

VTA's BART Silicon Valley
Phase II Extension Project

October Santa Clara Community Working Group Meeting

October 9, 2025



## Santa Clara CWG Members



- Alden Smith, Holland Partner Group
- Ana Vargas-Smith, Reclaiming Our Downtown
- Bella Burleigh, SCU Service & Social Justice (SCCAP)
- Flavio Olivieri Villalvazo, Santa Clara University Student Rep
- Jack Morash, South Bay Historic Railroad Society
- Jeanette Coran, Santa Clara University
- John Urban, Newhall Neighborhood Association
- Jonathon Evans, Old Quad Residents Association
- Rob Mayer, Reclaiming Our Downtown
- Ron Miller, Bellarmine College Preparatory
- Ryan Morfin, San José Earthquakes
- Sean Collins, Santa Clara University
- Todd Trekell, Hunter Partners
- Michael Liw, City of Santa Clara
- Sheldon Ah Sing, City of Santa Clara
- Scott Smith, BART

## **AGENDA**

- I. Peer Review Report Out
- II. Cost Savings Status
- III. Construction Updates
- IV. Path Forward & Next Steps





# Peer Review Final Report Out

## **Expectations & Objective of Peer Review**



 Independent perspective on Value Engineering efforts to bring the scope and budget into alignment.

• Feedback on the feasibility, constructability, packaging, and delivery to reduce costs and match available funding.

 Enable VTA to move forward with a project configuration for a forthcoming FFGA.

## **Peer Review**



- First day of two-session Peer Review held on August 20
- Panel included project delivery executives from peer transit agencies:
  - Sound Transit Seattle, WA
  - LA Metro Los Angeles, CA
- Attendees included VTA Project Team, FTA,
   PMOC, BART, and Gall Zeidler





## **Peer Review**



- Presentation by staff on project background, baseline, and two scenarios (incorporating cost savings)
- Tour of project alignment and west portal construction site
- Focus on feasibility,
   constructability, contract
   packaging and delivery methods





## **Peer Review Summary**



- Evaluation of Scenarios
  - Scenario 1 is optimal path forward from a constructability and feasibility perspective, offers fewer risks
  - Scenario 1a introduces additional costs, a cut-and-cover box in downtown San Jose, impact to community, increase risk and complexity
- Cost Estimates and Risk Adjustments
  - Recommends cost estimates be updated to reflect evolving market conditions
- Contract Packaging
  - Breaking up large contracts into smaller packages will improve bidder interest and reduce integration risk—if managed effectively
  - Repackaged tunnel contract must include clear provisions for system integration and TBM-related risk mitigation

## **Peer Review Summary**



- VTA/BART Partnership
  - A strong working relationship between VTA and BART is <u>critical</u> to the success of the project.



- Encourages VTA and BART to continue efforts to maintain this relationship given the challenges of such a long and complex project
- Newhall Yard Refinements
  - Achieving concurrence between BART and VTA on Newhall Yard refinements needs to be a <u>priority</u> for the project to proceed successfully
- Continue the Project momentum with early construction underway



## **Cost Savings Status**

## **BSVII Cost Savings: Where We Are**



- Outstanding Cost Savings items under consideration:
  - Systems
  - Downtown station design
  - Newhall Yard
  - Project Configuration (Scenarios 1 or 1a)

Continued Stakeholder Engagement re: Downtown San Jose station refinement

Planning Future Engagement with BART re: Newhall Yard

## **Scenario 1 Refinements at Stations**



- Relocated station infrastructure facilities (SIF) above ground and optimized station equipment layout
- Implemented systems efficiencies to reduce SIF footprint
- Modified deep shaft and adit configurations (not affecting passenger experience)
- Optimized station entrance architectural layout and footprints
- Consolidated and removed egress shaft at Diridon
- Use of cost-effective materials
- Converted parking garages to surface parking (28th Street/Little Portugal and Santa Clara stations)

## **Engagement on Station Infrastructure Facility in Plaza**



 Features & finishes (screening, architectural, artwork)







