

VTA's BART Silicon Valley Phase II Extension Project

VTA Board Workshop

September 20, 2019



Agenda

- Configuration Development
- FTA's Expedited Project Delivery Pilot Program
- Transit Oriented Communities and Partnership Opportunities
- Community Engagement



Configuration Development

Phase II Background

**September 2017
– March 2018**

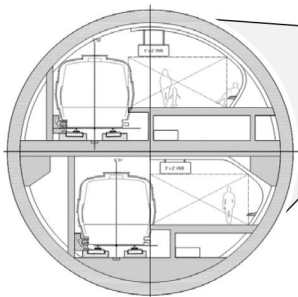
VTA and BART workshops on tunnel configuration

April 2018

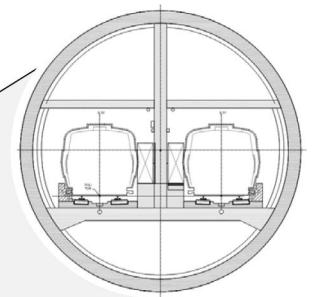
VTA and BART Boards of Directors approve SEIR/SEIS with single-bore

June 2018

FTA issues Record of Decision



*Stacked Platforms
at stations*



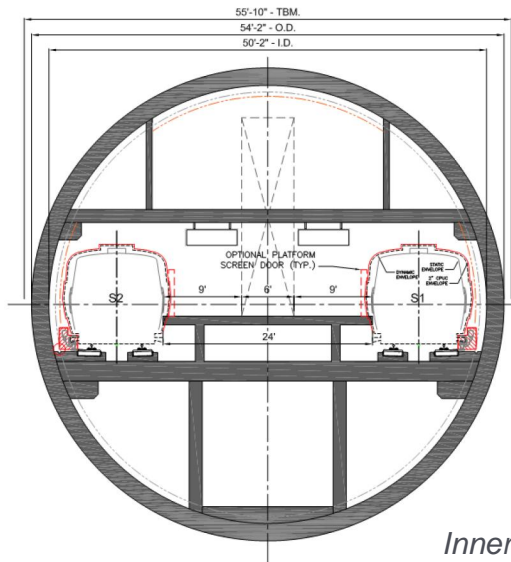
*Side-by-side
between stations*

Phase II Background

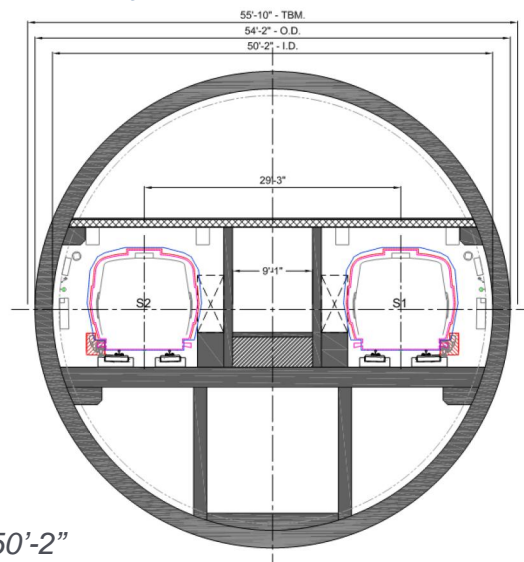
July 2018 - Jan 2019	Side-by-side track variations explored
March 2019	BART proposes larger bore with center platform
March - April 2019	BART and VTA workshops derive cost savings measures for larger diameter bore
May - June 2019	Preliminary findings for center platform presented to VTA/BART Working Committee and to VTA Board
June 2019	General Engineering Consultant (GEC) mobilized
July 2019	VTA directs engineering to proceed with design

