Caltrain Business Plan

PROJECT UPDATE – SPRING 2019

Caltrain

What is the Caltrain Business Plan?

What Addresses the future potential of the railroad over the next 20-30 years. It will assess the benefits, impacts, and costs of different service visions, building the case for investment and a plan for implementation.

Why Allows the community and stakeholders to engage in developing a more certain, achievable, financially feasible future for the railroad based on local, regional, and statewide needs.

What Will the Business Plan Cover?

Technical Tracks

Service

- Number of trains
- Frequency of service
- Number of people riding the trains
- Infrastructure needs to support different service levels

Business Case

- Value from investments (past, present, and future)
- Infrastructure and operating costs
- Potential sources of revenue

Community Interface

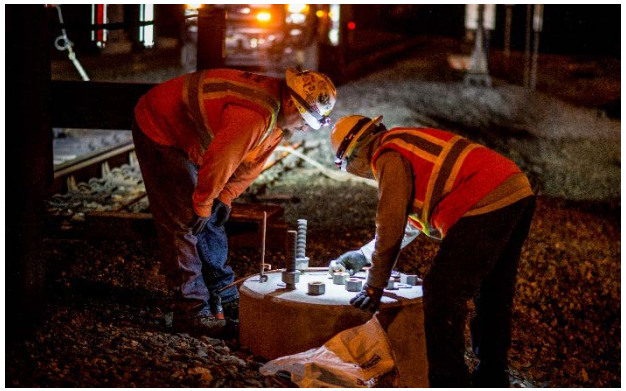
- Benefits and impacts to surrounding communities
- Corridor management strategies and consensus building
- Equity considerations

Organization

- Organizational structure of Caltrain including governance and delivery approaches
- Funding mechanisms to support future service

Where Are We in the Process?

