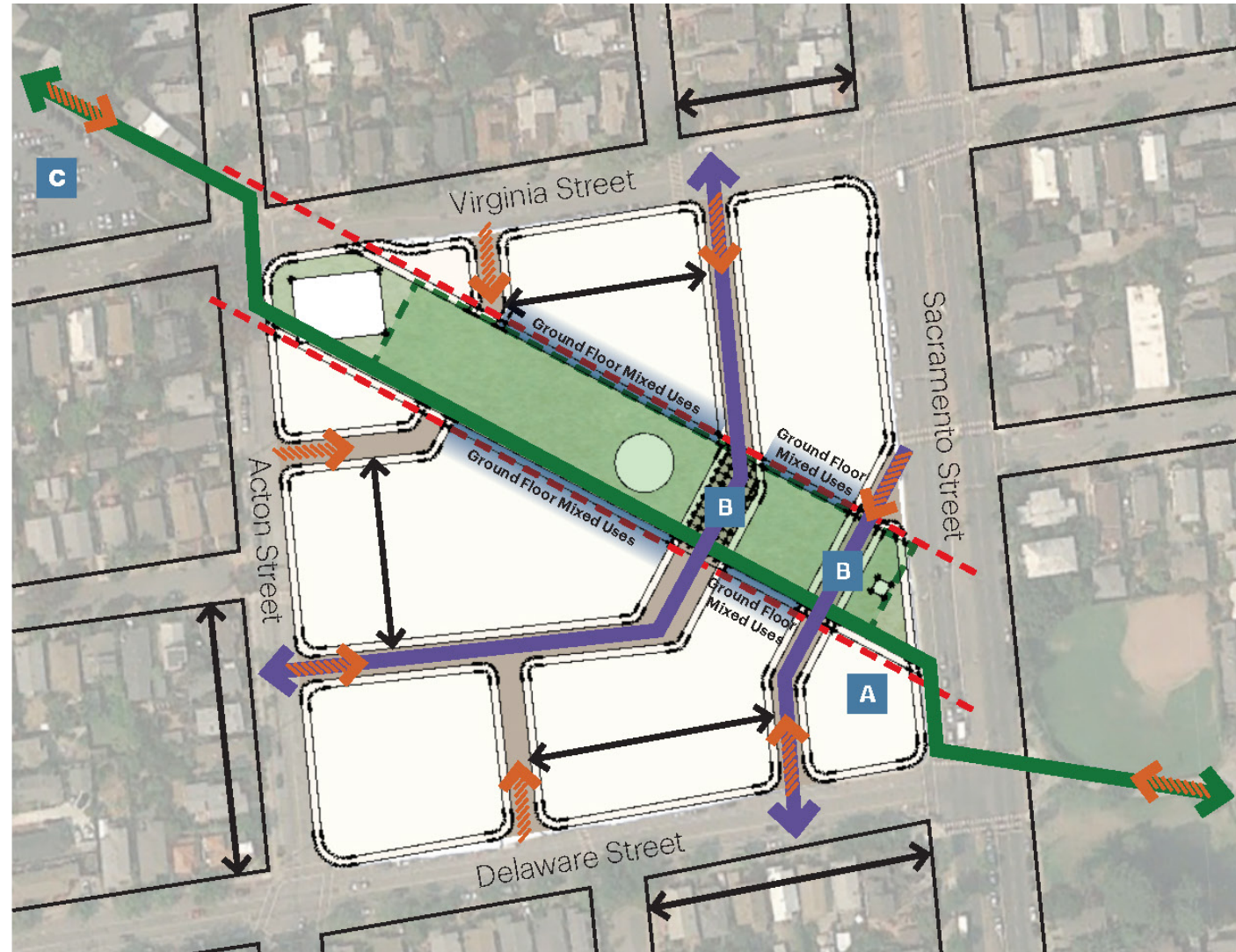




# Shared Design Features

## All Scenarios Reflect the Following Elements Based on the Guiding Design Principles

- BART easement used to provide a new public space (approx. 3 ac) and Ohlone Greenway connection.
- Block sizes compatible with adjacent neighborhood.
- Street pattern to improve multimodal connectivity and access to BART.
- Ground floor mixed-use (office/ community services/ flex) along greenway (approx. 22,000 sf).





# Scenario 1: Mixed Building Types

## Design Features

- **3-story** small-footprint, detached buildings at edges, **5-story** podium buildings in interior.
- **453** residential units (88 du/ac, 2.2 FAR)
- **225** parking spaces (mainly for residential use; limited BART replacement)





# Scenario 2: Conventional Podium Type

## Design Features

- **5-story** podium buildings stepping to 3 stories at edges, **5 to 7-story** podium buildings in interior.
- **773** residential units (151 du/ac, 3.6 FAR)
- **460** parking spaces (252 residential + 208 flex/ BART replacement).





