

WCCTAC

West Contra Costa Transportation Advisory Committee



West Contra Costa High-Capacity Transit Study WCCTAC Board Meeting

December 9, 2016



Discussion Items

1) Refinement of Alternatives

- Express Bus
- BRT on San Pablo Avenue/Macdonald Avenue
- BRT on 23rd Street
- Reduced Fares on Amtrak/Capitol Corridor
- BART Extension from Richmond Station

2) Round 2 Online Survey Questions

3) Information Display Board

4) Next Steps





Study Alternatives



Alternatives Advanced for Further Study

Alternative	Yes	No
 Alt. 1: Express Bus on I-80	✗	
 Alt. 2: San Pablo/MacDonald BRT	✗	
 Alt. 3: 23rd Street BRT	✗	
 Alt. 4: UPRR Commuter Rail (short & mid-range options)	✗	
 Alt. 5: BNSF Commuter Rail		✗
 Alt. 6: BART Extension from Richmond	✗	
 Alt. 7A: BART Extension from El Cerrito del Norte		✗
 Alt. 7B: BART DMU Extension from El Cerrito del Norte		✗

Approach to Alternatives Refinement

- 1) Fleshed out concepts from Round 1
- 2) Developed short-, mid-, and long-term investment packages
- 3) Round 2 of technical evaluation underway, results in January to include:
 - Ridership
 - Speed and reliability
 - Access and connectivity
 - Cost and efficiency
 - Community
 - Feasibility





Express Bus



Express Bus – West County Service

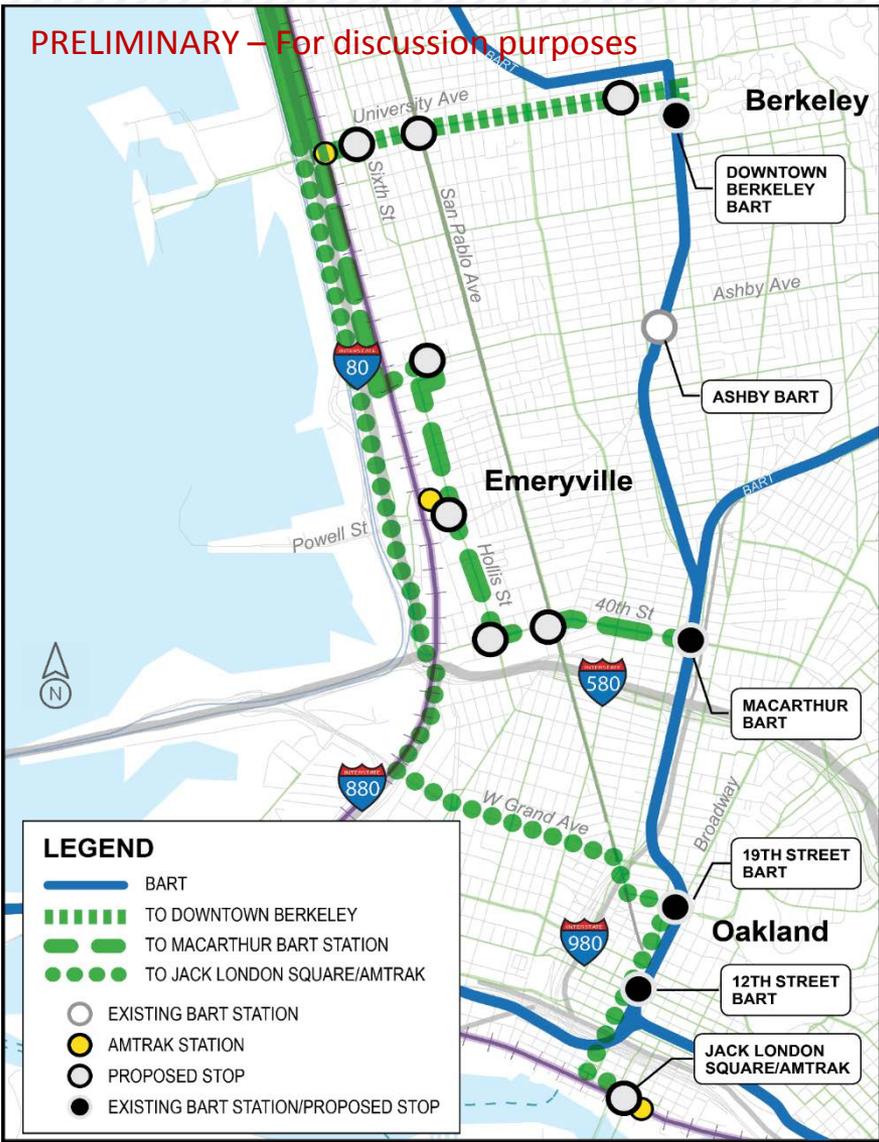


- 1) Short-term (1-5 years)
 - Increased frequency and more stops on existing routes
 - Direct service to Alameda County
- 2) Medium-term (5-15 years)
 - Expanded park-and-rides at Richmond Parkway and Hercules Transit Center
- 3) Long-term (15+ years)
 - Freeway ramp improvements
 - Potential Express Bus-BRT transfer center

Express Bus – Service to Alameda County

Direct Service to Alameda County

- Downtown Berkeley
- Emeryville
- Downtown Oakland



Express Bus – Access Ramps

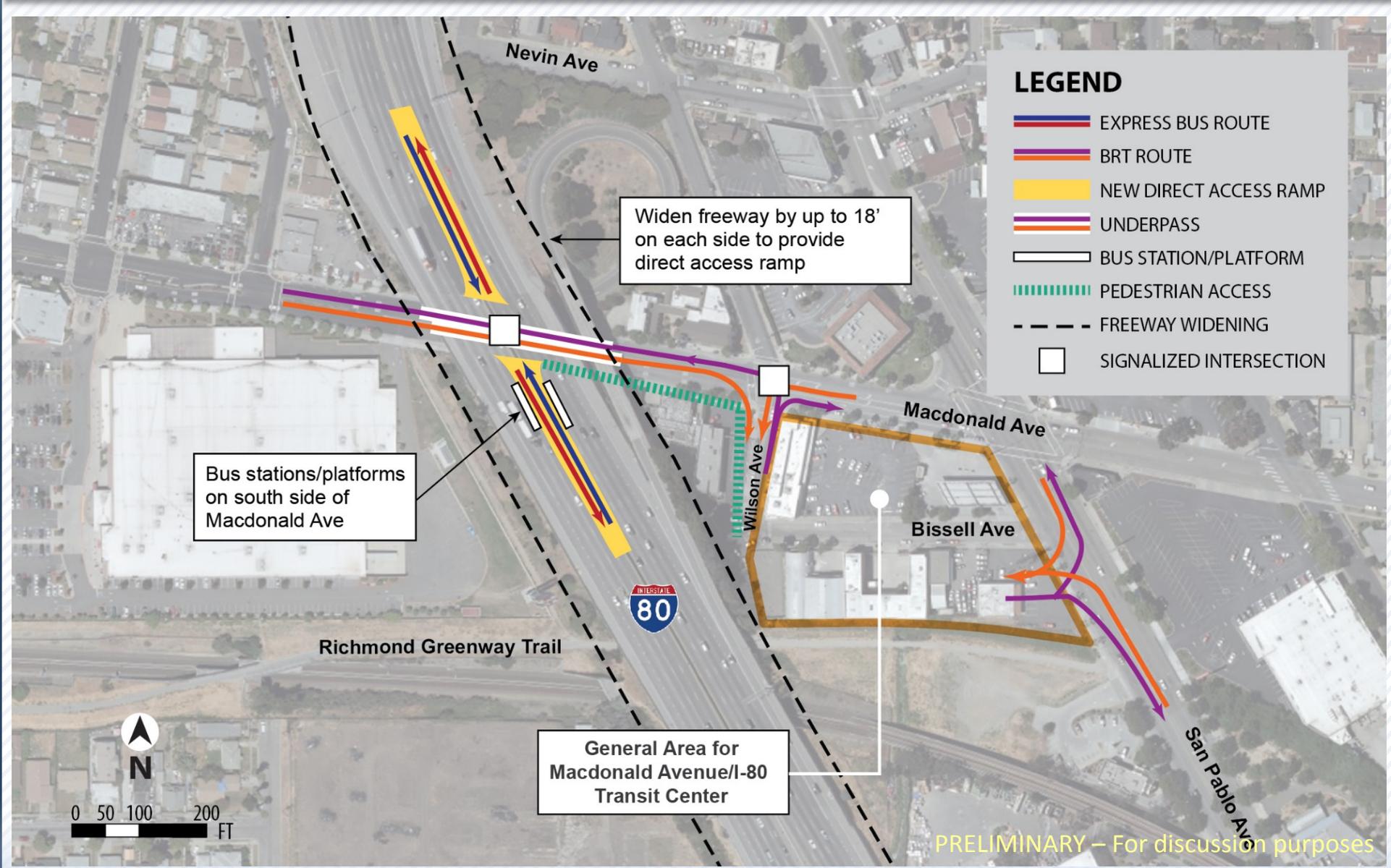
Purpose: To facilitate bus operations between transit centers and HOV/HOT lanes

- Reduce weaving across multiple freeway lanes
- Improve travel times and reliability for transit vehicles



Direct access ramp, Bellevue, WA

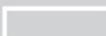
Potential Bus Transit Center at Macdonald Avenue/I-80