Electrification is the Foundation for Growth with Plans for More



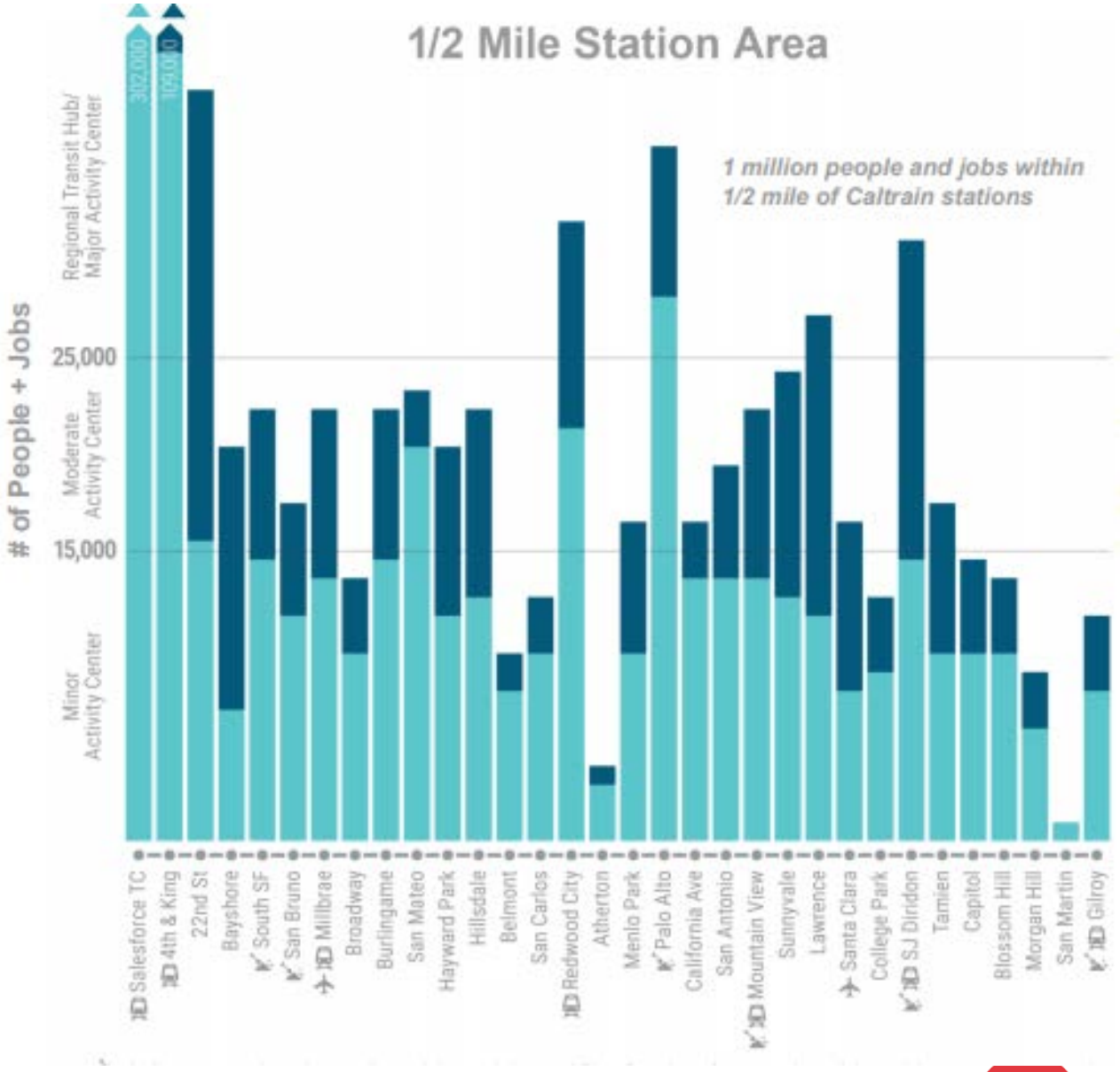
2040 Demand

The Caltrain corridor is growing

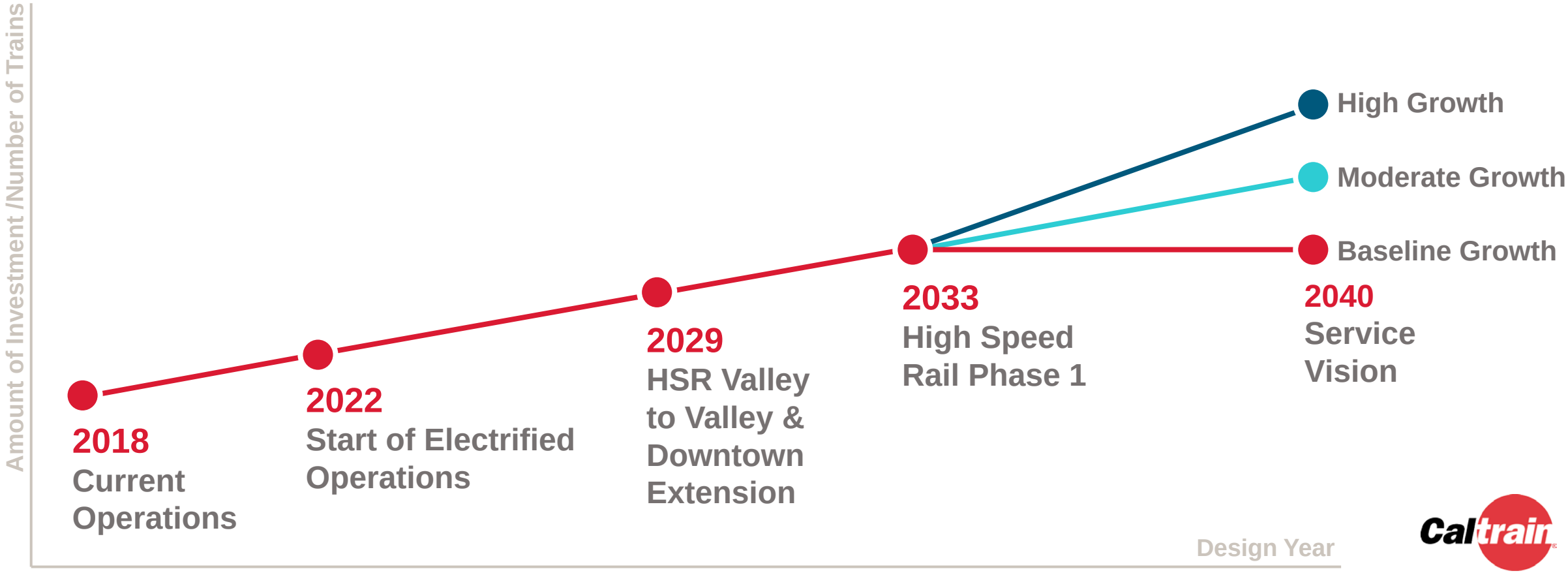
- By 2040 the corridor expected to add 1.2 million people and jobs within 2 miles of Caltrain (+40%)[1]
- 80% growth expected in San Francisco and Santa Clara Counties

Major transit investments are opening new travel markets to Caltrain

- Downtown Extension and Central Subway
- Dumbarton Rail, BART to San Jose, and improvements to Capitol Corridor and ACE
- HSR and Salinas rail