# Scenario 3: Mixed Types with Added Parking

## Design Features

- **3-story** small-footprint, detached buildings at edges, **5 to 7-story** podium buildings in interior.
- **582** residential units (114 du/ac, 2.8 FAR)
- **363** parking spaces (187 residential + 176 flex/ BART replacement).





# Comparing Scenarios: Built Form



View from Sacramento looking north-west



View from Acton looking south-east





# Elements to Consider



# Elements to Consider

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# Elements to Consider: Scenario Comparison



Elements	Scenario 1 Mixed Building Types	Scenario 2 Conventional Podium Type	Scenario 3 Mixed Building Types (Added Parking)
Number of Housing Units	453	773	448
Affordable Units (%)	114 (25%)	201 (26%)	65 (11%)
Variety of Building Types	Yes	No	Yes
Parking Spaces	300	460	360
Edge Transitions: Heights	Yes	No	Yes
Edge Transitions: Detached Buildings	Yes	No	Yes
Internal Heights	5	Mostly 5	7
New Public Open Space	Yes, 3 acres	Yes, 3 acres	Yes, 3 acres
Connection to Ohlone Way	Yes	Yes	Yes
Community-Serving Uses	Yes	Yes	Yes



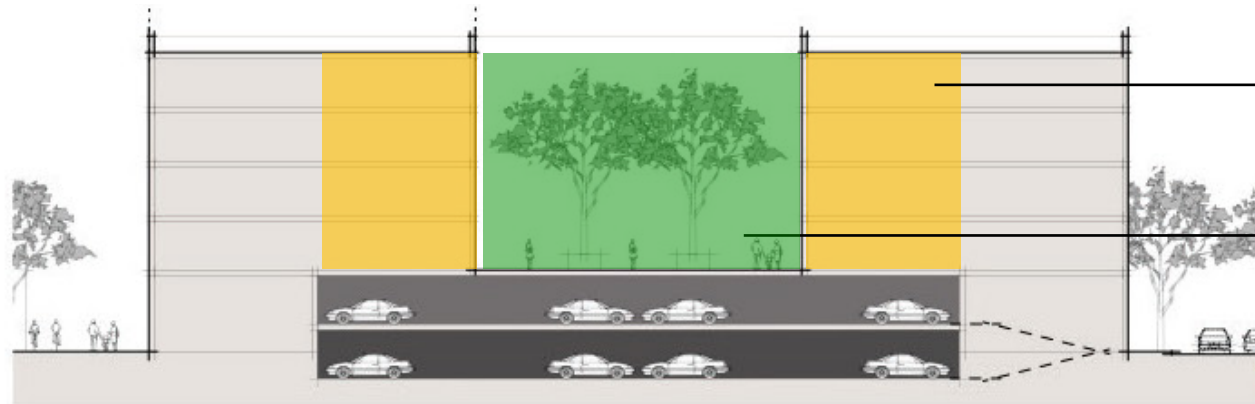
# Elements to Consider: Parking

## More Parking = Fewer Units.

Providing 100% replacement parking would require larger structures and will be very expensive.

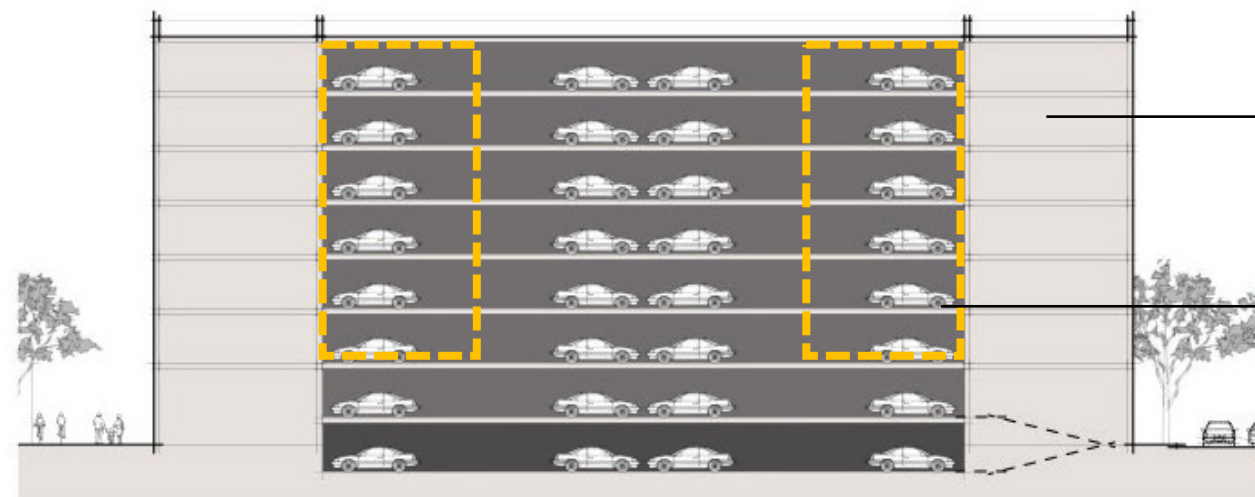
**Cost per parking space = \$85,000**

**Cost for 650 spaces (100% replacement) = \$55,250,000**



**Podium building with ~180 parking spaces**

Upper 4 floors are double-loaded (more units)  
Top of 2-level parking podium can be a private open space