DTSJ: Q3/Q4 2026

Diridon: Q1/Q2 2026

Santa Clara: Q3/Q4 2026



## **Engagement on Station Infrastructure Facility in Plaza**



 Landscaping & hardscaping around Station Infrastructure Facility To be discussed with CWG: 28th/Little Portugal: Q1/Q2 2026

DTSJ: Q3/Q4 2026 Diridon: Q1/Q2 2026

Santa Clara: Q3/Q4 2026







Downtown Berkeley BART Station Plaza Vent Structure

## Why Does Project Configuration Matter?



- Scenario 1 vs. Scenario 1a Configuration
- Configuration Dictates:
  - How project advances to 60% design
  - Approach to critical path tunnel construction
  - Ability to stay on schedule and meet projected revenue service date
  - Flexibility to proceed if FFGA is delayed
- How to choose:
  - Advice from independent Peer Review (risk, schedule, industry readiness)
  - Project team cost and schedule estimates
  - Feedback from Gall Zeidler

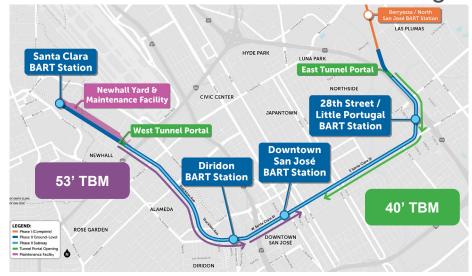
## Configuration: Scenario 1 & 1a





Scenario 1

## Scenario 1a - Concurrent Tunneling



## **Scenario 1a Considerations**



#### **Additional Construction Considerations:**

- Smaller single bore for portion of alignment
- New East Portal launch structure & Additional TBM
- 28th Street/Little Portugal station: large cut-and-cover box structure
- Retrieval shaft at "meet up" location of two TBMs

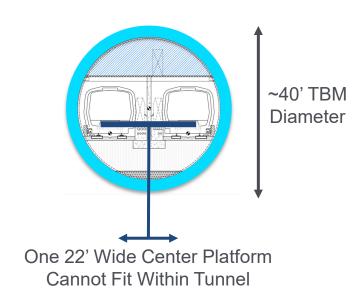
#### **Schedule Considerations:**

- Initial start-up activities to launch TBM from East Portal
- Faster tunneling rate for smaller TBM
- Extraction of two TBMs

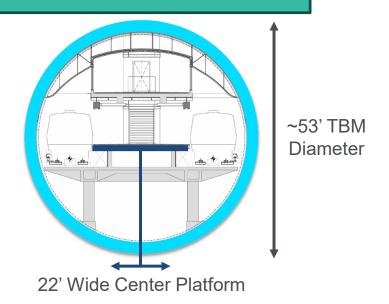
## **Smaller Tunnel Diameter Analysis**



## **Smaller Single-Bore Tunnel**



## Larger Single-Bore Tunnel



Conceptual layout

## Scenario 1a:

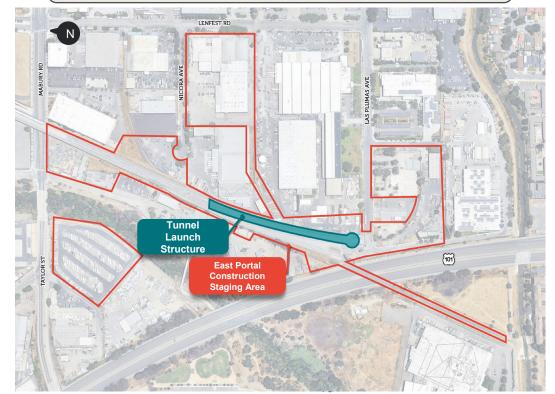
## New East Portal Launch Structure & Additional TBM



