

Transit Oriented Development



Today

- Background: Rail Transit
- Locating TOD
- Characteristics of Successful TODs
- Public Policy Opportunities, Challenges
- Private Sector Opportunities, Challenges

Background: Rail Transit



Background: Rail Transit

- Rail Transit in North America
- The Honolulu Plan

Rail Transit in North America





San Diego



800
SW PARK

ART MEDIA SW 9th AV

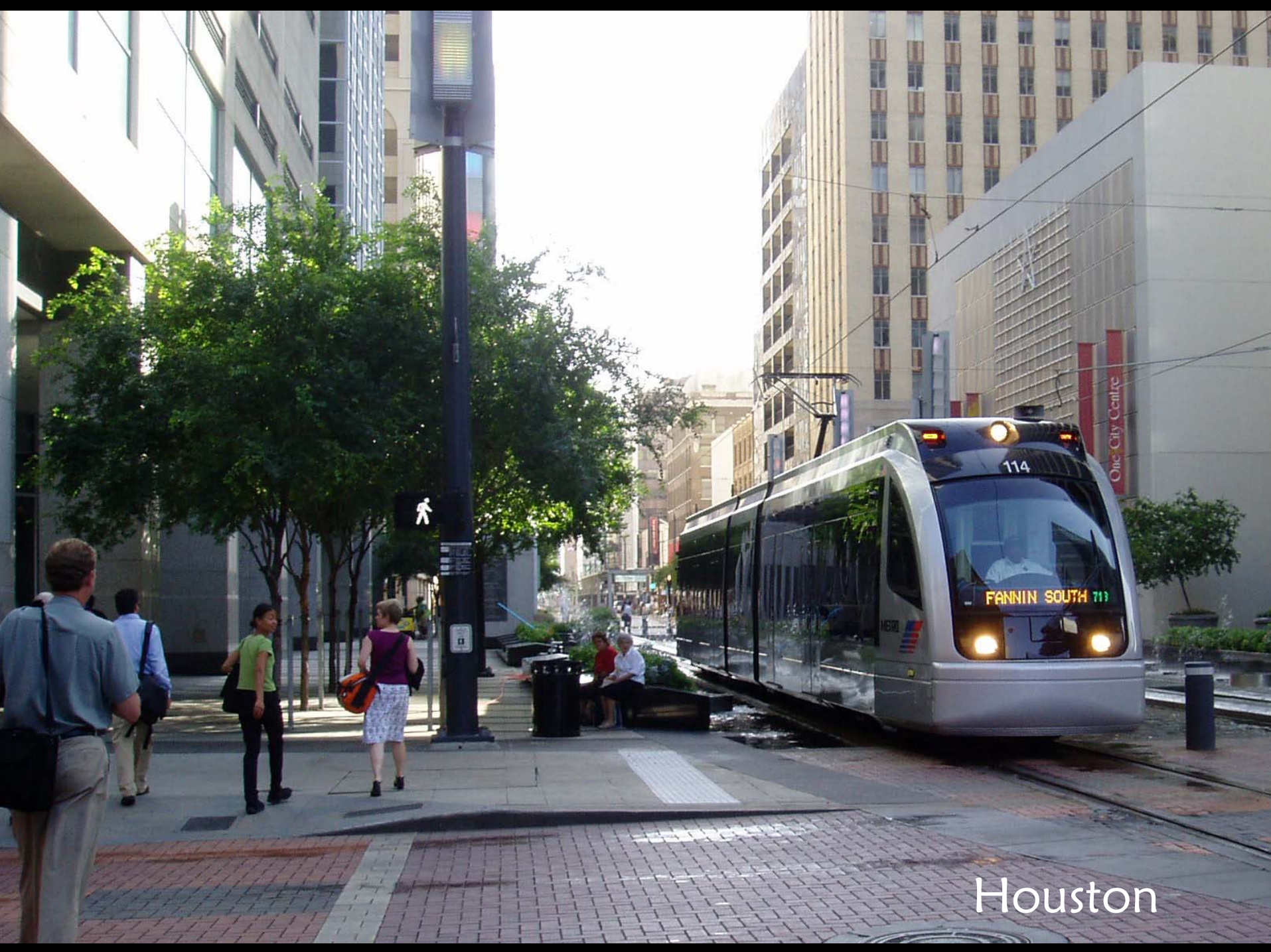
35
NEW
DECORATIVE PAPERS

GALLERY

Portland



Portland

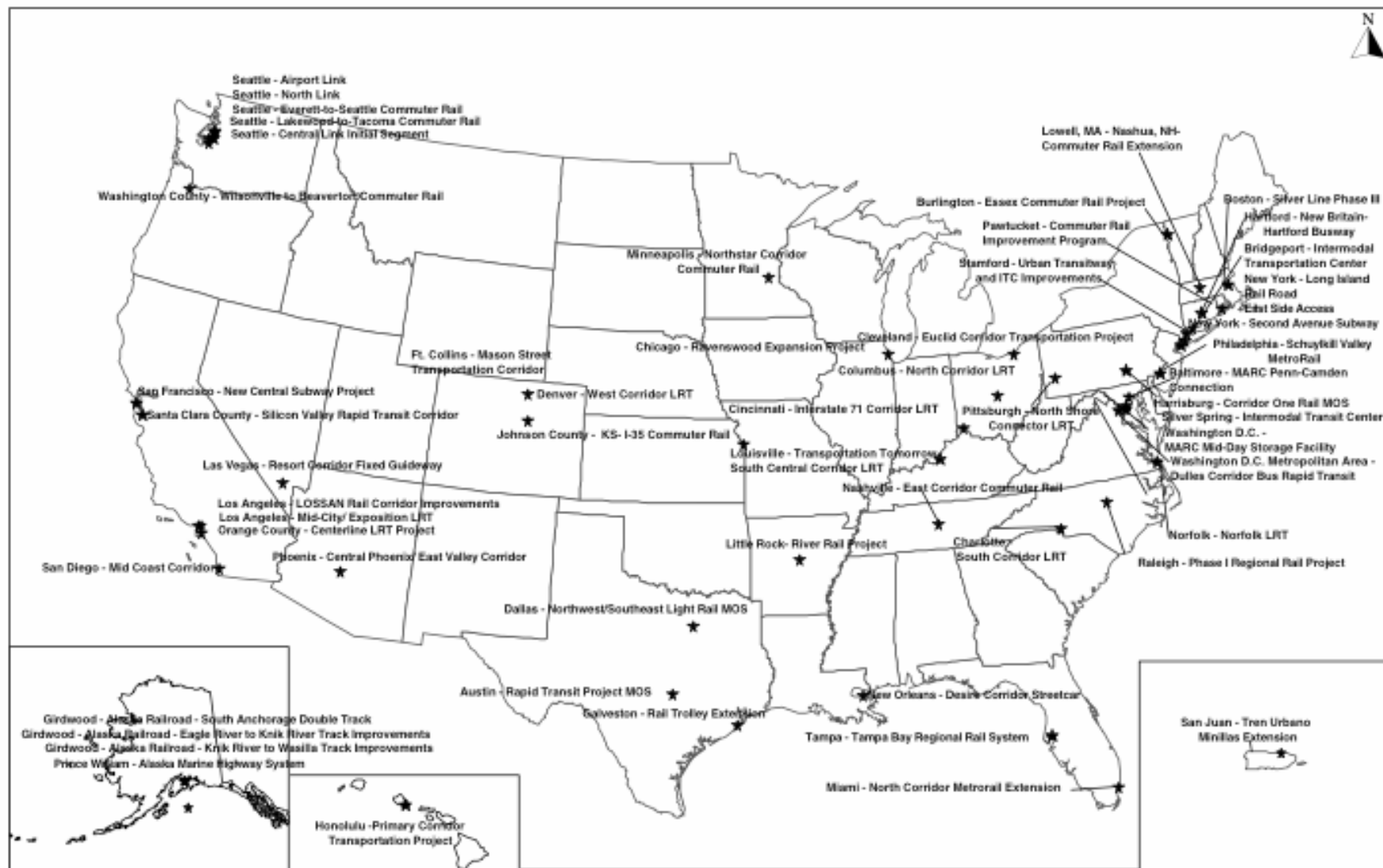


Houston

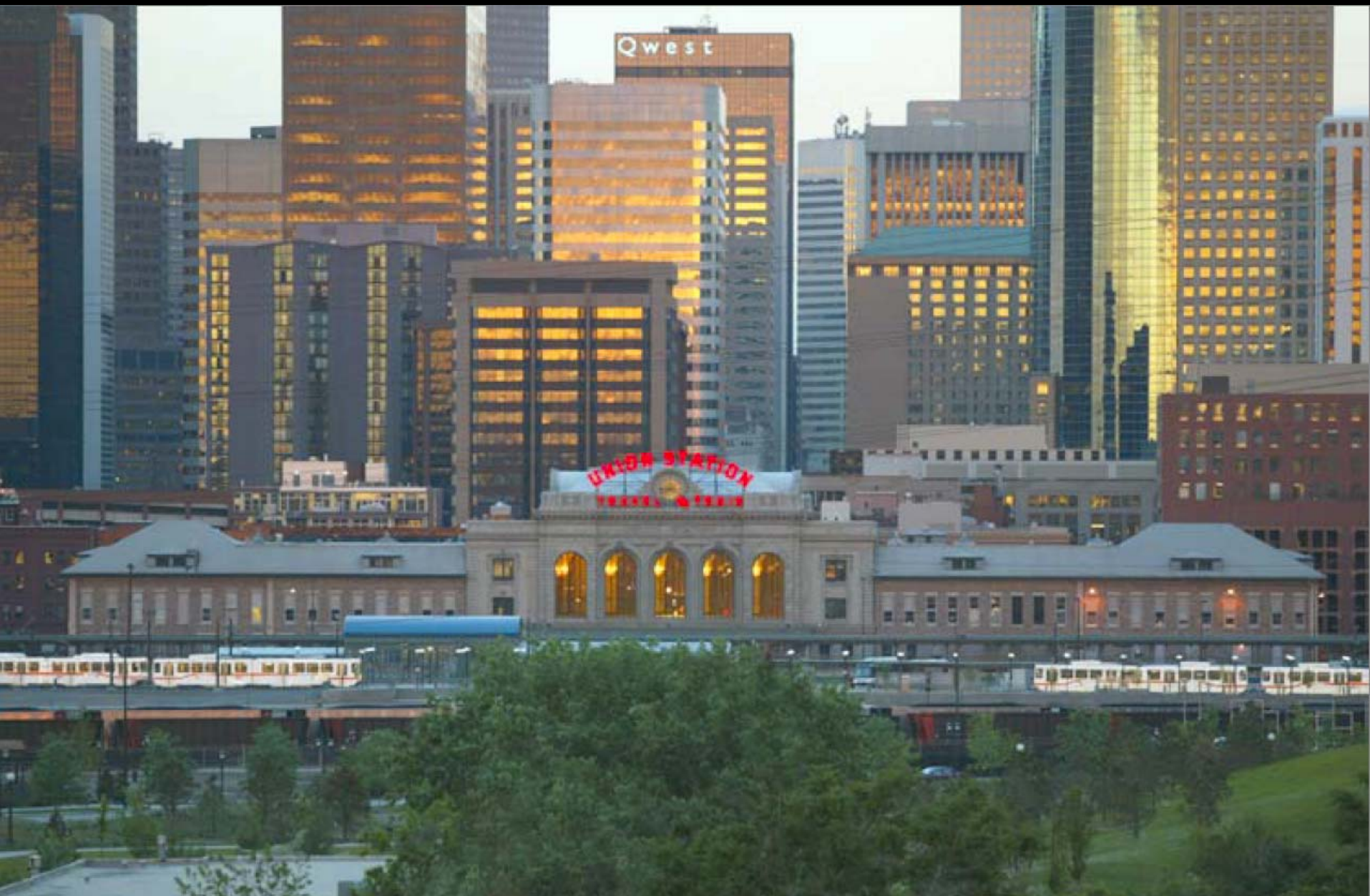


Houston

New Starts Projects in Preliminary Engineering and Final Design



