North Broadway Streetcar

SDOT
Seattle Department of Transportation

Briefing Overview

Context of the Streetcar System

Project Design Parameters

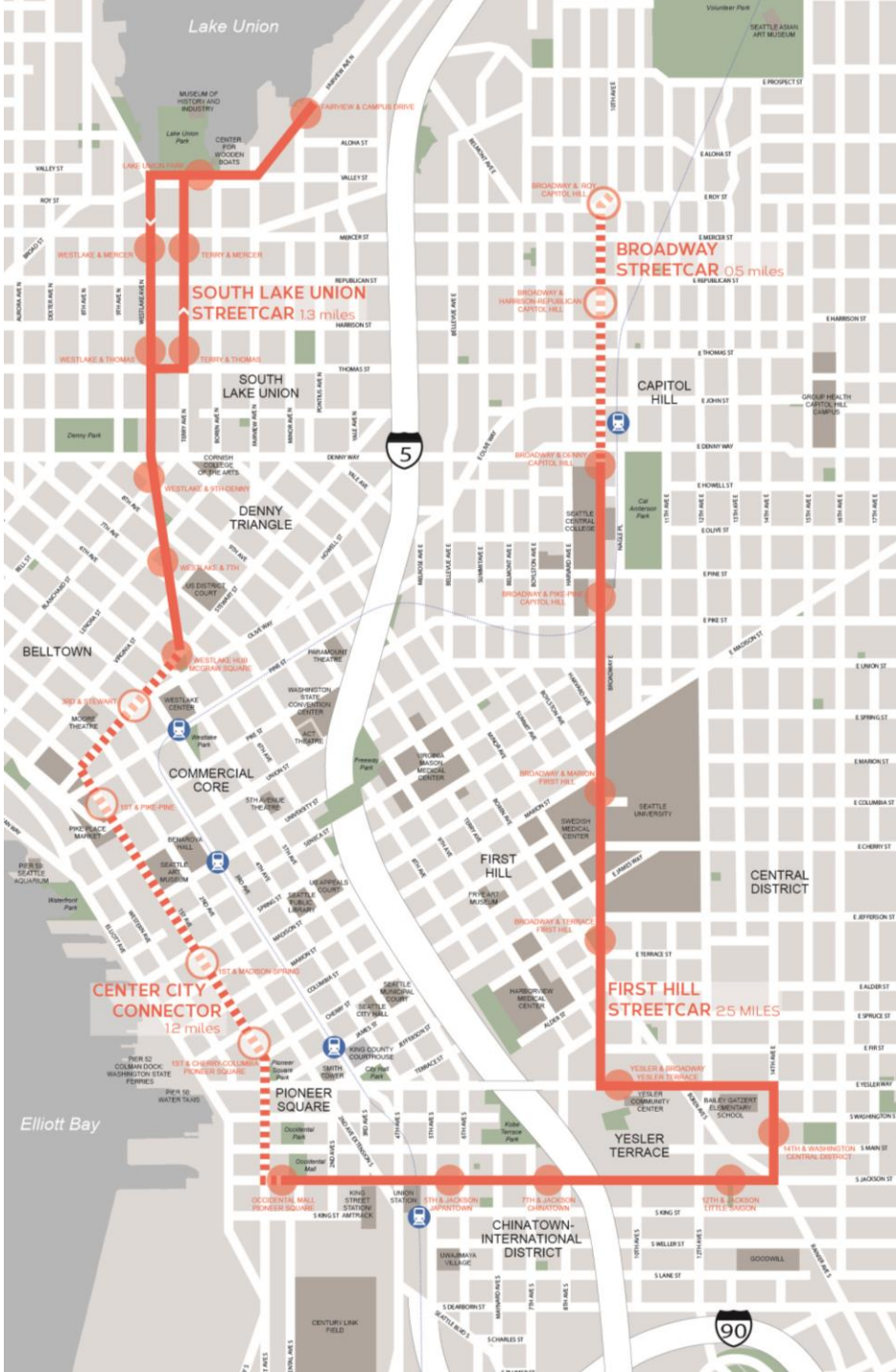
Urban Design Analysis & Priorities

Context of the Streetcar System

Center City Streetcar

5.5-mile system

- South Lake Union (opened 2007)
- First Hill (opening 2015)
- Broadway (to open 2017)
- Center City Connector (to open 2018)



Role of Streetcar

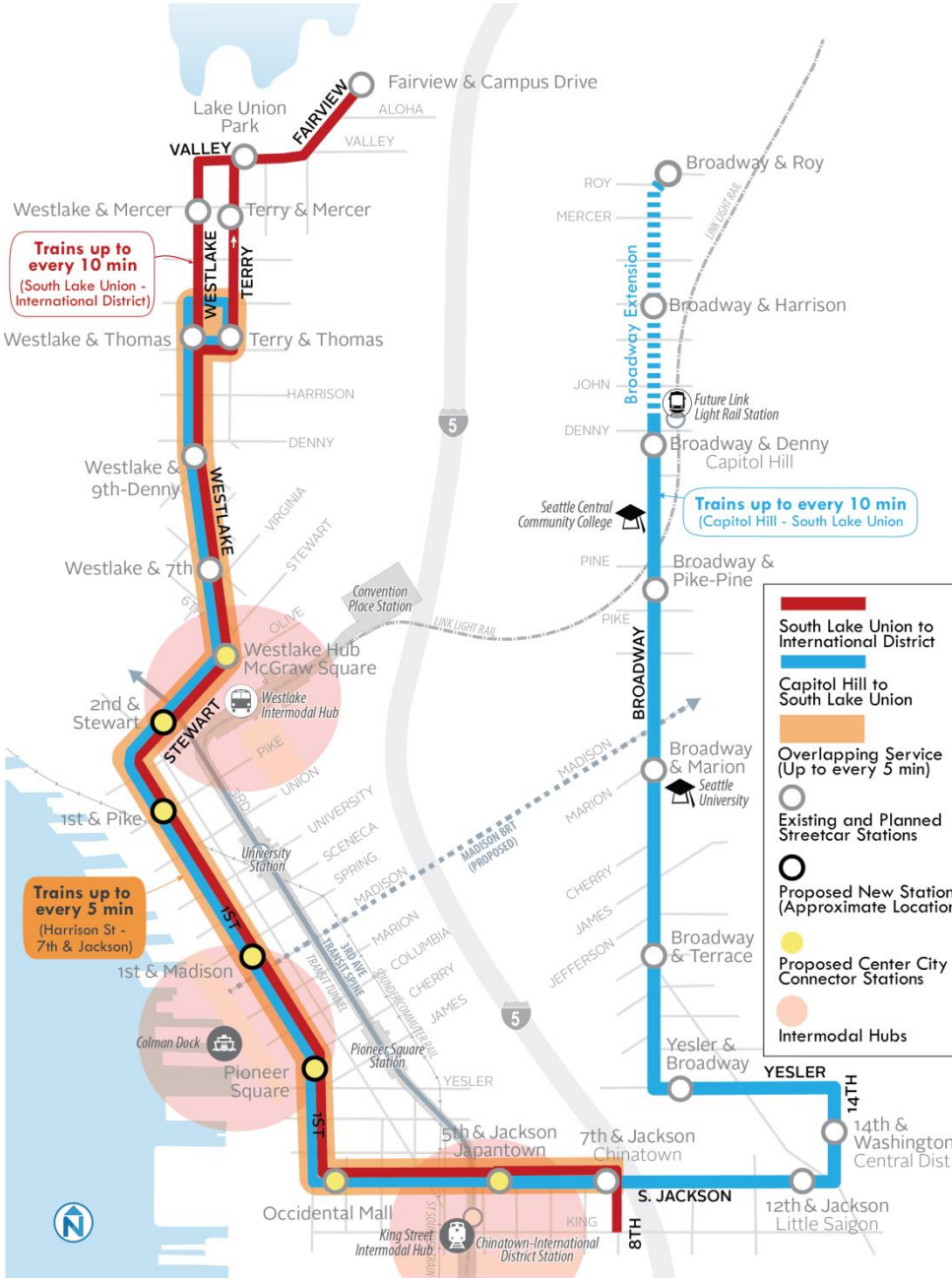
Transit in Seattle

- Light rail is regional spine
- **Streetcar and BRT serve city's high capacity corridors**
- Buses continue to serve most transit corridors and neighborhoods

Operating Plan

Streetcar Frequency (peak)

- Capitol Hill to South Lake Union—
  10-minute headways
- South Lake Union to Chinatown-
  International District—
  10-minute headways
- Center City—
  5-minute headways

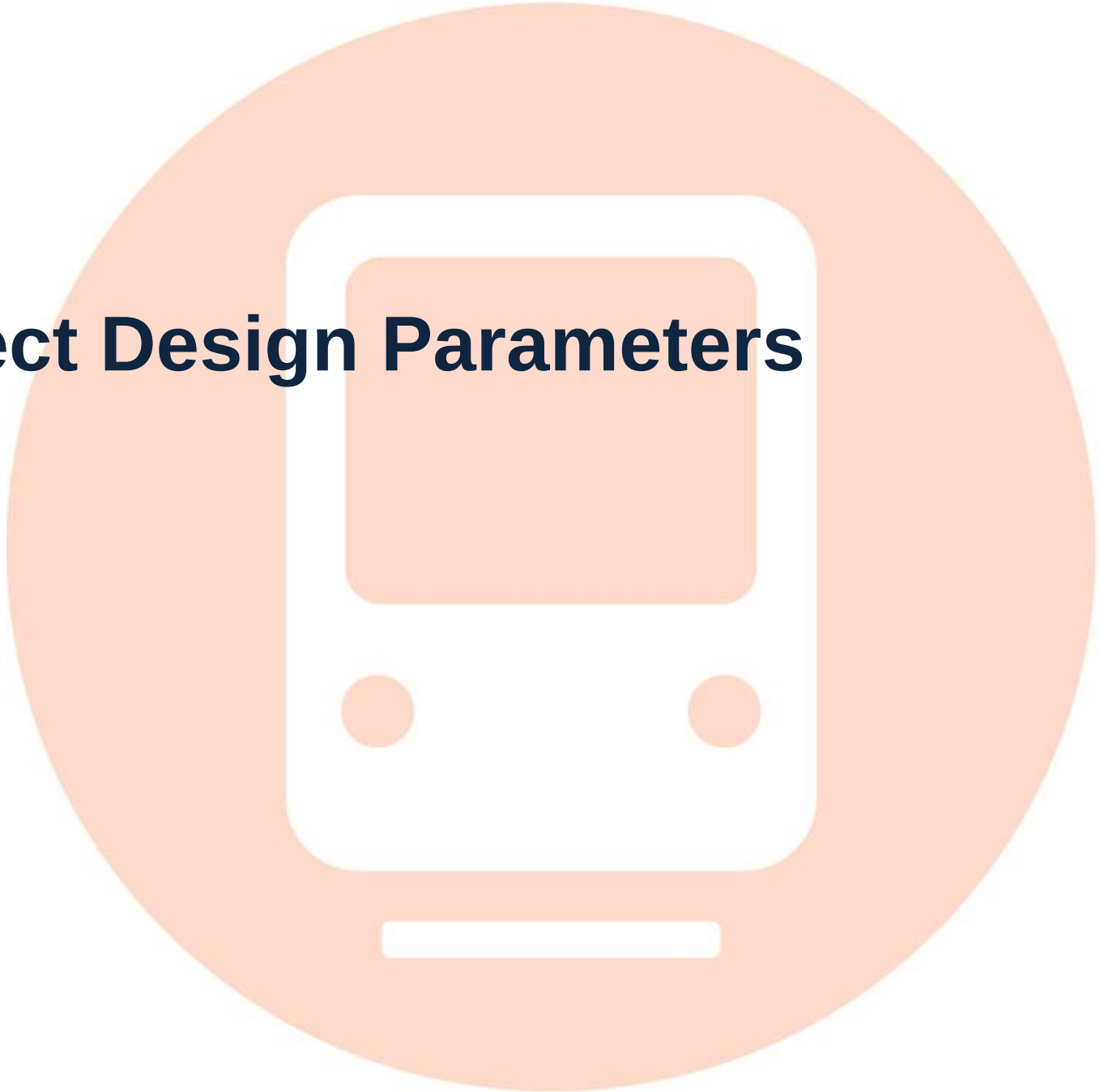


North Broadway Streetcar

Attributes

- Connects established neighborhoods
- Runs every 10 minutes (peak)
- Operates in mixed-traffic lanes
- Extends the Protected Bike Lane