#### **Overview:**

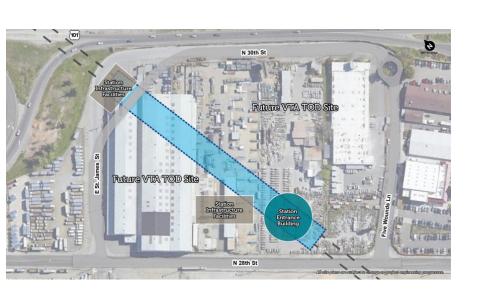
- Design, procurement, and fabrication of an additional 40' TBM
- East Portal becomes a Launch Shaft rather than a reception shaft
- Changes to East Portal:
  - Larger temporary excavation for assembly and launching the TBM.
  - Increased temporary power for TBM
  - Larger staging area (additional ROW)
  - More tunnel spoil off-haul traffic
  - Site would have similar operations as the West Portal Launch Structure and surrounding site

**Environmentally Cleared East Portal Construction Staging Area** and Tunnel Launch Structure

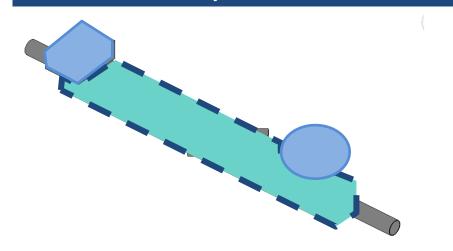


## Scenario 1a: Cut & Cover at 28th Street/Little Portugal Station





### Smaller Tunnel: Fully Cut-and- Cover Station



#### Legend

- Station Headhouse & Station Infrastructure Excavation
- ☐ Tunnel Shaft
- Extent of Open Cut-and-Cover Excavation

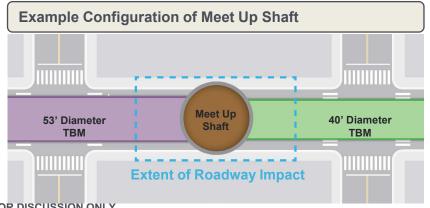
## **Scenario 1a: Meet-up Location**



#### Overview:

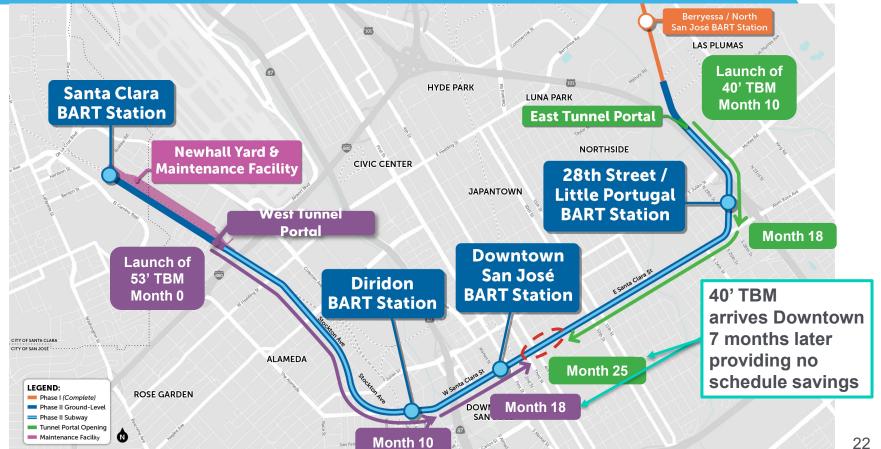
- The two TBMs would meet in Downtown San Jose at one block between 3<sup>rd</sup> Street and 7<sup>th</sup> Street
- Addition of "meet-up" shaft
- Anticipated construction activities:
  - Early Works demo, utility relocation, instrumentation and well installation
  - Slurry wall construction
  - Excavation and road decking
  - Crane mobilization/demobilization, and TBM dis-assembly and off-haul for the two TBMs
  - Shaft backfill and road reinstatement