Single-Bore: Center Platform Configuration

Center Platform at Stations

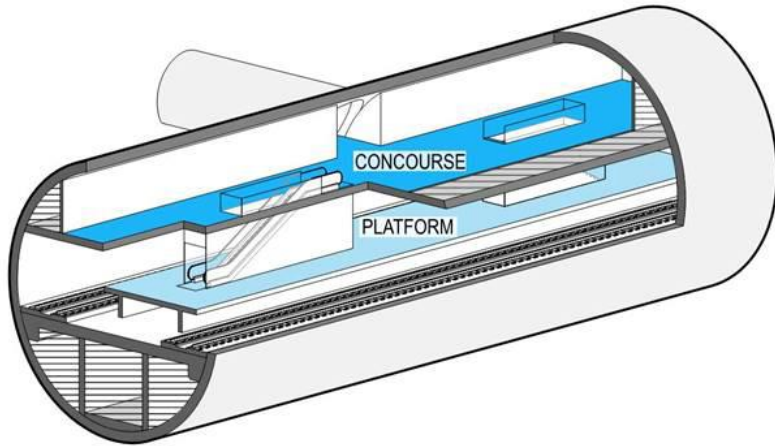


Side-by-Side tracks in Tunnel

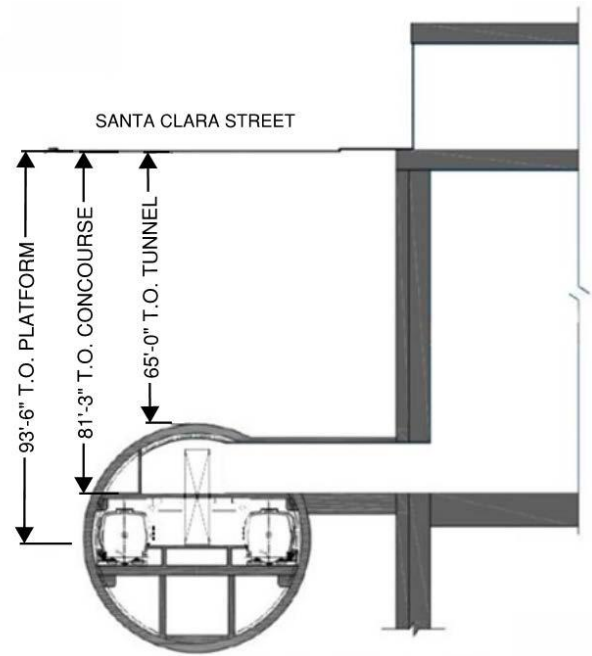


Inner Tunnel Diameter: 50'-2"
Outer Tunnel Diameter: 54'-2"
Tunnel Boring Machine Diameter: 55'-10"