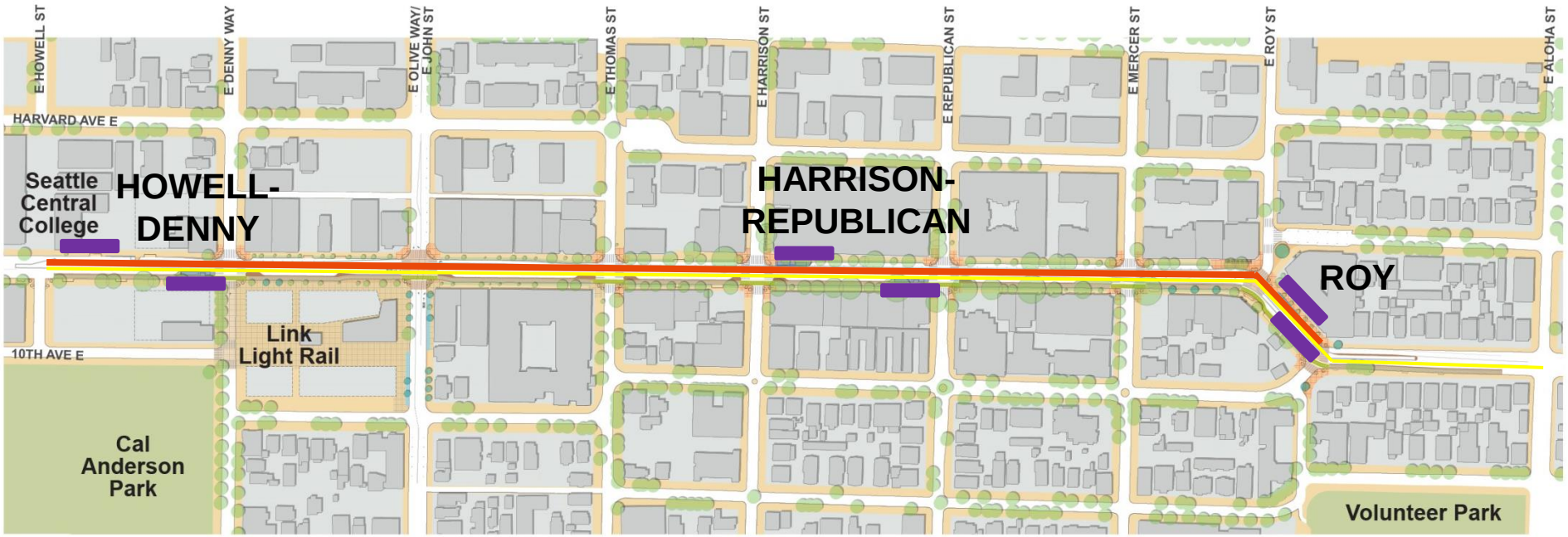
Project Design Parameters



North Broadway Streetcar

- 7 blocks (1/2 mile) north of Olive/John
- Fine-scale, colorful storefront district
- Transit hub

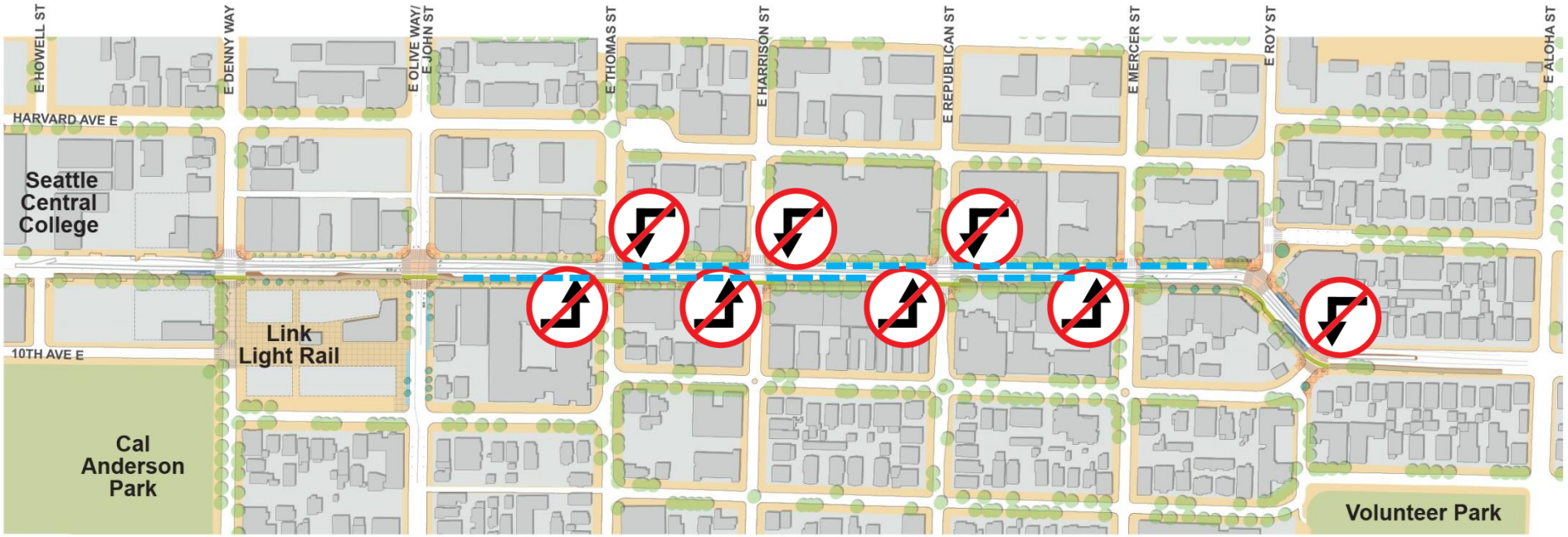
North Broadway Streetcar



Alignment

- Streetcar—center of roadway, terminates at E Roy St.
- Protected Bike—east side of Broadway, transitions at E Aloha St.
- Stations—shared with Metro buses
- Sidewalks not included—primarily spot improvements