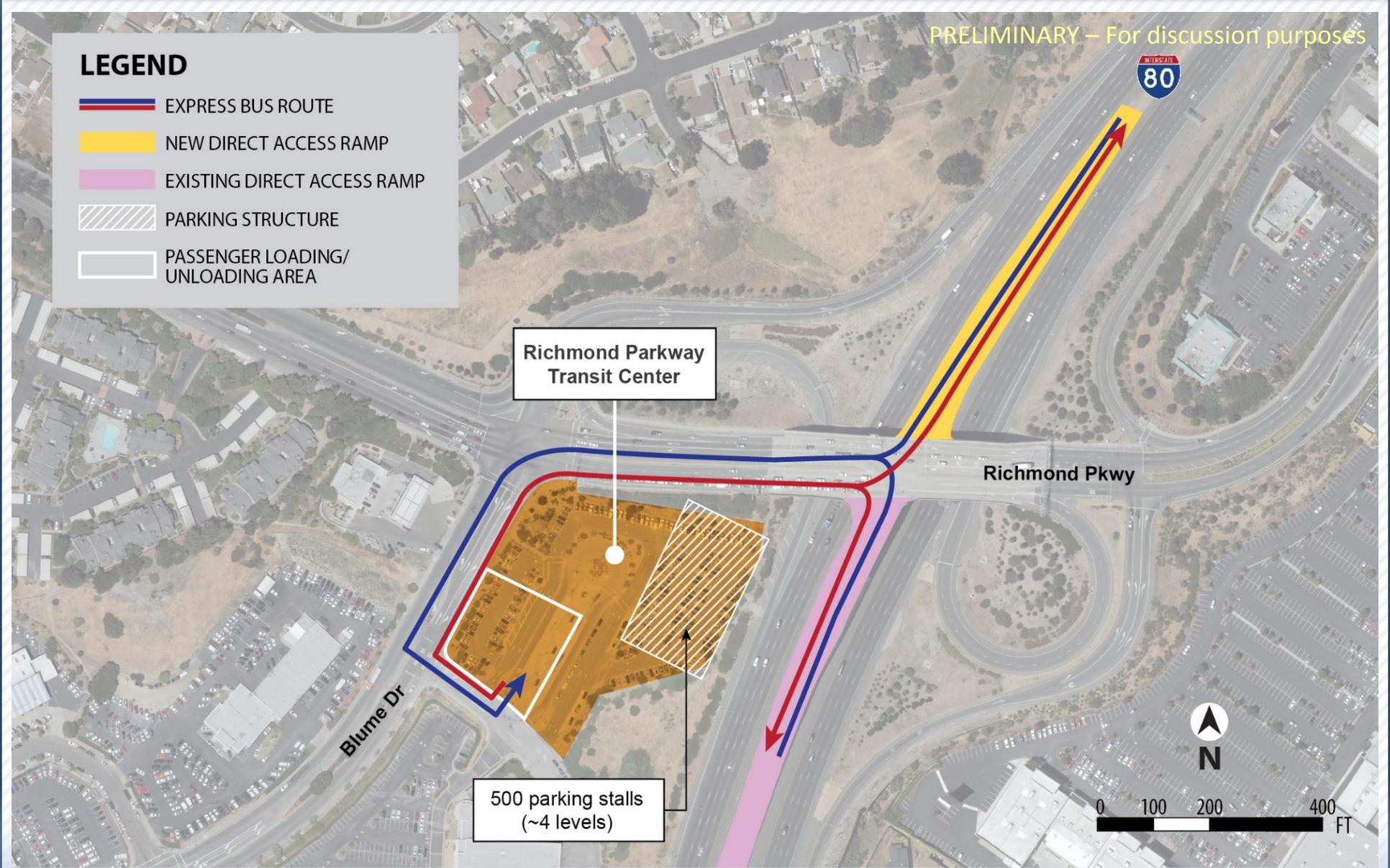


Richmond Parkway Transit Center – Direct Access Ramp Option #1

PRELIMINARY – For discussion purposes

LEGEND

-  EXPRESS BUS ROUTE
-  NEW DIRECT ACCESS RAMP
-  EXISTING DIRECT ACCESS RAMP
-  PARKING STRUCTURE
-  PASSENGER LOADING/ UNLOADING AREA

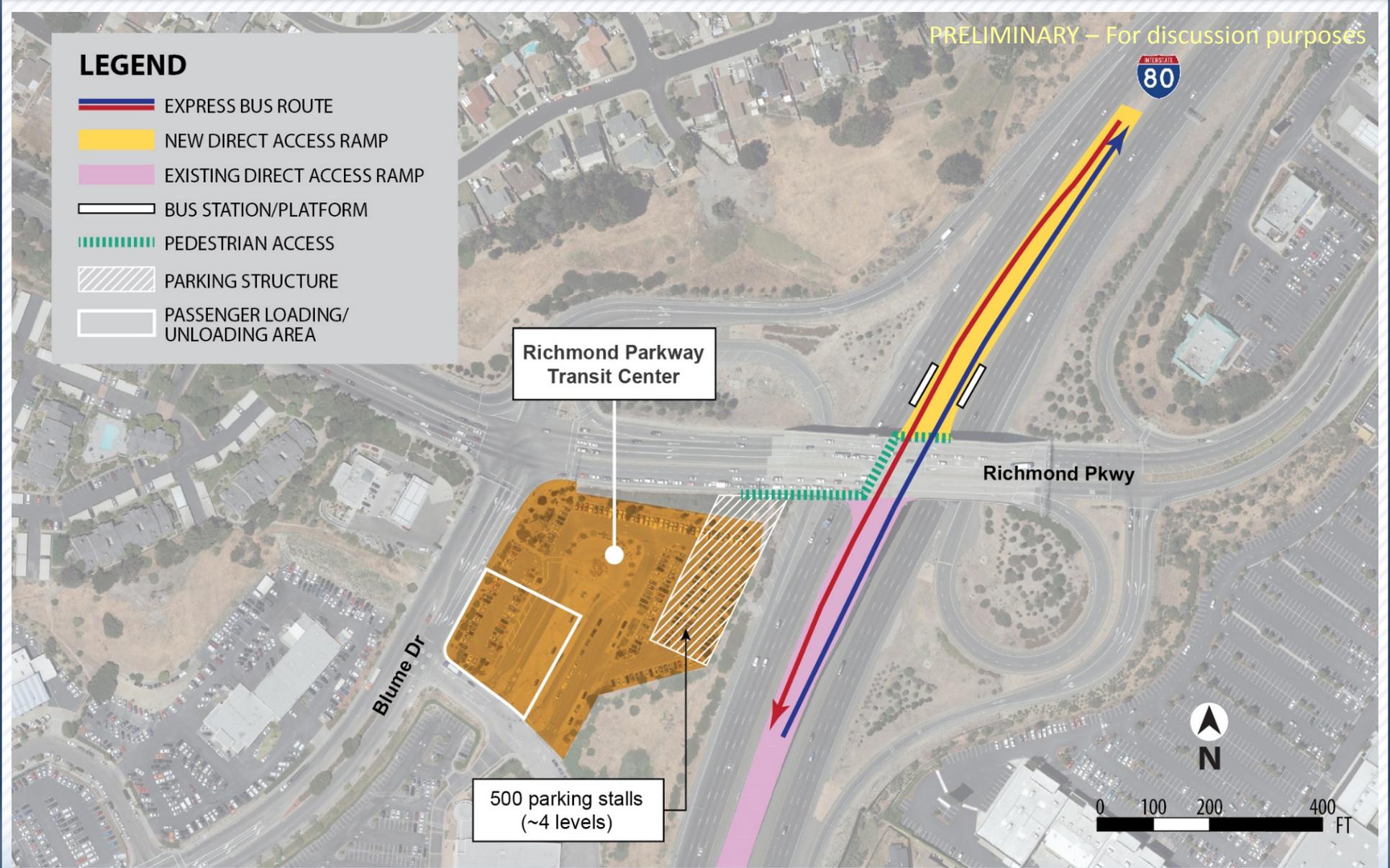


Richmond Parkway Transit Center – Direct Access Ramp Option #2

PRELIMINARY – For discussion purposes

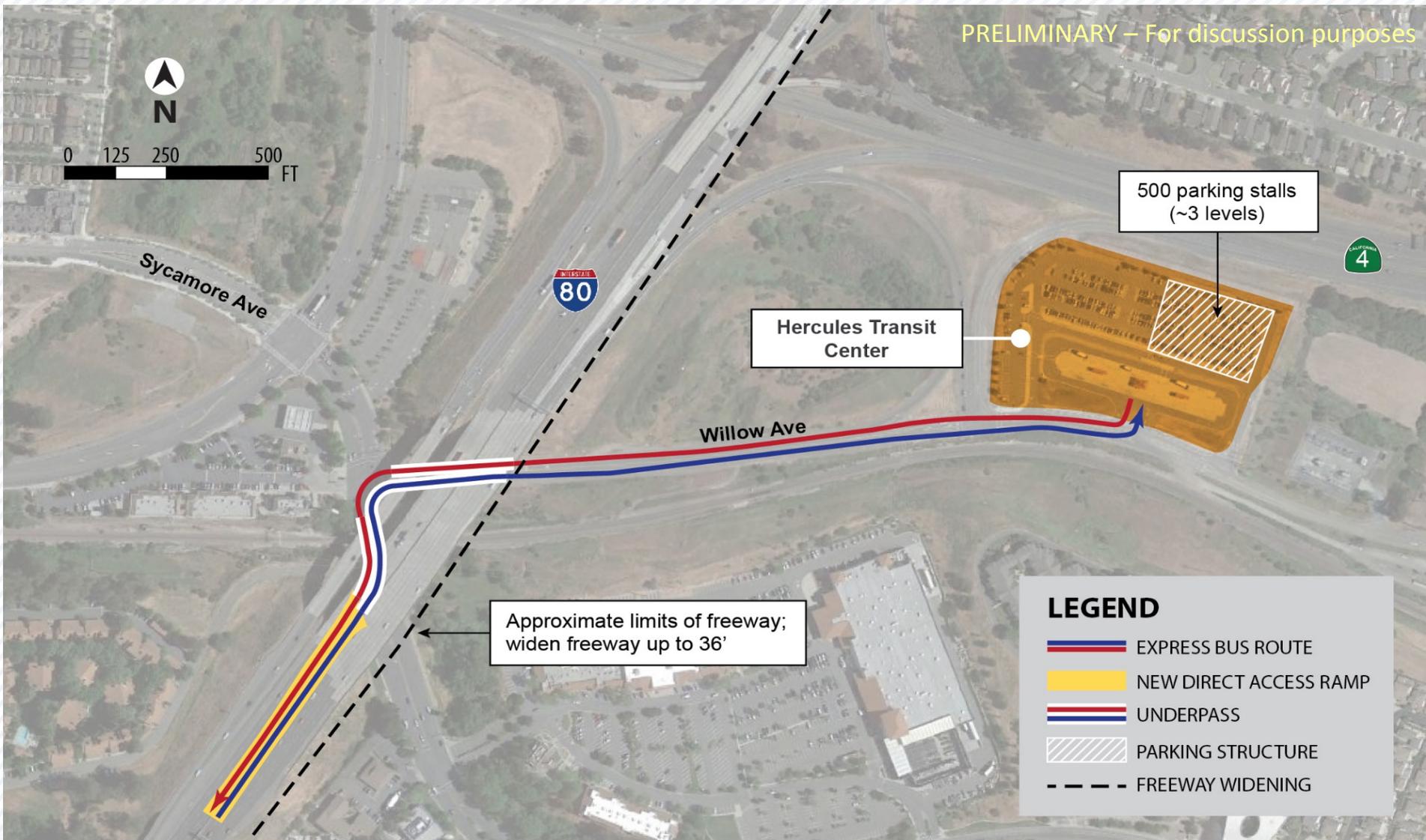
LEGEND

-  EXPRESS BUS ROUTE
-  NEW DIRECT ACCESS RAMP
-  EXISTING DIRECT ACCESS RAMP
-  BUS STATION/PLATFORM
-  PEDESTRIAN ACCESS
-  PARKING STRUCTURE
-  PASSENGER LOADING/ UNLOADING AREA