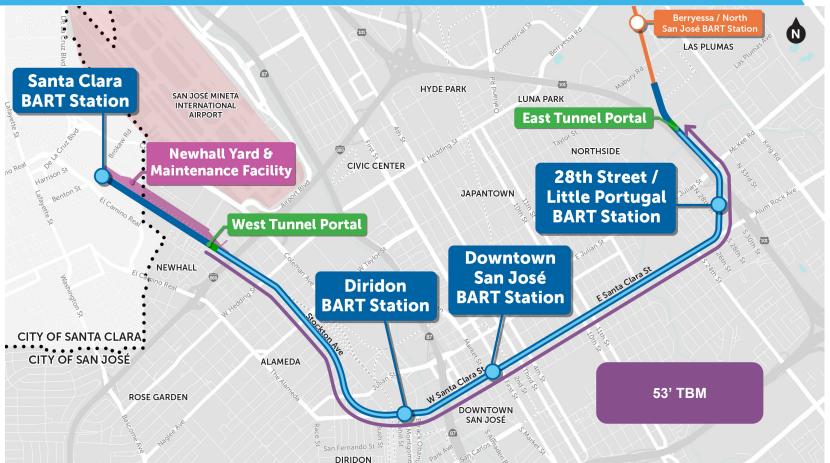
## Concurrent Tunneling Schedule (Scenario 1a)