2040 Service Scenarios: Different Ways to Grow



2040 Baseline Growth Scenario (6 Caltrain + 4 HSR)

Features

- Blended service with up to 10 TPH north of Tamien (6 Caltrain + 4 HSR) and up to 10 TPH south of Tamien (2 Caltrain + 8 HSR)
- Three skip stop patterns with 2 TPH – most stations are served by 2 or 4 TPH, with a few receiving 6 TPH
- Some origin-destination pairs are not served at all

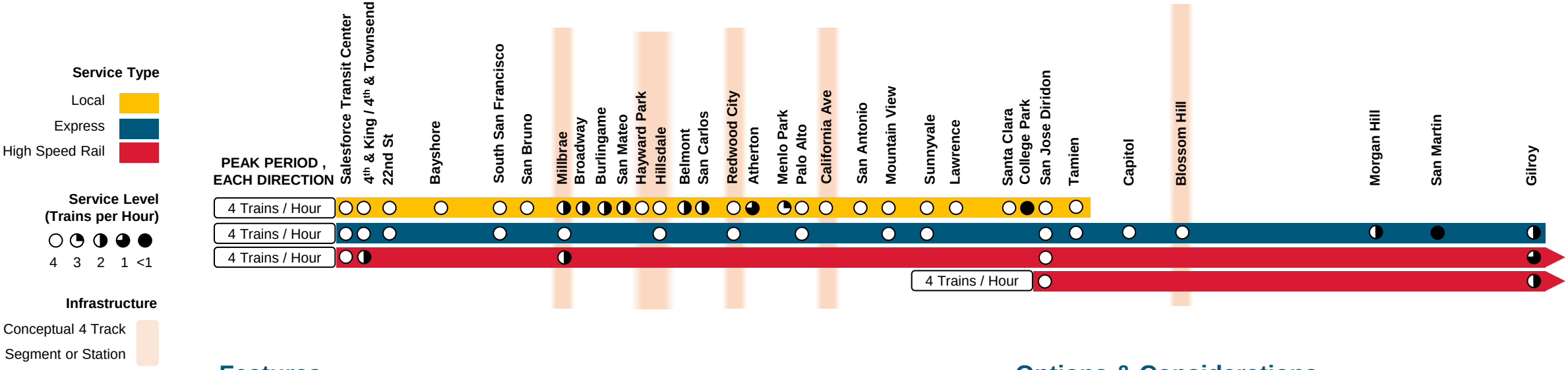
Passing Track Needs

- Less than 1 mile of new passing tracks at Millbrae associated with HSR station plus use of existing passing tracks at Bayshore and Lawrence

Options & Considerations

- Service approach is consistent with PCEP and HSR EIRs
- Opportunity to consider alternative service approaches later in Business Plan process

Moderate Growth Scenario (8 Caltrain + 4 HSR)



Features

- A majority of stations served by 4 TPH local stop line, but Mid-Peninsula stations are serviced with 2 TPH skip stop pattern
- Express line serving major markets – some stations receive 8 TPH
- Timed local/express transfer at Redwood City