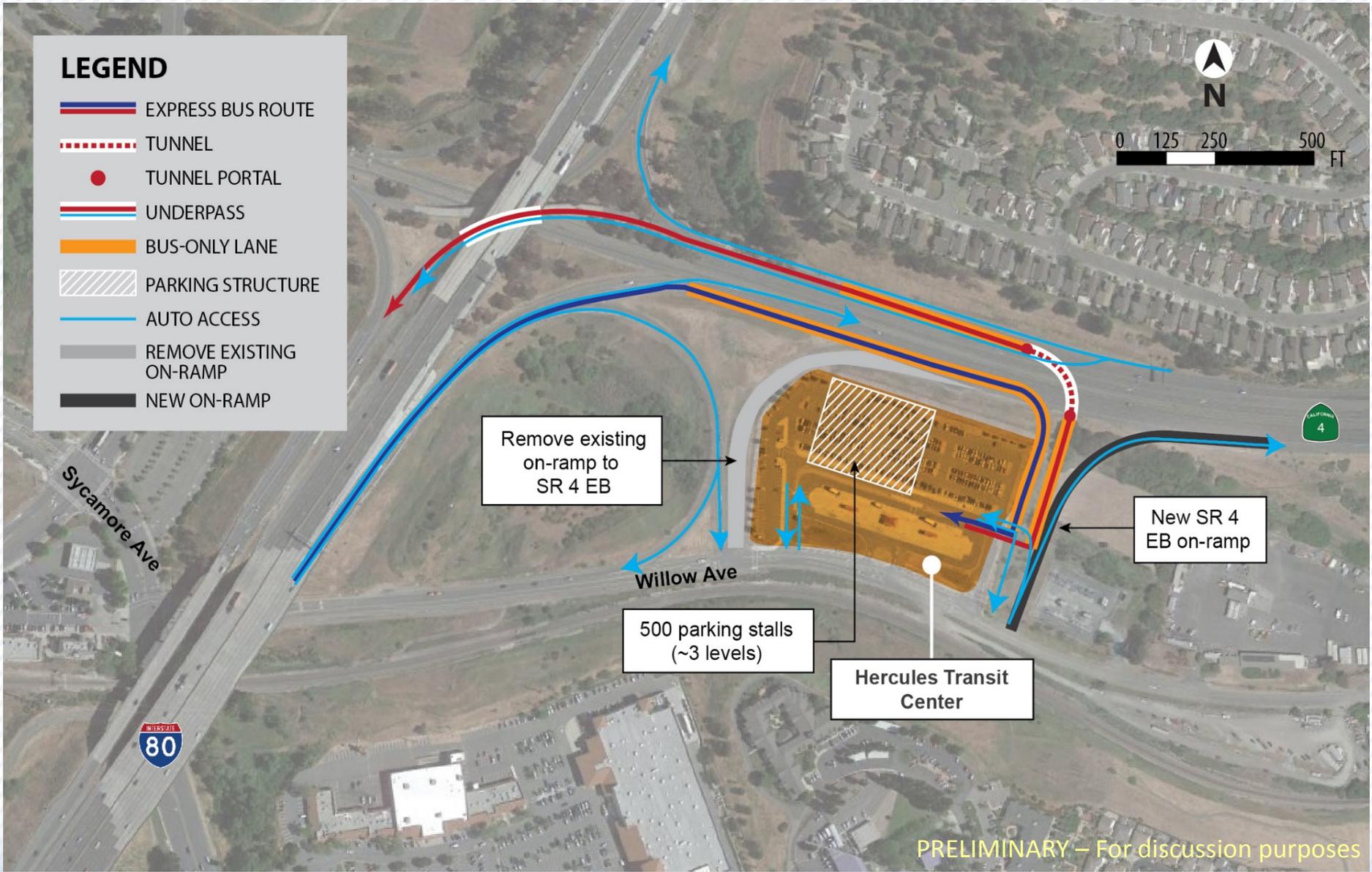


Hercules Transit Center – Direct Access Ramp Option

PRELIMINARY – For discussion purposes



Hercules Transit Center – Tunnel & Underpass Option



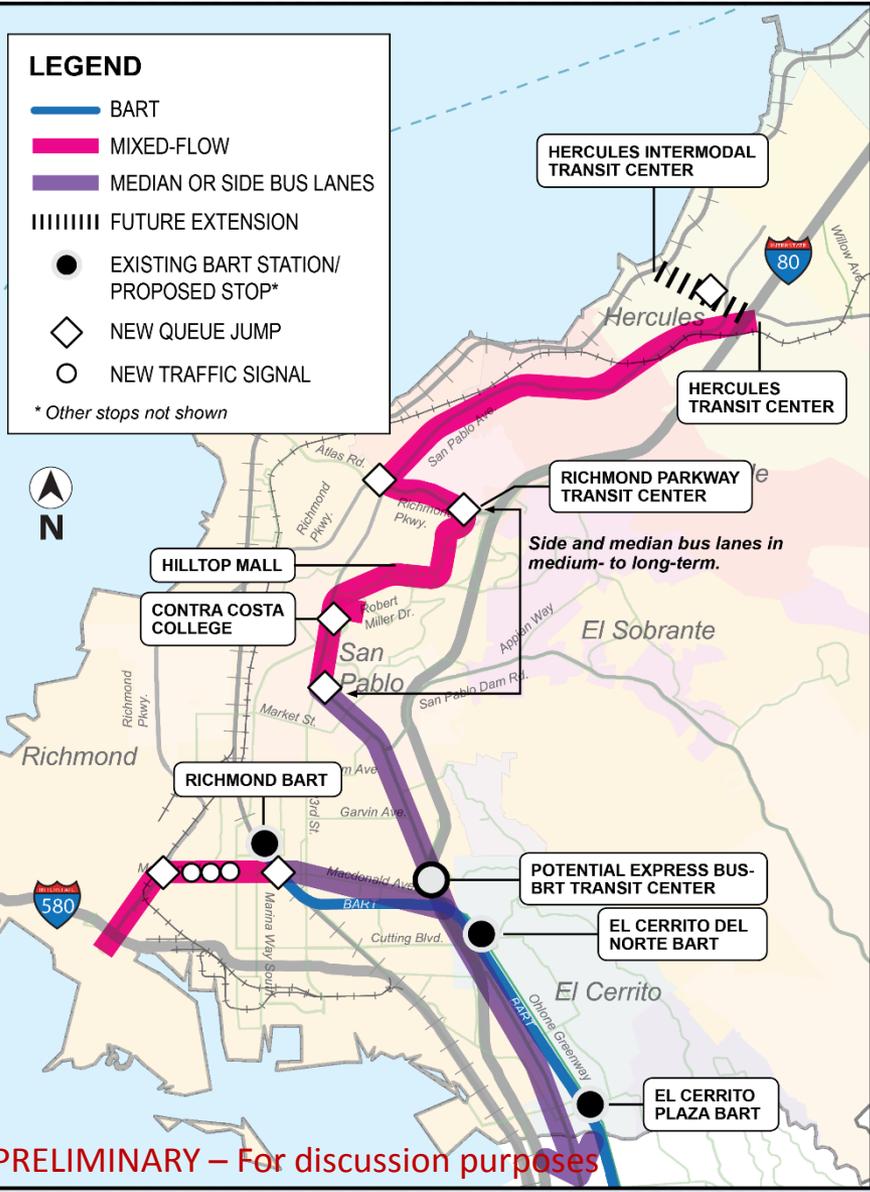
PRELIMINARY – For discussion purposes



BRT on San Pablo Avenue and Macdonald Avenue



BRT on San Pablo Avenue/Macdonald Avenue



1) Short-term (1-5 years)

- Transit priority improvements
- Extension of existing Rapid Bus service to Richmond Parkway
- Phased implementation of bus-only lanes

2) Medium-term (5-15 years)

- Continued implementation of bus-only lanes
- More capital-intensive infrastructure
- Rapid Bus extension to Hercules Transit Center

3) Long-term (15+ years)

- Northern terminus at Hercules Intermodal Transit Center
- Bus-only lanes between 23rd St and Richmond Parkway Transit Center



BRT on 23rd Street

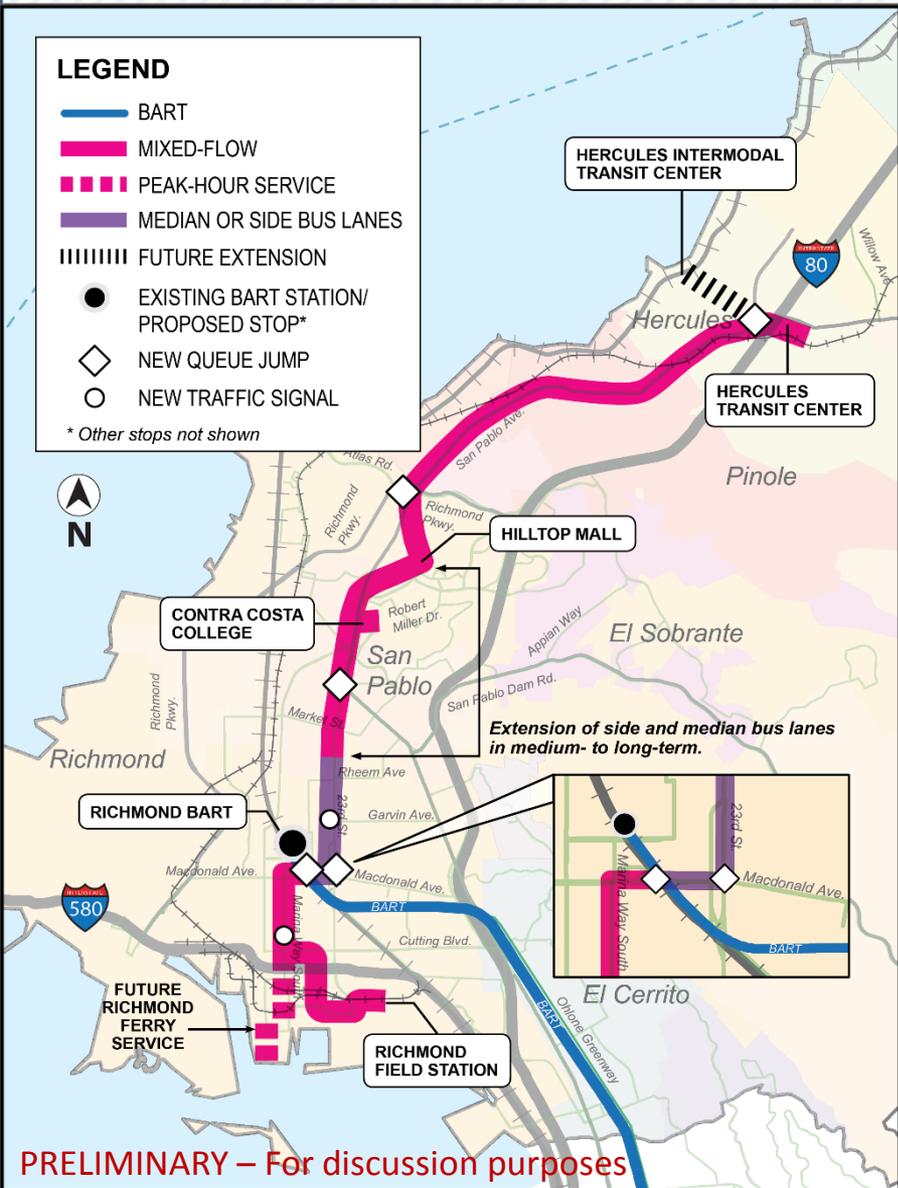


BRT on 23rd Street/San Pablo Avenue

LEGEND

- BART
- MIXED-FLOW
- PEAK-HOUR SERVICE
- MEDIAN OR SIDE BUS LANES
- FUTURE EXTENSION
- EXISTING BART STATION/
PROPOSED STOP*
- ◇ NEW QUEUE JUMP
- NEW TRAFFIC SIGNAL