Denver FasTracks



UNION STATION

TRAVEL *by* TRAIN







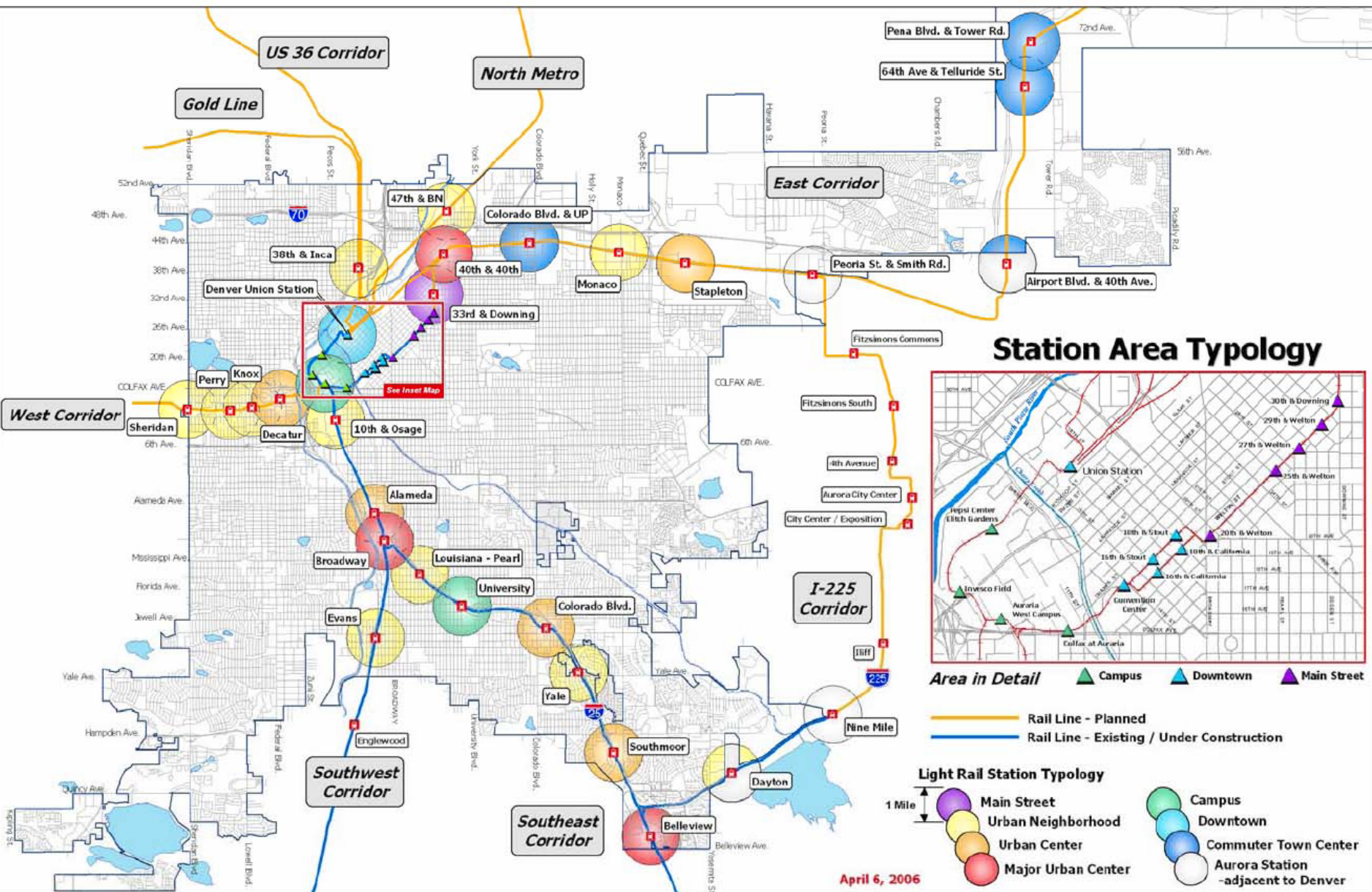


Denver



Figure ES-1

April 22, 2004

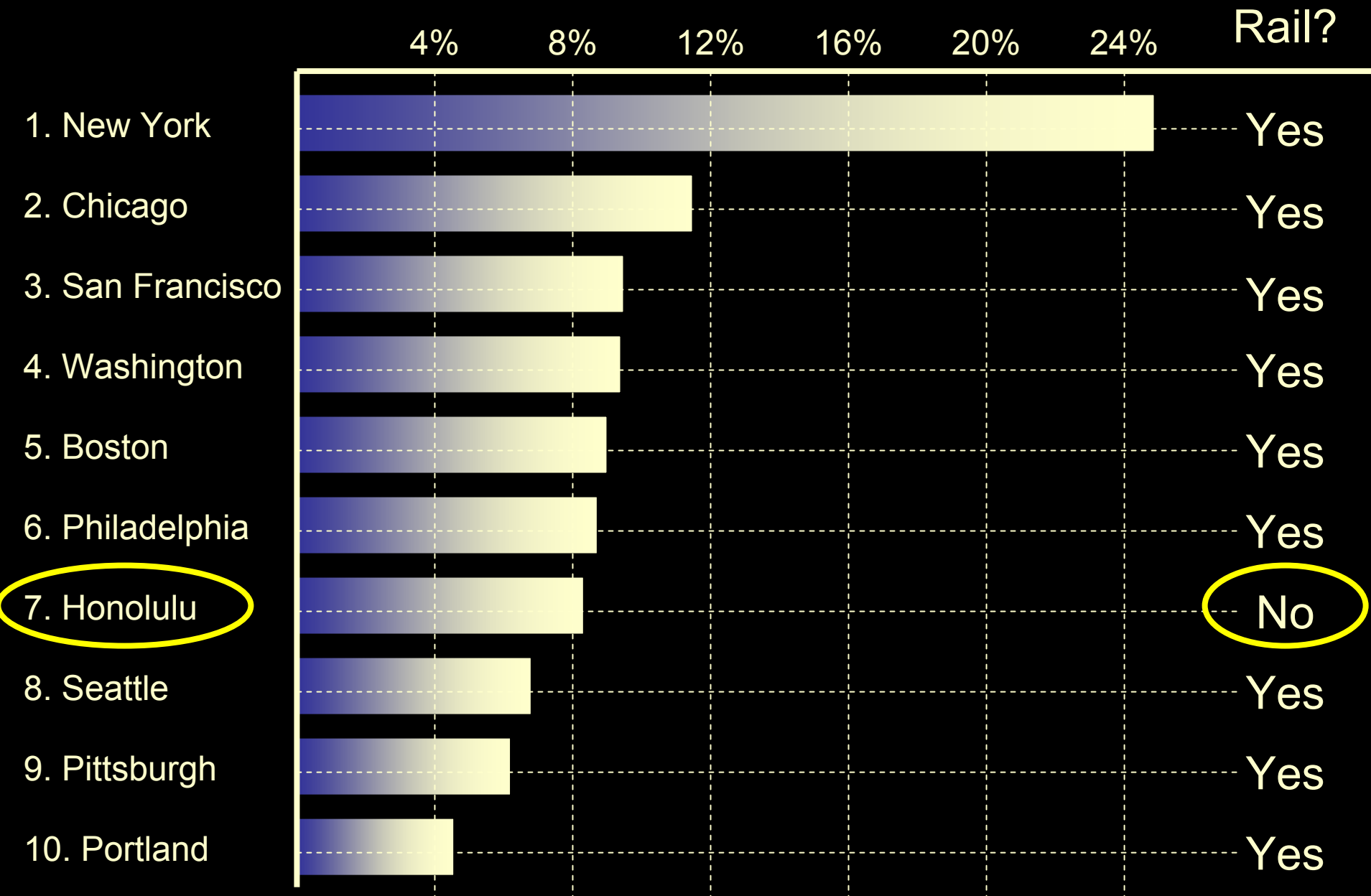




The Honolulu Plan



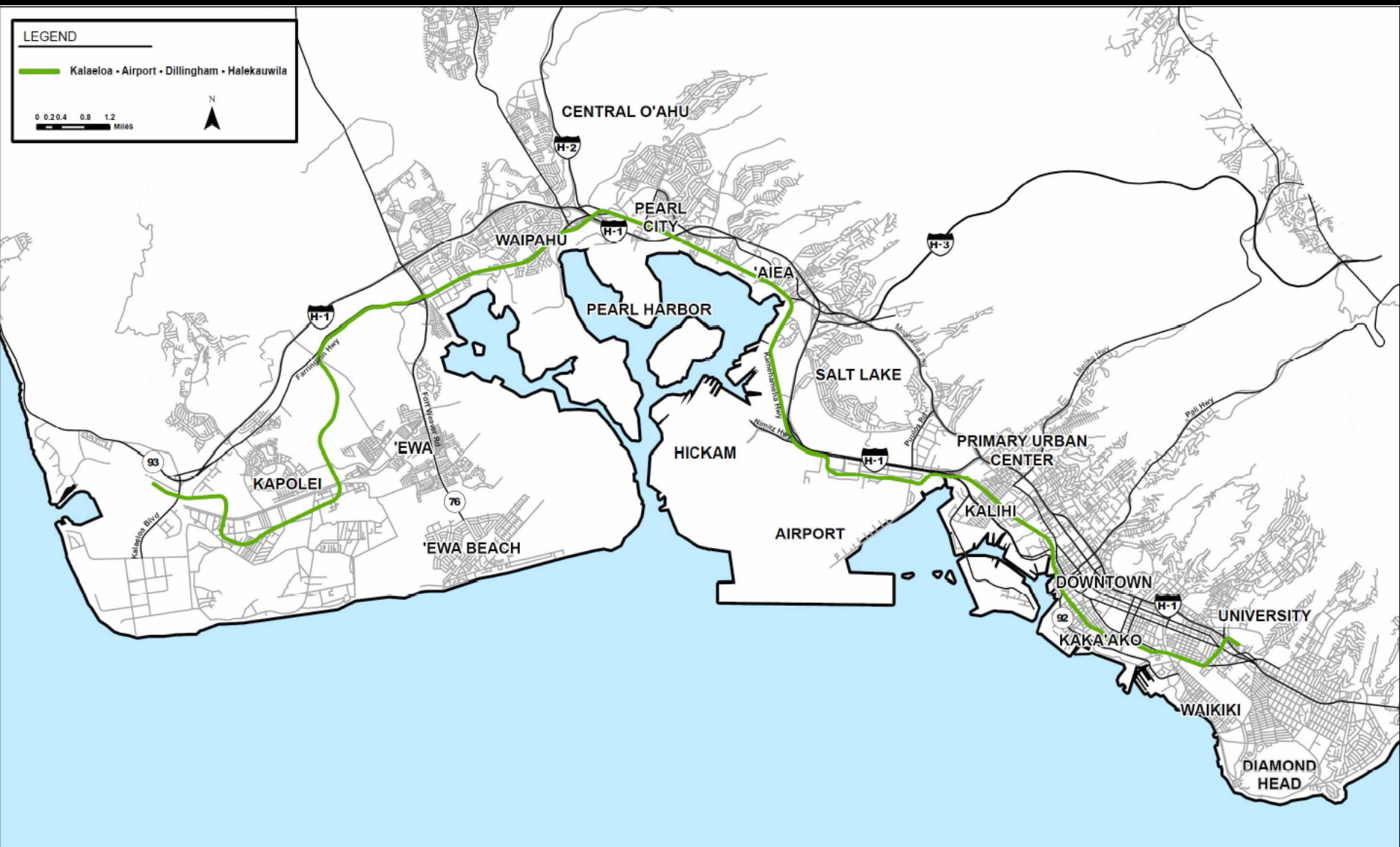
% of Daily Work Trips By Transit



LEGEND

Kalaeloa • Airport • Dillingham • Halekauwila

0 0.2 0.4 0.8 1.2
Miles

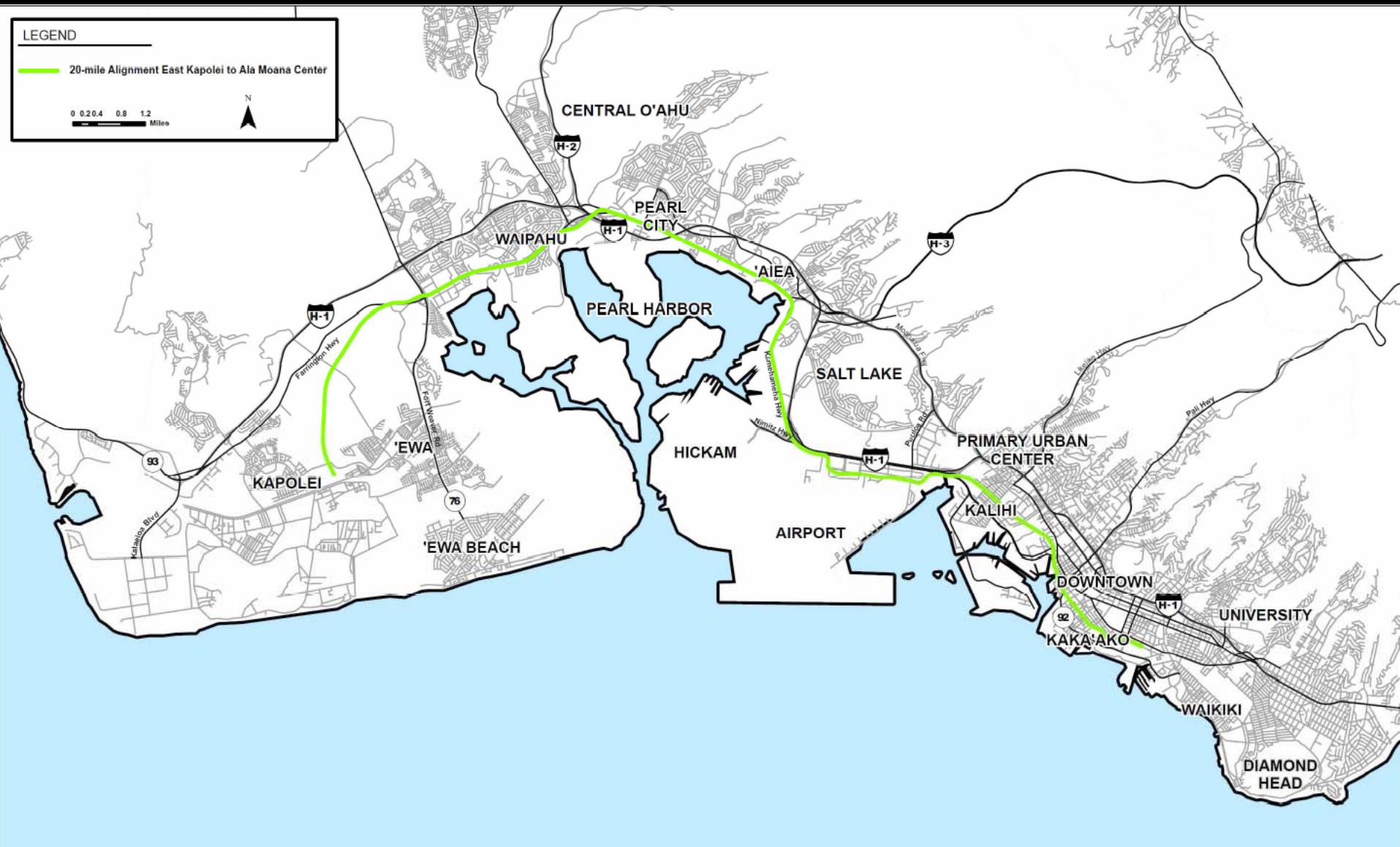


LEGEND

20-mile Alignment East Kapolei to Ala Moana Center

0 0.2 0.4 0.8 1.2 Miles

N



Vancouver SkyTrain










Vancouver SkyTrain





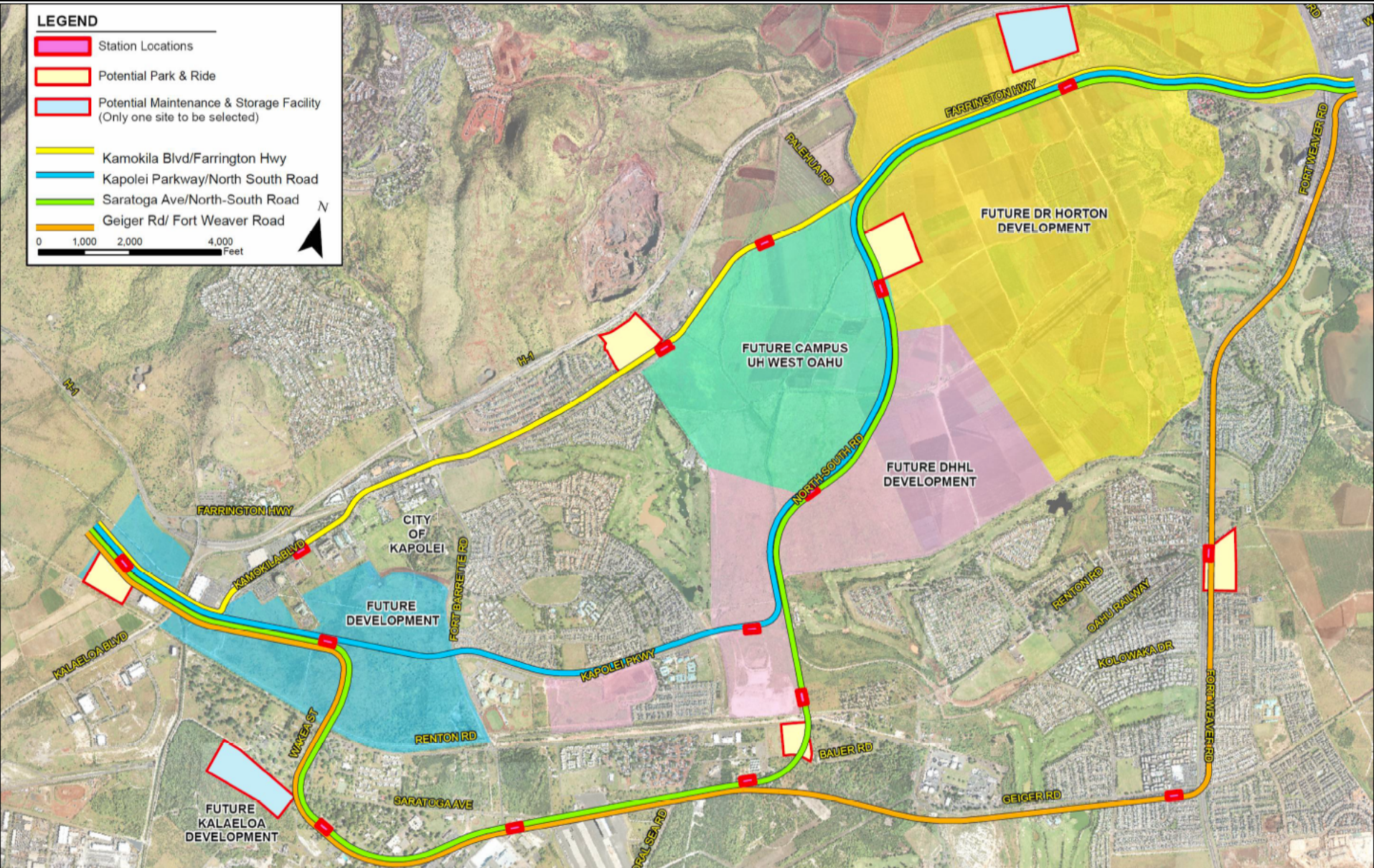
Vancouver SkyTrain