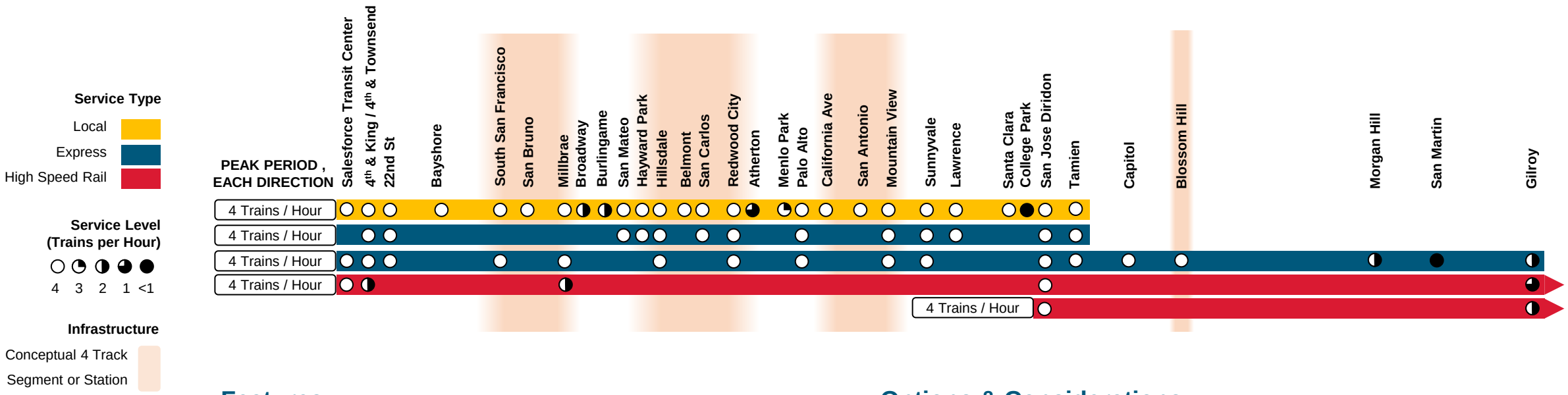
Passing Track Needs

- Up to 4 miles of new 4-track segments and stations: Hayward Park to Hillsdale, at Redwood City, and a 4-track station in northern Santa Clara county (Palo Alto, California Ave, San Antonio or Mountain View. California Ave Shown)

Options & Considerations

- To minimize passing track requirements, each local pattern can only stop twice between San Bruno and Hillsdale - in particular, San Mateo is underserved and lacks direct connection to Millbrae
- Each local pattern can only stop once between Hillsdale and Redwood City
- Atherton, College Park, and San Martin served on an hourly or exception basis

High Growth Scenarios (12 Caltrain + 4 HSR)



Features

- Nearly complete local stop service – almost all stations receiving at least 4 TPH
- Two express lines serving major markets – many stations receive 8 or 12 TPH

Passing Track Needs

- Requires up to 15 miles of new 4 track segments: South San Francisco to Millbrae, Hayward Park to Redwood City, and northern Santa Clara County between Palo Alto and Mountain View stations (shown: California Avenue to north of Mountain View)

Options & Considerations

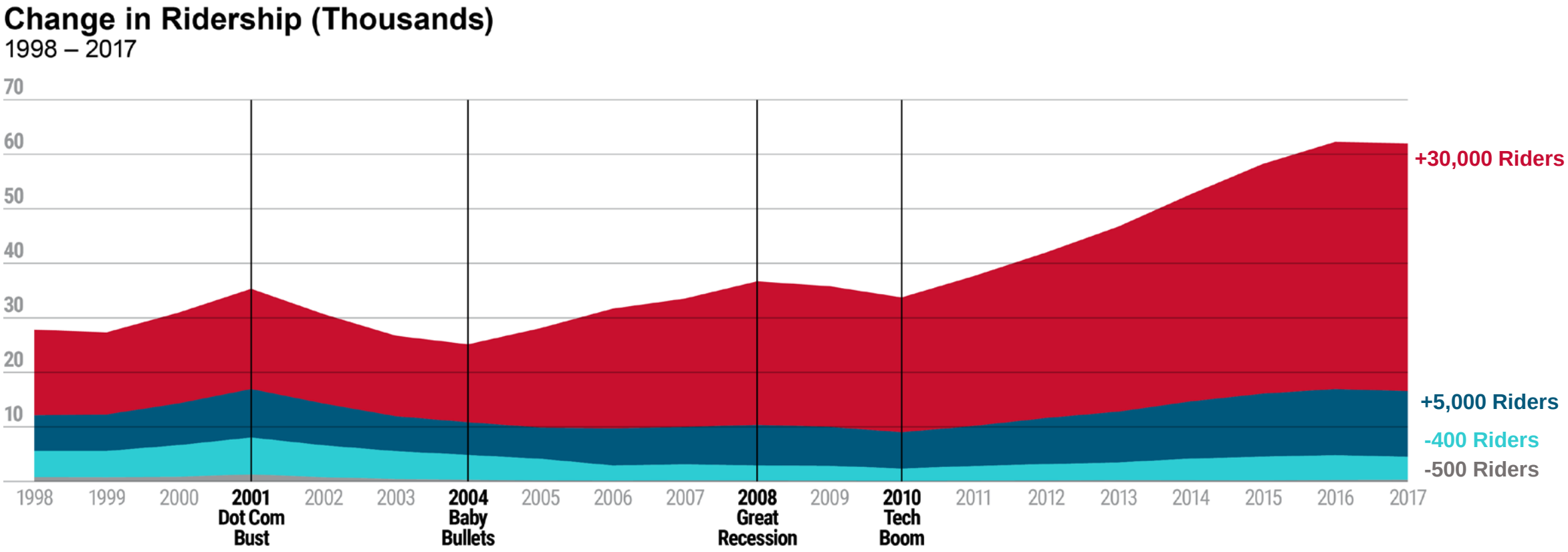
- SSF-Millbrae passing track enables second express line; this line cannot stop north of Burlingame
- Tradeoff between infrastructure and service along Mid-Peninsula - some flexibility in length of passing tracks versus number and location of stops
- Flexible 5 mile passing track segment somewhere between Palo Alto and Mountain View
- Atherton, College Park, and San Martin served on an hourly or exception basis