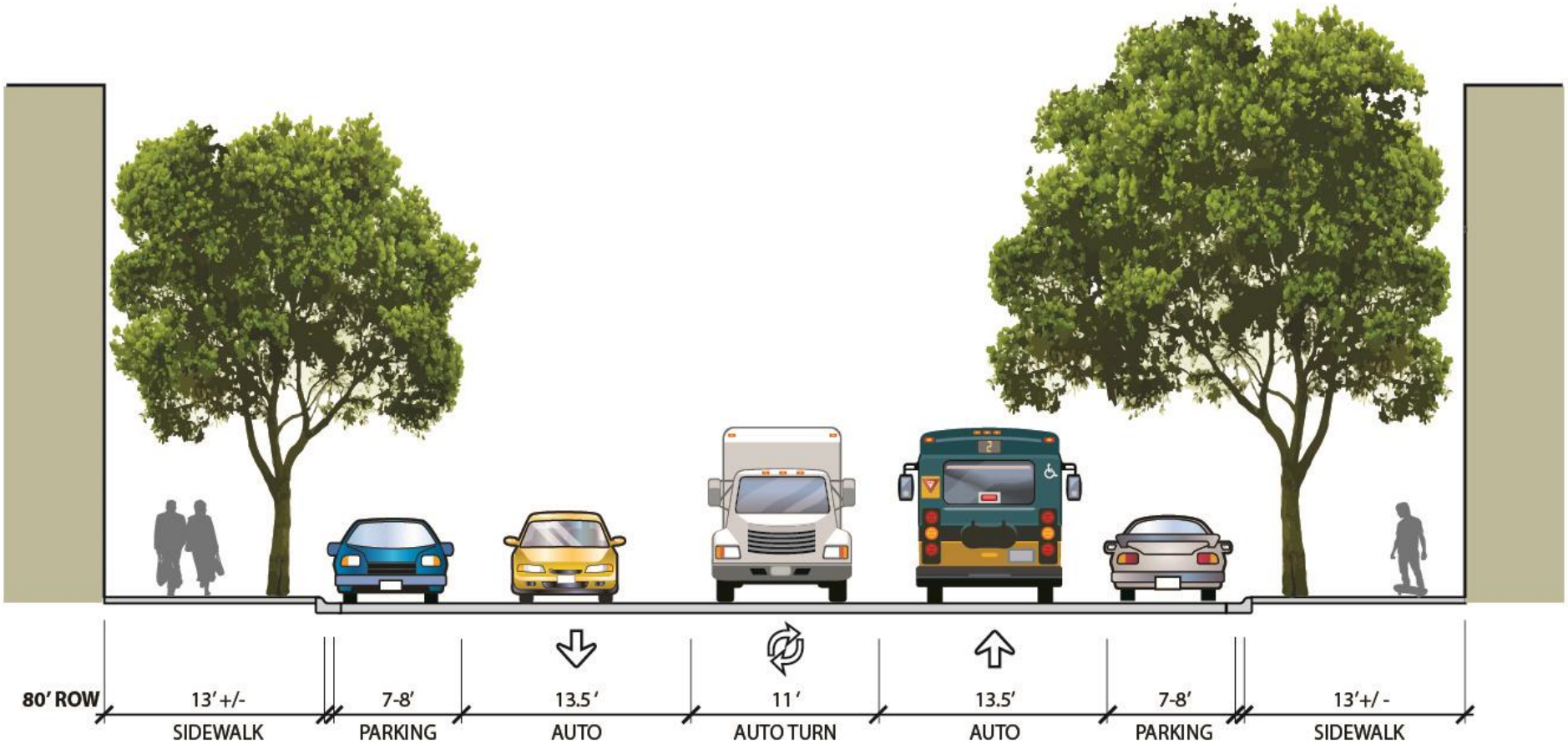
North Broadway Streetcar



Turns & Parking

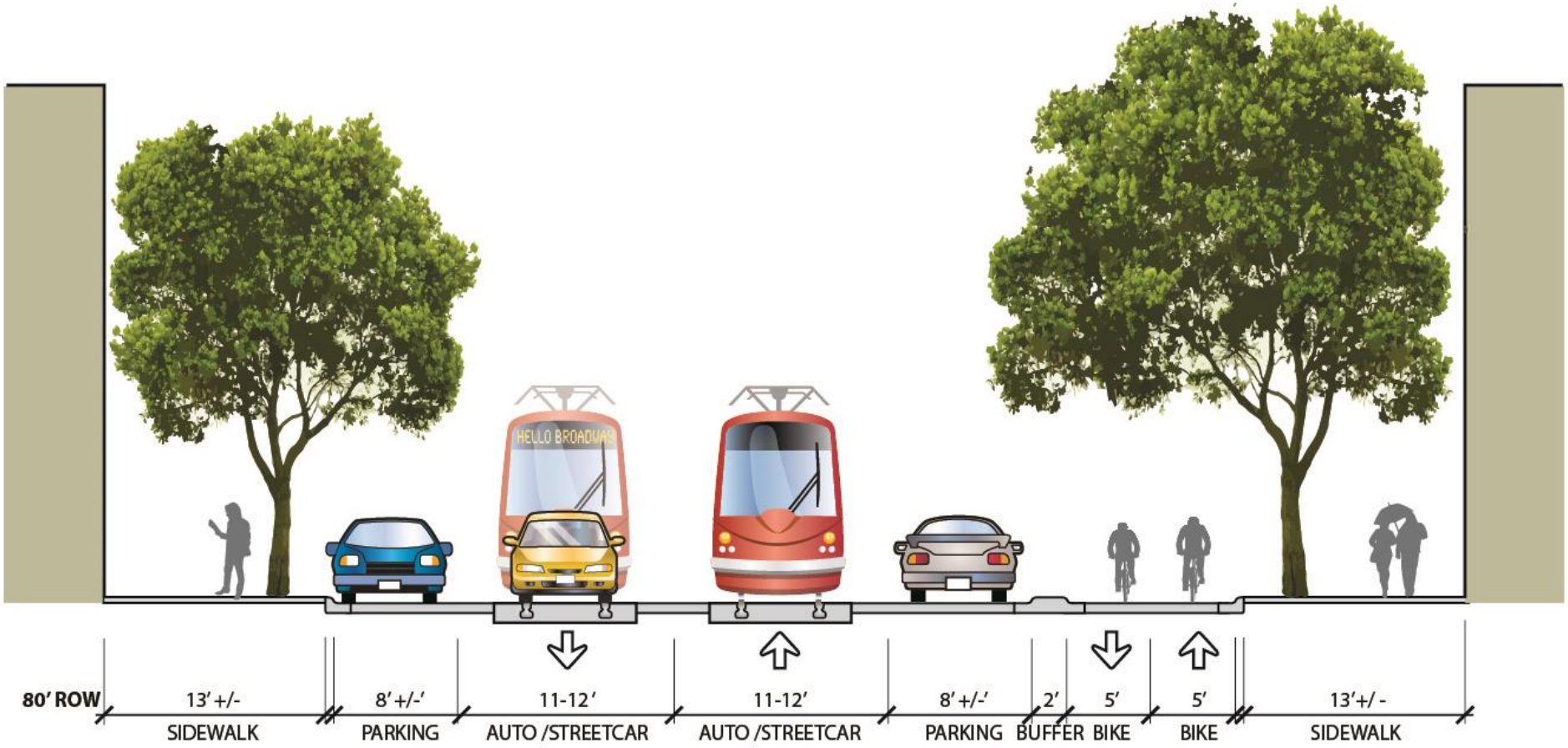
- No left turns for 3-4 blocks
- Retain parking in commercial heart