LEGEND




-  Station Locations
-  Potential Park & Ride
-  Potential Maintenance & Storage Facility
(Only one site to be selected)
-  Kamokila Blvd/Farrington Hwy
-  Kapolei Parkway/North South Road
-  Saratoga Ave/North-South Road
-  Geiger Rd/ Fort Weaver Road

0 1,000 2,000 4,000 Feet

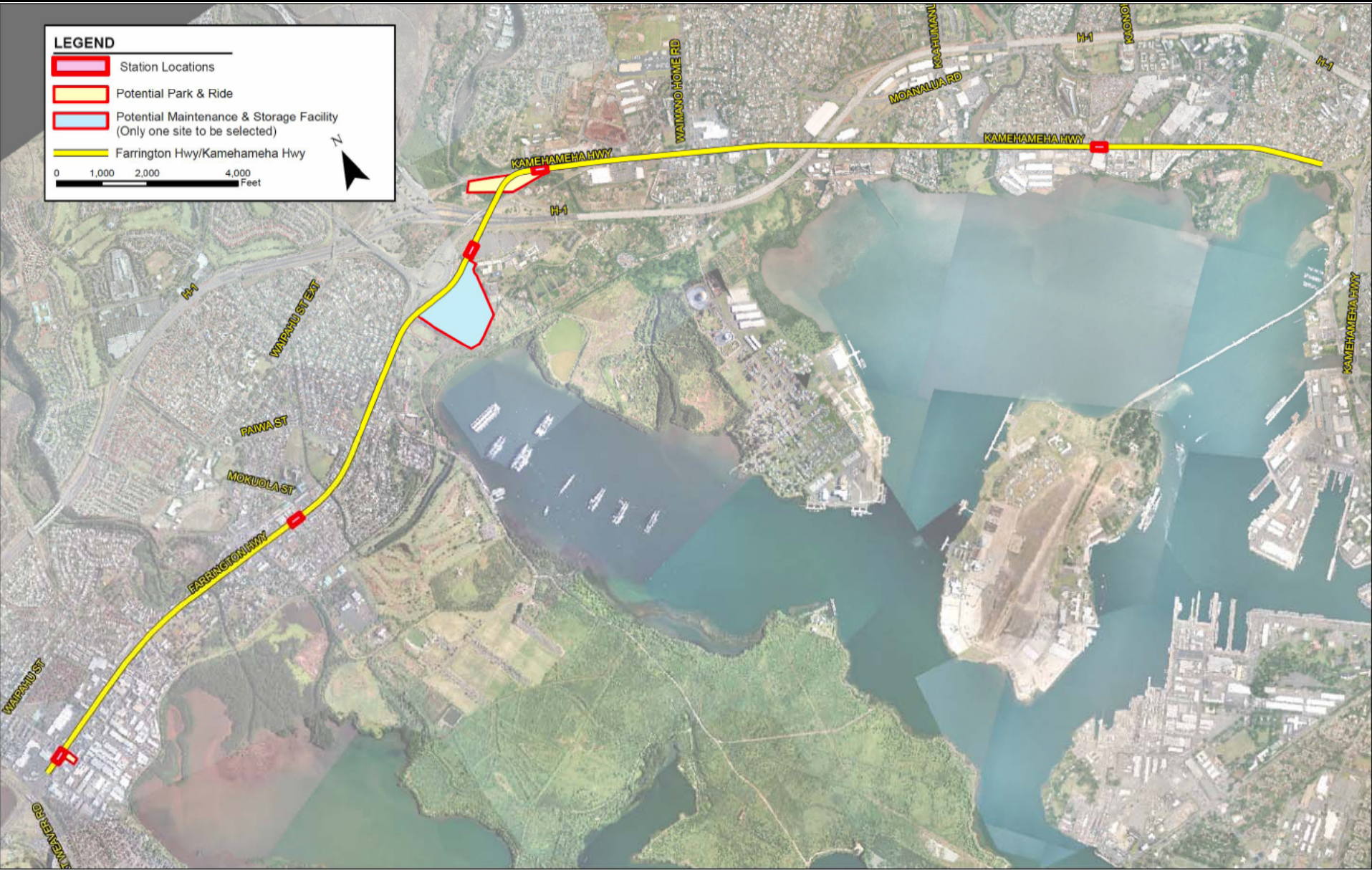

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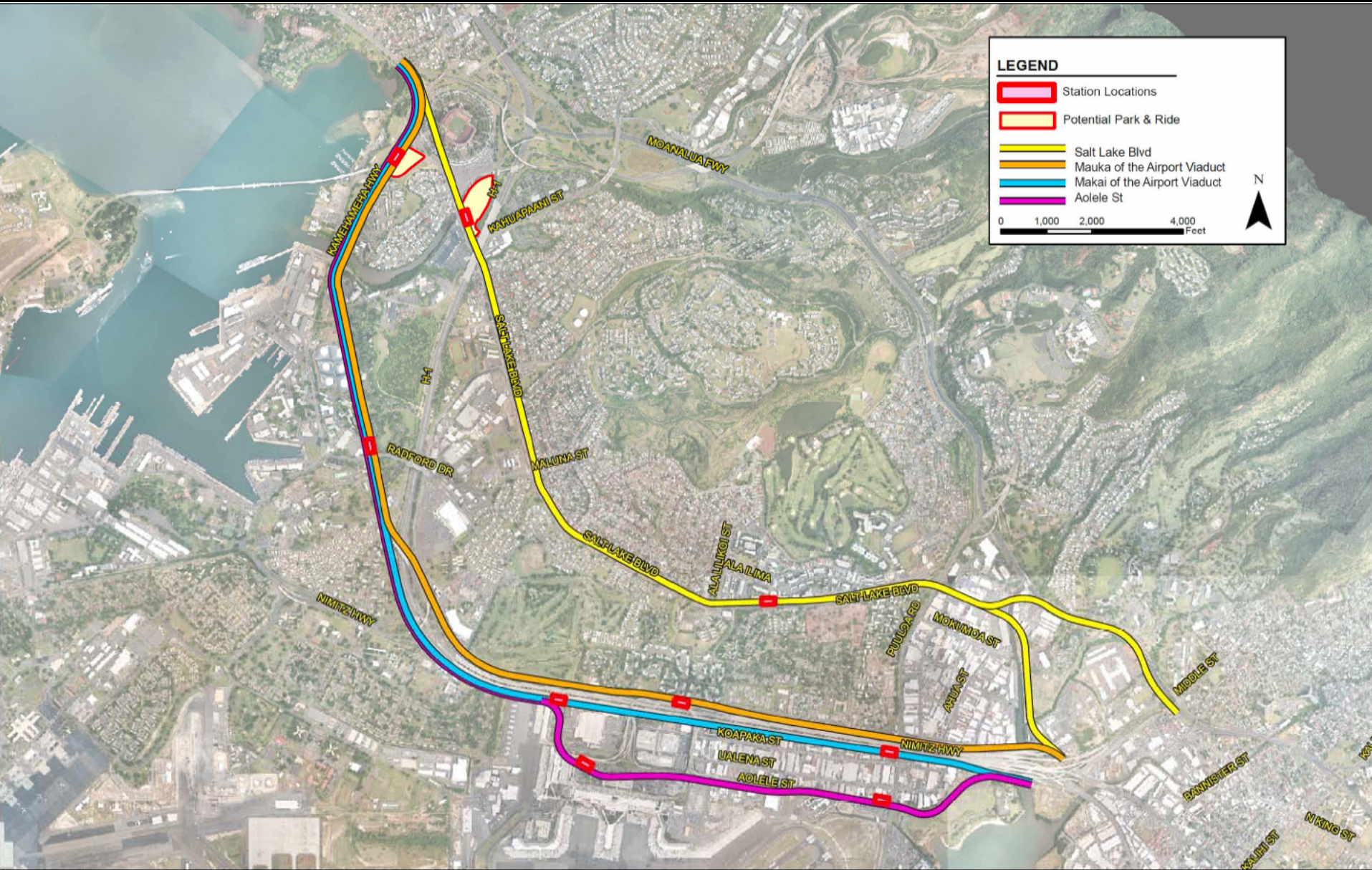


LEGEND



-  Station Locations
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-  Potential Maintenance & Storage Facility
(Only one site to be selected)
-  Farrington Hwy/Kamehameha Hwy