Next Steps: Explorations and Integration

Examples;

- Stopping pattern options and tradeoffs
- ACE and Capitol Corridor connections
- Monterey County connections
- Dumbarton service connection in Redwood City
- East Bay run-through service via second Transbay Tube

Ridership Growth Over Time



Top 8 Stations
4th & King, Millbrae, Hillsdale, Redwood City, Palo Alto, Mountain View, Sunnyvale, San Jose Diridon

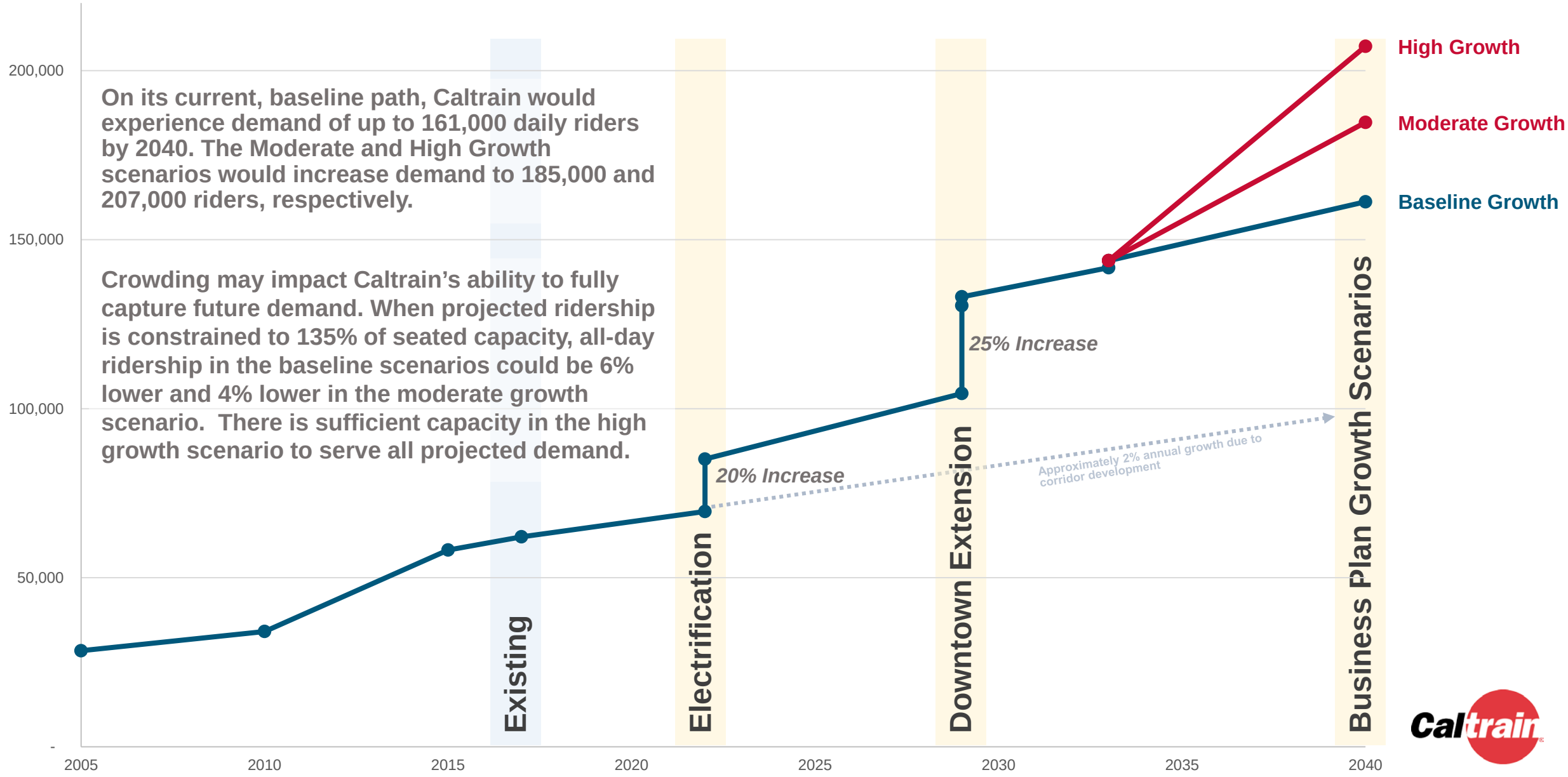
Middle 8 Stations
22nd Street, Burlingame, San Mateo, San Carlos, Menlo Park, California Ave, Santa Clara, Tamien