* Other stops not shown



1) Short-term (1-5 years)

- Transit priority improvements
- Rapid Bus service to Richmond Parkway

2) Medium-term (5-15 years)

- More capital-intensive infrastructure
- Extension to Hercules Transit Center
- Bus-only lanes

3) Long-term (15+ years)

- Northern terminus at Hercules Intermodal Transit Center
- Bus-only lanes between 23rd St and Hilltop Mall

PRELIMINARY – For discussion purposes



Commuter Rail



Commuter Rail

Approach:

- Make best use of existing UPRR service
- Fare subsidies for trips to and from Richmond/Hercules and ...
 - Martinez
 - Berkeley
 - Emeryville
 - Jack London Square
- Complete Hercules Intermodal Transit Center



Fare Elasticity

Fare sensitivity analysis was based on:

- 50% subsidy could result in 25% increase in transit trips
- 75% subsidy could result in 37.5% increase in transit trips

Source: Victoria Transport Policy Institute, Transit Elasticities and Price Elasticities (May 2016)

PRELIMINARY – For discussion purposes

Estimated Ridership Changes for Three-Year Pilot Program

	50% Subsidy	75% Subsidy
Number of Existing Riders	6,186	6,186
Estimated Number of New Riders	1,547	2,320
Cost per Rider	\$29	\$39
Cost per New Rider	\$145	\$143

PRELIMINARY – For discussion purposes

Estimated Costs for Three-Year Pilot Program

	50% Subsidy	75% Subsidy
Subsidy for New Riders*	\$45,000	\$90,000
Subsidy for Existing Riders*	\$180,000	\$240,000
Subtotal:	\$225,000	\$330,000

* Costs include marketing and promotions

PRELIMINARY – For discussion purposes

Hercules Intermodal Transit Center (HITC)

1) Short-term (1-5 years)

- Ridership analysis in spring 2017
- Path to Transit Phase to extend John Muir Parkway to HITC
- Discussions with Capitol Corridor and the UPRR to:
 - Obtain approval for a station stop
 - Develop a train schedule
- Initial train station on-line (2019 to 2021 time frame)
- CCTA Measure J sales tax is a potential funding source

2) Medium-term (5-15 years)

- Full build-out of HITC





BART Extension from Richmond Station to Hercules



BART Extension Options from Richmond Station

1) Rumrill Boulevard Alignment

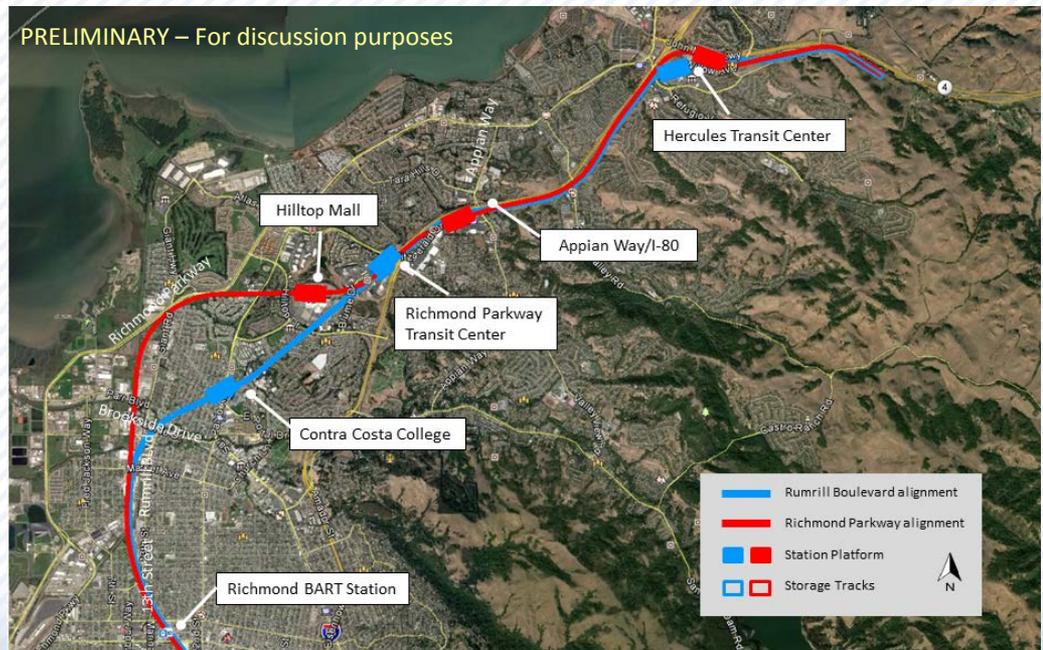
- *Potential stations:* Contra Costa College, Richmond Parkway, Hercules Transit Center
- Contra Costa College station location variant

2) Richmond Parkway Alignment

- *Potential stations:* Hilltop Mall, Appian/I-80, Hercules Transit Center

3) Hercules Transit Center Variants

- Station locations
- Tail Track locations



BART – Rumrill Boulevard Alignment

1) Short-term (1-5 years)

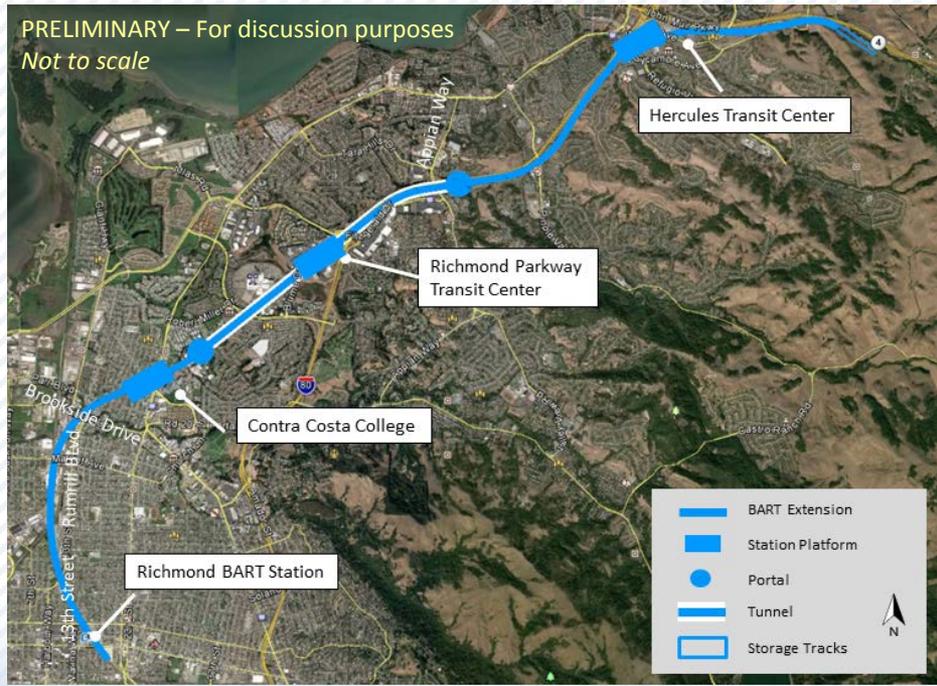
- Program-level approval of alignments
- ROW acquisition

2) Medium-term (5-15 years)

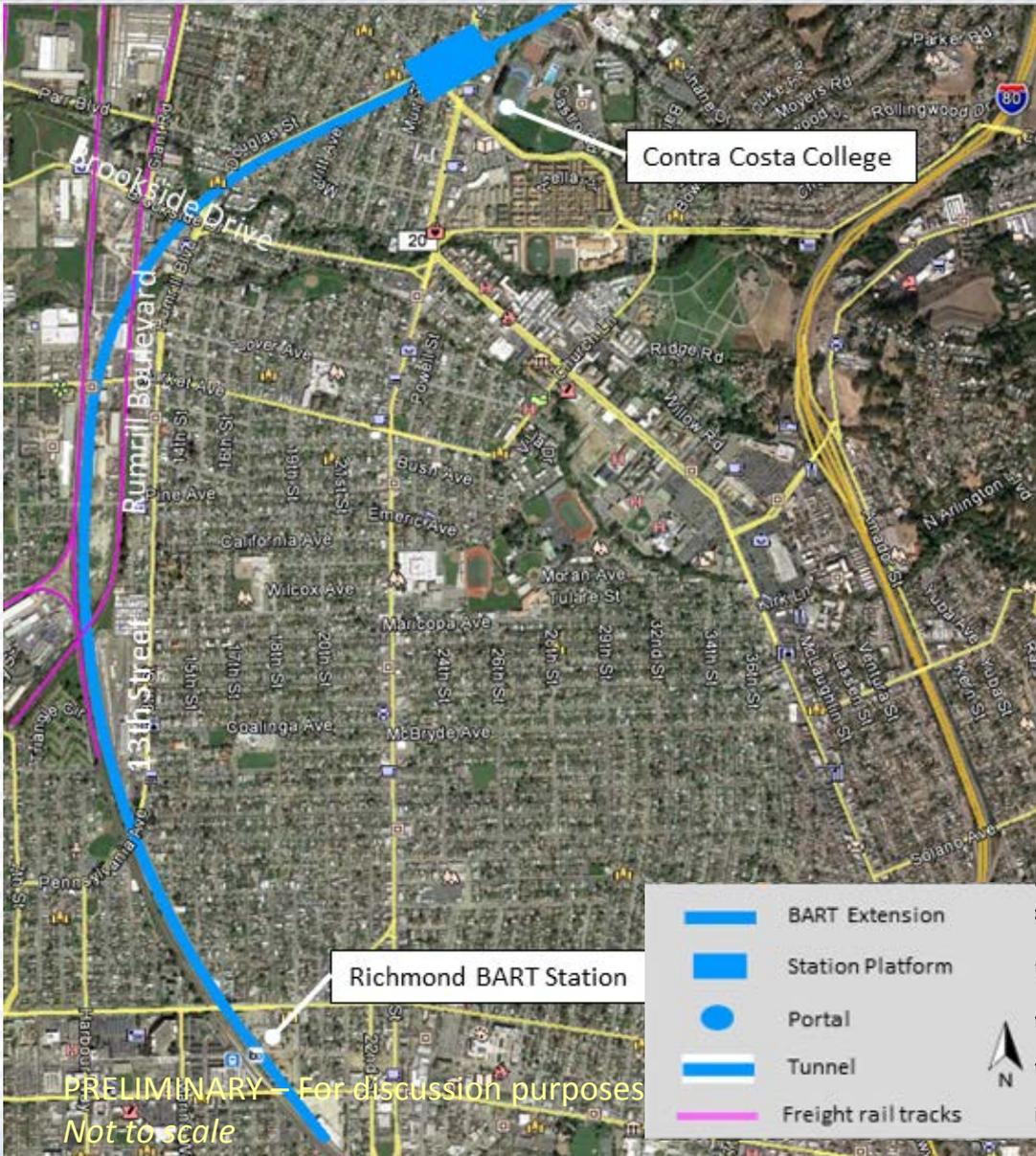
- Project-level environmental clearance
- Design

3) Long-term (15+ years)