0 1,000 2,000 4,000 Feet

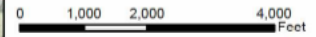


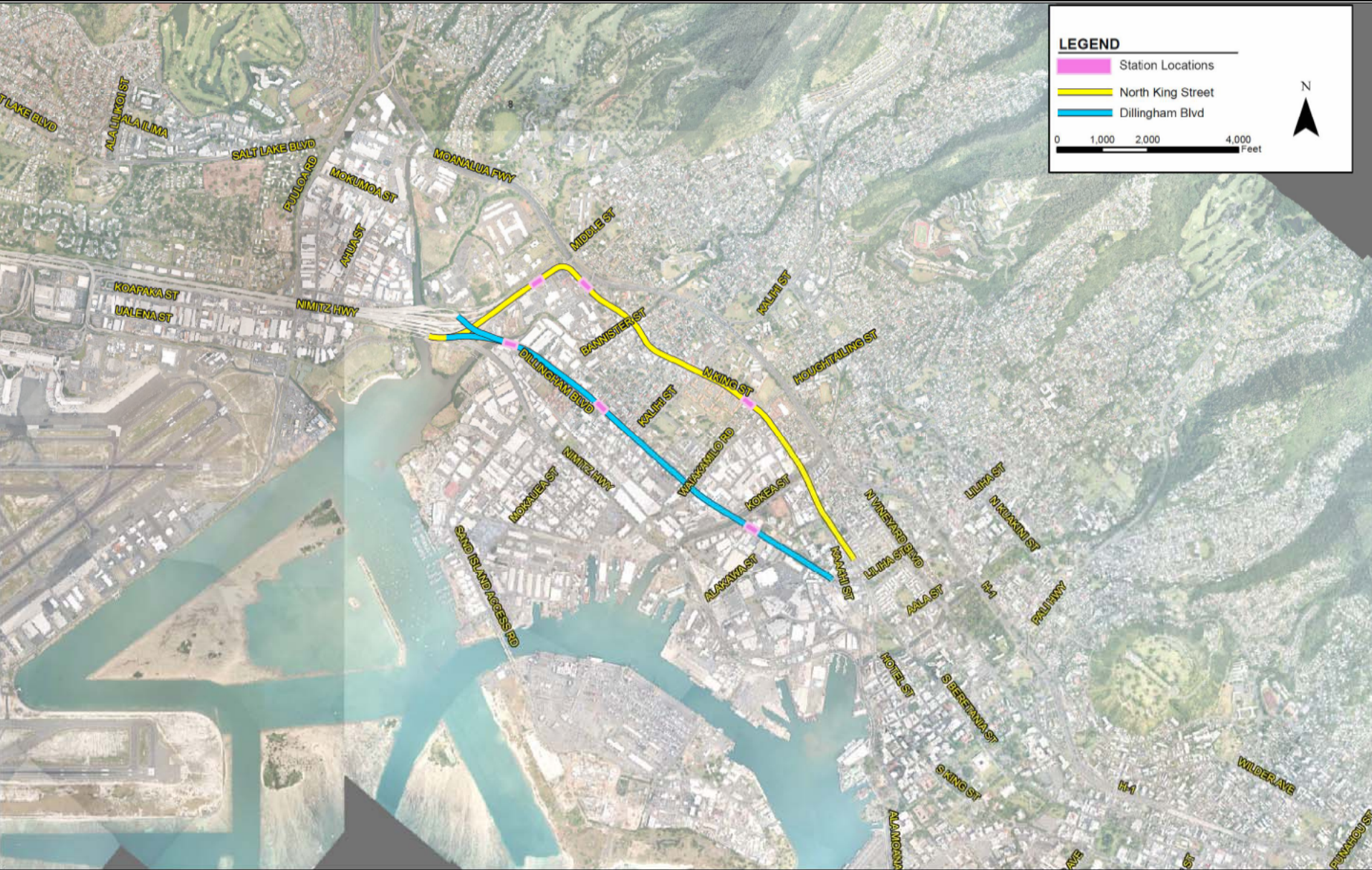


LEGEND

-  Station Locations
-  Potential Park & Ride

-  Salt Lake Blvd
-  Mauka of the Airport Viaduct
-  Makai of the Airport Viaduct
-  Aolele St





LEGEND

Station Locations

North King Street

Dillingham Blvd

0 1,000 2,000 4,000 Feet





LEGEND

- Station Locations
- Beretania St/South King Street
- Beretania St/South King St Tunnel
- Hotel St/Kawaiahao St/Kapiolani Blvd
- Hotel St/Kawaiahao St/Kapiolani Blvd - Tunnel
- King St/Waimanu St/Kapiolani Blvd
- King St/Waimanu St/Kapiolani Blvd - Tunnel
- Nimitz Hwy/Queen St/Kapiolani Blvd
- Nimitz Hwy/ Halekauwila St/Kapiolani Blvd
- Waikiki Spur

0 1,000 2,000 4,000 Feet

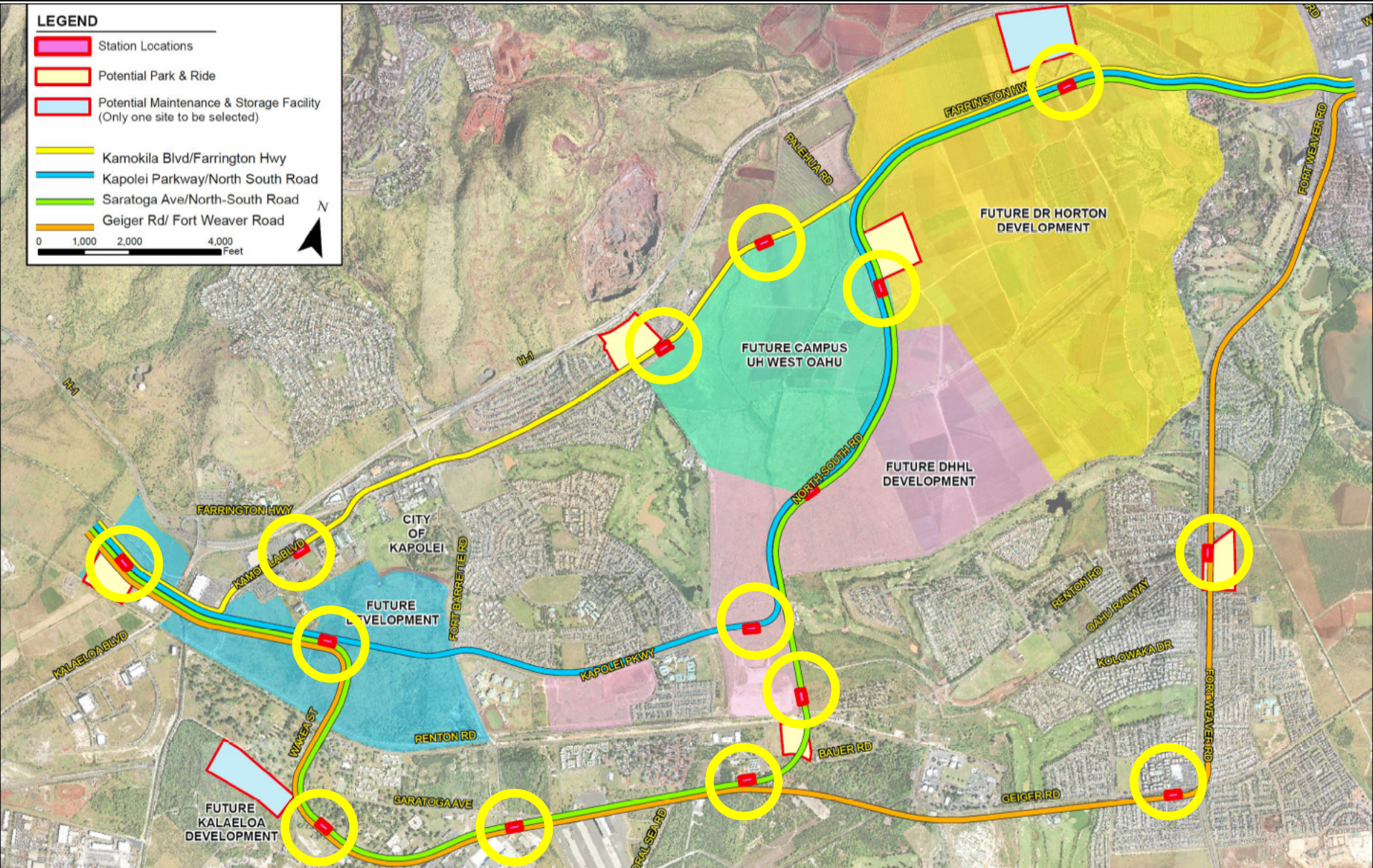


LEGEND




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- Saratoga Ave/North-South Road
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0 1,000 2,000 4,000 Feet