Bottom 8 Stations
Bayshore, South San Francisco, San Bruno, Hayward Park, Belmont, San Antonio, Lawrence, College Park

Gilroy Service
Capitol, Blossom Hill, Morgan Hill, San Martin, Gilroy

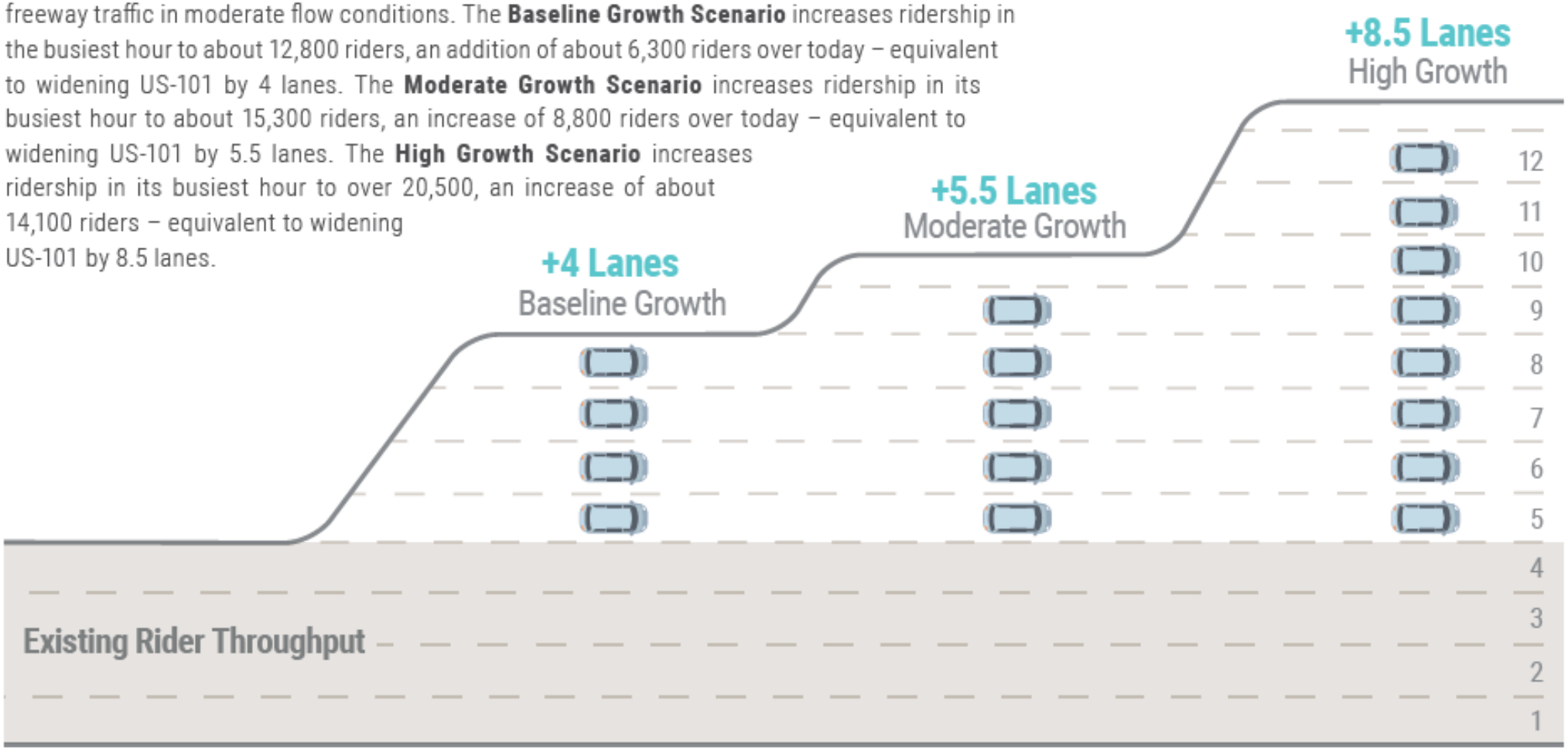
Source: 1998-2017 Passenger Counts

Ridership Projections



Trains vs. Lanes

Today, Caltrain serves about 6,500 riders during its busiest hour, which is equivalent to 4 lanes of freeway traffic in moderate flow conditions. The **Baseline Growth Scenario** increases ridership in the busiest hour to about 12,800 riders, an addition of about 6,300 riders over today – equivalent to widening US-101 by 4 lanes. The **Moderate Growth Scenario** increases ridership in its busiest hour to about 15,300 riders, an increase of 8,800 riders over today – equivalent to widening US-101 by 5.5 lanes. The **High Growth Scenario** increases ridership in its busiest hour to over 20,500, an increase of about 14,100 riders – equivalent to widening US-101 by 8.5 lanes.

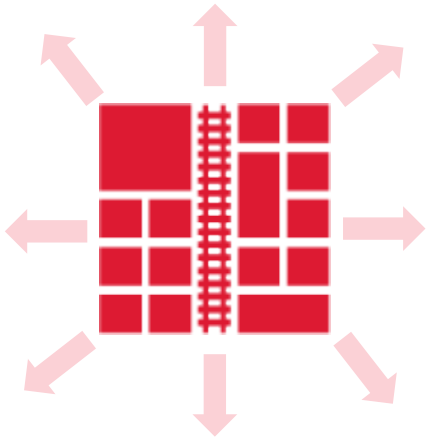