North Broadway Streetcar



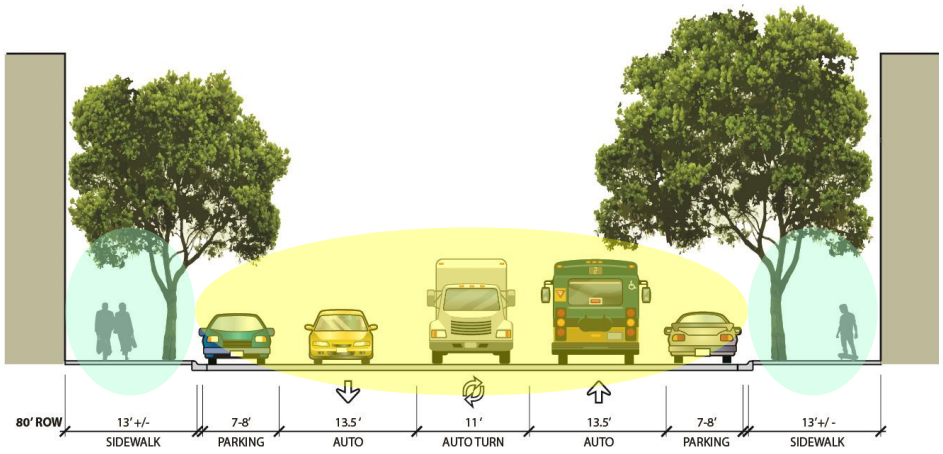
Existing

North Broadway Streetcar



New—typical

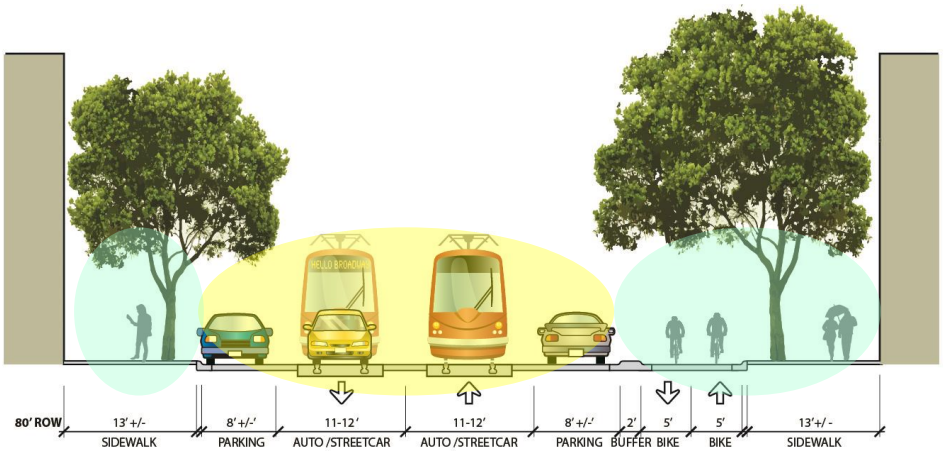
North Broadway Streetcar



Existing

32% pedestrian realm

68% vehicle realm

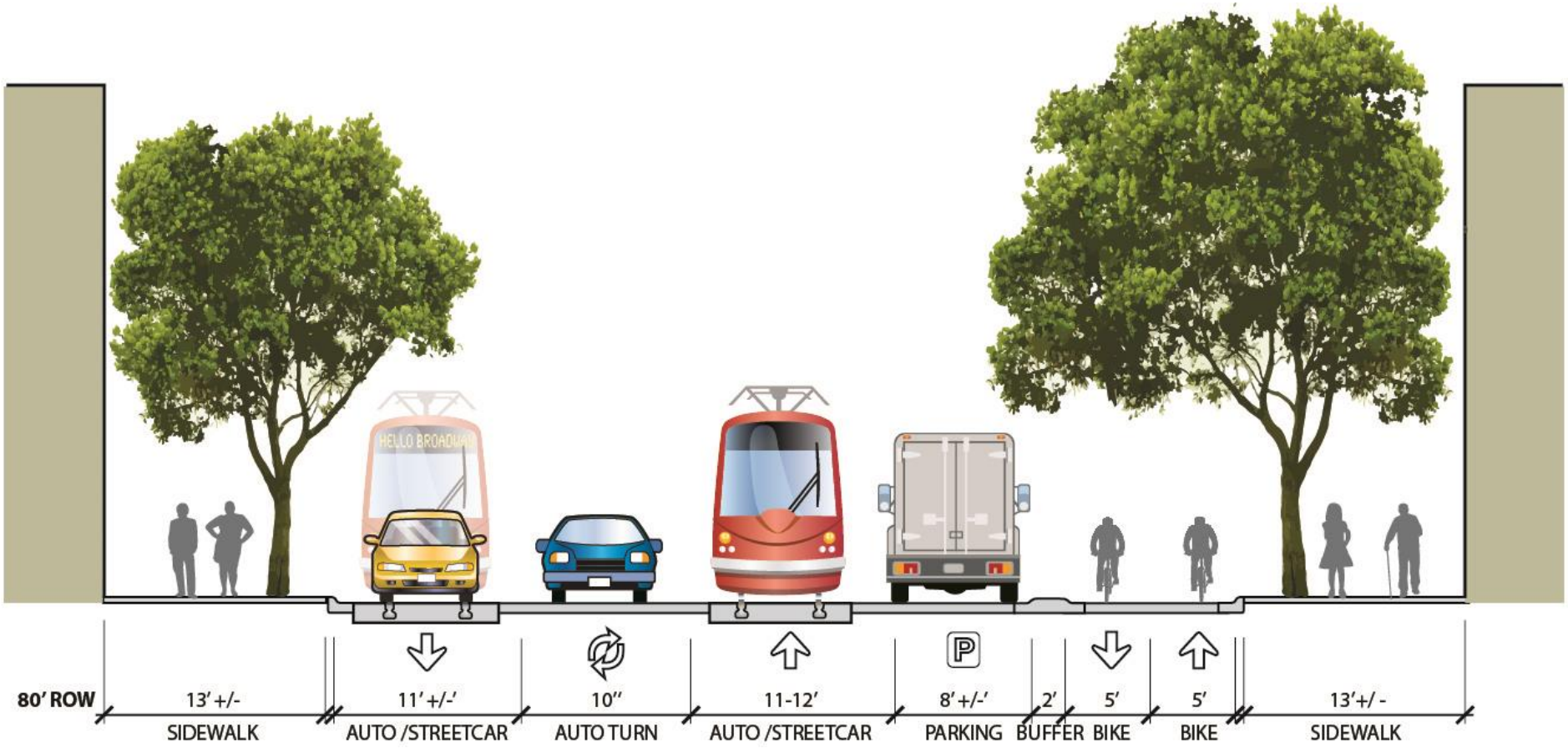


New—typical

47% pedestrian realm

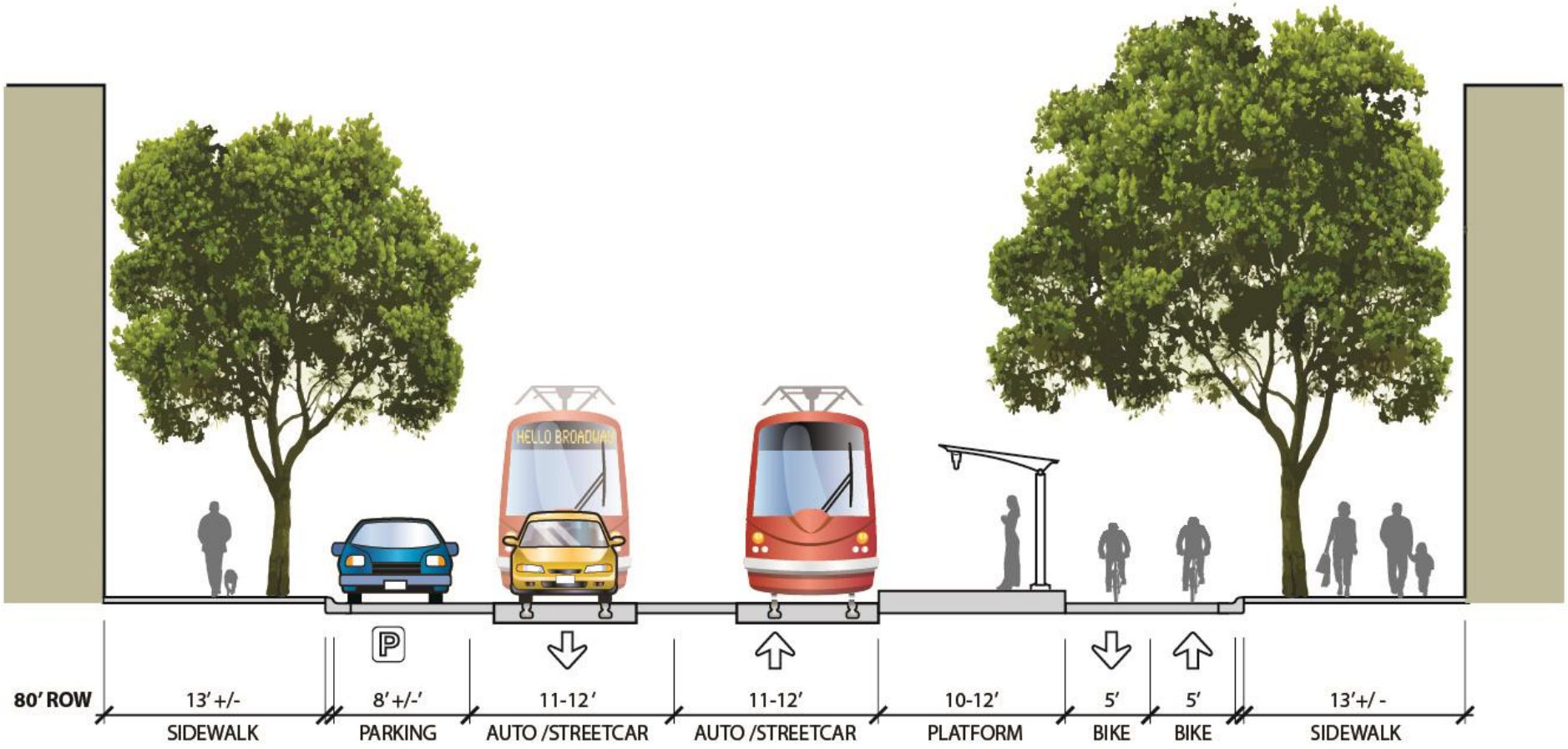
53% vehicle realm

North Broadway Streetcar



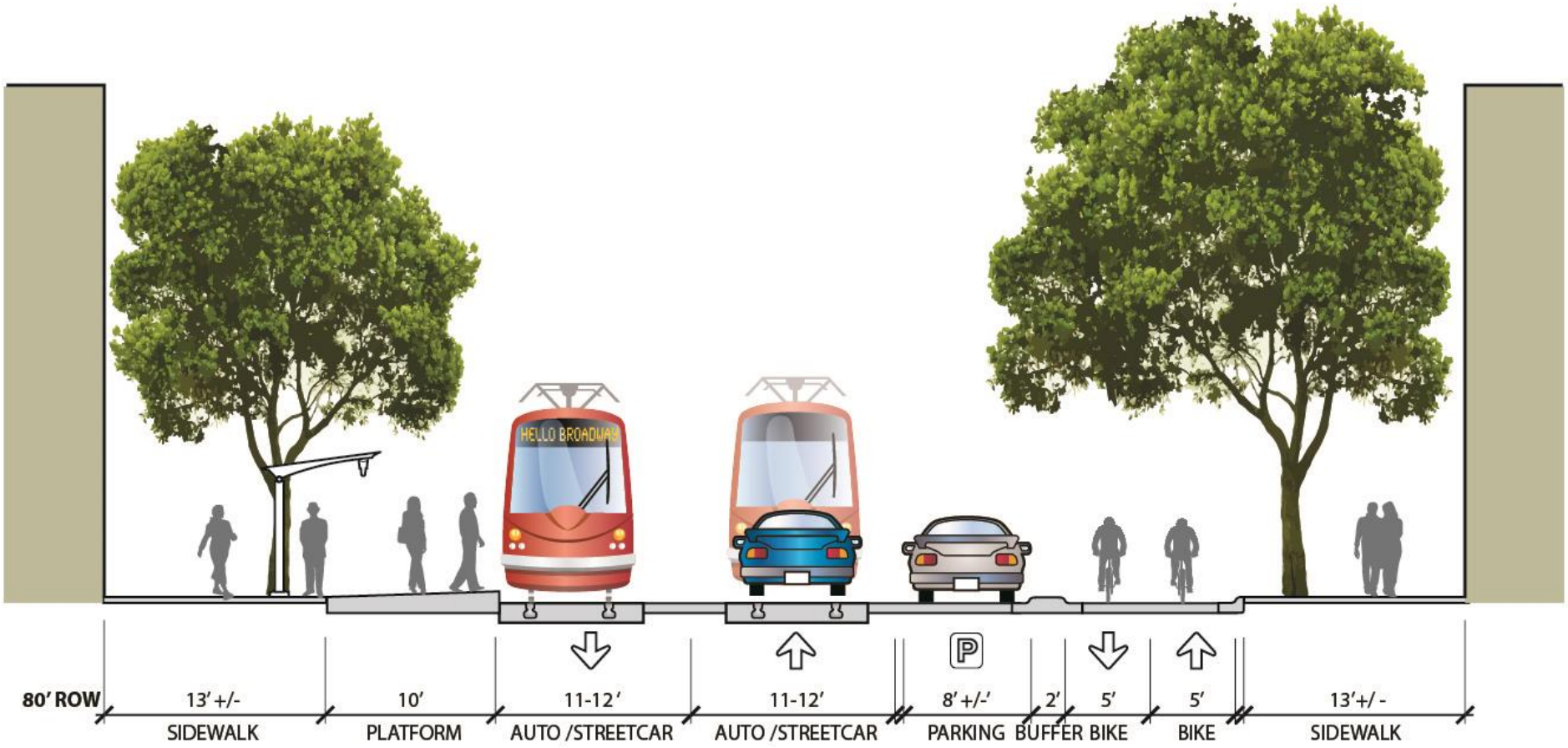
New—turn lane

North Broadway Streetcar



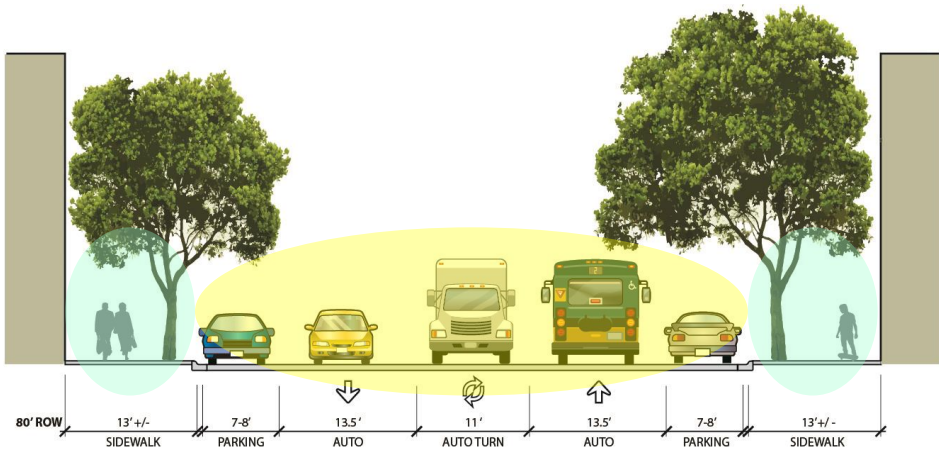
New—northbound station

North Broadway Streetcar



New—southbound station

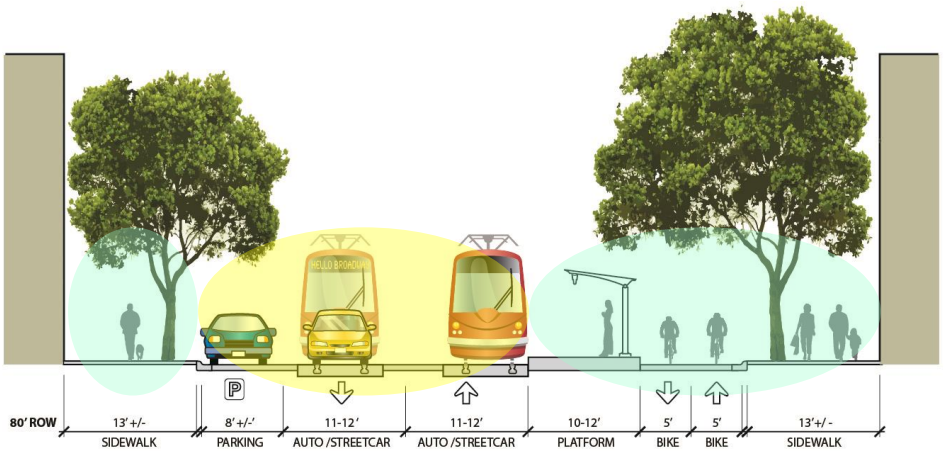
North Broadway Streetcar



Existing

32% pedestrian realm

68% vehicle realm



New—at station platforms

60% pedestrian realm

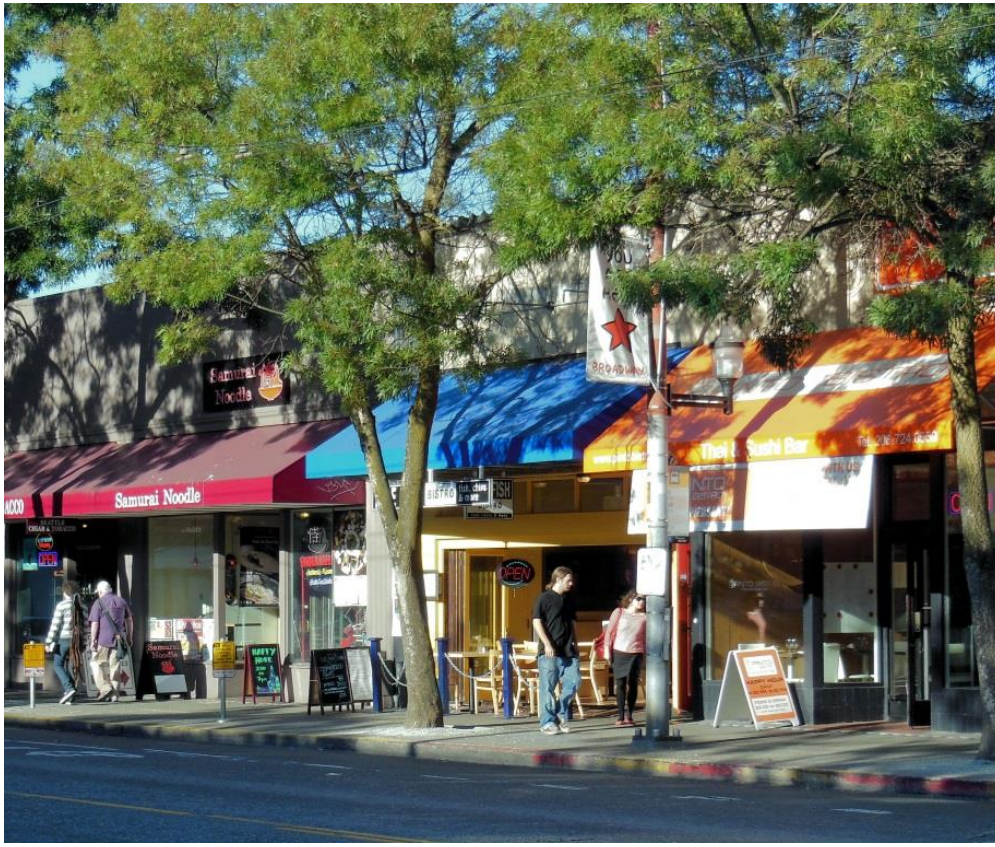
40% vehicle realm

Urban Design Priorities