N

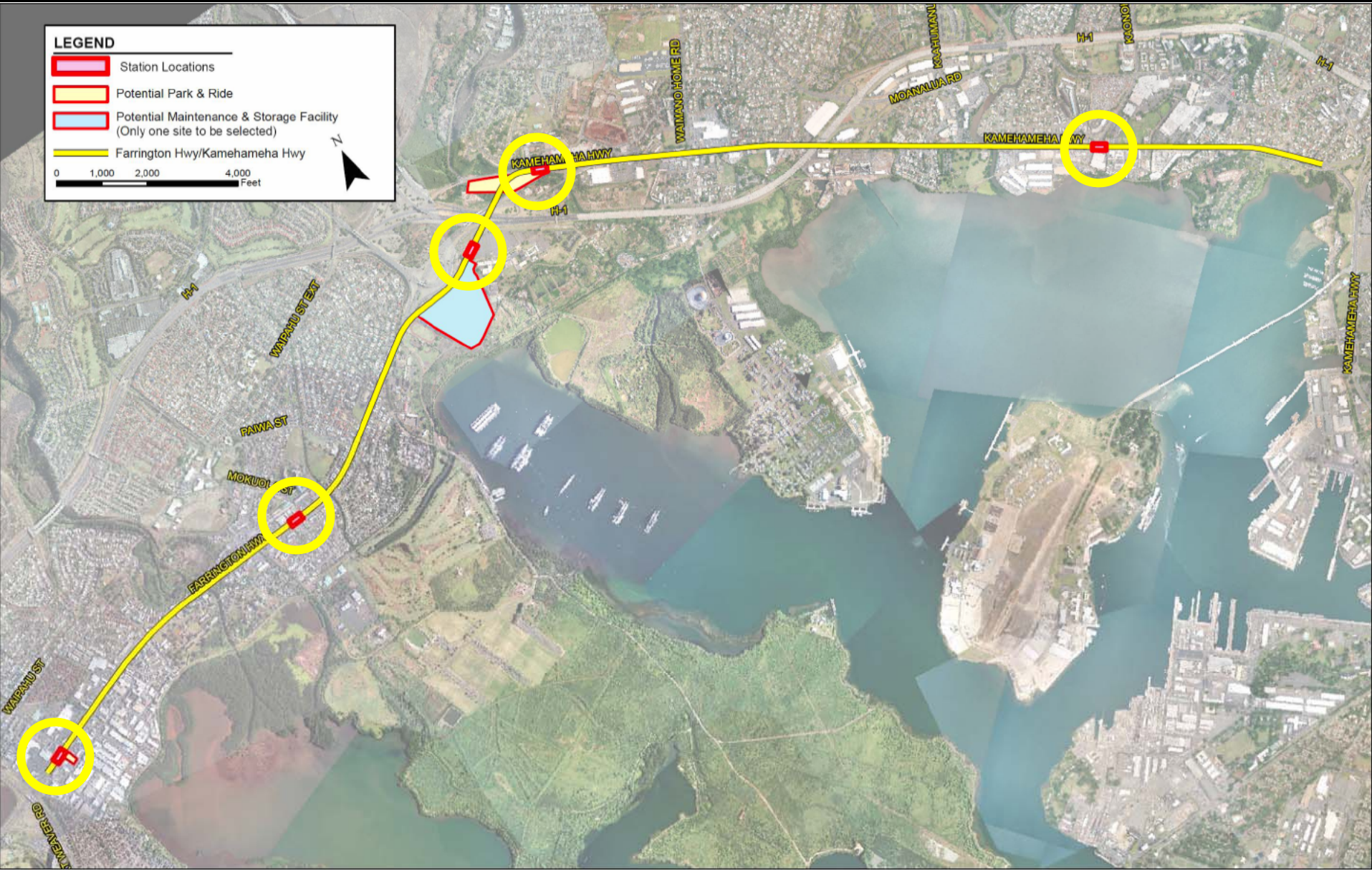


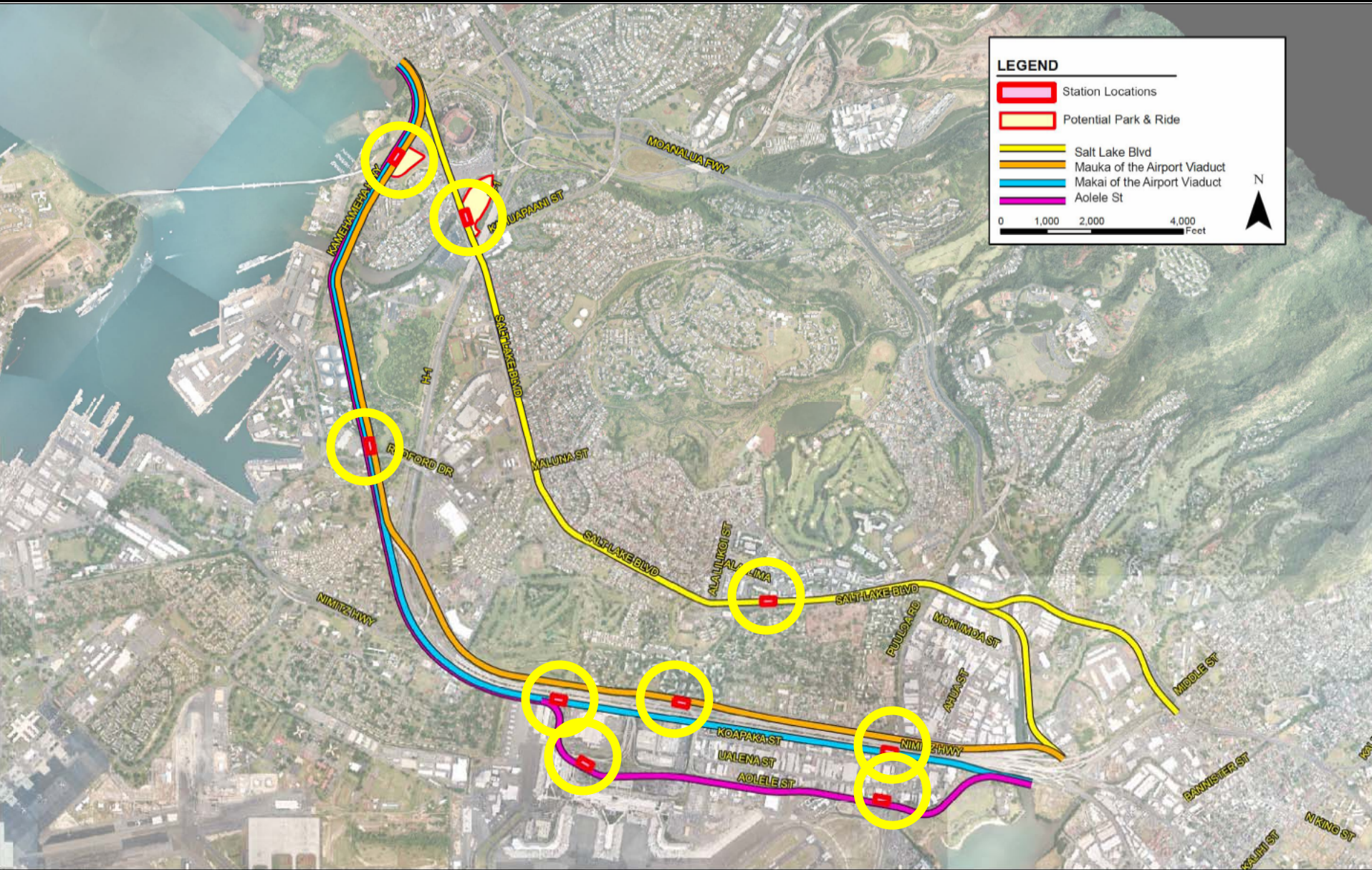
LEGEND

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0 1,000 2,000 4,000 Feet











LEGEND

 Station Locations

 Potential Park & Ride

 Salt Lake Blvd

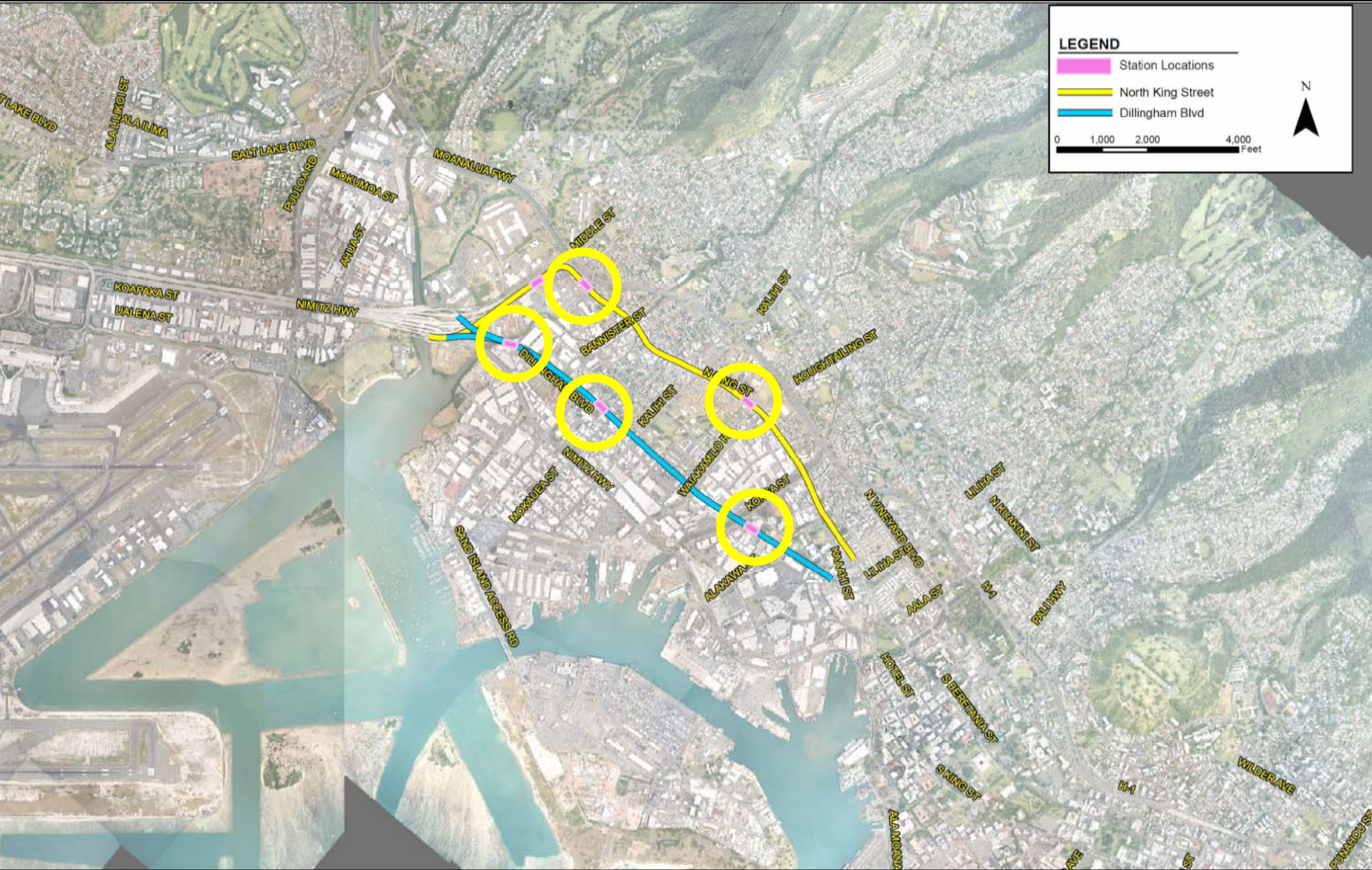
 Mauka of the Airport Viaduct

 Makai of the Airport Viaduct

 Aolele St

0 1,000 2,000 4,000 Feet





LEGEND

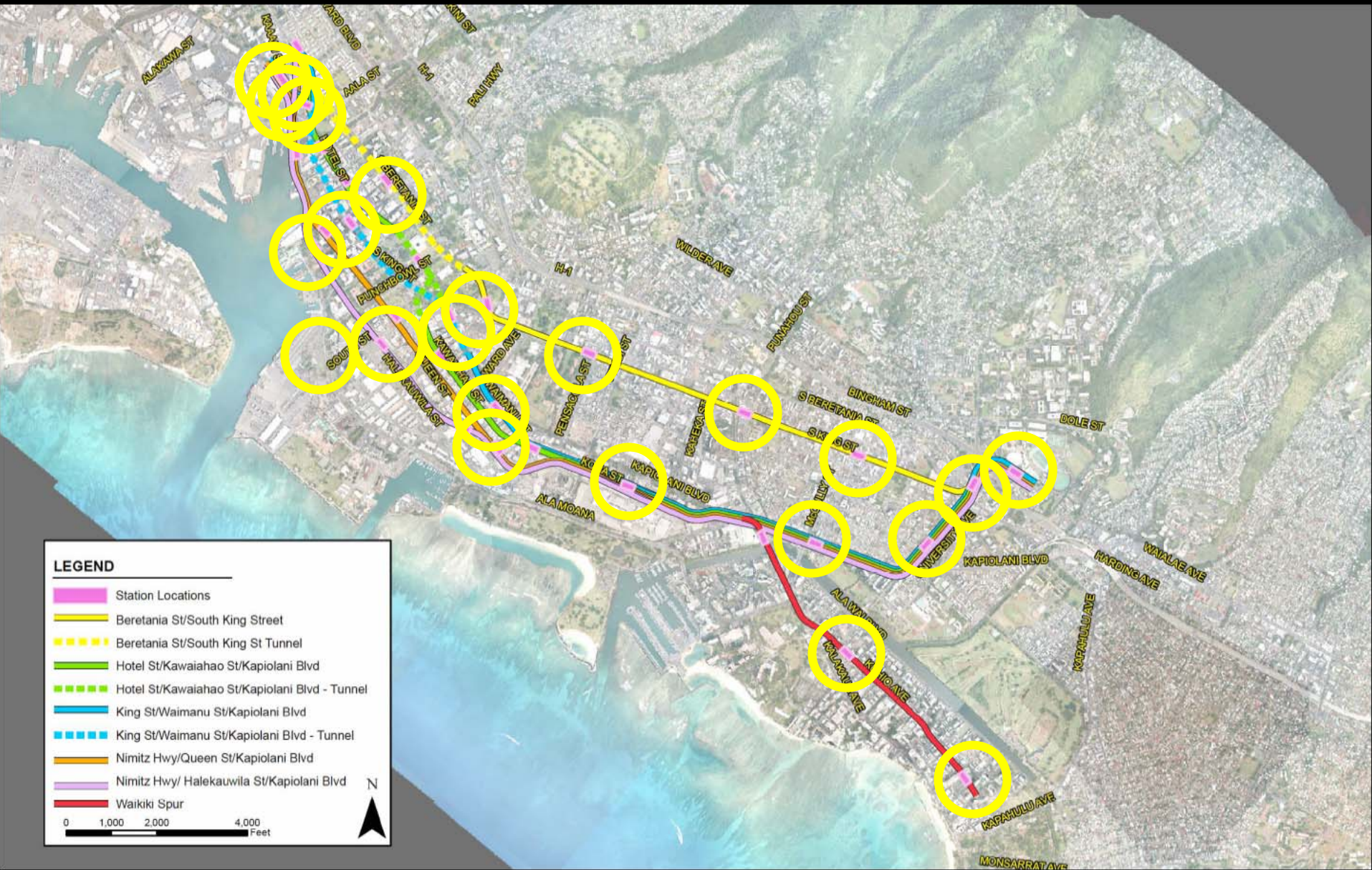
Station Locations

North King Street

Dillingham Blvd

0 1,000 2,000 4,000 Feet





Locating TOD



Locating TOD

- Where is the station and what is its role in the regional network?
- What is the nature and extent of the transit influence on development around the station?

Station Typology

- Regional Center (CBD)
- Urban Center
- Urban Neighborhood
- Suburban Center
- Main Street
- Campus/Special Events Station



Land Use Characteristics

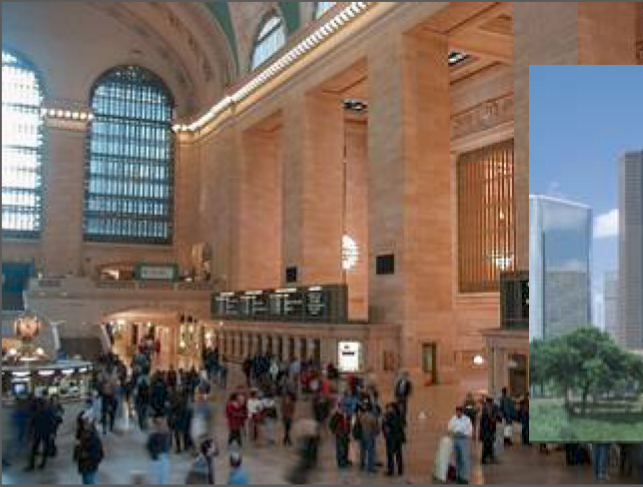
- Use Mix
- Intensity of Development
- Floorplate/Footprint
- Building Orientation
- Parking



Transportation Characteristics

- Pedestrian Environment
- Street Design
- Street Network
- Parking
- Bus Transit Integration
- Bicycle Circulation
- Delivery & Service Access
- PARKING POLICY





Grand Central Station, NYC



Embarcadero, SF

REGIONAL CENTER

- Central City
- Office, Residential, Retail, Entertainment, Civic
- Walkable Streets
- Transit Hub

Source: Will Fleissig

Regional Center (CBD)

Land Use Mix	Office, Residential, Entertainment & Civic Uses
Housing	Multifamily
Commerce	Major Regional Office & Shopping
Scale	≥ 15 Stories



Regional Center (CBD)

Transportation Characteristics

- Regional Intermodal Hub
- Multiple Interconnecting Modes
- High Transit Capacity
- Pedestrian Place
- No Park 'n Ride Capacity
- Dense Network Urban Streets





Denver, CO



Portland, OR

URBAN CENTER

- Sub-Regional Destination
- Office, Retail, Residential, Entertainment
- Mid and High Rise Buildings
- Walkable and High Transit Connectivity

Source: Will Fleissig

Urban Center

Land Use Mix	Residential, Retail & Office
Housing	Multifamily & Townhome
Commerce	Limited Office (< 250 ksf), ≥ 50 ksf Retail
Scale	5 – 10 Stories

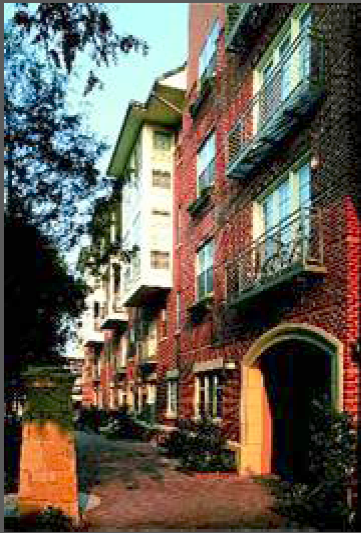


Urban Center

Transportation Characteristics

- Sub-Regional Transit Hub
- Interconnecting Bus Service
- Pedestrian Supportive Environment or Pedestrian Place
- Limited or No Park 'n Ride Capacity
- Dense Network Urban Streets





Addison Circle, TX



Ohlone-Chenoweth, CA



Downtown Hayward, CA

SUBURBAN CENTER

- Substantial activity center, with office, retail and residential
- Moderate density and suburban character
- Transit connected, park + ride

Source: Will Fleissig

Suburban Center

Land Use Mix	Residential, Office and Retail
Housing	Multifamily, Townhome & Small Lot Single Family
Commerce	Variety of Office and Retail Size and Mix
Scale	3 – 7 Stories



Suburban Center

Transportation Characteristics

- Emphasis on Drive to Transit
- Interconnecting Bus Service
- Pedestrian Supportive Environment
- Large Park 'n Ride Capacity
- Freeway or Major Arterial Access





Barrio Logan,
San Diego



Rockridge, Oakland



The Crossings, Mtn. View

NEIGHBORHOOD

- Primarily Residential, with retail and service core
- Mix of Housing Types
- Supports rapid transit, light rail or rapid bus.