## **Scenario 1 Configuration**



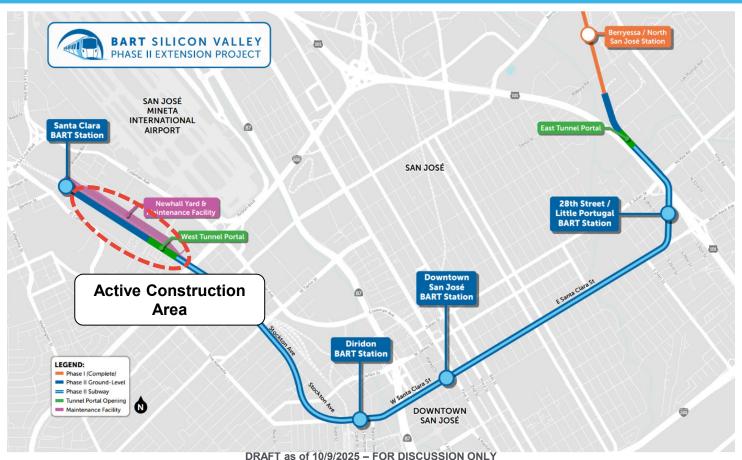




# West Portal Construction Update

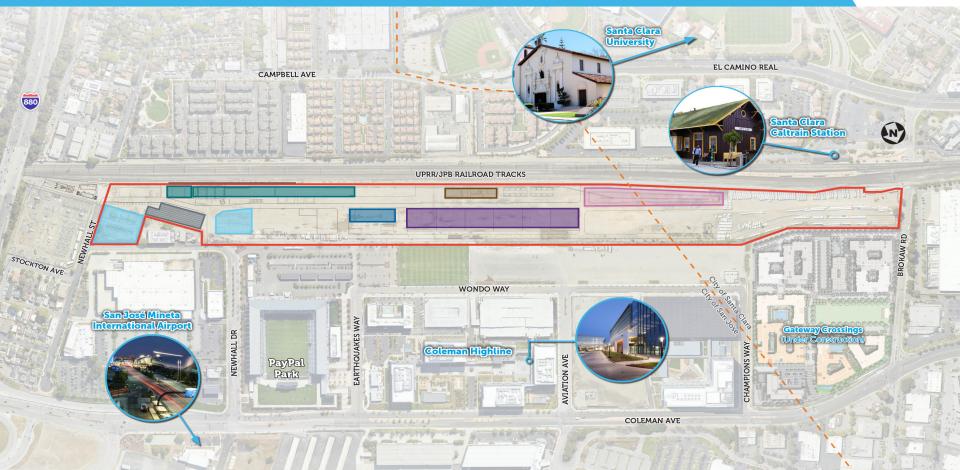
## **West Portal Construction Area**





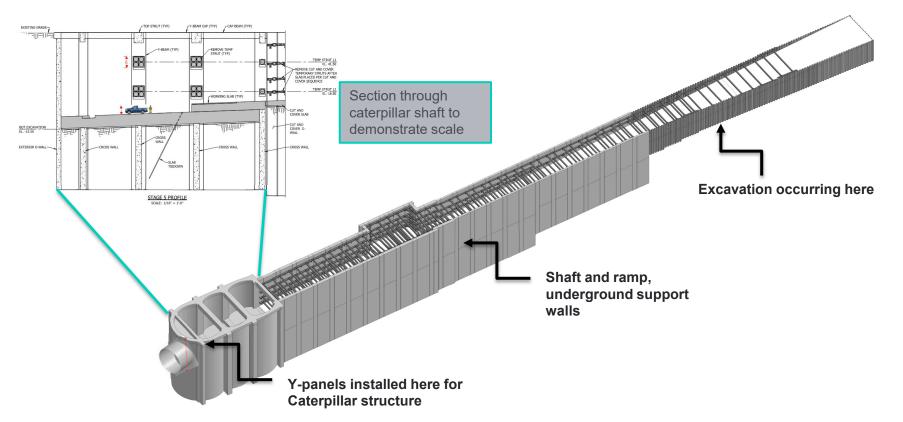
## Where is the West Portal and TBM Launch Structure





## **Tunnel Launch Structure**

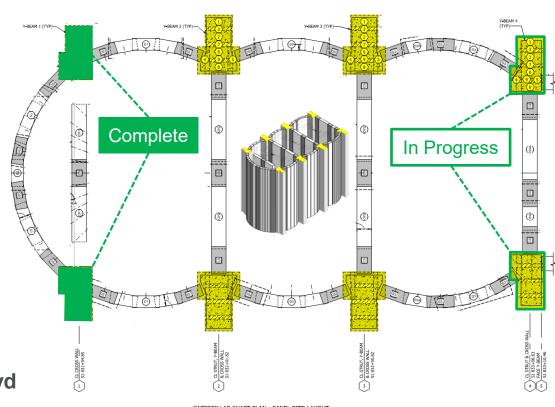




## **Y-Panels Overview**



- Main structural element of Caterpillar Shaft
- Number of Y-Panels = 8
- Panel Depth = 133.5 ft
- Total Volume of Concrete = 5,929 cu yd (approx. 658 concrete trucks)

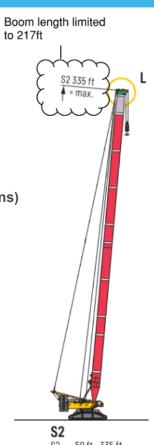


## Y-Panel Rebar Cage Crane

YA

- Crane Model: Liebherr LR 11000 S2 Crawler Crane
- Track Dimensions = **40'-10"** Long x **8'-3"** Tall, **7'-10"** Wide
- Configuration = Main Boom **\$2**
- Boom Length = **217 ft**
- Counterweight = **551.25 kip (275 tons)**
- Car Body Counterweight = **198.45 kip (99.25 tons)**
- Max Capacity of Crane with 217 ft Boom Length = 944 kip (472 tons)
- 1 US ton = 2 kip









## **West Portal Construction Progress**





The above "tripping frame" has been designed specifically to manage the lifting of the Y-Panel cages (weighing over 300,000lbs) to the vertical position

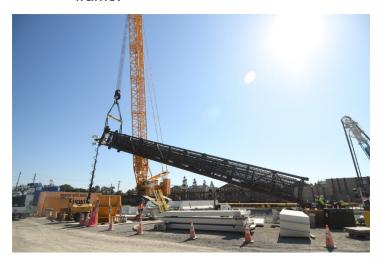


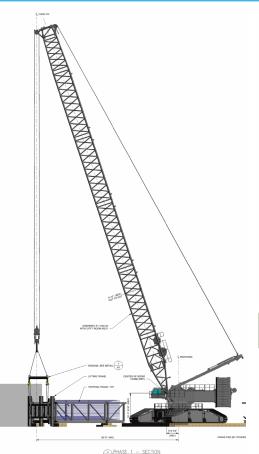
Test lift of "tripping frame"