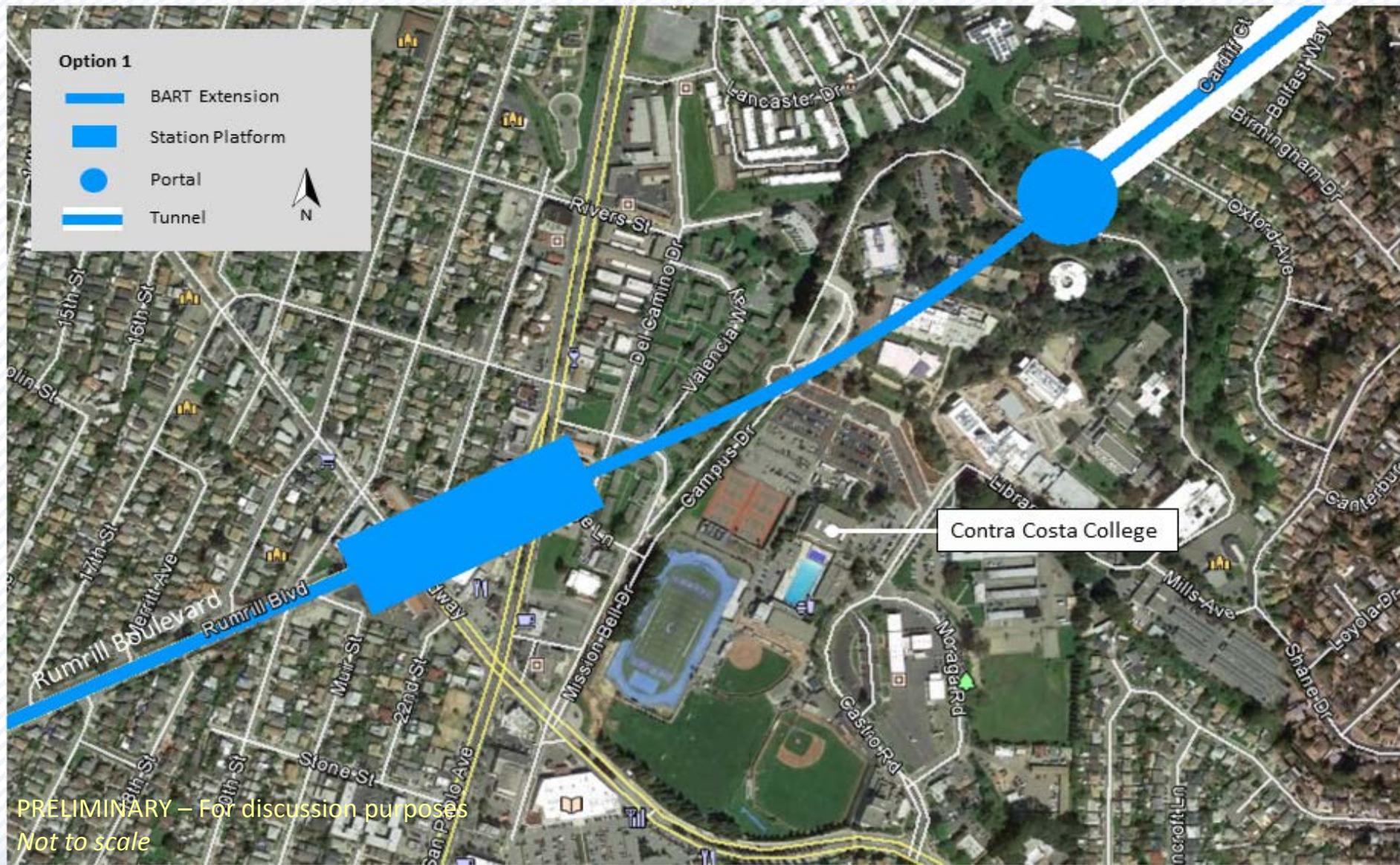
- Completion of design
- Construction



BART – Rumrill Boulevard Alignment

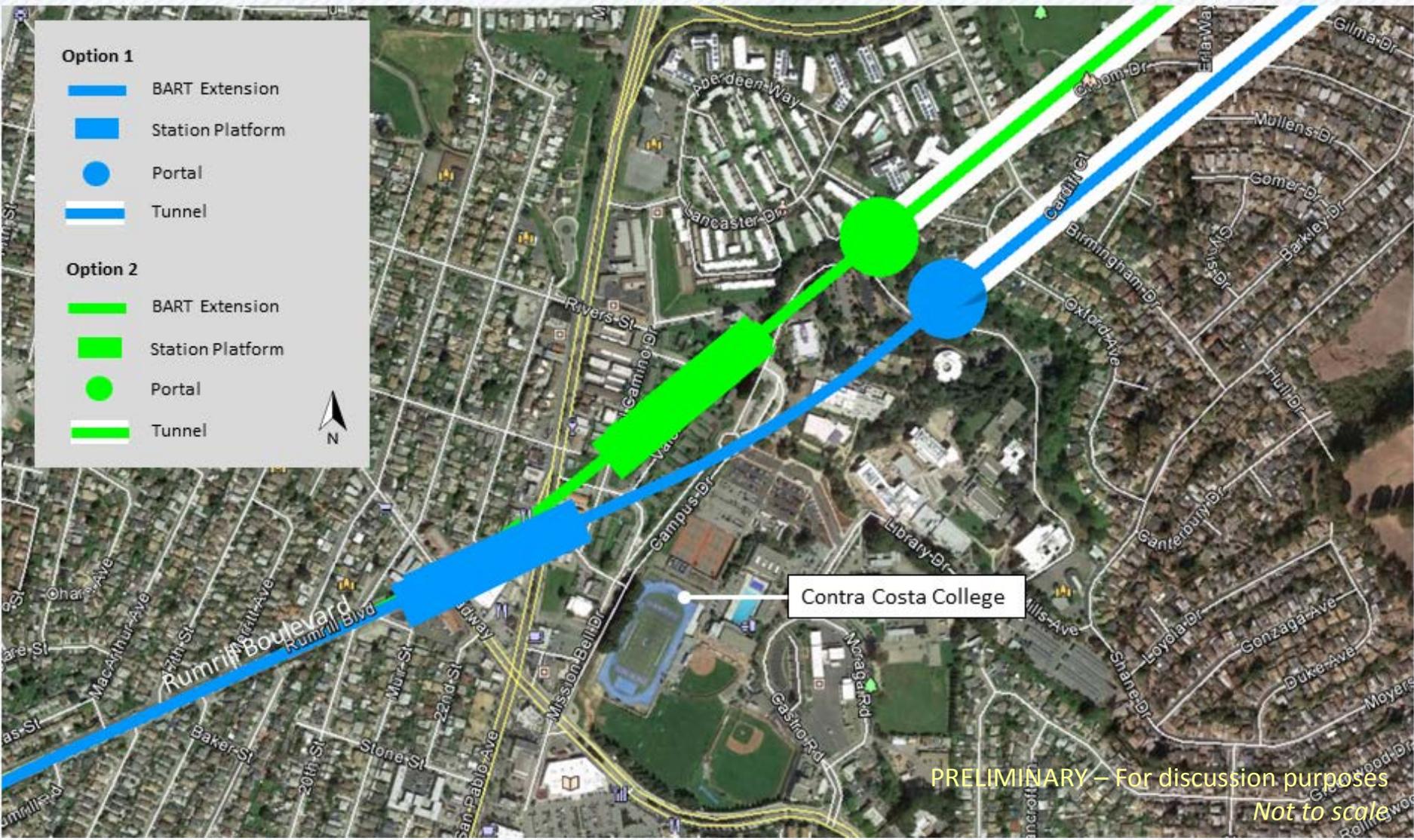


BART – Potential Contra Costa College Station

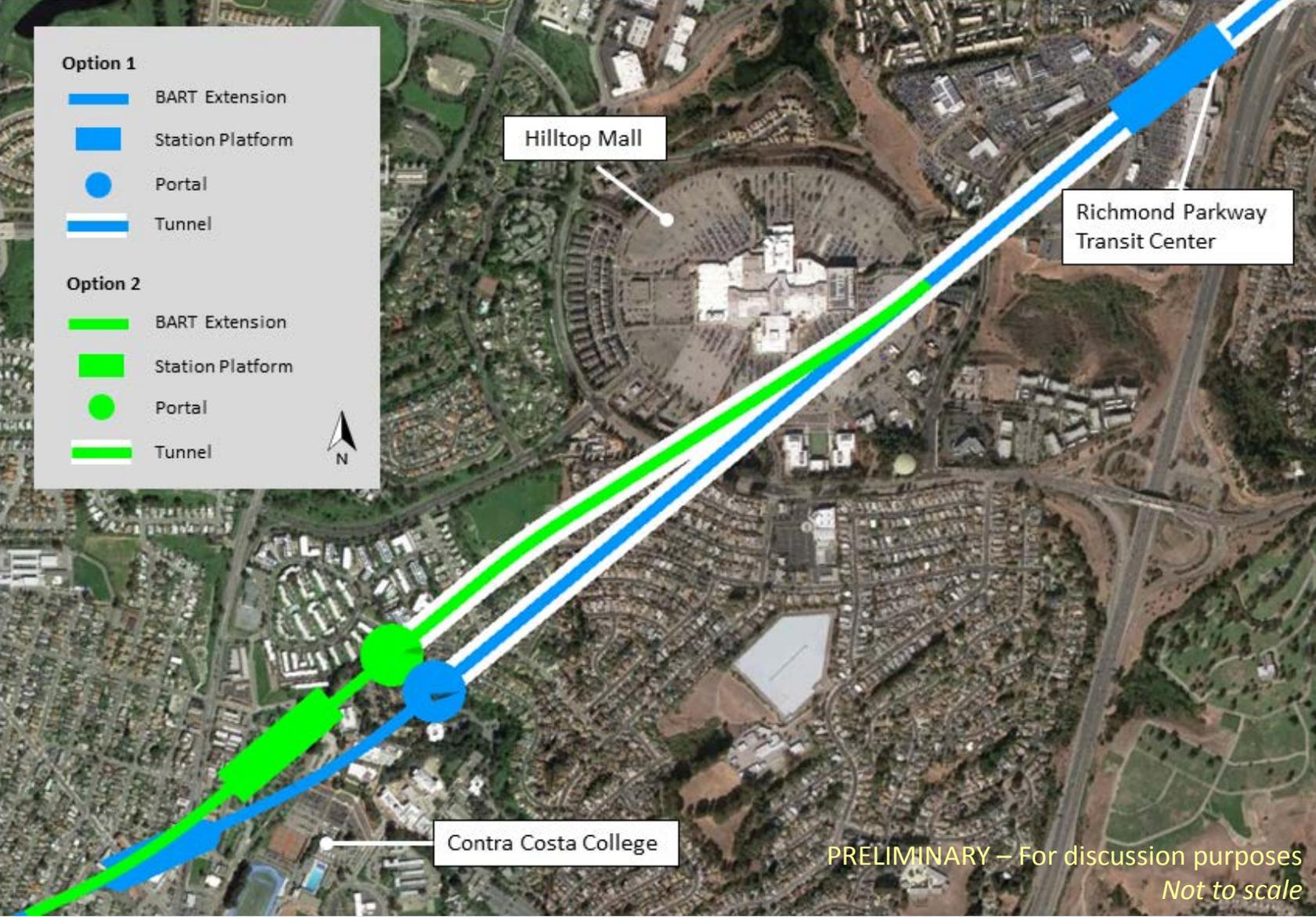


PRELIMINARY – For discussion purposes
Not to scale

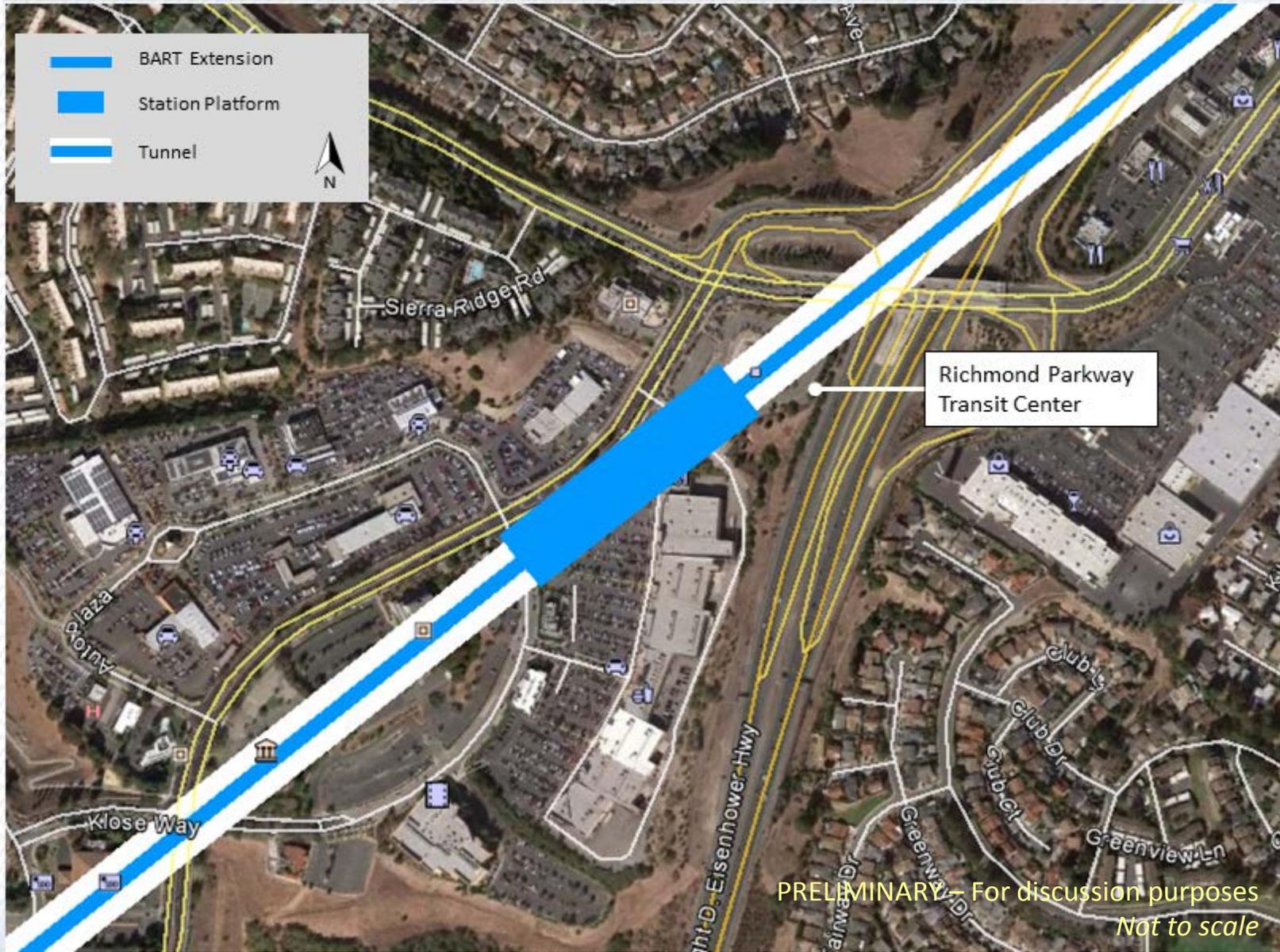
BART – Potential Surface Station Location