Single-Bore: Center Platform Configuration

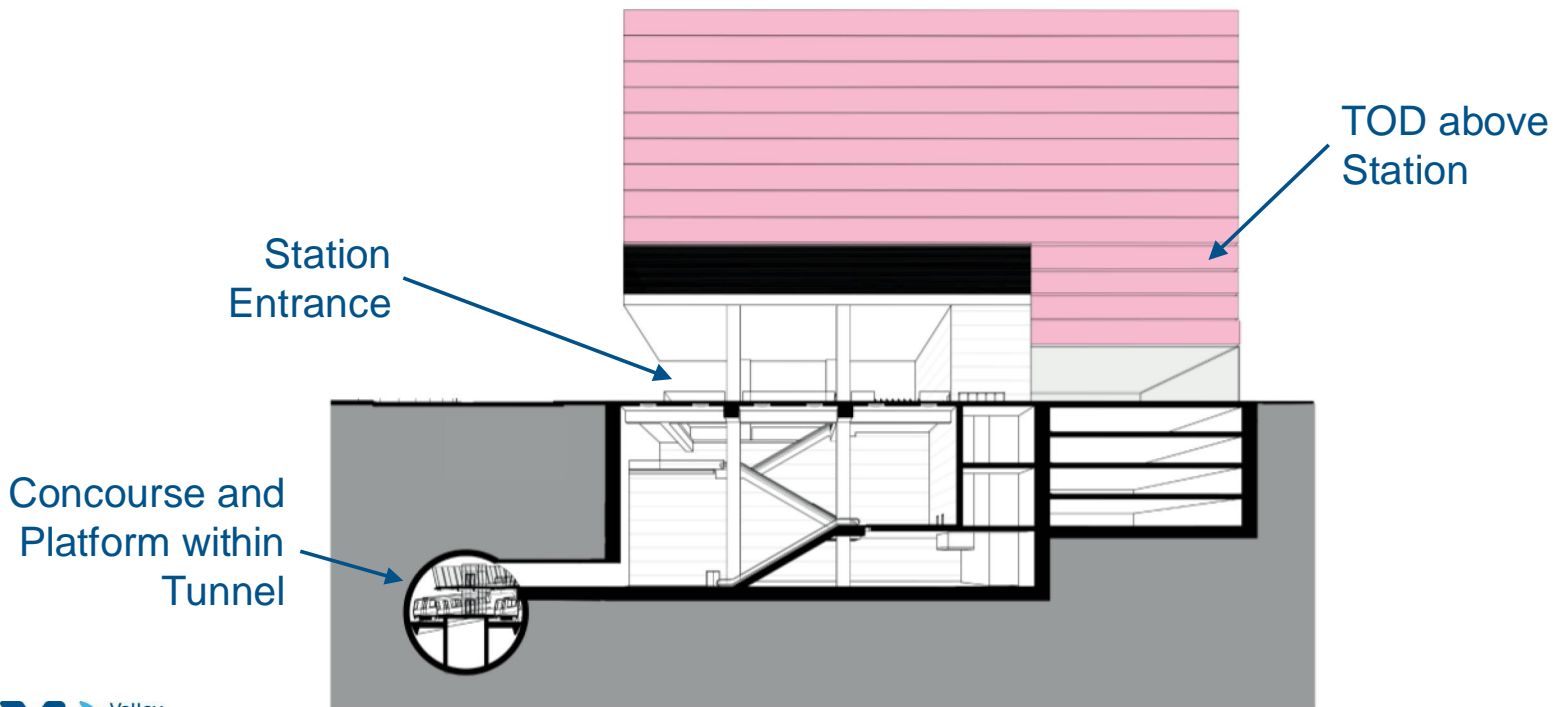


Concourse & Platform in Tunnel

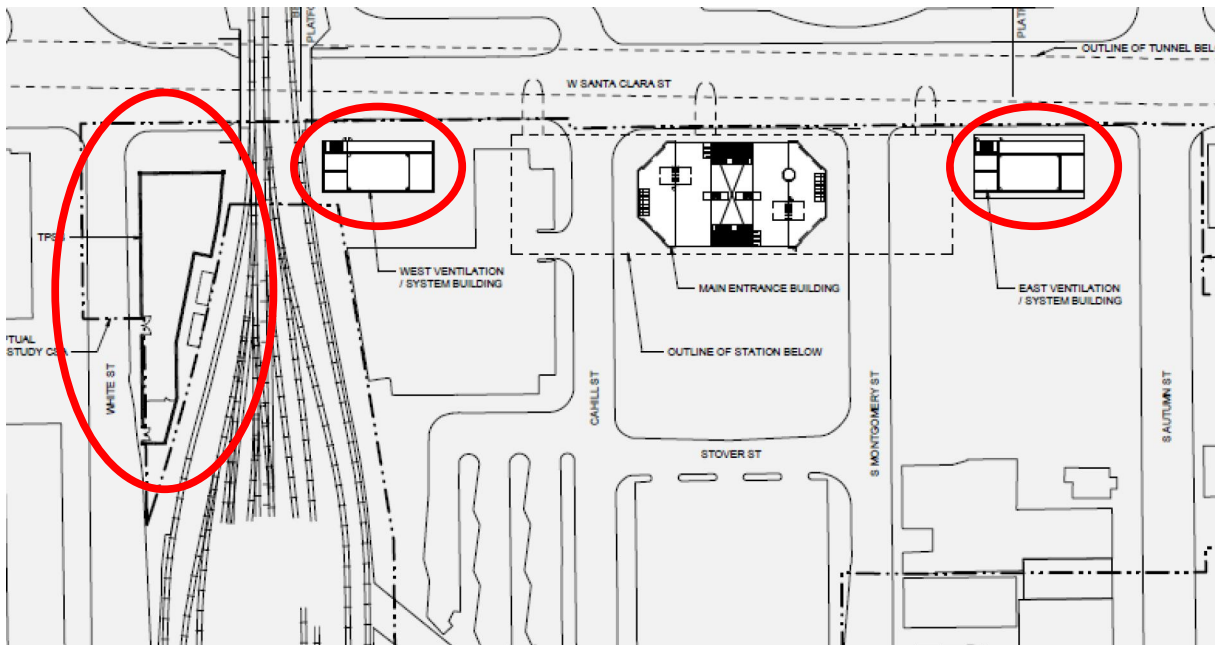


Station Entrance Building

Station Configuration Concept - Diridon

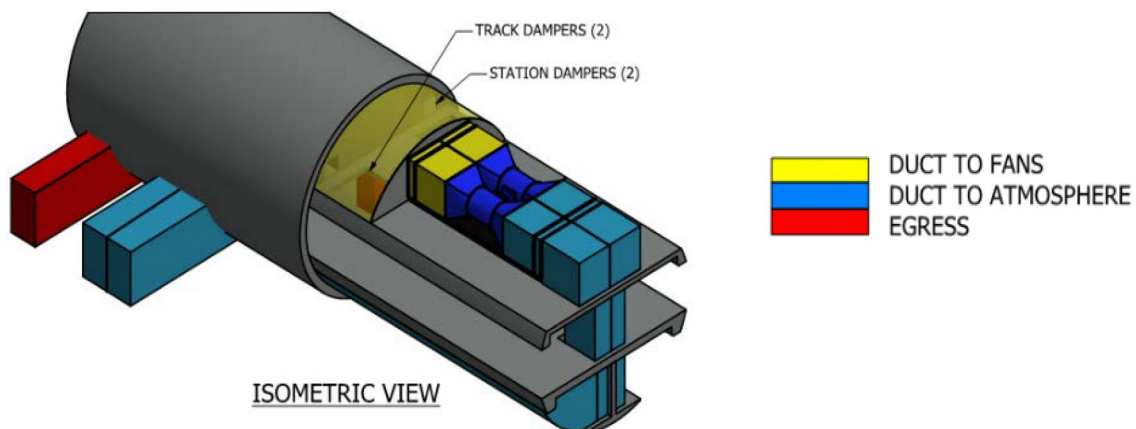


System & Ventilation Facilities



Opportunities to locate certain system and ventilation facilities in tunnel

Station Ventilation Facilities



Larger diameter tunnel provides opportunities to locate ventilation components in tunnel

Single-Bore: Center Platform Configuration

Elements Summary:

- Approximately 55 ft. diameter tunnel with side-by-side tracks
- 24 ft. center platform with concourse above inside tunnel
- Minimum of one station building with a minimum of two entrances/exits
- Provisions at Diridon for future underground connections to the north side of Santa Clara Street/SAP and the intermodal facility, based on available funding
- Reconsider need for mid-tunnel ventilation facilities
- Station ventilation and traction power facilities located in tunnel
- Newhall Maintenance Facility & Santa Clara Station contained within VTA-owned property
- Multi-track stub station at Santa Clara Station

Comparable Stations



Washington University Station
Sound Transit
Depth: 95 feet



North Berkeley Station
BART
Depth: 30 feet



Chinatown Station
SFMTA
Depth: 92 feet

Access Planning

- VTA collaborated with Cities to identify Station Area Access Needs
 - Pedestrian and ADA improvements within ½ mile of station entrance
 - Bicycle and transit corridor improvements within 1½ miles of station entrance
 - Streetscaping improvements to activate street life around stations
 - Recommendations to be incorporated into ongoing and future City plans
- VTA drafting Station Circulation and Access Principles
 - Identify key access elements to be incorporated into station design
 - Coordination with BART and Cities

VTA's Station Access Hierarchy



Alum Rock/28th Street Station Concept

Station overview:

- One station with a minimum of two entrances/exits
- Ticketing and fare gates at street level
- Parking garage on site
- Emergency egress and ventilation exhaust shaft facilities located near platform ends
- Final location of systems facilities: TBD

Ongoing/future efforts:

- Station area access planning
- Design Development Framework

LEGEND

- Station
- Station Platform
- At-Grade Vent/Egress Facilities
- Transit-Oriented Joint Development and Station Access Facilities
- Construction Staging Area
- Station Entrance & Exit
- Tunnel



Santa Clara Station Concept

Station overview:

- At-grade station platforms
- Access from Santa Clara Caltrain station and Brokaw Road
- Ticketing and fare gates below ground level and on first floor of parking garage
- TOD and parking garage integrated with the layout of Newhall Maintenance Facility

Ongoing/future efforts:

- Configuration of Newhall Maintenance Facility
- Station area access planning
- Coordination with adjacent developers
- VTA TOD planning



LEGEND

- Station Facilities and Transit-Oriented Joint Development
- Station Platform
- Newhall Maintenance Facility
- Construction Staging Area (under consideration)
- Station Entrance & Exit



Preliminary Budget

Estimated Capital Costs:

\$5.6 Billion (Conceptual ROM¹)

Funding Sources:

\$5.6 Billion

<input checked="" type="checkbox"/> 2000 Measure A Sales Tax	\$1.0 Billion
<input checked="" type="checkbox"/> 2016 Measure B Sales Tax	\$1.5 Billion
<input checked="" type="checkbox"/> Local Measures Revenues to fund financing and escalation costs ²	\$400 Million
<input checked="" type="checkbox"/> Regional Measure 3	\$375 Million
<input checked="" type="checkbox"/> State Transit & Intercity Rail Capital Program	\$750 Million
<input checked="" type="checkbox"/> State Traffic Congestion Relief Program	\$161 Million
<input type="checkbox"/> FTA Expedited Project Delivery	\$1.4 Billion (25% of total Project cost)

Other Considerations:

<input type="checkbox"/> Financing and Contingency	\$TBD
<input type="checkbox"/> P3 Sources	\$TBD

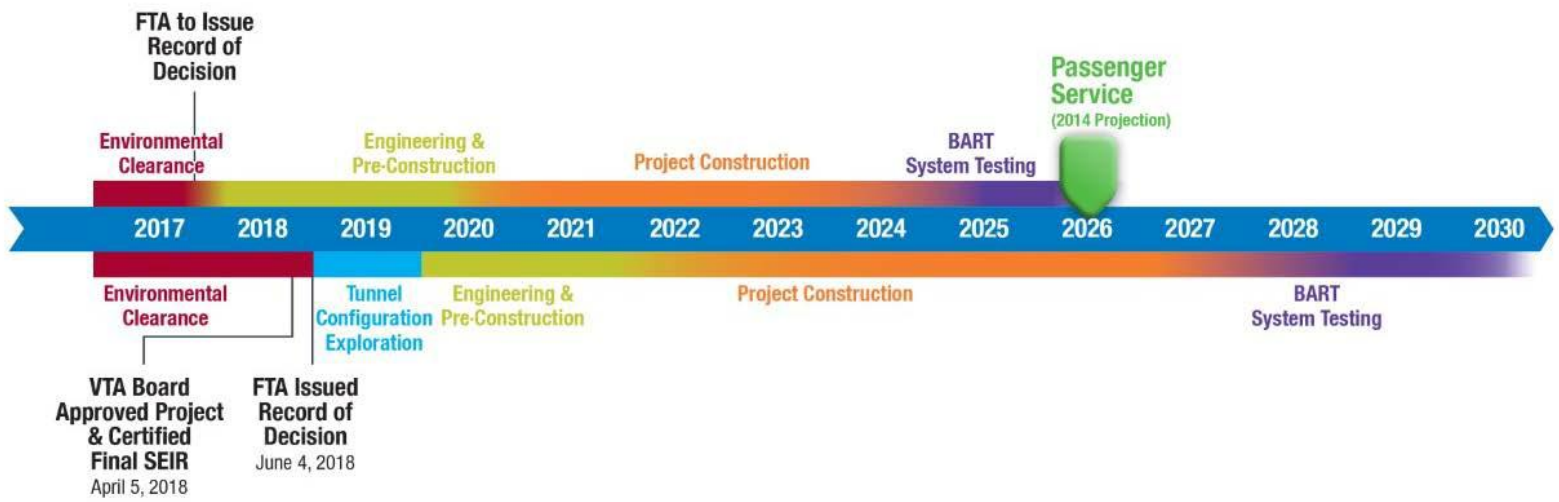
1. ROM = Rough Order of Magnitude based on approximately 2% design (excludes financing and contingency)

2. Financing costs assumed to be available from 2000 Measure A and/or 2016 Measure B.



Schedule Progression

Environmental Schedule (2014 Projection)



Preliminary Schedule (as of September 2019)

FTA's Expedited Project Delivery Pilot Program

FTA's Expedited Project Delivery Pilot Program

FTA's Expedited Project Delivery (EPD) Pilot Program aims to increase innovation, improve efficiency, and encourage new revenue streams.