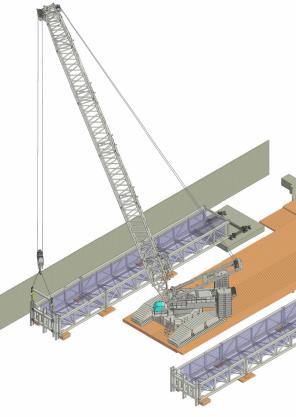
## Y-Panel Tripping & Lifting Sequence



- Phase 1 Initial Pick:
  - Rebar cage assembled inside tripping frame.
  - Lifting frame connected to rebar cage.
  - Lifting frame connected to tripping frame.



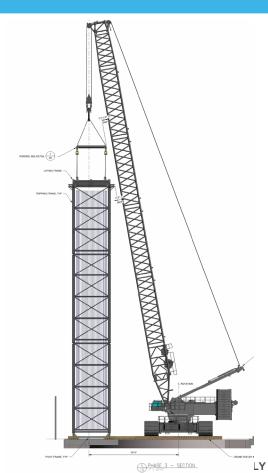


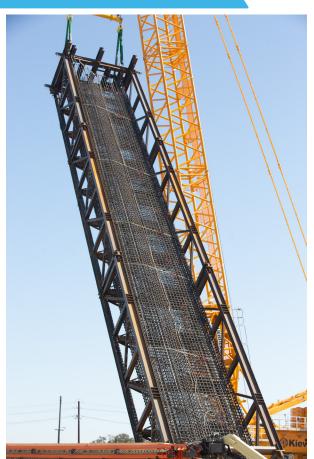


## Y-Panel Tripping & Lifting Sequence



- Phase 2 through 9 Pivot and Tripping Actions:
  - Structure is lifted from horizontal to vertical rotating about the pivot frame
  - Crane lifts and tracks the frame throughout this phase
  - Structure is tripped over the pivot frame.
  - Tripping action provides a controlled and safe handling of the frame.

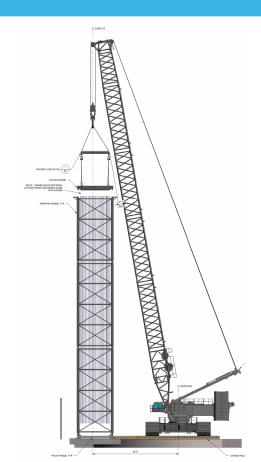




## Y-Panel Tripping & Lifting Sequence



- Phase 10 11 Lifting the Rebar Cage and Rebar Cage Transport:
  - Tripping frame secured to the pivot frame.
  - Lifting frame disconnected from tripping frame.
  - Lifting frame remains connected to rebar cage.
  - Rebar cage strapping removed.
  - Lifting frame connected to rebar cage.
  - Rebar cage transported to Y-Panel location





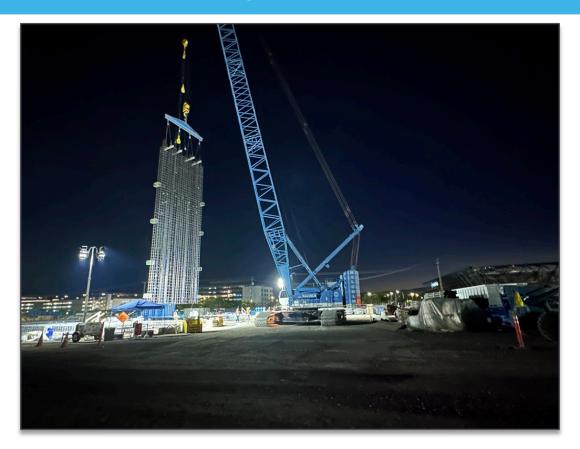
## **Tripping Frame**





## **West Portal Construction Progress**





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## **West Portal Construction Progress**