*Assumes vehicle occupancy of 1.1 persons/vehicle and lane capacity of 1,500 vehicles/hour.

The Interface Between the Railroad and its Surrounding Communities Creates both Opportunities and Challenges

Local/Regional Mobility

Place-Making



Noise/Vibration

Physical Structures

Land Use Opportunities

Economic Development

Visual Impact

Traffic/Safety

Grade Separations are a Critical Investment

- 42 at-grade crossings on the corridor Caltrain owns between San Francisco and San Jose
- 28 additional at-grade crossings on the UP-owned corridor south of Tamien

At-Grade Crossing by County in Caltrain Territory

- San Francisco: 2 at-grade crossings
- San Mateo: 30 at-grade crossings
- Santa Clara: 10 at grade crossings (with 28 additional crossings on the UP-owned corridor)

Today, during a typical weekday, Caltrain's at-grade crossings are traversed by approximately 400,000 cars. This is equivalent to the combined traffic volumes on the Bay Bridge and San Mateo Bridge

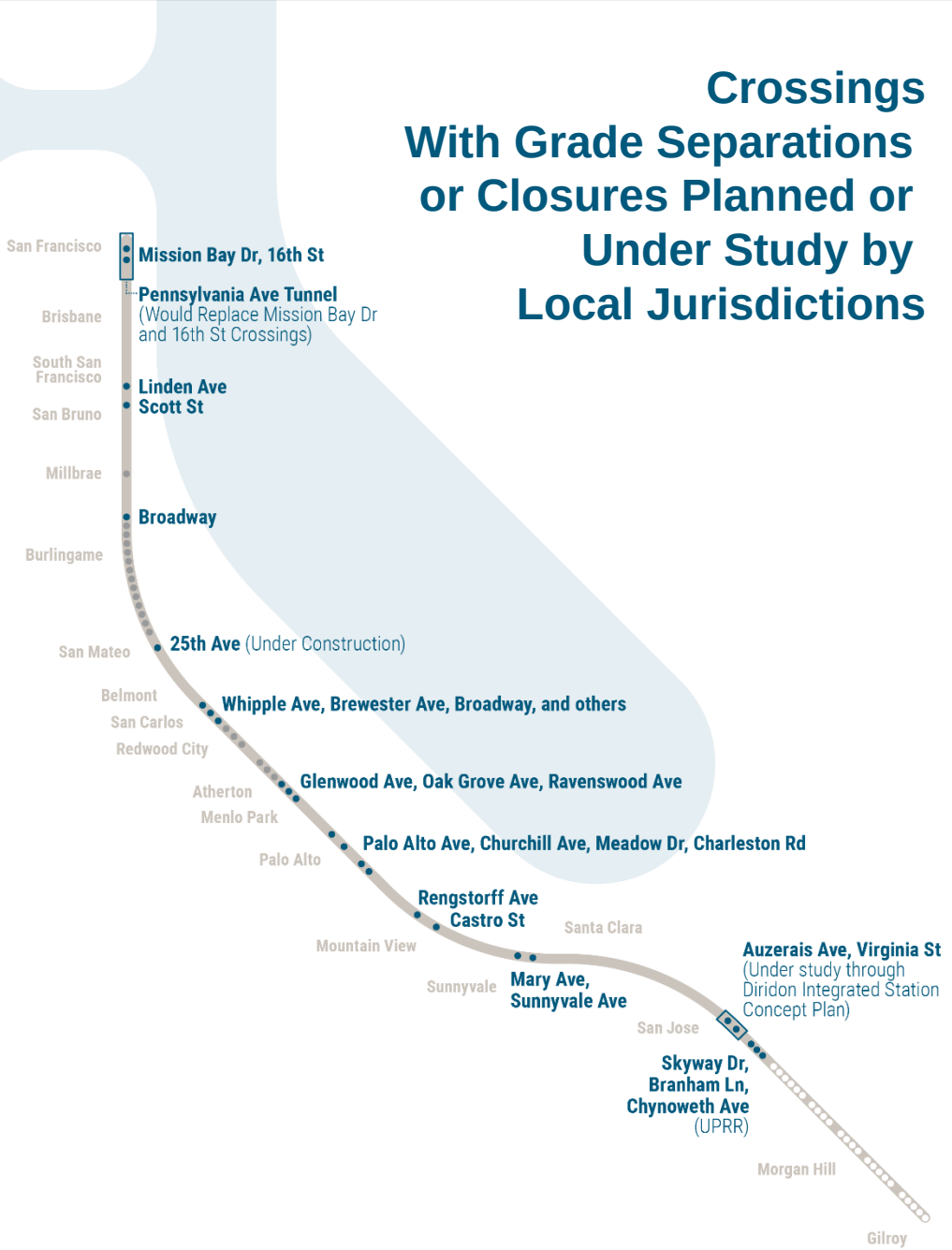
Grade Separations are a Critical Investment