**Podium building with ~620 parking spaces**

Building gets taller and bigger  
Upper 6 floors are single-loaded (fewer units per floor)

# Trade-Offs: Parking vs Affordable Housing

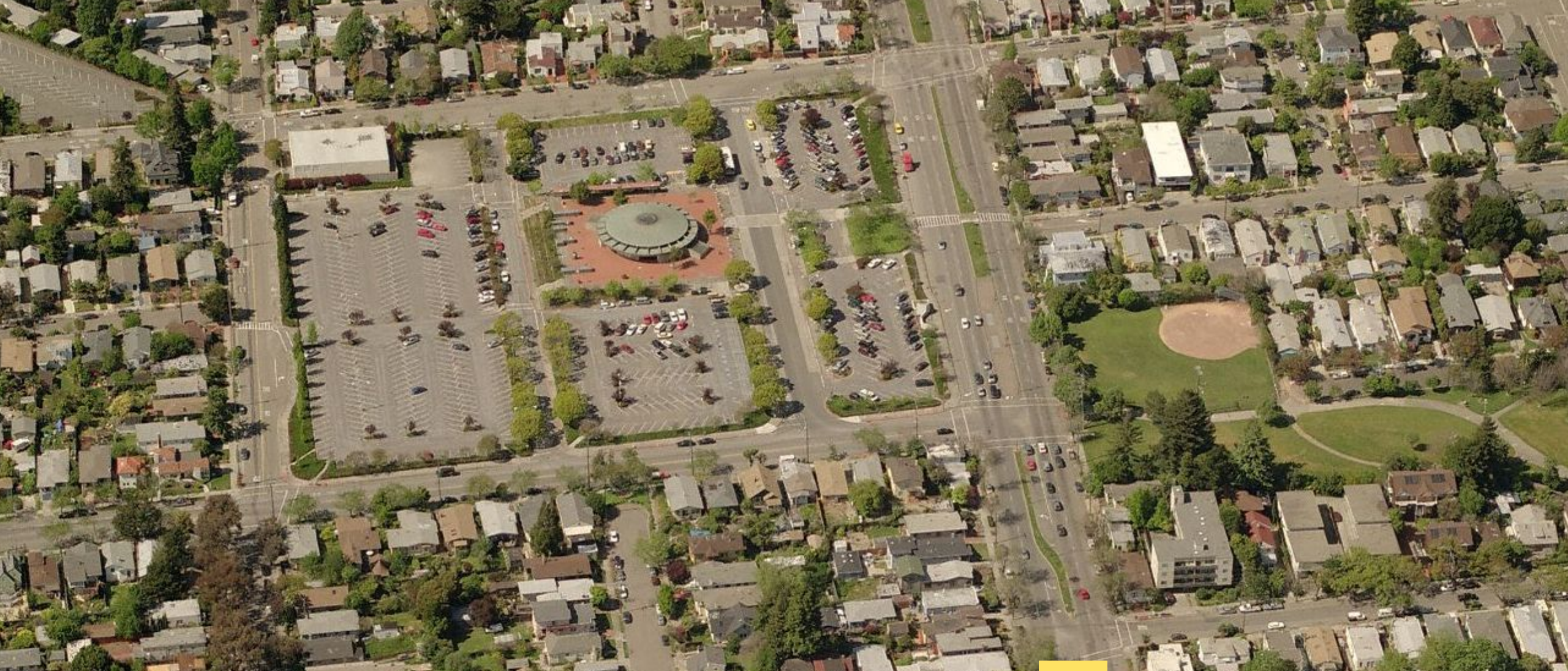
	Public Parking	Affordable Units*	Affordable Housing %	Bond \$ Needed
<b>Scenario 3</b> is used as an example to illustrate trade-offs between providing parking and a larger % of affordable housing	25#	214	37%	\$27.5 million
	50	172	30%	\$17.5 million
	100	130	22%	\$7.5 million
	133	98	17%	\$0
	176	65	11%	\$0

\* Maximum affordable housing units possible when paying \$5 million land value

# Parking spaces assumed to be on interior streets (not within structures)

Note: \$5 million land value figure is an assumption made for the purpose of this study.





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