

# TAC Meeting #2

# CCTS Project Update

**CORE CAPACITY**  
TRANSIT STUDY



October 20, 2015

# Agenda

1. Guiding Principles
2. Project Status
3. Market Assessment findings
4. Transbay Corridor Capacity and Demand findings
5. SF Metro Corridor Capacity and Demand analysis
6. Second Transbay Crossing Landing findings
7. Package Development process
8. Next Steps: Tasks and Engagement

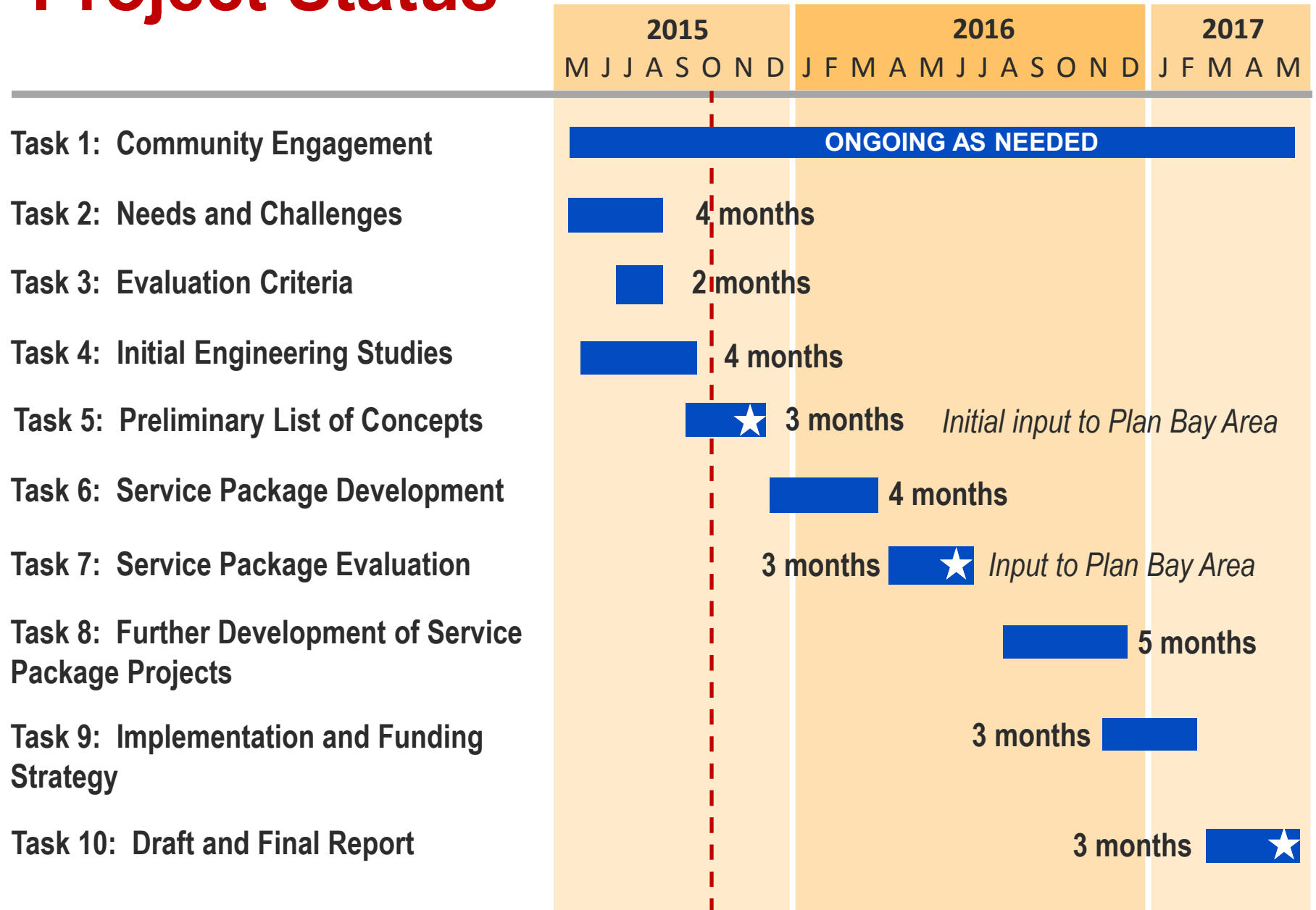
# Guiding Principles

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1. **Transit should be the preferred mode** to supply increased capacity for travel between the East Bay and the San Francisco core, and for intra-San Francisco trips
2. Regional transit service will be **supportive and consistent with adopted regional land use policies**
3. Transit operations and improvements will deliver:
  1. Safety
  2. Capacity – additional capacity to meet expected demand
  3. Reliability