Source: Will Fleissig

Neighborhood

Land Use Mix	Residential & Neighborhood-Serving Retail
Housing	Multifamily, Townhome & Small Lot Single Family
Commerce	Local retail only, total ≥ 50 ksf
Scale	2 – 7 Stories



Neighborhood

Transportation Characteristics

- High % Neighborhood Walk Up
- Some Interconnecting Bus Service
- Pedestrian Supportive Environment
- No Park 'n Ride Capacity
- Connected Street Network





International Blvd., Oakland, CA



Portland Streetcar

MAIN STREET

- Revitalization of Historic Main Streets and Neighborhood Shopping Streets
- Walk access to transit
- Connectivity to Neighborhoods

Source: Will Fleissig

Main Street

Land Use Mix	Residential, Neighborhood Retail, Office
Housing	Multifamily
Commerce	Storefront Retail, Office on 2 nd Floor & Side Streets
Scale	2 – 5 Stories



Main Street

Transportation Characteristics

- Bus or Streetcar Transit Corridor
- Interconnecting Bus Service
- Pedestrian Supportive Environment or Pedestrian Place
- No Park 'n Ride Capacity
- Connected Street Network





CAMPUS/SPECIAL EVENTS CENTER

- Universities, colleges, sports facilities
- Limited residential, office
- Transit connectivity

Source: Will Fleissig

Campus/Special Events Center

Land Use Mix	University Campus, Regional Sports Facilities, Major Hospital Complex
Housing	Limited Multifamily
Commerce	Limited Office & Retail
Scale	Varies



Campus/Special Events Station

Transportation Characteristics

- Interconnecting Bus Service
- Pedestrian Supportive Environment
- Large Park 'n Ride Capacity
- Freeway or Major Arterial Access



Locating TOD

- Where is the station and what is its role in the regional network?
- What is the nature and extent of the transit influence on development around the station?



Locations

- TRANSIT ORIENTED DEVELOPMENT
“TOD”
- TRANSIT INFLUENCE ZONES
“TIZ”

Transit Influence Zone (TIZ)

Transit Oriented Development (TOD)

Station

1320'

2640'



Rail Corridor



Peak commute direction (toward employment)

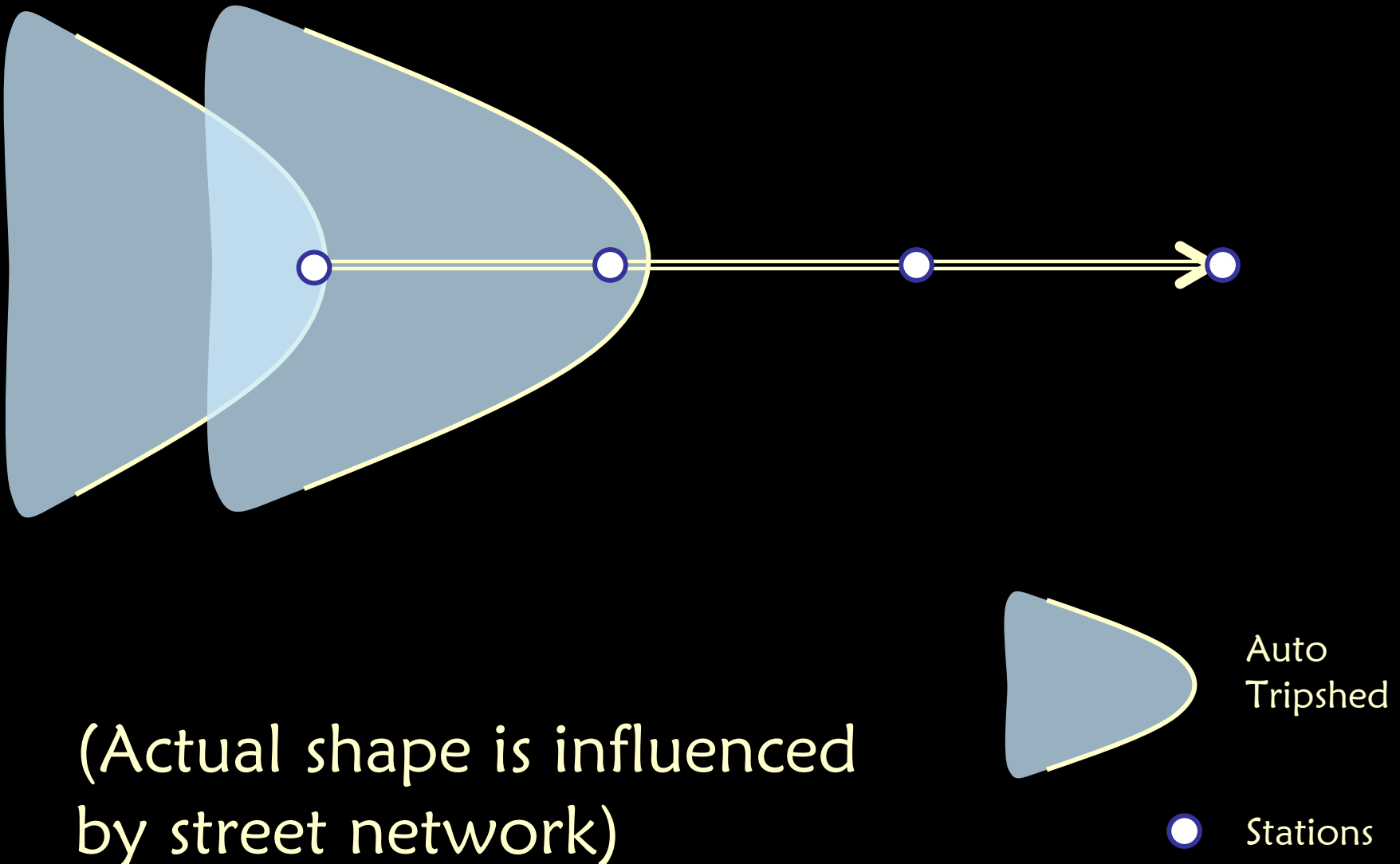


Stations on the System

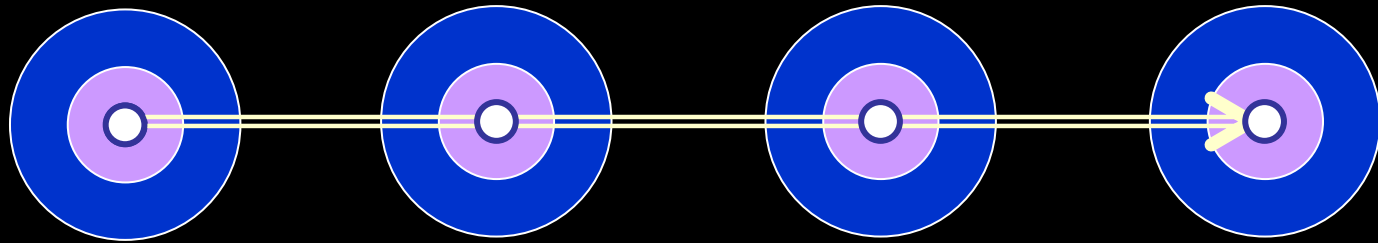


 Stations

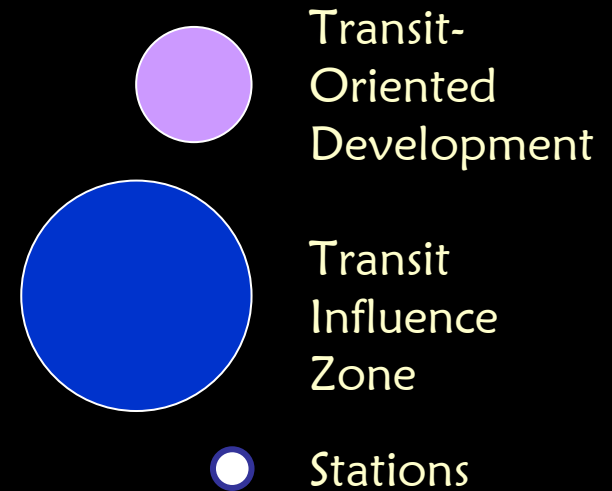
Drive-to-Transit Tripshed



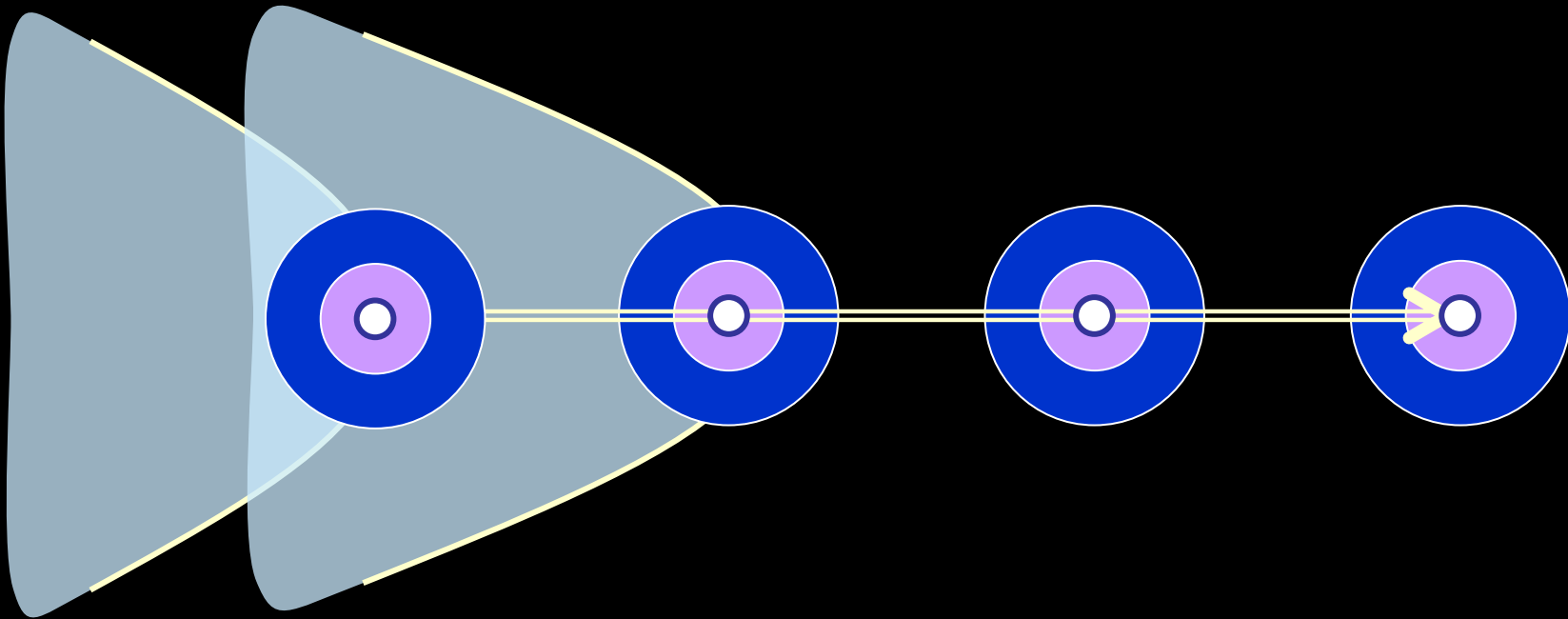
Pedestrian Tripshed



(Actual shape is
influenced by
street network &
walking barriers)



Combined Tripsheds

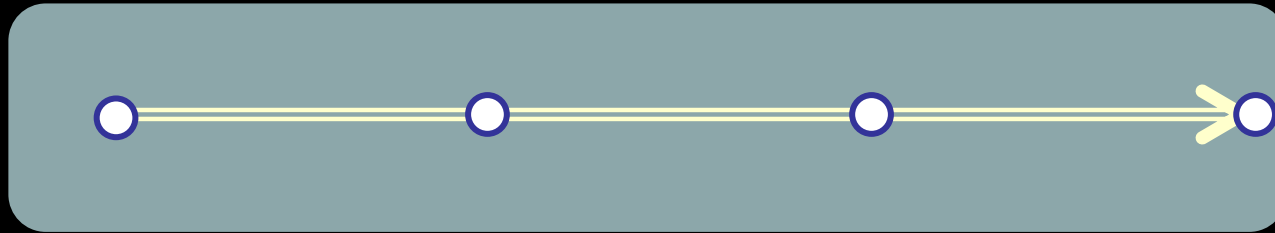


(Actual shapes are influenced by street network and station spacing)



San Francisco – Market St.