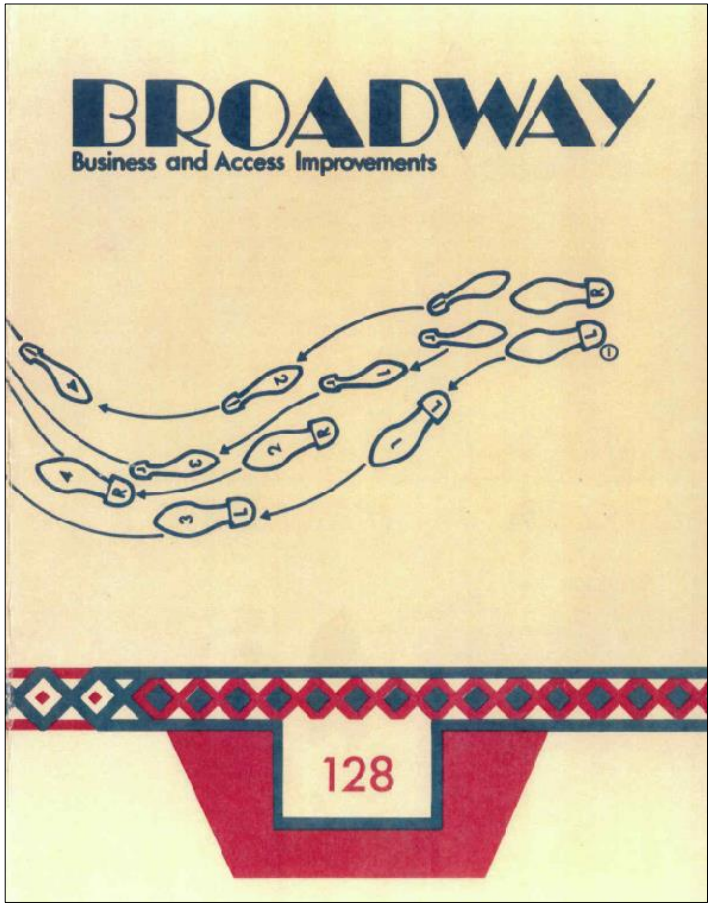
- Urban Design Vision & Continuity
- Special Character Areas
- Urban Design Features

Urban Design Vision

- Accommodate North Broadway's critical pedestrian needs
- Preserve and enhance North Broadway's special character



Urban Design Continuity



1978

MAKERS
architecture · planning · urban design

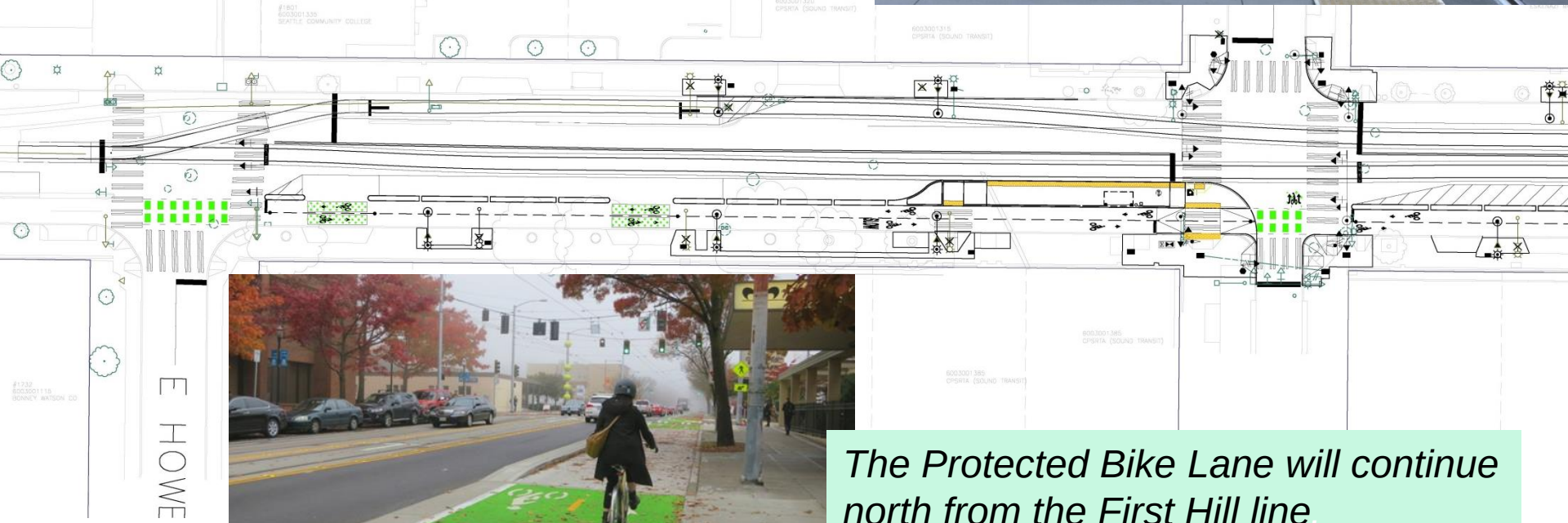
2015

Special Character Areas

- Howell-Denny—streetcar stop
- Olive/John—crossroads
- Harrison-Republican—streetcar stop
- Roy/10th—streetcar stop
- Aloha—PBL transition

Howell-Denny

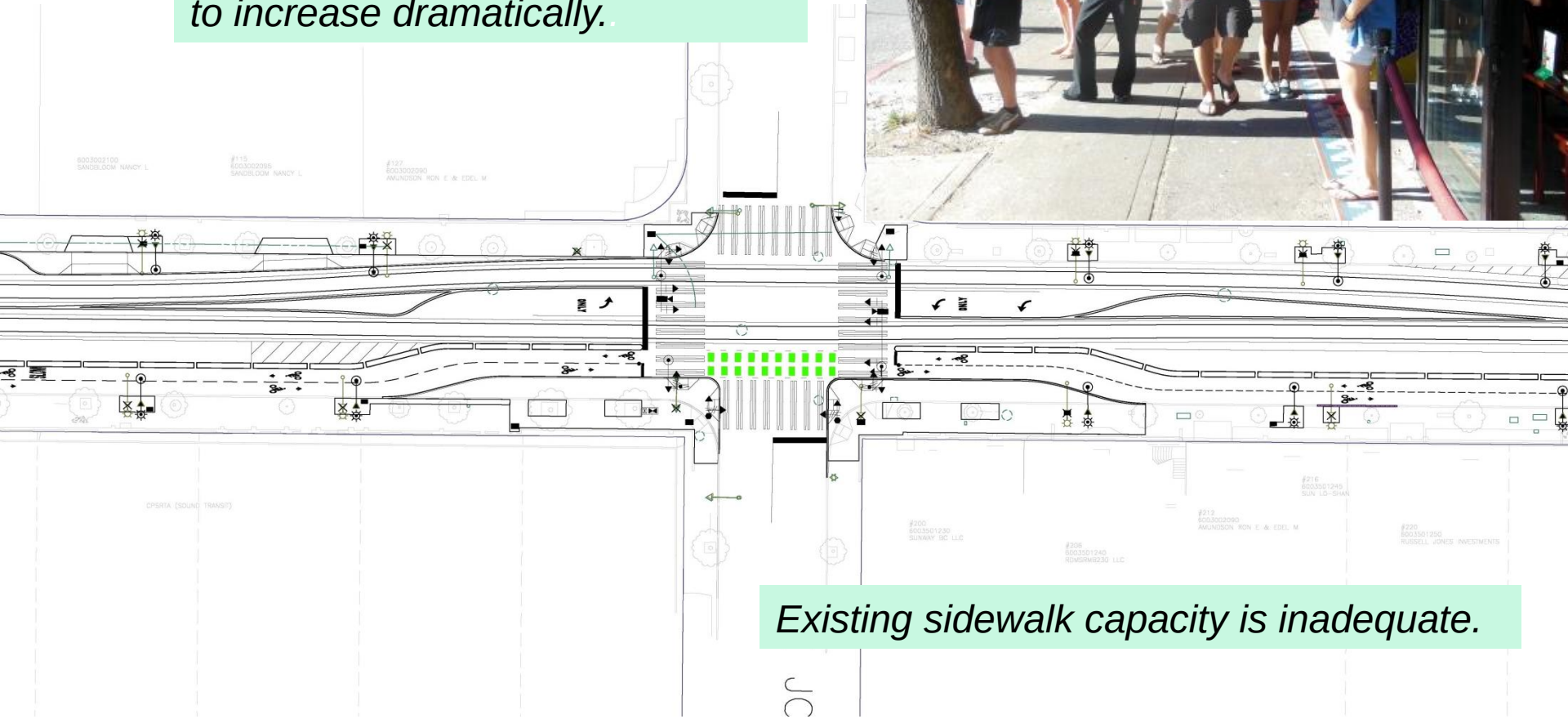
Stops will be shared with Metro buses.



The Protected Bike Lane will continue north from the First Hill line.

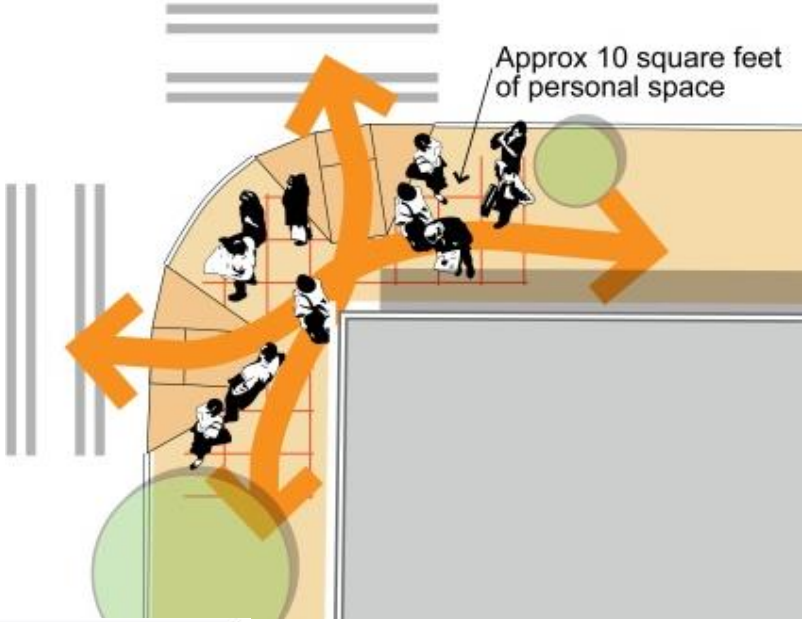
Olive/John

Pedestrian volumes are expected to increase dramatically.