  4. Accessibility – high frequency, robust span-of-service, attractive stops & stations
  5. Speed
  6. Quality service
4. Transit services into and within the core will be **designed to operate as a system**, regardless of agency or mode
5. The transit infrastructure system will be planned, designed and constructed to reflect rider needs by providing **operational redundancy, flexibility and resilience** to respond to operational detours, routine and extraordinary maintenance, and emergencies resulting from natural disasters
6. Infrastructure and other capital improvements will be **designed for a project or system's maximum value** and **implemented at the most optimal time** for full economic benefit
7. Existing highways and appropriate roadway facilities are suitable options for providing priority transit access for transit vehicles

# Project Status

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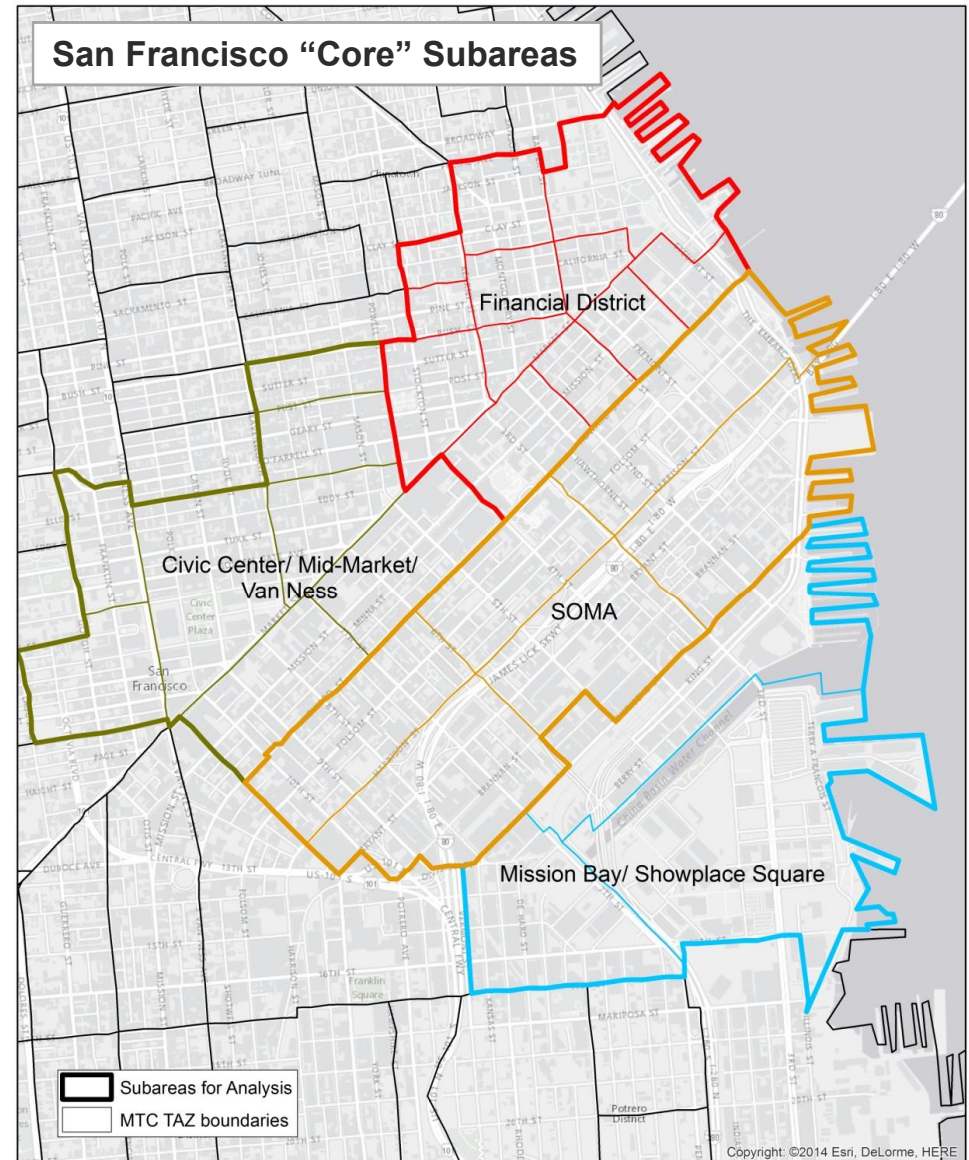