EPD requires projects to:

- Use public-private partnerships (P3)
- Be planned, operated, and maintained by an existing public transit provider
- Have a Federal share not exceeding 25% of its costs

Sponsors (VTA) will have:

- Recently and successfully completed a fixed guideway project
- Achieved budget, cost, and ridership outcomes
- Staff expertise and other resources to implement new project
- To demonstrate project's merits in application

EPD Progress



September 2018

FTA released Notice for Request for Expression of Interest

November 2018

VTA submitted Expression of Interest to FTA

June 2019

VTA selected to be first transit agency in the nation to participate in EPD

August 2019

FTA announced allocation of \$125 million for EPD toward VTA

Next Steps

Fall 2019 Assess additional environmental review required
Develop EPD Funding Request Submittal
Continue developing P3 opportunities

December 2019 Complete 10% Design

Early 2020 Contractor Industry Forum Event

Early 2020 Submit EPD Funding Request to FTA

TBD 2020 Receive Full Funding Grant Agreement (FFGA)

Questions

Transit Oriented Communities and Partnership Opportunities



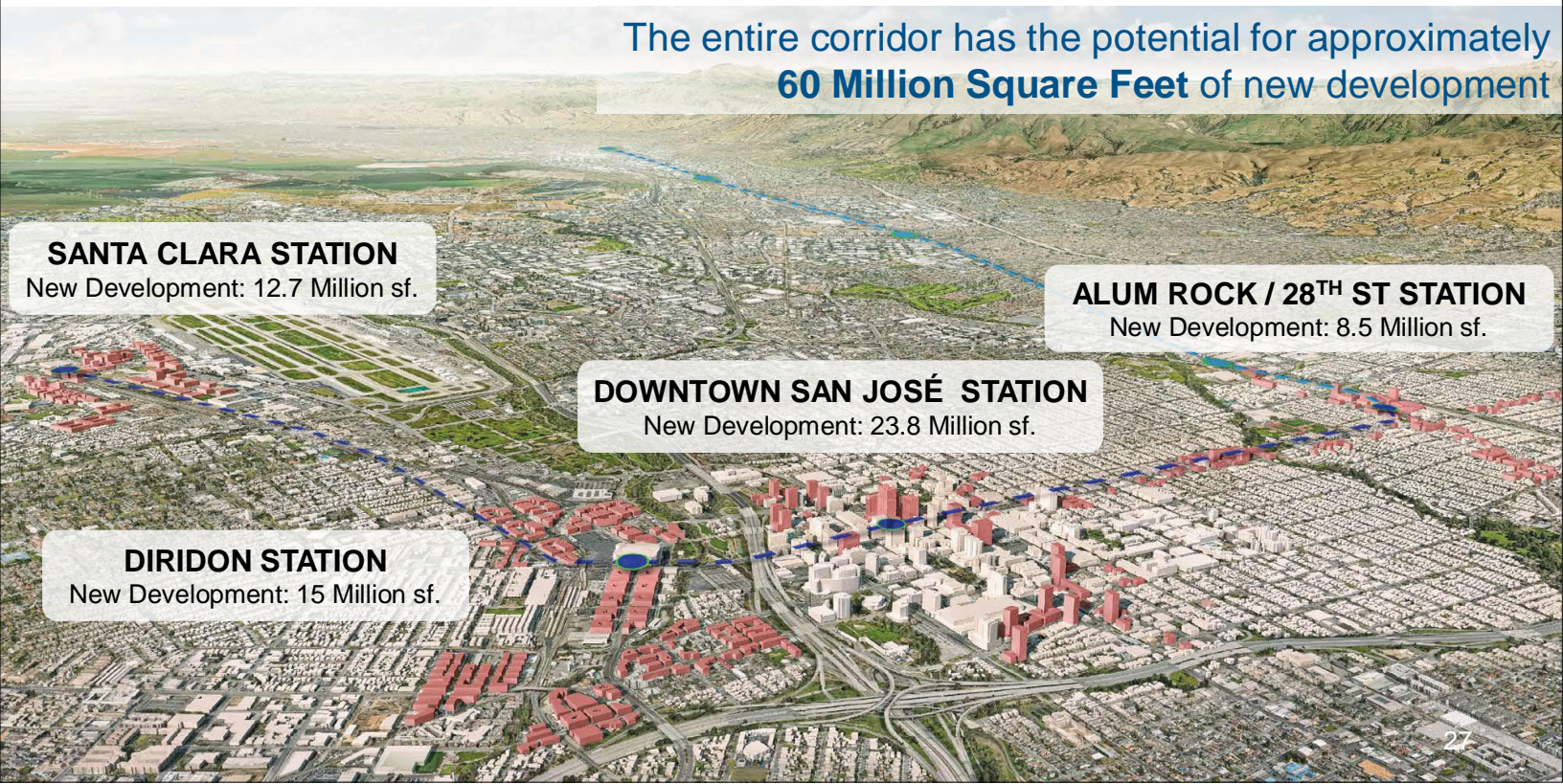
Transit Oriented Communities create a future for BART

- **Funded by the FTA's Pilot Program for Transit-Oriented Development** to promote integration of transit and land use
- **Our station areas can accommodate more development than is currently planned**
- **Transit oriented communities will lead to increased BART and other transit ridership**
- **Combines land use strategy and multimodal access planning** to develop a holistic approach that maximizes the benefits of TOCs and **recommends financing and implementation tools** to make the vision a reality
- **Supports value creation through increased development, and identifies strategies for value capture** to fund station area improvements



Phase II Project Development Potential

The entire corridor has the potential for approximately **60 Million Square Feet** of new development



SANTA CLARA STATION
New Development: 12.7 Million sf.

ALUM ROCK / 28TH ST STATION
New Development: 8.5 Million sf.