Calculating the Need

- Across the corridor, cities are undertaking studies and projects to look at grade separation
- Caltrain has accounted for all of these projects in our analysis of the potential need for grade separation in the corridor as well as additional investments
- In total, the Business Plan team estimates that the total need for investment in grade separations could be between **$8.5 and $11 Billion dollars**

Taking the Next Step

- Incorporate grade separation investments into Business Plan financial and funding analysis
- Develop corridor wide grade separation strategy addressing topics like;
  - Risk assessment and prioritization factors
  - Construction standards and methods
  - Project coordination and sequencing
  - Community resourcing and organizing
  - Funding analysis and strategy



How do we Choose a Service Vision?

Choosing a long range “Service Vision” is not just about picking which service pattern looks the best- it requires evaluating which package of service and investments will deliver the best value to the corridor and the region

Service

This update describes different **illustrative** 2040 service concepts that underlie each Growth Scenario. The different concepts shown are not proposals or recommendations. They represent an indicative **range of options** for how Caltrain service could grow given different levels of investment in the corridor

Business Case

During the spring of 2019 the Business Plan team will develop a detailed “Business Case” analysis for each of the different growth scenarios. The Business Case will quantify the financial implications and wider costs and benefits of each growth scenario

Next Steps & Outreach

Next Steps

Over the next two months the Business Plan team is working to complete a full set of draft materials to support Board consideration and adoption of a 2040 Service Vision

Ongoing Analysis

- Service simulation and integration analysis
- Capital costing and Operations and Maintenance Analysis
- Economic analysis and benefits calculations
- Organizational assessment
- Community Interface documentation and peer case studies

Upcoming Milestones

- Major Board Workshop targeted for **July 11** to review expanded set of materials and discuss recommended “Service Vision”
- Subsequent adoption of Service Vision in August timeframe pending Board discussion and stakeholder feedback

Next Steps Continued

Following Board designation of a long range “Service Vision” staff will work to complete a full Business Plan document by the end of 2019

Work to be Undertaken following Board Adoption of a “Service Vision”

- Near- and mid-term service planning
- First- and last mile analysis
- Additional organizational analysis
- Funding analysis including;
  - Commercial revenue strategies
  - Potential new sources of funding

Engagement with Local Jurisdictions

Monthly Updates, Individual Meetings and Individualized Materials for 21 Local Jurisdictions

Website: www.caltrain2040.org

Outreach Activities to Date

July 2018 – April 2019 by the Numbers

Stakeholders Engaged

21
Jurisdictions

26
Public Agencies

113
Stakeholder Meetings

93
Organizations in Stakeholder Advisory Group

Public Outreach

30
Public Meetings and Presentations

1,000+
Survey Responses

8,500+
Website Hits

27,000
Social Media Engagements

FOR MORE INFORMATION
www.caltrain2040.org