Existing sidewalk capacity is inadequate.

Olive/John



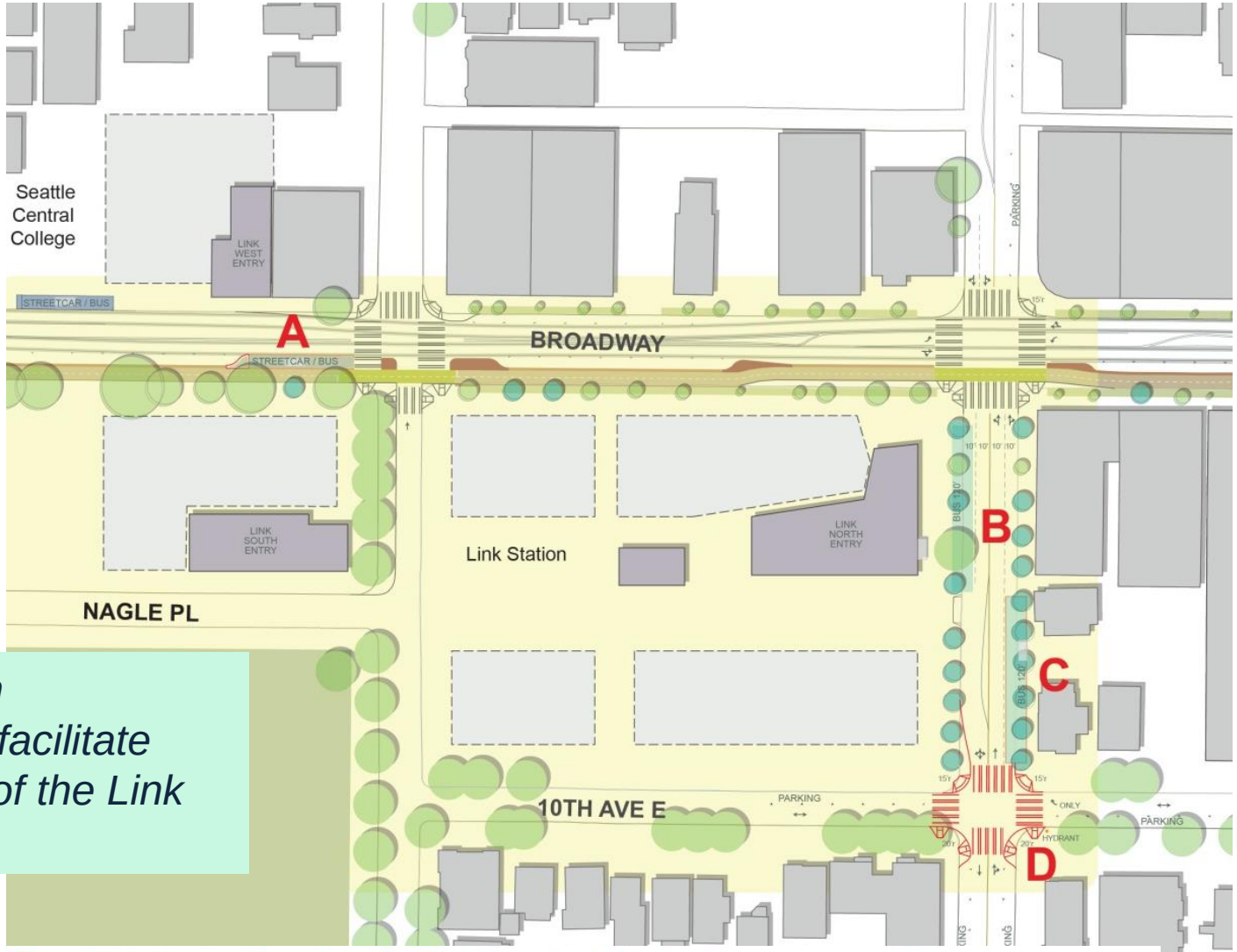
About 12-13 people fit on an existing Broadway corner.

	2015		2030	
	PEDESTRIANS PER HOUR (PEAK)	PEDESTRIANS PER SIGNAL CYCLE *	PEDESTRIANS PER HOUR (PEAK)	PEDESTRIANS PER SIGNAL CYCLE *
North Leg	896	25	1086	30
South Leg	1526	42	1888	52
East Leg	691	19	848	24
West Leg	932	26	1198	33
Totals	4045	112	5020	139
Average	**1011**	**28**	**1255**	**35**

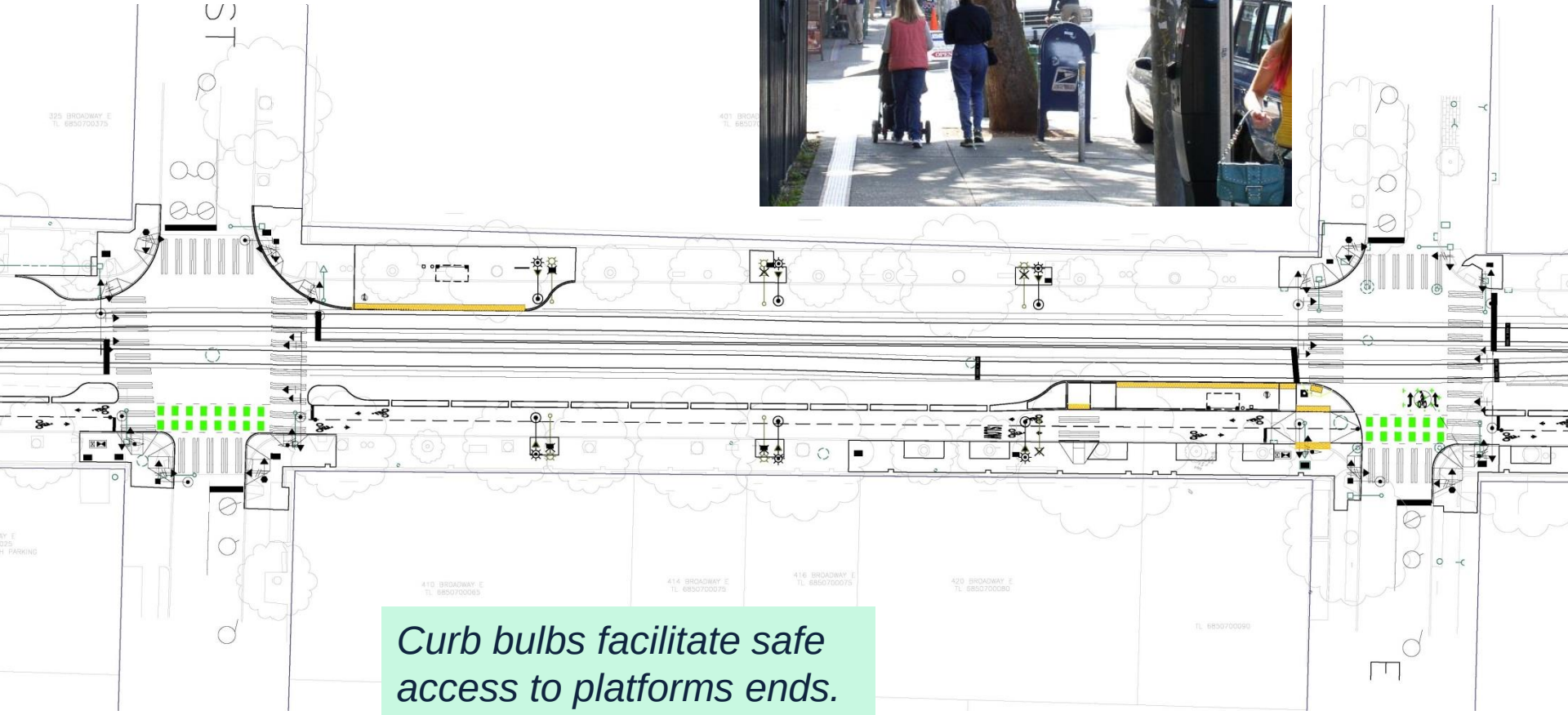
Source: Sound Transit * *Assumes 36 signal cycles per hour*

Olive/John

Multiple pedestrian improvements will facilitate flow in the vicinity of the Link station.

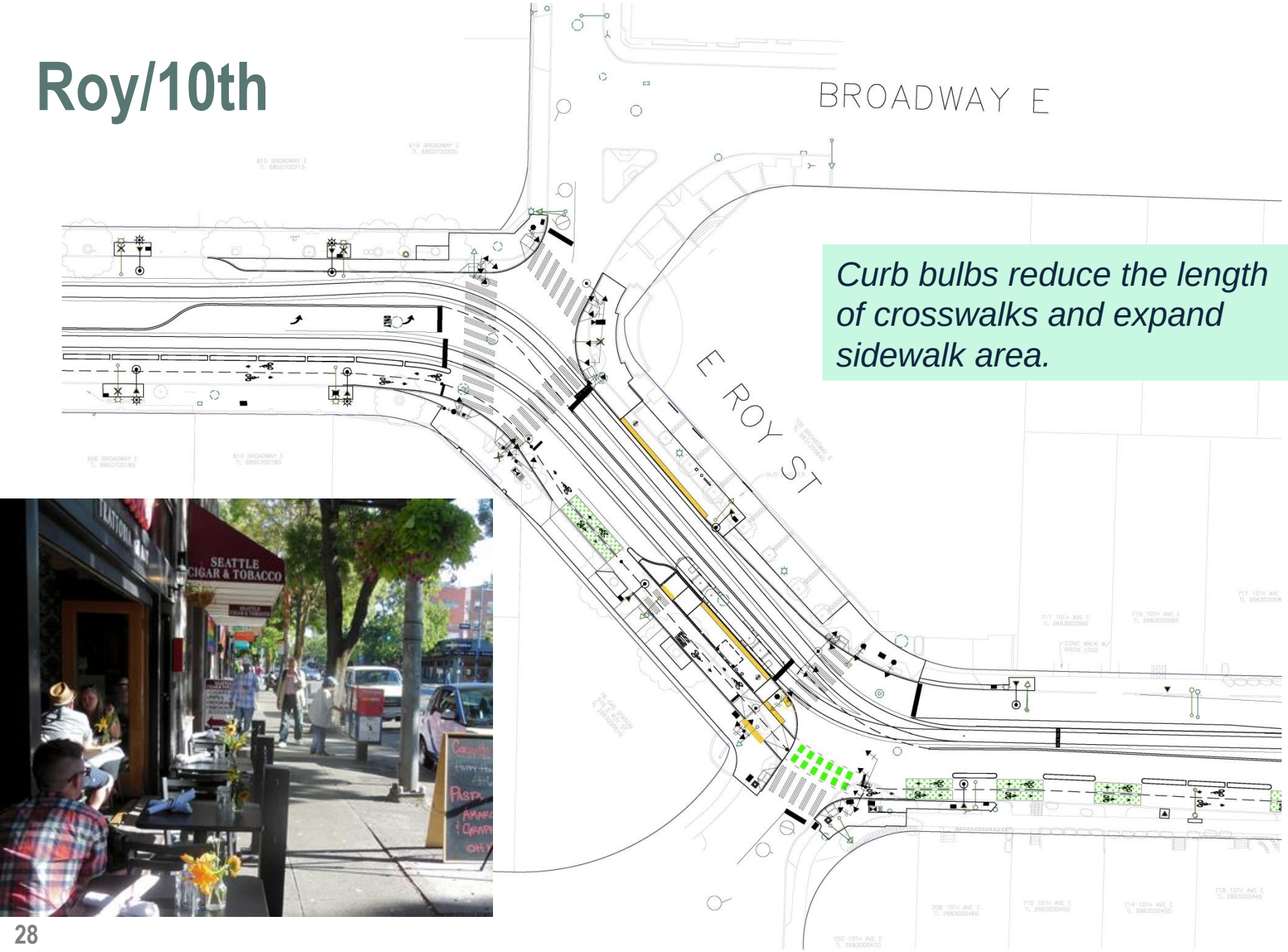


Harrison-Republican



Curb bulbs facilitate safe access to platforms ends.