BART – Rumrill Boulevard Alignment



BART – Potential Richmond Pkwy Transit Center Stn



BART – Richmond Parkway Alignment

1) Short-term (1-5 years)

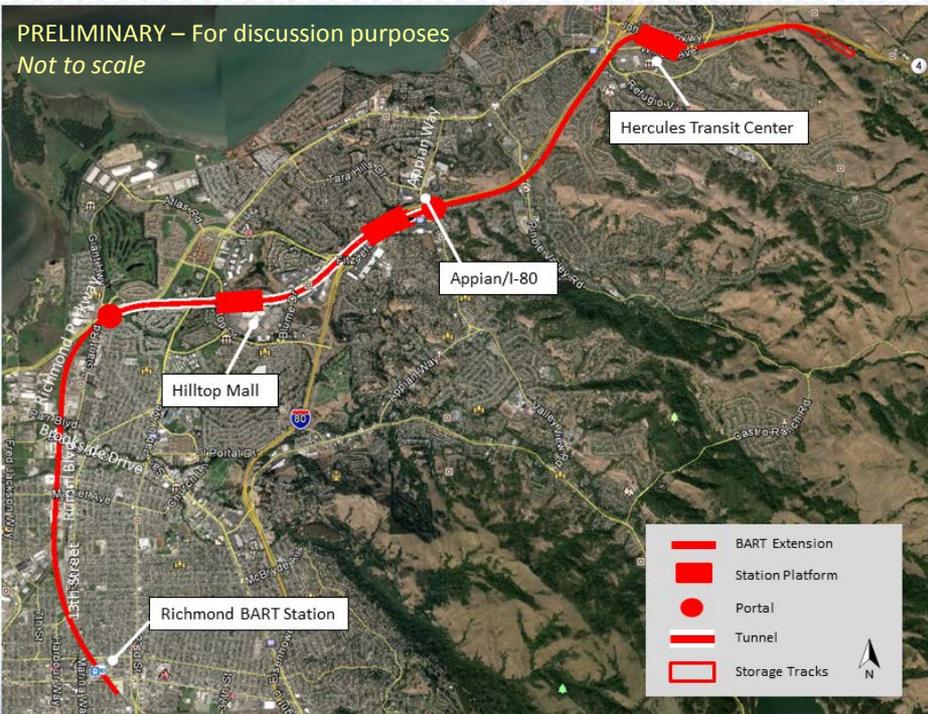
- Program-level approval of alignments
- ROW acquisition

2) Medium-term (5-15 years)

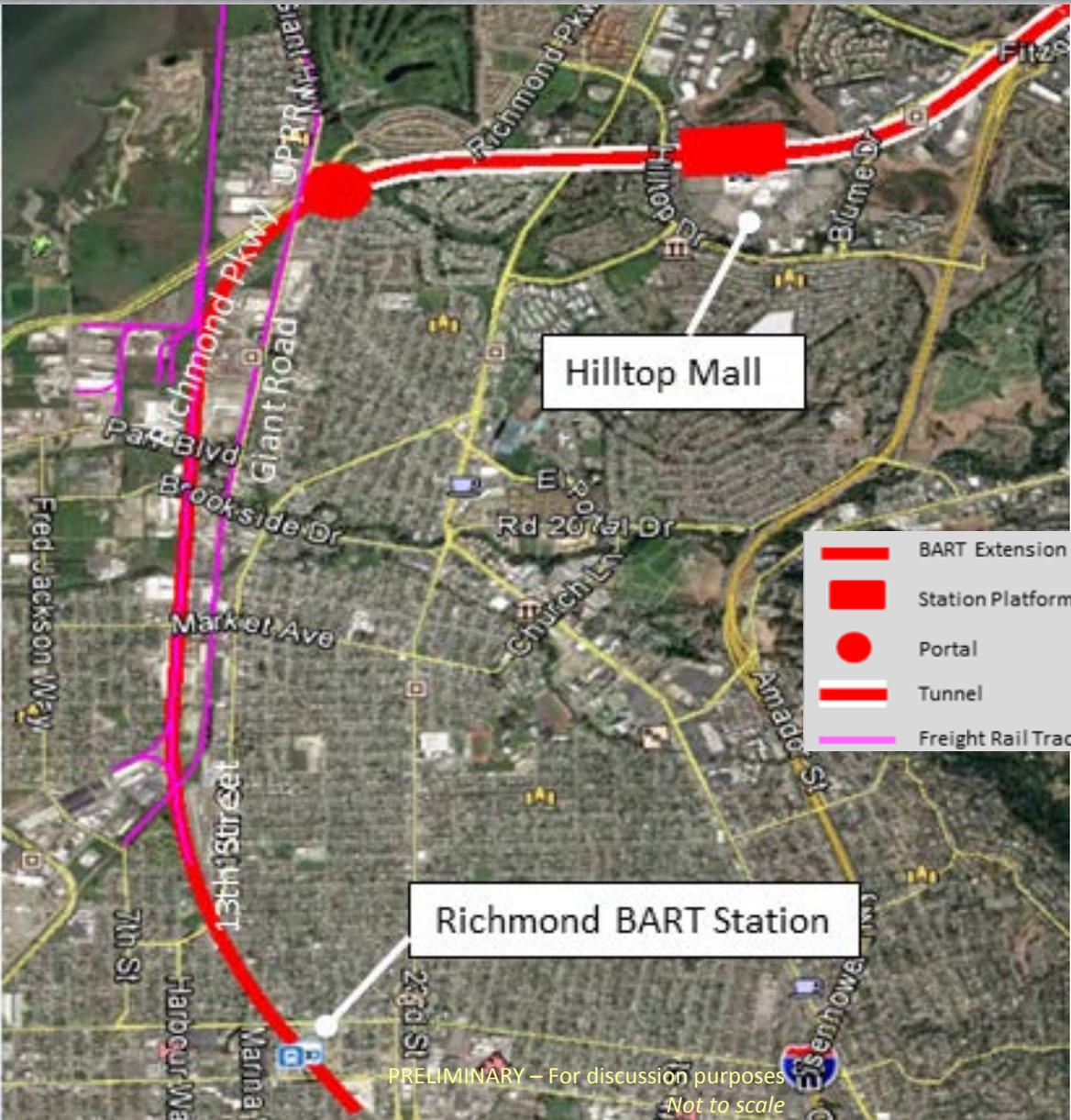
- Project-level environmental clearance
- Design

3) Long-term (15+ years)