# Market Assessment: Preliminary Findings

Strategic Economics

# Market Assessment Goals

- Provide a range of **employment growth projections** for key subareas within the San Francisco core
- **Explore different scenarios** and inform development of transit alternatives

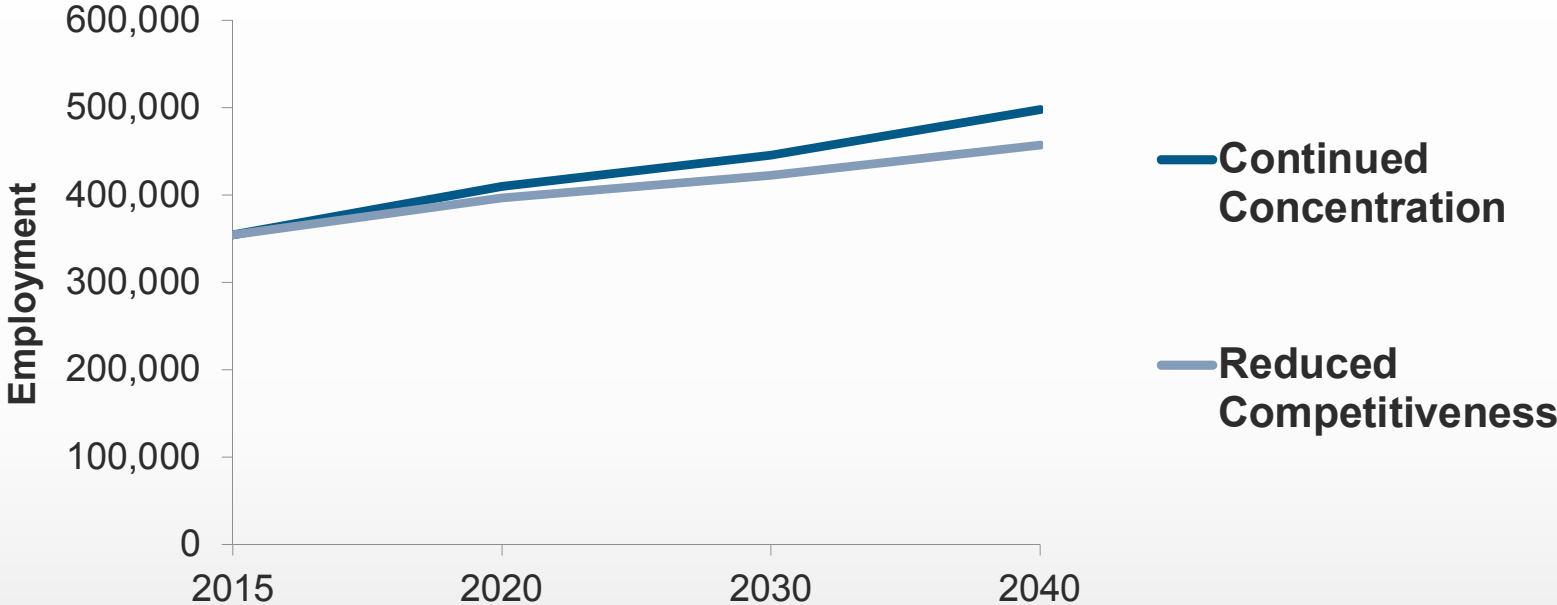




# Market Assessment Key Factors

Key Factor	Scenario 1: Continued Concentration	Scenario 2: Reduced Competitiveness
1. Capture of Regional Employment Growth in the SF Core	<b>High</b> 18%	<b>Low</b> 14%
2. Office Employment Densities Assumptions	<b>High</b> Traditional: 250 sq. ft./worker Creative: 170 sq. ft./worker	<b>Medium</b> Traditional: 265 sq. ft./worker Creative: 195 sq. ft./worker
3. Development Capacity/ Extent of Redevelopment	<b>High</b> 50% soft sites	<b>Medium</b> 30% soft sites