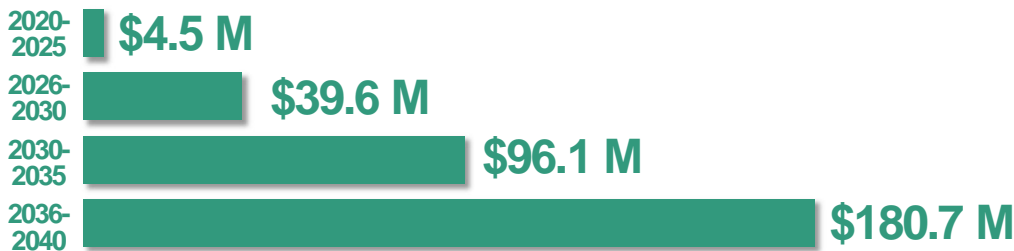
DOWNTOWN SAN JOSÉ STATION
New Development: 23.8 Million sf.

DIRIDON STATION
New Development: 15 Million sf.

TOCs Provide a Framework for Value Creation

- Value Creation from the project allows use of value capture tools for project costs
 - Establishing a community facilities district (CFD) to leverage contributions from new development
 - Implementing tax increment financing districts such as Enhanced Infrastructure Financing Districts (EIFDs)

TOCs Annual Value Creation Revenues*



* Excludes Diridon Station

Funding strategies include set-asides for affordable housing



and transit operations & maintenance



Partnership Opportunities

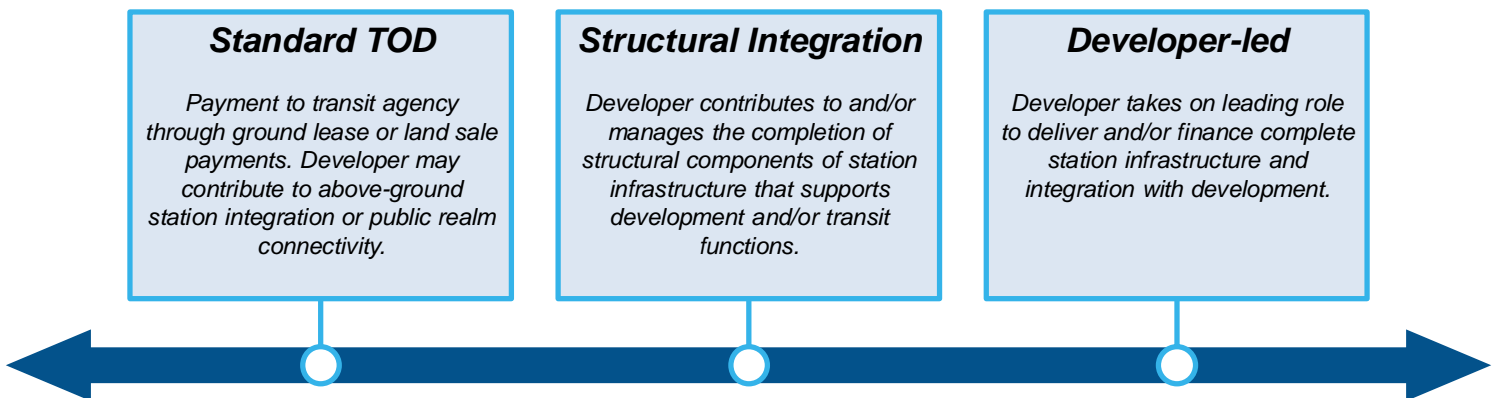
- Potential for significant on-site TOD at VTA's BART Phase II Stations

	Size (acres)	Total Development Potential (sq. ft.)
Alum Rock/28th Street	13.7	1.3 million +
Downtown San José	4.0	1.5 million +
Diridon	1.5	600 thousand +
Santa Clara	1.4	200 thousand +

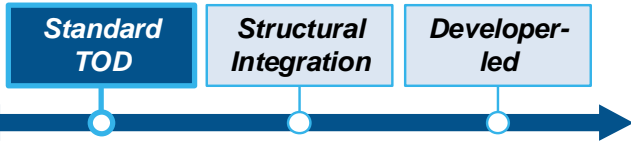
- TOD Partnerships tailored for each station
- Potential to partner on non-TOD elements:
 - Space within the tunnel
 - Coordination with concurrent development interests
 - Other

TOD Partnership Models

- Case studies show a spectrum of development partnership models to inform VTA's approach for TOD sites.
- Level of developer participation ranges from cash contributions to complete management of station and facility delivery



Case Study: Capitol Hill (Sound Transit)

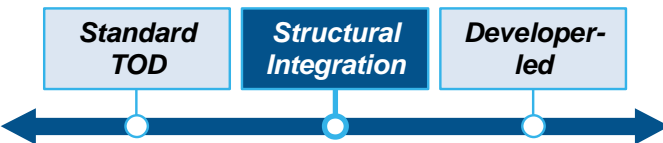


- Two private developers:
 - One signed a 99-year ground lease
 - One purchased parcel for 100% affordable housing
- Developers will not make any infrastructure contributions to Sound Transit
- 42% of fee simple land sale will be used to pay back FTA grants



Rendering of Capitol Hill TOD - Courtesy Gerding Edlin

Case Study: Denver Union Station (RTD)

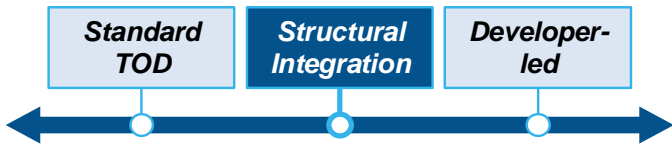


- Master developer selected by partners agencies to deliver transit project and act as vertical developer for development sites
- Loans repaid by tax increment revenues generated by Tax Increment Finance (TIF) districts
- Both RTD's and Denver Downtown Development Authority loans have been repaid or are on track to be repaid 10 years ahead of schedule