Roy/10th



Curb bulbs reduce the length of crosswalks and expand sidewalk area.

Aloha

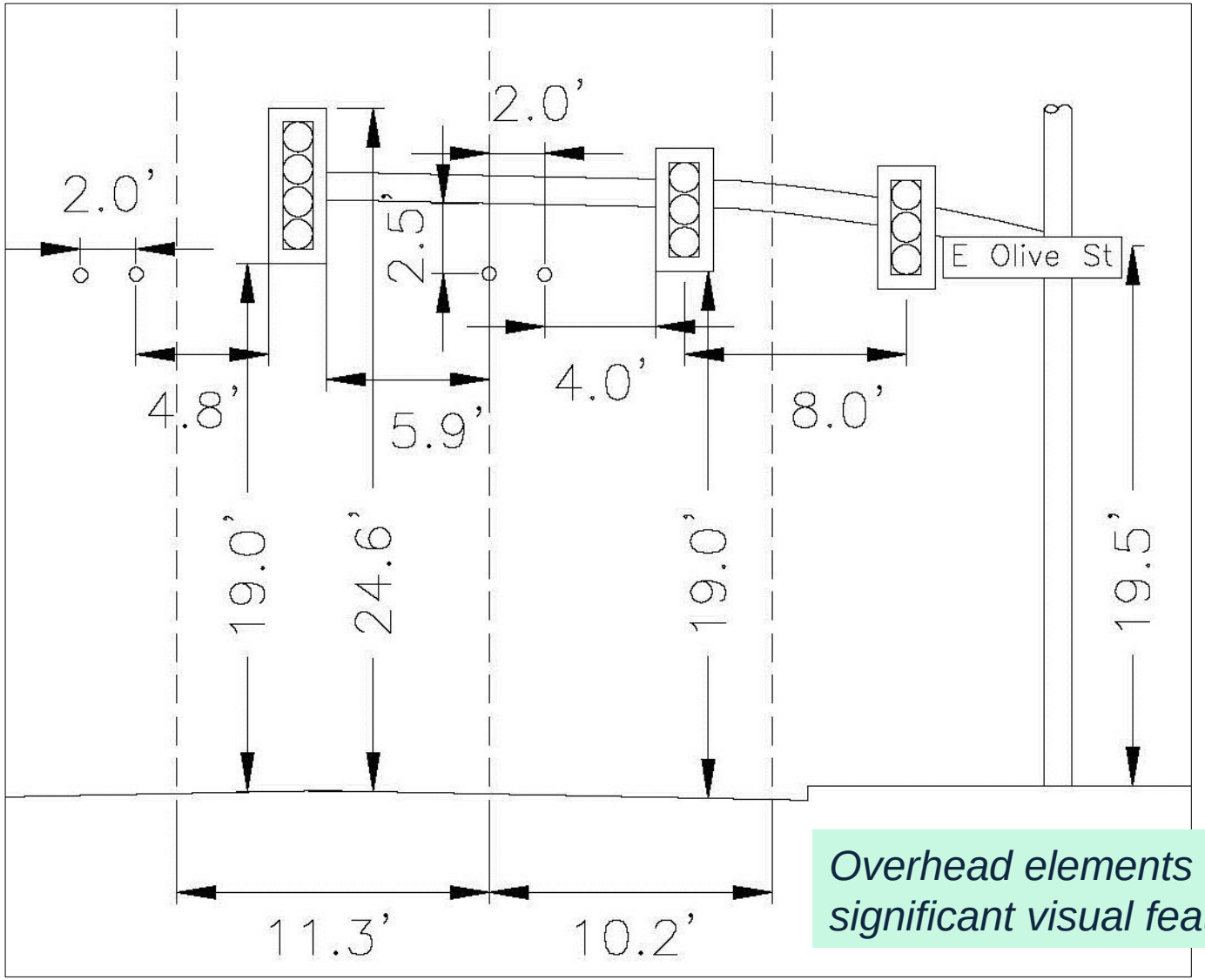
Bicycles transition to shared lanes north of Aloha.

The streetcar tail track terminates with a planted boulevard.

Urban Design Features

- Signal Poles, Mast Arms & Heads
- Pedestrian Lighting
- Platform & Protected Bike Lane Integration
- PBL Buffer
- Public Art

Signal Poles & Mast Arms



Overhead elements are a significant visual feature.

Signal Poles & Mast Arms

The design currently calls for mast arms rather than span wires.

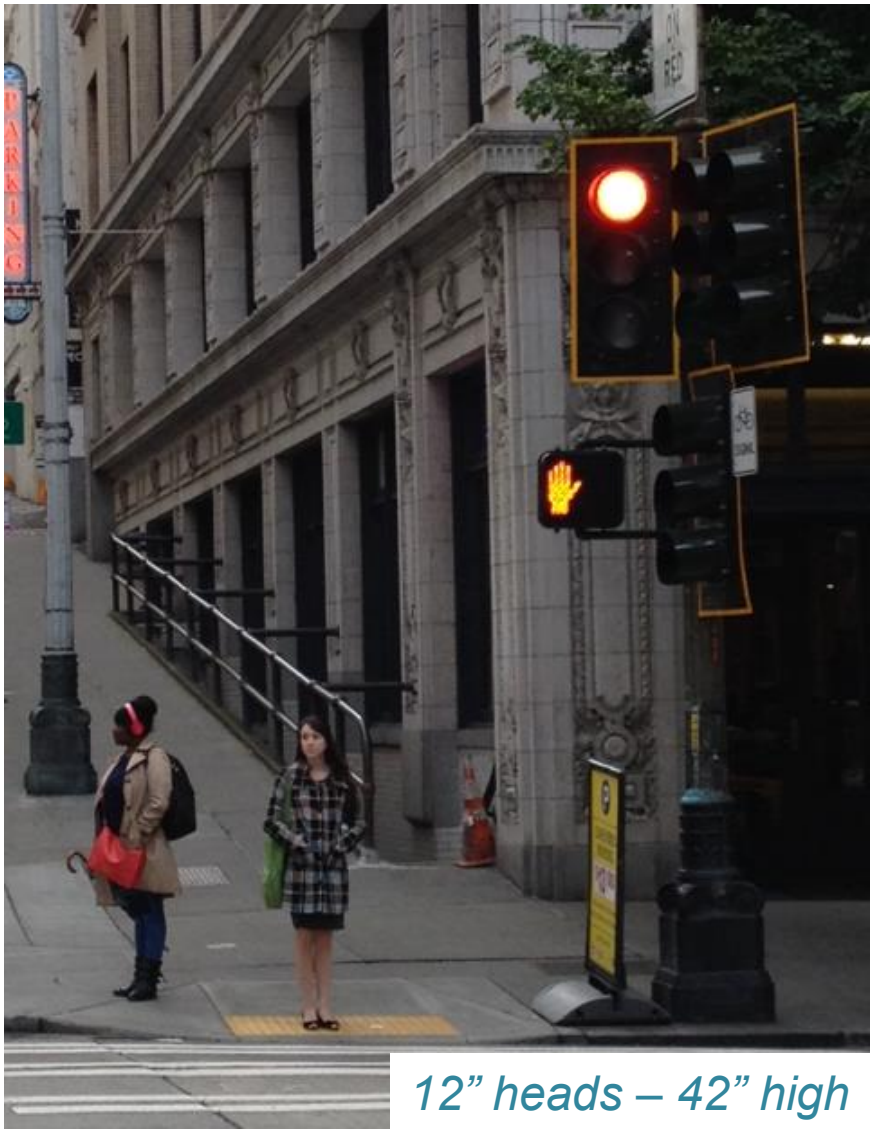
Existing poles

New mast arm option

Signal Heads

8” heads – 30” high

The design team will balance safety and character in determining signal head sizes. The design currently calls for 8” signal heads.



12” heads – 42” high

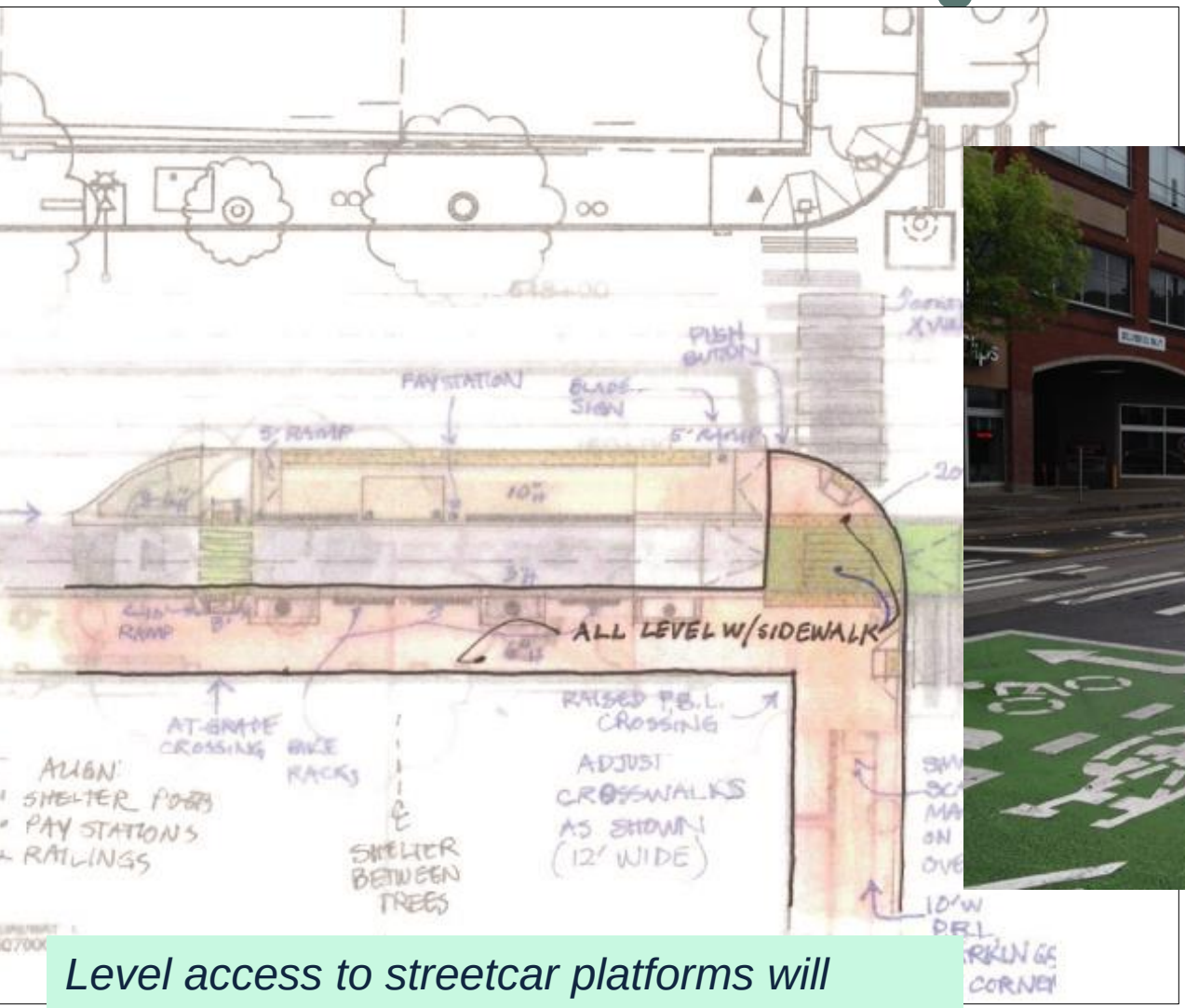
Pedestrian Lighting

Strap mountings should be avoided.