# Employment Model Results

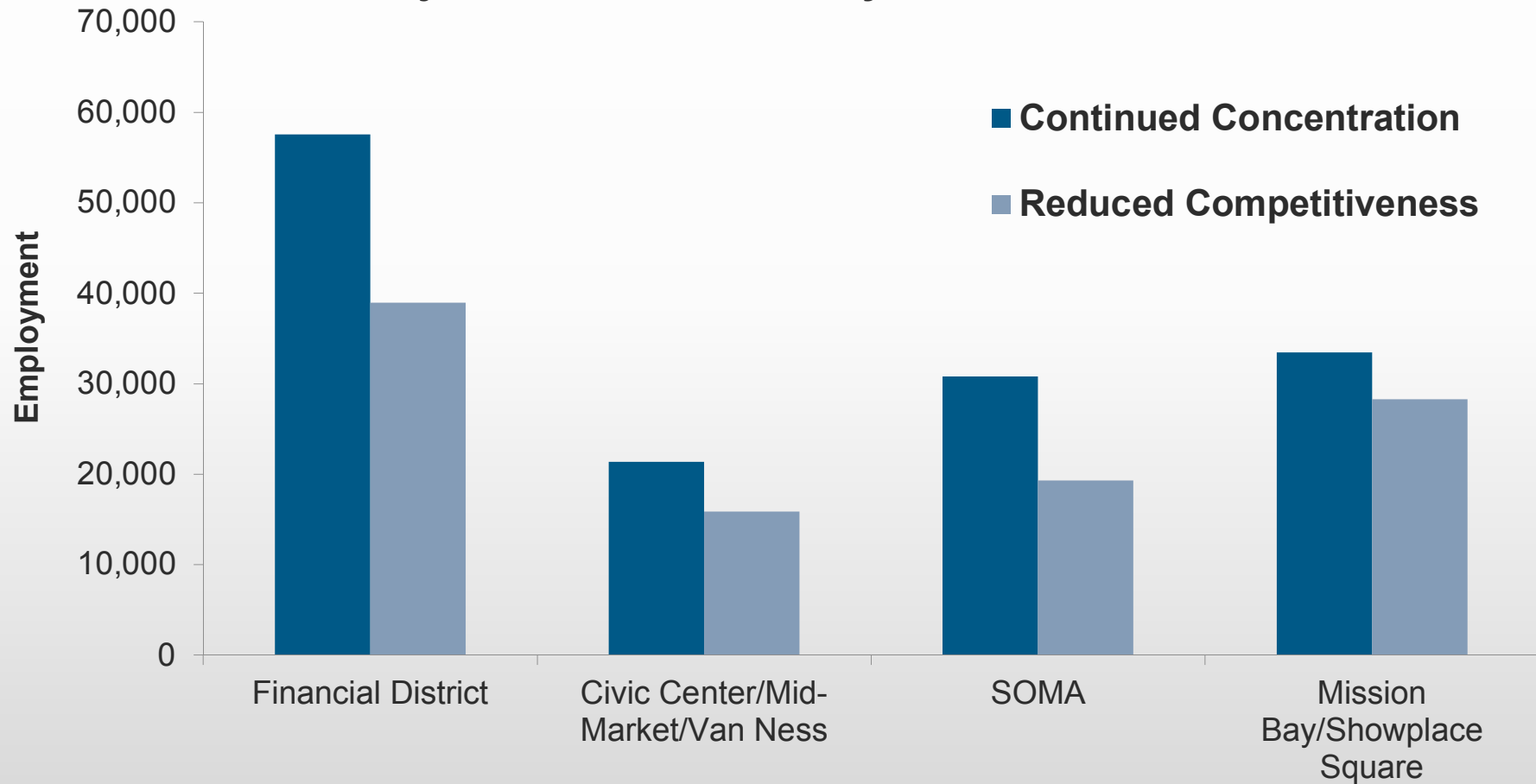


Scenario	New Jobs, 2015-40	Net New Development, 2015-2040 (Millions of Sq. Ft.)
Continued Concentration	143,184	71.9
Reduced Competitiveness	102,410	56.5

Source: Strategic Economics, 2015.

# Results by Subarea

## Projected Net New Jobs by Subarea, 2015-2040



# Scenario Summary

- **Scenarios project 100,000-140,000 new jobs in the Core**
  - Greater office densities over time
  - Redevelopment of existing buildings
- **Financial District captures most new jobs** but accommodates least amount of new development
- **Financial District reaches full capacity** by 2040 in both scenarios
- **Civic Center reaches capacity** by 2040 in Scenario 1 (Continued Concentration)

# Next Steps for Market Assessment

- Working with SF Planning to refine assessment
- Developing Oakland assessment to complement SF analysis

# Transbay Corridor Capacity and Demand

# Current Conditions: Transbay Auto Trips (Westbound AM Peak Hour)

## 2014 Auto Trips (to core)

	Non-HOV/Carpool		HOV/Carpool		Total
	#	% of auto trips	#	% of auto trips	
Vehicles	3,978	66%	2,004	34%	5,982
Person Trips	4,575	46%	5,291	54%	9,866

- Without a change in mode split or vehicle occupancy, under current conditions **there is no capacity to add new trips** on the Bay Bridge.