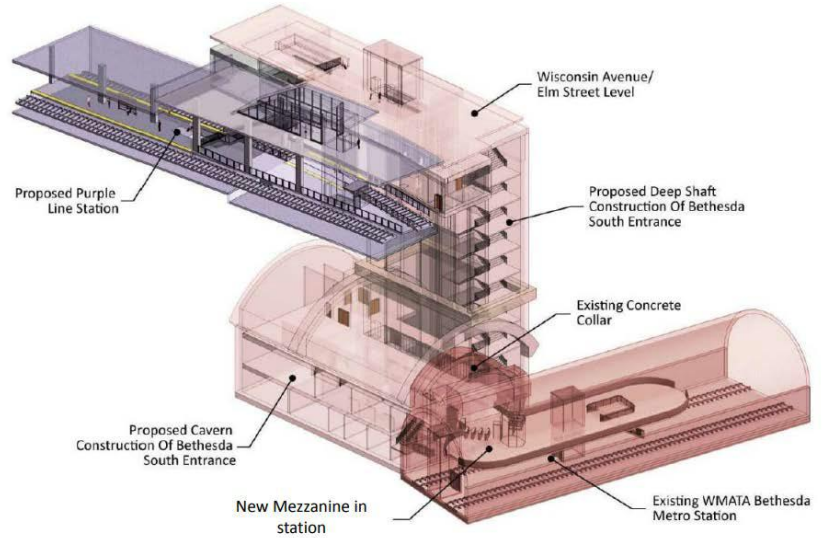


Source: Hagreaves Jones Associates

Case Study: Bethesda Red Line (WMATA)

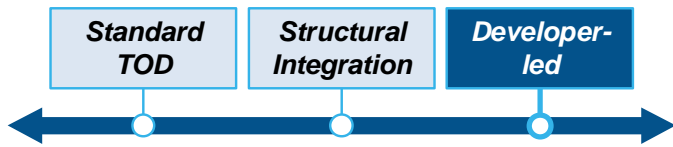


- Developer selection focused primarily on revenue generation and ridership impacts for WMATA
- WMATA built station with knock-out panel for future entrance
- 50-year air and ground rights lease that can be renewed for an additional 49 years
- Developer built and financed bus bay at station (estimated \$1M cost savings to WMATA)

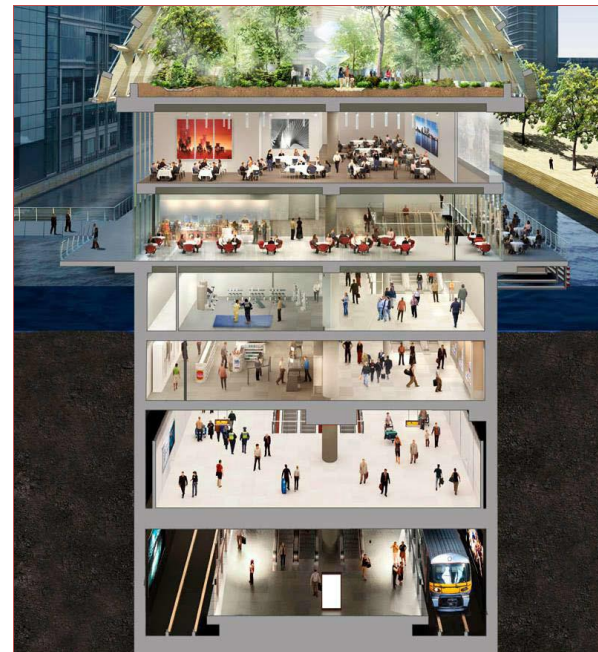


Source: Bethesda Magazine

Case Study: Canary Wharf (Transport for London)



- Canary Wharf Station was designed and built by a private entity contracted to Transport for London
- Value capture amounted to about 1/3 of overall £15.9 Billion cost of Crossrail project.
- Canary Wharf Group (CWG) responsible for financing, design, and construction of the Canary Wharf Station, and contributing roughly 1/3 of construction cost in addition to absorbing all price risk associated with the project.



Source: HR&A Advisors, Inc.

Preparing for Partnership at Phase II Stations

- **Downtown San José Station:**
 - Design Development Framework for TOD opportunities integrated with the station and existing neighborhood
 - Fall 2019 through Summer 2020
- **Alum Rock/28th Street Station:**
 - Design Development Framework for TOD opportunities integrated with the station and existing neighborhood
 - Starting mid-2020
- **Santa Clara Station:**
 - Considering conceptual option of deck over north end of Newhall Yard, station location, parking, potential TOD
 - Station design work includes design development framework
- **Diridon:**
 - Collaborating with Diridon Integrated Station Concept Plan and adjacent property owners



Questions

Community Engagement

Construction Education & Outreach Plan



General Outreach – Raise visibility along the alignment and beyond

Stakeholder Engagement – Build relationships with those most touched by the project