Transit Corridor



(High level of intermodal
corridor service)

 Stations

Characteristics of Successful TODs

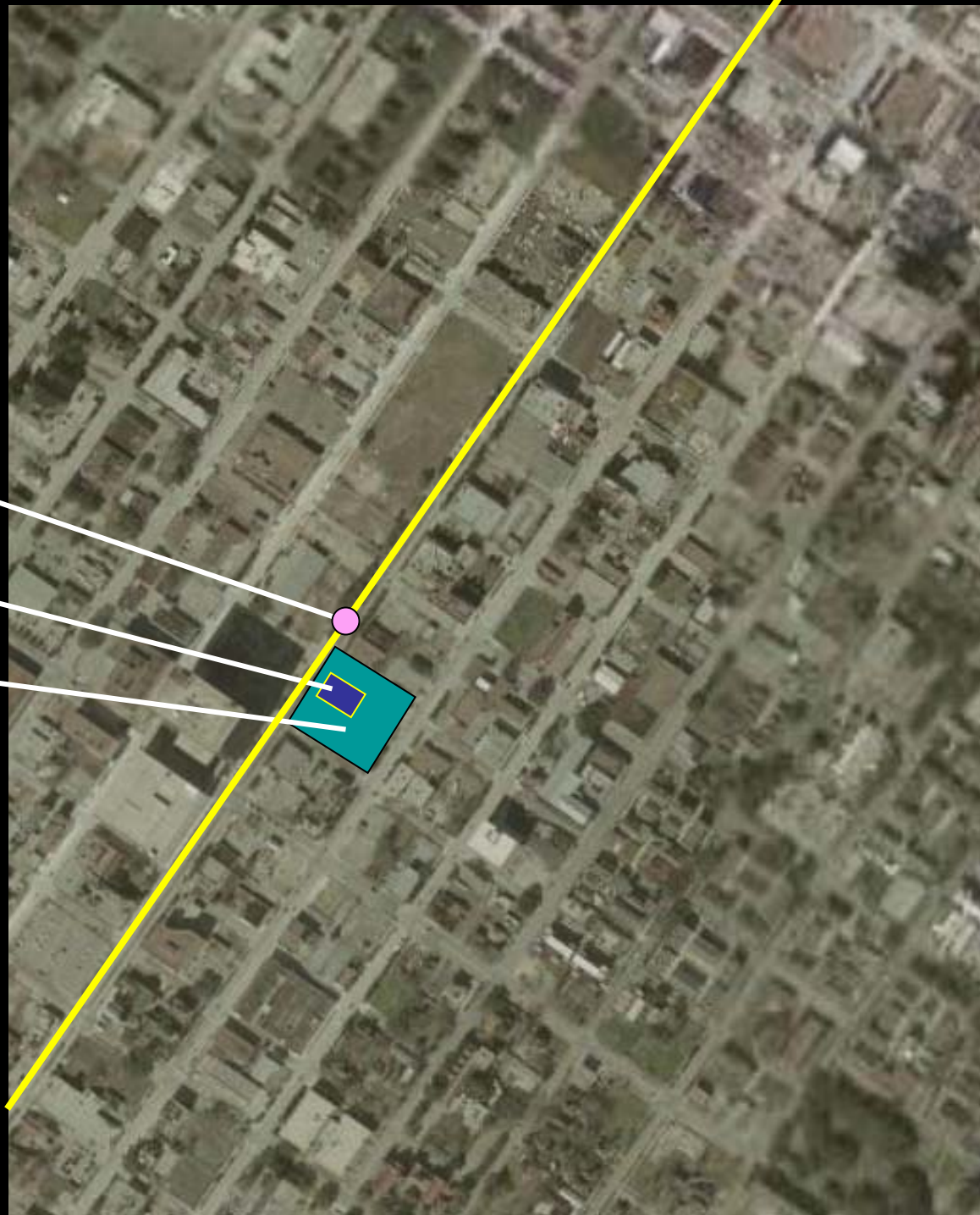


What is “Successful” TOD?

- Generates increased ridership on transit, leveraging public investment
- Catalyzes private sector investment in housing and job formation
- Provides high quality of urban living
- Enables affordable living

TOD Building Blocks

- Station
- Building
- Block



Successful TOD: Stations

- Design and scale appropriate to neighborhood context
- Parking handled strategically, with attention to good urban design
- Porous and accessible to pedestrians
- Attractive and distinctive
- Reasonable amenity level (passenger support functions)





Ensemble/HCC
Southbound Red Line

Please report any
unattended Packages

Ensemble/HCC

TICKETS

Houston



Seattle



Miami



Jacksonville FL
6 June 2003
© 2004 Jon Bell

Jacksonville

Successful TOD: Blocks

- Pedestrian supportive streets
- Pedestrian grain - connectivity
- Hide the parking
- Buildings address streets, limit setbacks
- Limited or no driveways





Boulder

ROADWAY
CORRIDOR

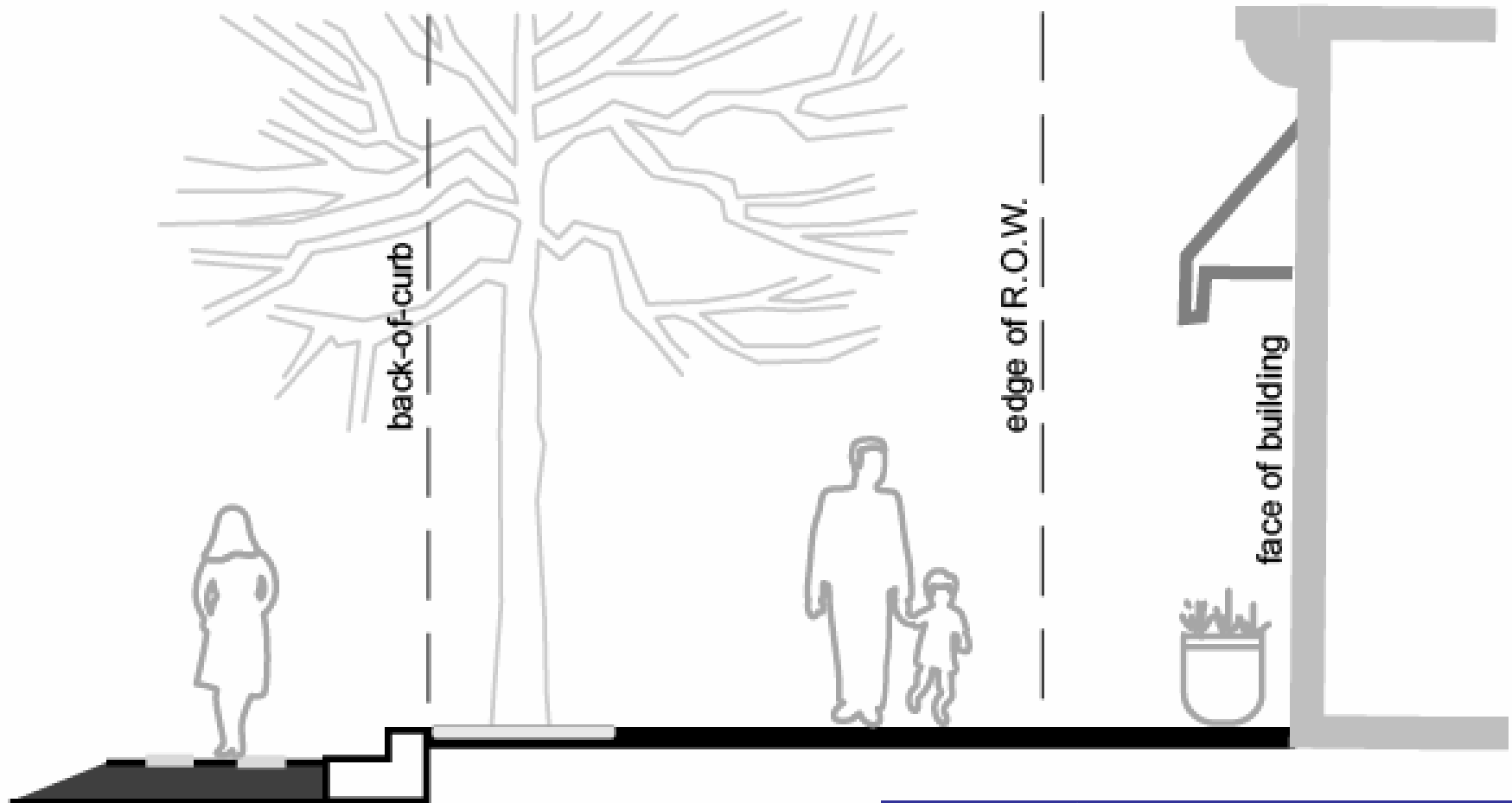
PEDESTRIAN
REALM

ADJACENT
LAND USE

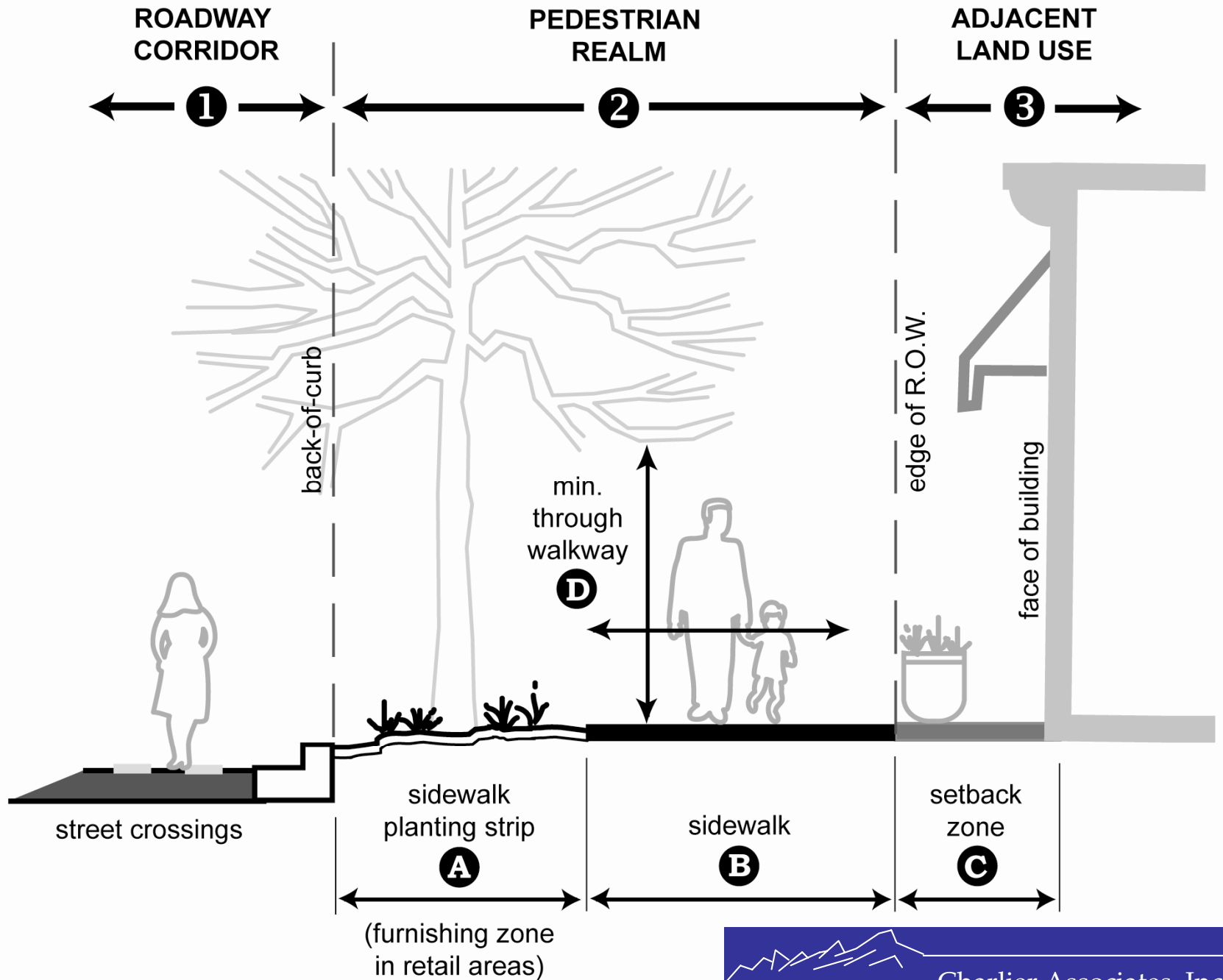
1

2

3



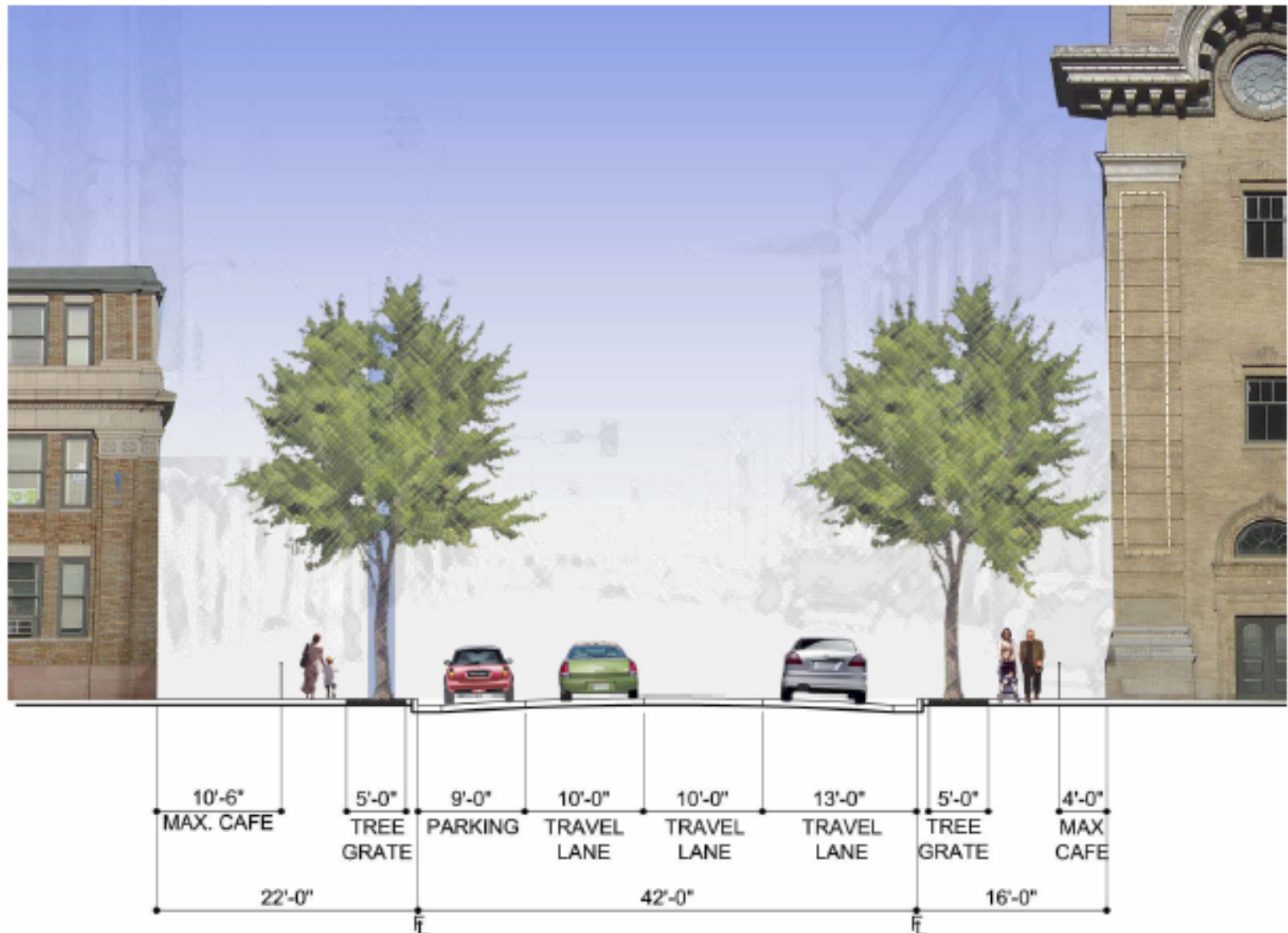
Charlier Associates, Inc.