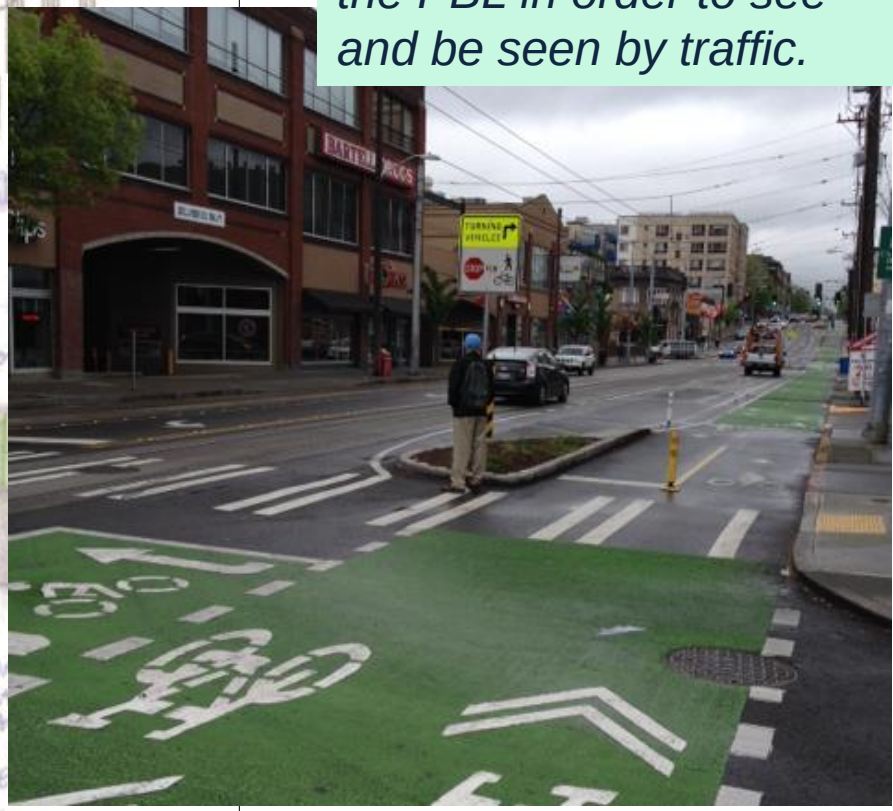
Pedestrian luminaires are not required by code but may be desired by the community.

SCL catalog options (not approved).

Platform & Bike Lane Integration



Level access to streetcar platforms will provide a safe refuge for pedestrians.



Pedestrians creep past the PBL in order to see and be seen by traffic.

Protected Bike Lane Buffer

Second Ave.

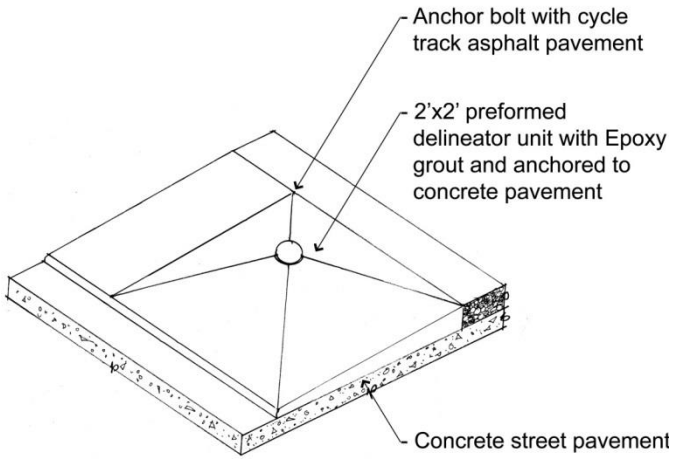
Current PBL buffer treatments in Seattle rely on paint and flex-posts.

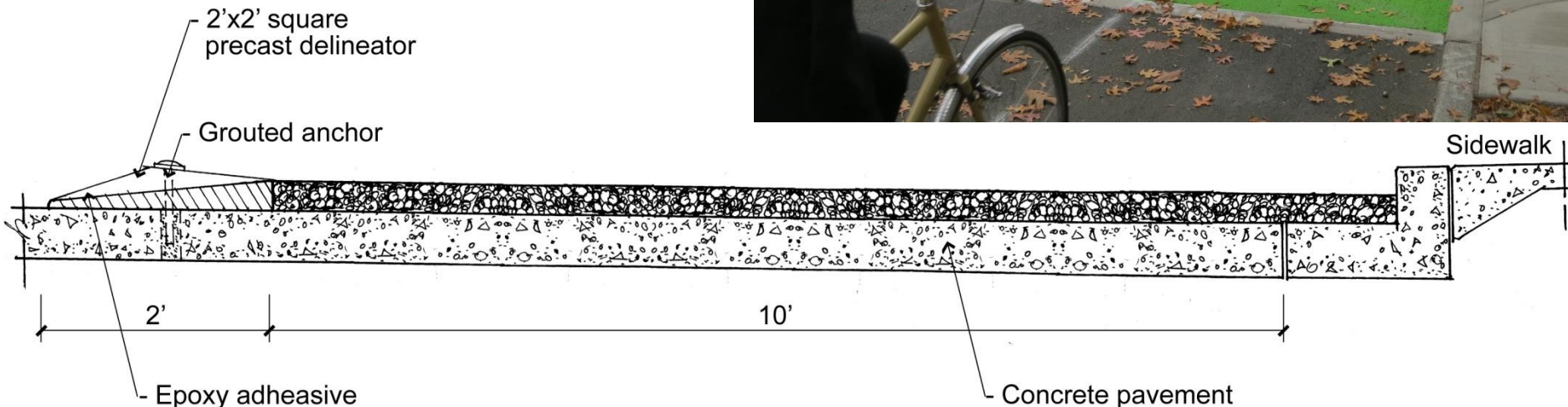
Broadway

Broadway

Protected Bike Lane Buffer

The streetcar project is exploring a more architectural, integrated approach to defining the PBL.





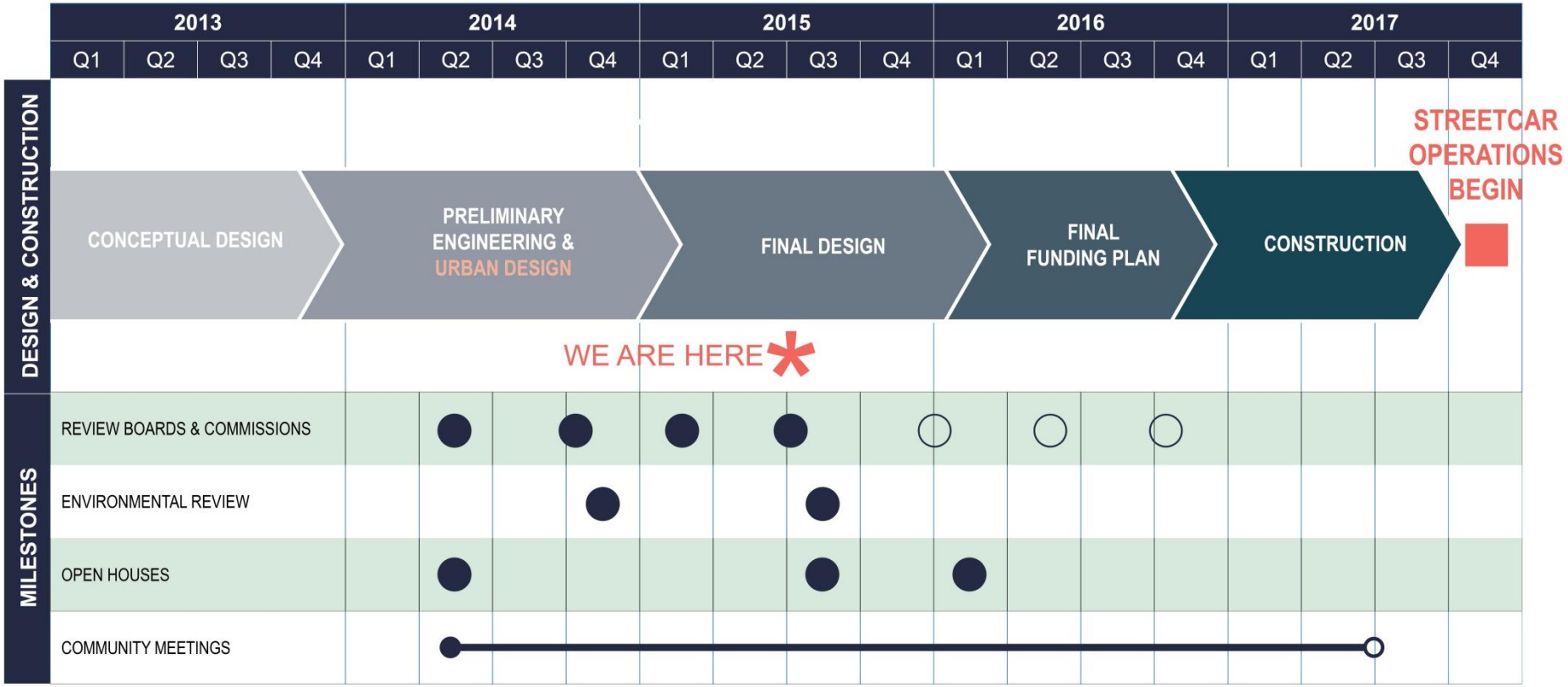
Public Art

New public art will blend with Broadway's existing, distinctive artwork.

The tile bend focuses attention toward buildings thresholds.

Jack Mackie's Dancers' Series: Steps *artwork is a popular icon.*

Project Schedule



North Broadway Streetcar

Thank you!

Design Team

SDOT:

- Ethan Melone—Rail Manager
- Catherine Maggio—Rail Strategic Advisor, Urban Design Lead
- Barbara Lee—Project Manager
- John Hammersmith—Lead Project Engineer
- Bill Bovey—Lead Construction Engineer
- Art Brochet—Project Information Officer

Consultants:

- AECOM
- Makers Architecture and Urban Design

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