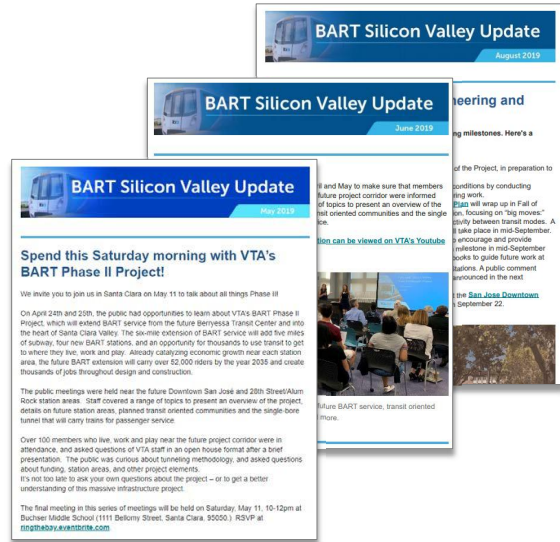
Business Resources – Support during construction

Placemaking – Enhance access and awareness during construction

On the Radar – Coordinate with other projects in area on messaging and communications

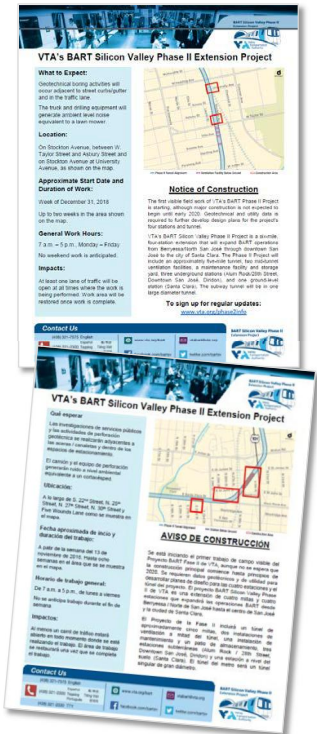
Public and Stakeholder Engagement

- Since Environmental Approval, VTA has held:
 - **25+** community working group (CWG) meetings
 - **~50** stakeholder briefings
 - **20+** business interviews
 - **3** VTA-hosted community meetings
 - and many other informal meetings



Public and Stakeholder Engagement

- Spread the word about TOCs
 - **12+** public workshops on TOCs
 - Tabling at public events (Farmers Markets, National Night Out, etc.)
- Prepared for and supported field investigations
 - **8+** presentations to neighborhood and business associations
 - Multiple notices to businesses and residents in advance of field work



Future Public and Stakeholder Engagement

- Continue to hold regular Community Working Groups
- Continue sending out regular newsletters
- VTA-hosted community meetings (traditional and webinars)
- Implementation of Transit Oriented Community Recommendations
 - Growing public awareness and receiving input
 - Presenting to City Councils
 - Stakeholder Engagement
 - Developer Feedback
- Small Business Resources Program



Business Resources Program

- Program to provide marketing and technical support to small and local businesses along Project corridor prior to and during construction
 - Support marketing campaigns
 - Provide wayfinding
 - Identify resources available to small businesses
 - Mentorship Program/consulting
- Start a Small Business Task Force, to develop strategies
 - Members to include small businesses, Chambers of Commerce, and other stakeholders



Small Business Resources Study

Conducting six-month Small Business Resources Study

- Catalog Phase II potential construction effects
- Collect best practices and lessons learned from other transit and development projects
- Conduct quantitative and qualitative analysis to assess business vulnerability to construction impacts
- Analyze historic small business trends performance to gain an understanding of the small business environment
- Survey small businesses to collect business operations and needs



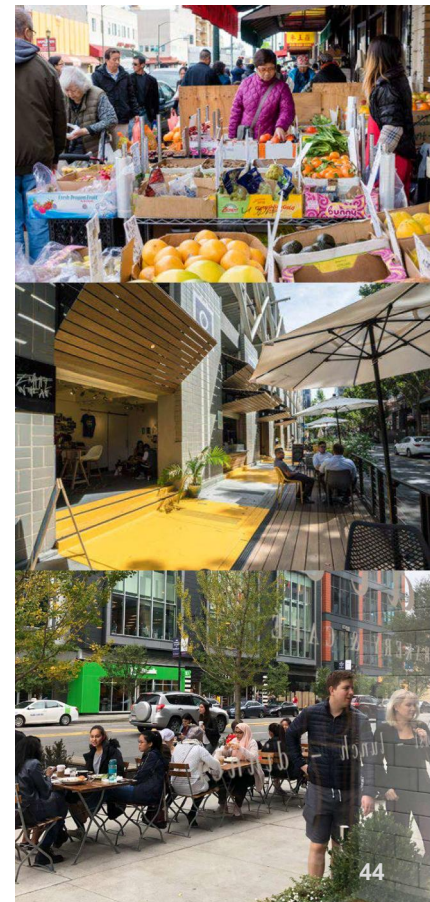
"Eat, Shop, Play" marketing campaign during Crenshaw/LAX light rail construction in Los Angeles



Advertisement for local business during construction of Capitol Hill Light Rail Station – Sound Transit

Business Resources Implementation

- Findings and feedback from Study will be used to develop a **Small Business Resources Plan that will be implemented throughout construction** in coordination with the Cities of San José and Santa Clara
- **Small Business Task Force will continue after the study's completion** to receive construction updates and provide feedback



Get Involved with the Phase II Project!

- Public Community Meetings
- Field Offices
- Name the Tunnel Boring Machine
- Artwork along Construction Sites
- Support Businesses near Construction
- Spread the Word!
- Visit us online and on social media



Sign up to receive updates at: <http://www.vta.org/phase2info>

Questions