- Completion of design
- Construction

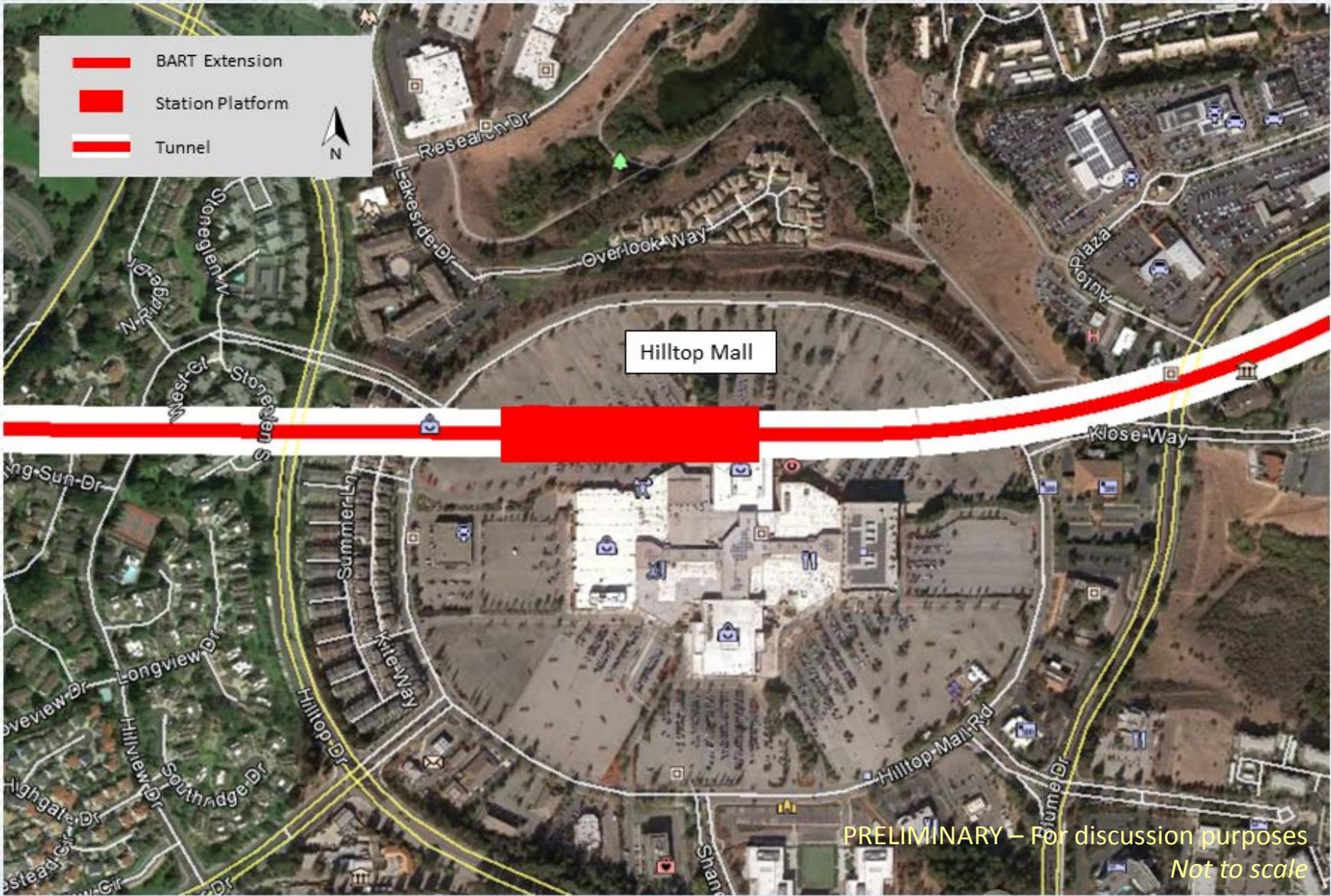


BART – Richmond Parkway Alignment



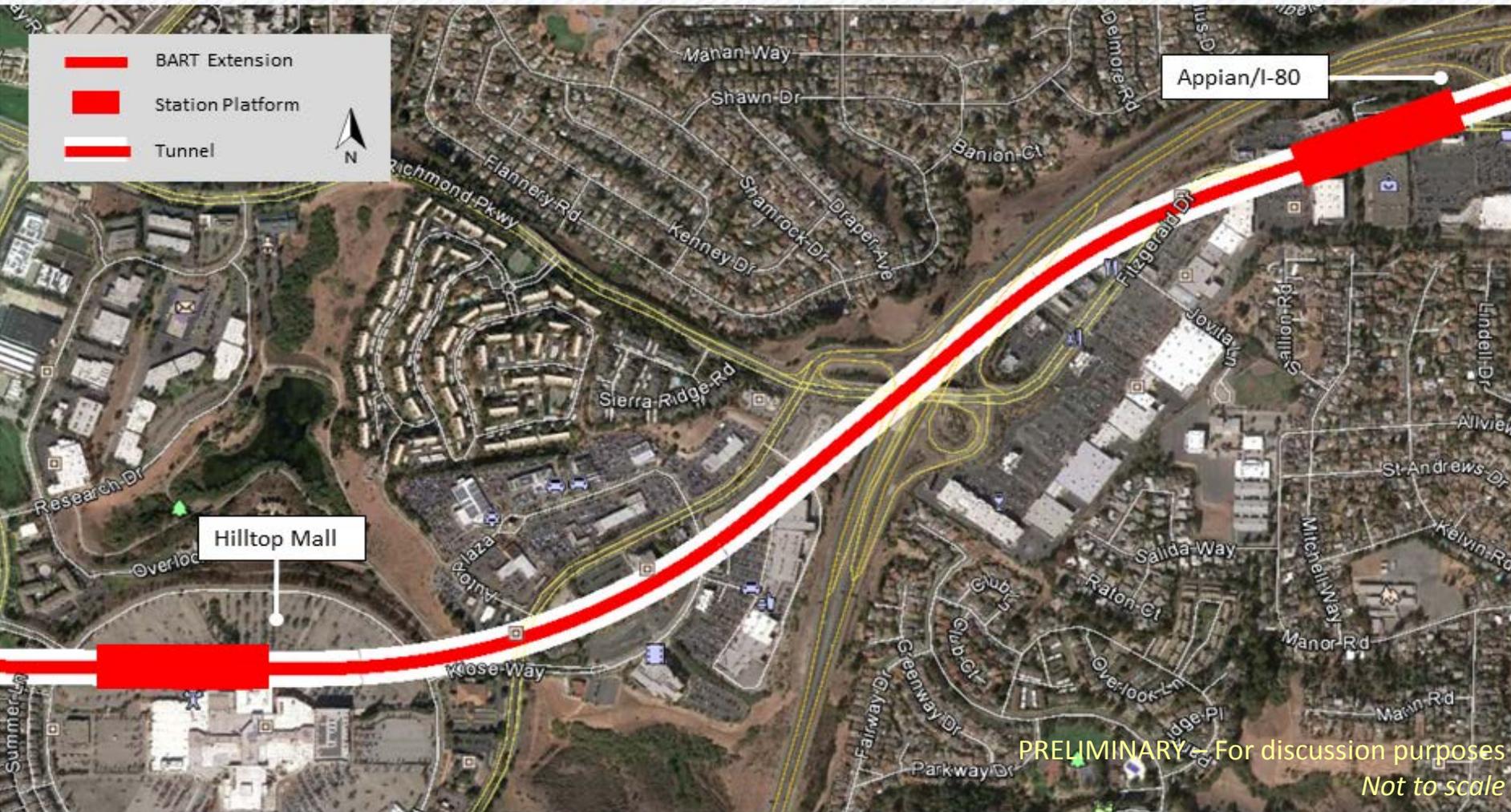
PRELIMINARY – For discussion purposes
Not to scale