Excavation of launch structure, placement of struts and walers

## **West Portal Construction Progress**





Multiple concrete trucks for Y-Panel 12 hour pour



Pressure washing Y-Panel



Preparing rebar for next "trip" and lift

## **Tunnel Boring Machine**

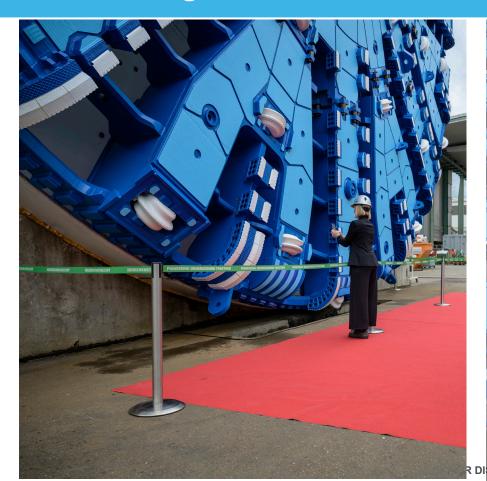


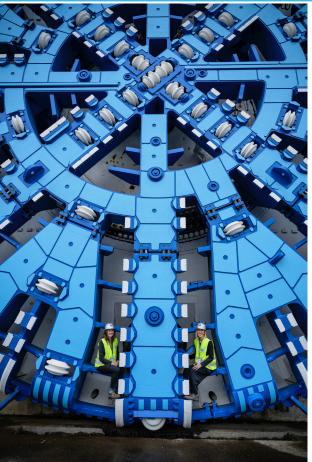




## **Tunnel Boring Machine**







## **Tunnel Boring Machine**







# Path Forward & Next Steps

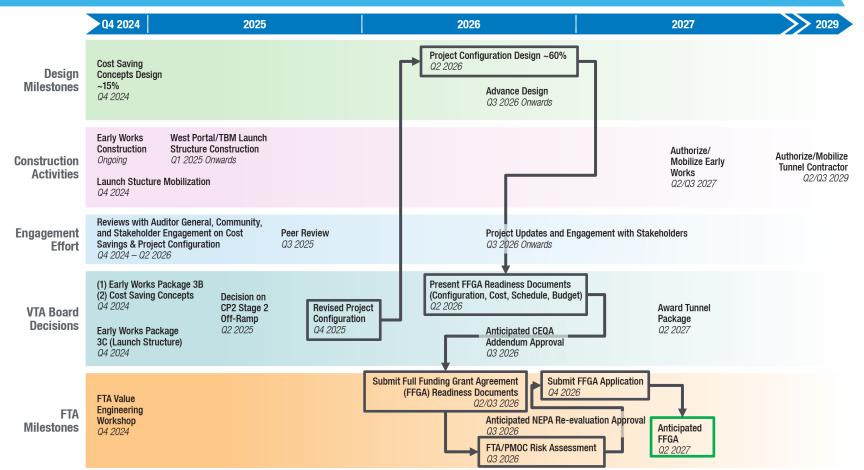
## Path to FTA Full Funding Grant Agreement (FFGA)



,	Q4 2024	2025		2026	2027	2029
Design Milestones	Cost Saving Concepts Design ~15% Q4 2024			Project Configuration Design ~60% Q2 2026  Advance Design Q3 2026 Onwards		
Construction Activities		I/TBM Launch Construction Inwards			Authorize/ Mobilize Early Works Q2/Q3 2027	Authorize/Mobilize Tunnel Contractor Q2/Q3 2029
Engagement Effort			Peer Review Q3 2025	Project Updates and Engagement with Stakeholders Q3 2026 Onwards		
VTA Board Decisions	(1) Early Works Package 3B (2) Cost Saving Concepts 04 2024 Early Works Package 3C (Launch Structure) 04 2024	Decision on CP2 Stage 2 Off-Ramp Q2 2025	Revised Project Configuration <i>Q4 2025</i>	Present FFGA Readiness Documents (Configuration, Cost, Schedule, Budget) Q2 2026 Anticipated CEQA Addendum Approval Q3 2026	Award Tunnel Package Q2 2027	
FTA Milestones	FTA Value Engineering Workshop Q4 2024			Funding Grant Agreement Submit FFG GA) Readiness Documents Q4 2026 Anticipated NEPA Re-evalu Q3 2026 FTA/PMOC Risk Assessme Q3 2026	Anticipated FFGA	