Newbury - Boston

Conceptual Plan: Elevation View with Parking



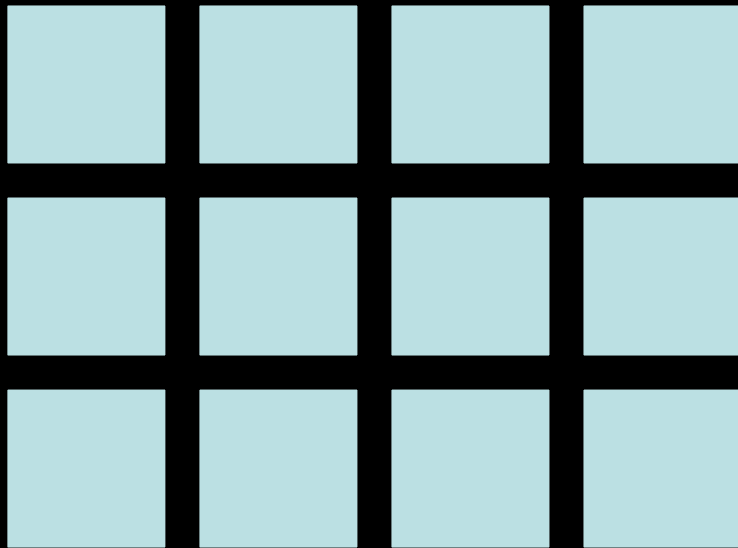


Nashville



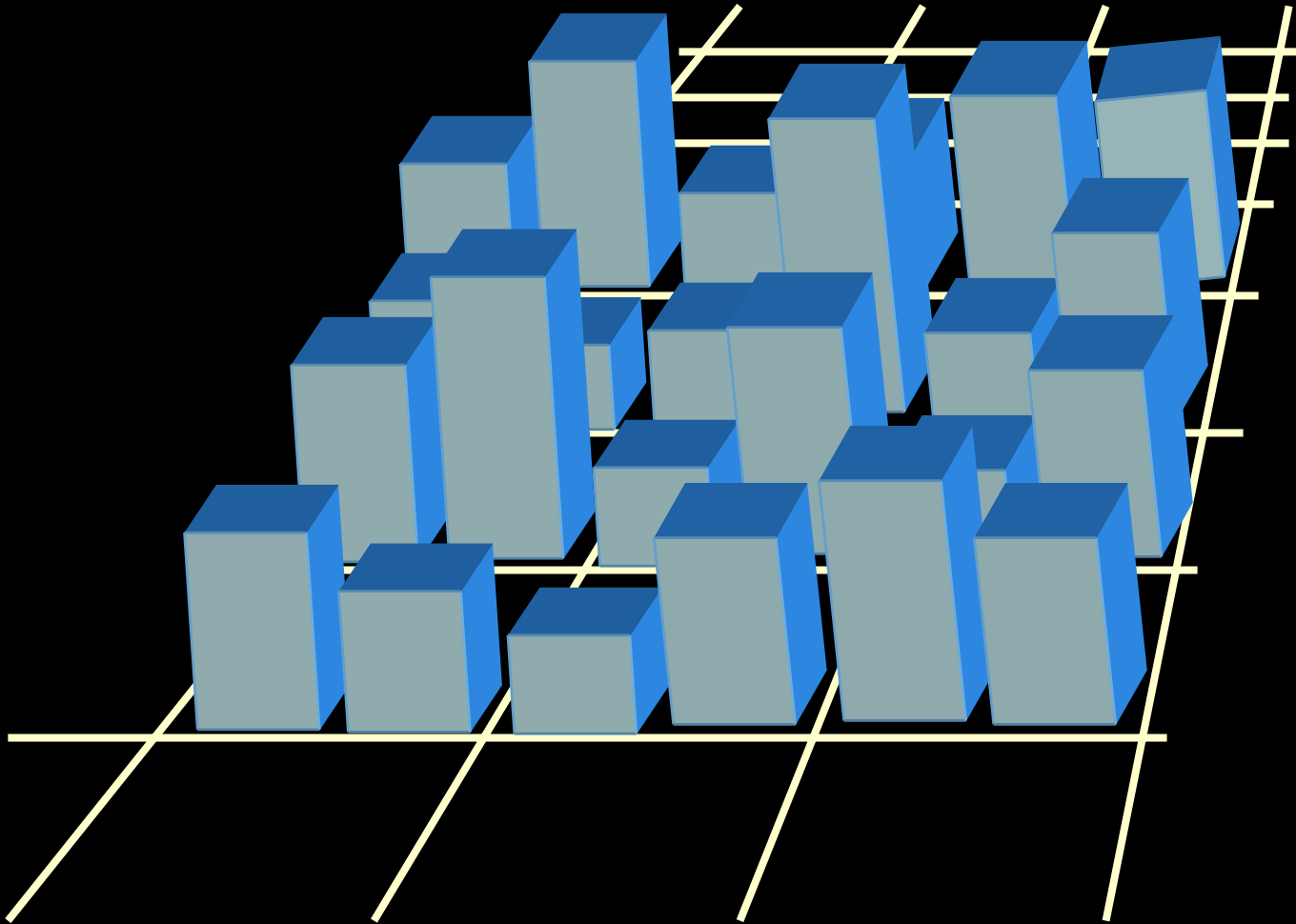
Boulder

Pedestrian Networks



The ideal
pedestrian “grain”
is 250’ to 350’





[illegible]



Portland Pearl District







Portland Pearl District



Portland Pearl District



Image © 2006 Sanborn

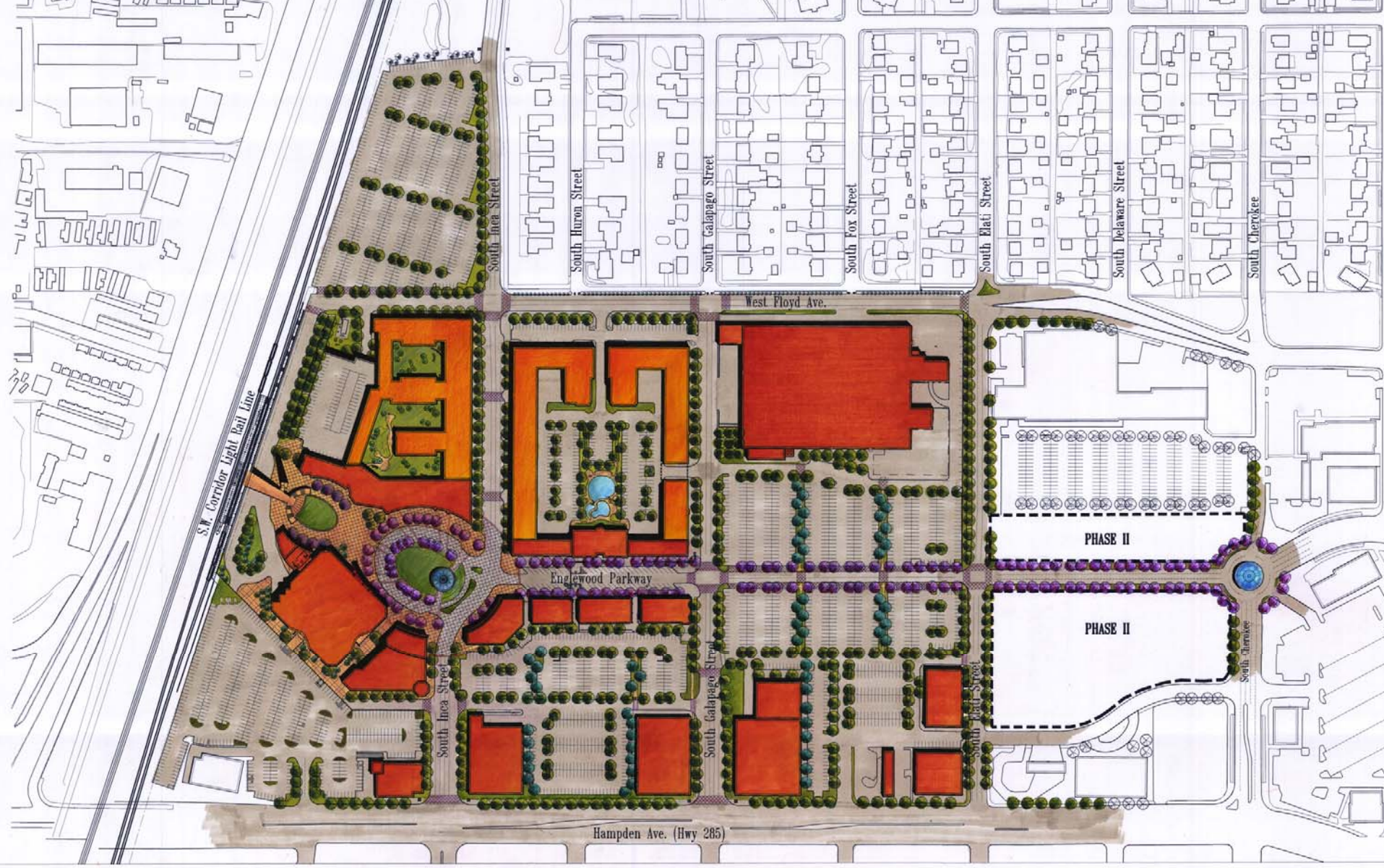
© 2005 Google



Pointer 45°31'42.24" N 122°40'40.69" W

Streaming 100%

Eve alt. 8384 ft



Englewood Town Center, Englewood, CO



Englewood Town Center



San Francisco



Portland



Bangkok



Vancouver

Successful TOD: Buildings

- Appropriate scale
- Vertical mix of Uses
- Ground floor retail
- Lots of window space at street
- Frequent doorways
- No blank walls



Denver

Denver





Boulder

Boulder





Bethesda, MD





TYPICAL CONDO AD:

MLS: 327859

Updated: April 13, 2006

Price: \$335,000 - 1 bdrm 1 baths

Type: Condo

Sqft: 1027

Cost / Sq Ft: \$326

City: Denver

Subdivision: Lodo, Ballpark, Downtown, Benj

Remarks: FAB LOFT ON TOP FLR OF HISTORIC LODO BLDG. CITY VIEWS & SOUTHERN EXPOSURE W/ LOTS OF LIGHT. SEALED CONCRETE FLRS, HIGH CEILINGS. GRANITE & STAINLESS APPLIANCES IN KITCHEN. EXPOSED BRICK. ONE DEEDED PRKNG SPACE INCL. GREAT LOCATION NEAR BALLPARK AND IN LODO!

Features: Air Cond, Balcony, Dryer, Disposal, Dishwasher, Eating Space Kitchen, Intercom, Loft, Microwave Oven, Newer Paint, Refrigerator, Remodeled, Smoke Alarm, Self Cleaning Oven, Satellite Antenna, Security Entrance, Smoke Free

[Details...](#)

Listing Office: Coldwell Banker Residential 01





Property Description

Great location! Motivated seller! True urban loft w/ceramic tile & Stainless appliances in kitchen. Huge window looking east. Dramatic high ceilings, cool colors & industrial flooring complement your downtown lifestyle. Large shared 10th floor deck w/city, park & mt. views.



MLSID: 6018348

City: Portland, OR

Price: \$255,000

Beds: 1

Baths: 1.00

SF: 709

Style: LOFT

Type: Residential

Year: 1909

Public Policy Opportunities



Public Policy Opportunities

- Guide development (e.g., Second City)
- Provide affordable living
- Encourage job growth
- Ensure success of new college campus
- Reduce daily household driving
- Achieve a connected community



Public Policy Challenges

- Rail project capital cost inflation
- Urban design for elevated rail
- Honolulu zoning ordinance
 - Mixed use
 - Density
 - Parking
- Pedestrian hostile station areas



Private Sector Opportunities



Private Sector Opportunities

- Brand a location
- Respond to emerging markets
- Higher density/intensity
- Efficiencies – transportation costs
- Mixed use synergies
- Invigorate redevelopment/infill sites



Private Sector Challenges

- Limited experience with mixed use
- Lack of local prototypes
- Inexperienced lenders, equity partners
- Fragmented property ownership
- City ordinances and codes



www.charlier.org



Charlier Associates, Inc.