BART – Potential Hilltop Mall Station



PRELIMINARY – For discussion purposes
Not to scale

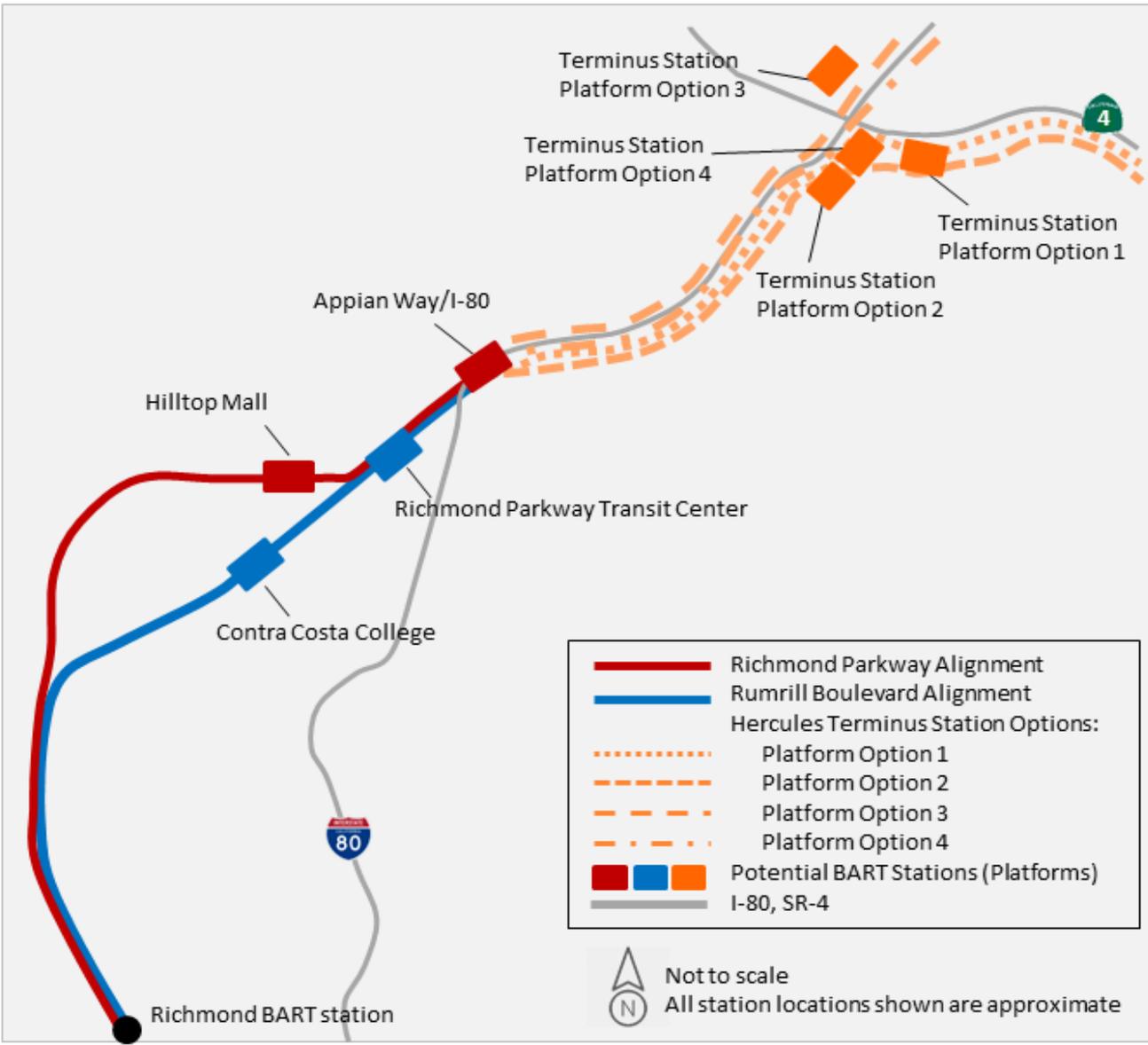
BART – Richmond Parkway Alignment



BART – Potential Appian/I-80 Station



BART – Hercules Transit Center Variants



BART – Hercules Transit Center Variant – Option 1

PRELIMINARY – For discussion purposes
Not to scale



BART – Hercules Transit Center Variant – Option 2

PRELIMINARY – For discussion purposes
Not to scale



BART – Hercules Transit Center Variant – Option 3

PRELIMINARY – For discussion purposes
Not to scale



BART – Hercules Transit Center Variant – Option 4

PRELIMINARY – For discussion purposes
Not to scale





Online Survey Questions



Online Survey

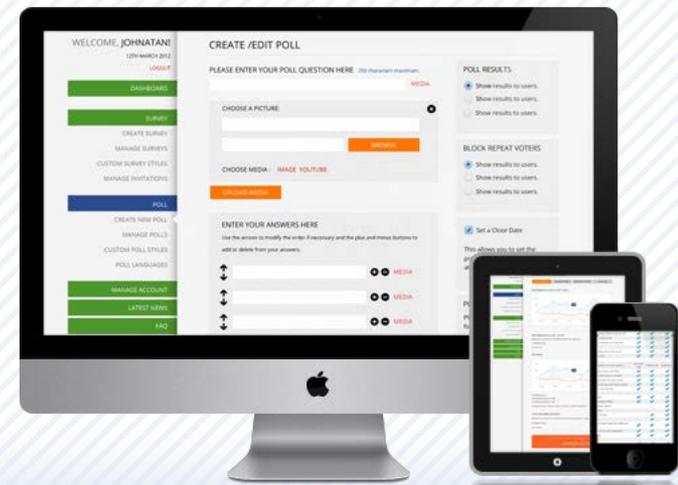
1) Survey Objectives

- Increase awareness of study
- Increase public understanding of high-capacity transit services and trade-offs
- Assist the Board's decision-making process by providing public feedback on high capacity transits options

2) Questions include

- Support for refined alternatives
- Priorities while having limited funds
- Travel patterns
- Demographics

3) Available February 9 – March 26





Information Display Board



RETHINK YOUR COMMUTE!

The I-80 corridor is one of the most congested in the Bay Area. Better transit options in West County could help. Check out the ideas below. Then:

1. Take our brief online survey
2. Attend one of six presentations
3. Tell us what you think on our website

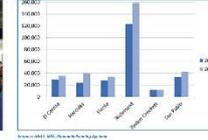
Westbound I-80 Corridor During Commute Hours



BART Station During Commute Hours



Projected West County Population Growth



Express Bus



What is it?

Express buses make a few stops to pick up passengers and then travel non-stop to their final destination.

Benefits

- Fast, direct service between West County and Berkeley, Emeryville, Oakland and San Francisco
- Frequent buses: 10 to 12 minutes during commute hours and every 30 minutes during non-commute hours
- New direct access to carpool lanes to bypass congestion

Timeline

- 1-5 years: More buses and new service to Berkeley, Emeryville, and Oakland
- 5-15 years: Add parking at Richmond Parkway and Hercules Transit Centers
- 15 years+: Build freeway ramp improvements at these two transit centers



Potential Express Bus Service in West County



Potential Express Bus Service in Alameda County

Bus Rapid Transit (BRT)



What is it?

Bus Rapid Transit (BRT) is specialized service that lets buses move through congested streets more quickly. It gives priority to buses at traffic signals, can include bus-only lanes, and makes it faster for passengers to get on and off buses.

Benefits

- Faster travel time that's more reliable
 - Buses get green lights at traffic signals
 - Quickly implemented, so riders get benefits sooner
- Improvements tailored to local needs

Timeline

- 1-15 years: Add bus priority treatments (such as signals and "bypass jangles" to let buses move through intersections more quickly), build bus-only lanes
- 15 years+: Build Express Bus BRT transit center at Macdonald and I-80, extend Rapid Bus improvements to new Hercules Intermodal Transit Center



Potential San Pablo Avenue / Macdonald Avenue BRT



Potential 2nd Street BRT

BART



What is it?

This alternative extends BART from the Richmond station to a new station in Hercules near the I-80 and Hwy 4 interchange. There are two potential routes, each with the possibility of 1-2 stations in between. Station options include: Contra Costa College, Millip Mall, Richmond Parkway Transit Center, and Apollon Way.

Benefits

- Faster travel time and greater reliability due to dedicated trackway
- Improves access to Alameda, San Francisco, San Mateo, and Santa Clara Counties

Timeline

- 1-15 years: Conduct preliminary engineering design and environmental review
- 15-25 years+: Conduct final design and construction



Potential BART extension and station at Stone Canyon



Potential BART extension and station for the Hercules Option 2

GIVE US YOUR FEEDBACK

Come hear more at a City Council meeting!*

CITY	DATE	TIME	ADDRESS
Pinole	Tuesday, February 21	7:00 PM	City Hall 2131 Pear Street
Richmond	Tuesday, February 28	6:30 PM	City Hall 440 Civic Center Plaza
San Pablo	Wednesday, March 6	7:00 PM	City Hall 13631 San Pablo Avenue
El Sobrante	Monday, March 8	6:00 PM	El Sobrante Library 4211 Apollon Way
Hercules	Tuesday, March 14	6:00 PM	City Hall 111 Civic Drive
El Cerrito	Tuesday March 21	7:00 PM	City Hall 10800 San Pablo Avenue

*Check your local council agenda to confirm meeting date and time

Take our online survey

and be entered in a drawing to win one of four CalPac cards with a \$10 value! (Survey available February 9th-March 28th)



Scan to go to online survey

Visit our website

www.WestCountyTransitStudy.com

To learn more and give us your comments

- ✓ How West County residents and employees get around
- ✓ Existing and future transit services
- ✓ Other transit options studied
- ✓ Evaluation criteria



WEST COUNTY HIGH-CAPACITY TRANSIT STUDY

LEAD STUDY SPONSOR



STUDY SPONSORS



STUDY PARTNERS



WINTER 2017



Next Steps



Next Steps

- 1) Presentation to WCCTAC Board on 1/27/2017
 - Ridership, costs and Round 2 technical evaluation
- 2) Presentations to Councils in West County, February-March 2017
- 3) Presentation to WCCTAC Board 3/24/2017
 - Report back on Council presentations, funding strategy
- 4) Presentation to WCCTAC Board 4/28/2017 & 5/26/2017
 - Review online survey results and draft final plan



Study Overview

Public Outreach & Participation

Assessment

- ✓ Goals & Objectives
- ✓ Relevant Prior Studies
- ✓ Existing & Future Transportation & Land Use
- ✓ Market Analysis

Alternatives Development & Analysis

- ✓ Conceptual Alternatives
- ✓ Evaluation Criteria
- ✓ Preliminary Evaluation
 - Alternatives Refinement ← *We are here*
 - Ridership Modeling
 - Cost Estimates
 - Funding Options

Final Alternatives

- Final Alternatives Evaluation



Other Slides



Fare Subsidies – Cost and Time Comparisons

Richmond BART/Amtrak – Emeryville Amtrak

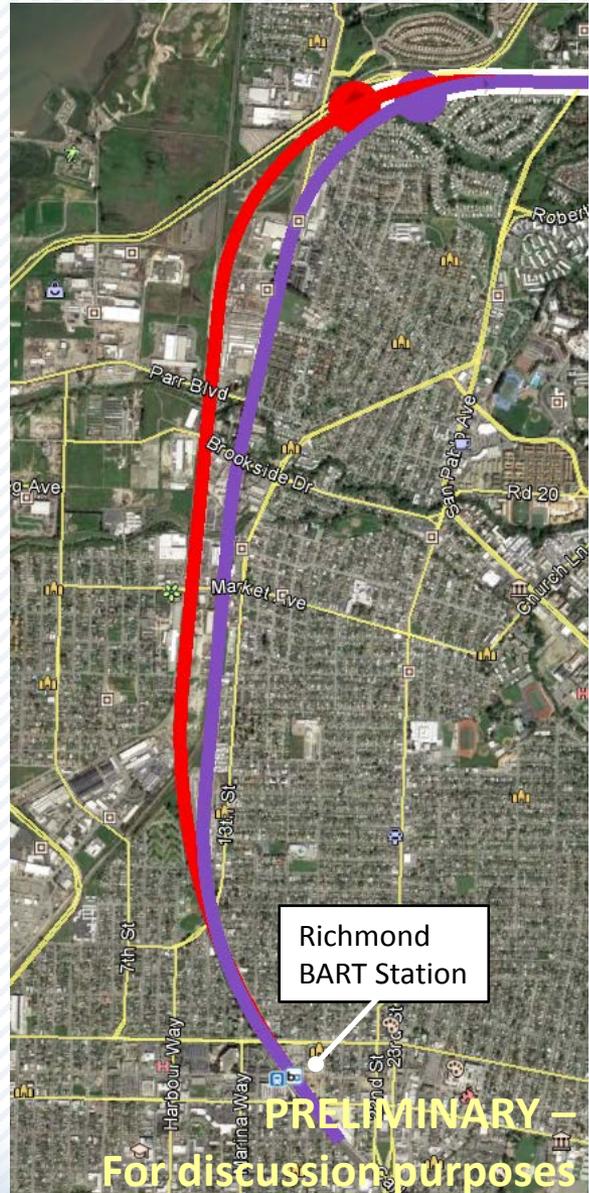
	Capitol Corridor			AC Transit + Walk	BART + AC Transit + Walk	BART + Emery-Go-Round
	Existing Price	50% Subsidy	75% Subsidy			
Single Ticket Price	\$9.00	\$4.50	\$2.25	\$2.10	\$4.55	\$2.70
Single Ride Price w/ 10 Ride Pass Ticket	\$5.60	\$2.80	\$1.40	n/a	n/a	n/a
Single Ride Price w/ Monthly Pass (assumes 35 rides)	\$4.20	\$2.10	\$1.05	\$2.14	\$4.59	n/a
Trip Time	14 minutes			64 minutes	45 minutes	29 minutes
Service Frequency (one-way trips per day)	20			35	77	3-6

Fare Subsidies – Cost and Time Comparisons

Richmond BART/Amtrak – Martinez Amtrak

	Capitol Corridor			AC Transit + WestCAT	BART (via del Norte) + WestCAT	BART to Walnut Creek + County Connection
	Existing Price	50% Subsidy	75% Subsidy			
Single Ticket Price	\$12.00	\$6.00	\$3.00	\$2.75	\$2.95	\$5.10
Single Ride Price w/ 10-20 Ride Pass	\$7.40	\$3.70	\$1.85	n/a	n/a	\$6.10
Single Ride Price w/ Monthly Pass (assumes 35 rides)	\$5.60	\$2.80	\$1.40	\$2.14	\$1.95	\$5.81
Trip Time	25 minutes			92 minutes	62 minutes	80 minutes
Service Frequency (one-way trips per day)	21			18	18	16

BART – Giant Road Alignment Variant



LEGEND

-  BART Extension
-  Station Platform
-  Portal
-  Tunnel
-  Storage Tracks



Evaluation Criteria



Evaluation Criteria



Ridership



Speed and Reliability



Access and connectivity



Cost and Efficiency



Community



Feasibility