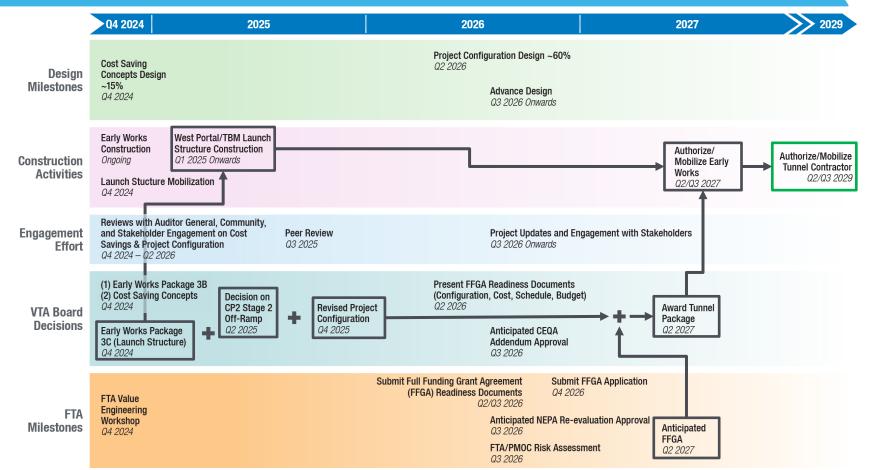
## Path to FTA Full Funding Grant Agreement (FFGA)





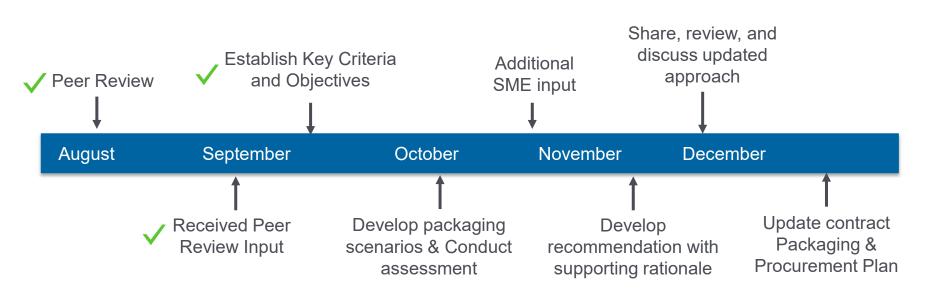
#### **Critical Activities to Tunnel Construction**





## **Contract Packaging & Delivery Methods Next Steps**





### Stakeholder Engagement & Outreach



#### **Recent Engagement Activities**

- Ongoing coordination with Cities
- Downtown San José Station Design Engagement (x7)
  - SJ Downtown Association Briefing
  - SJ Chamber of Commerce Briefing
- Construction Noticing for PG&E Road Closure for Gas Utility Work
- 9/23 Interim Downtown-Diridon Community Working Group Meeting

#### **Upcoming Engagement Activities**

- Ongoing Stakeholder Briefings
- Cristo Rey San José Jesuit High School
- Construction Media Tour

- Stakeholder Engagement:
  - Cristo Rey San Jose Jesuit High School Freshmen Parent Night
  - Reimagining Santa Clara Street Study (CSJ-led study)
  - San Jose Arena Authority Board
- 10/4 Santa Clara Parade of Champions
- 10/7 City of Santa Clara Council Meeting
- 10/7-10/9 Community Working Group Meetings



VTA Strategic Plan Open House

#### What's Next?



Continued Stakeholder Engagement re: Downtown San Jose station refinement

Planning Future Engagement with BART re: Newhall Yard

October 10 VTA/BART Joint Working Committee

- October 17 Board Workshop/Special Meeting
  - Path Forward (Cost Saving Scenario, FFGA timeline, Contract Packaging Update)



## **Questions?**