# Current Conditions: Transbay Transit Trips (Westbound AM Peak Hour)

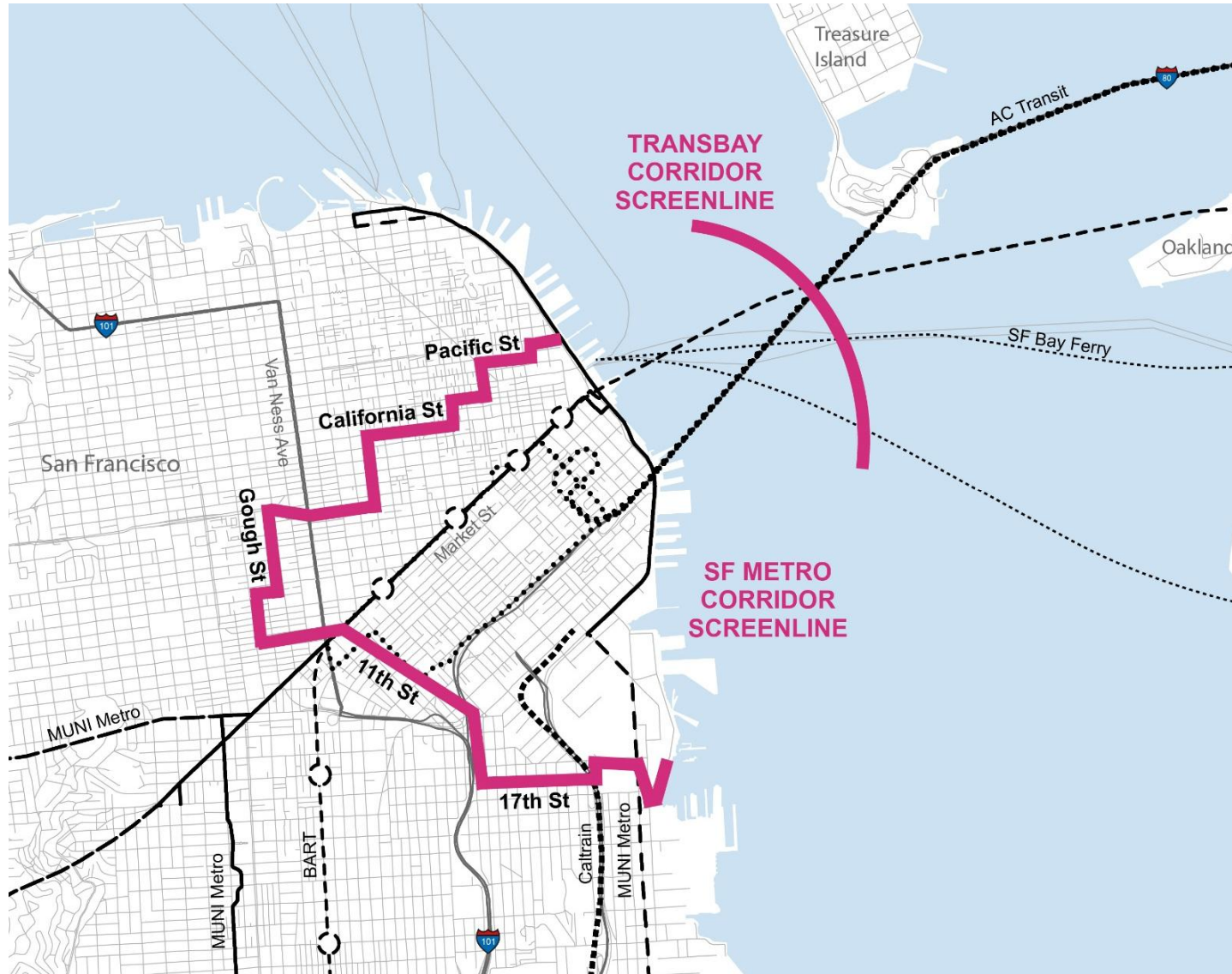
## 2014 Transit Trips

	BART		AC Transit		WETA		Other Bus		Total
	#	% of transit trips	#	% of transit trips	#	% of transit trips	#	% of transit trips	
Person Trips	23,664	86%	2,546	9%	1,027	4%	180	1%	27,417

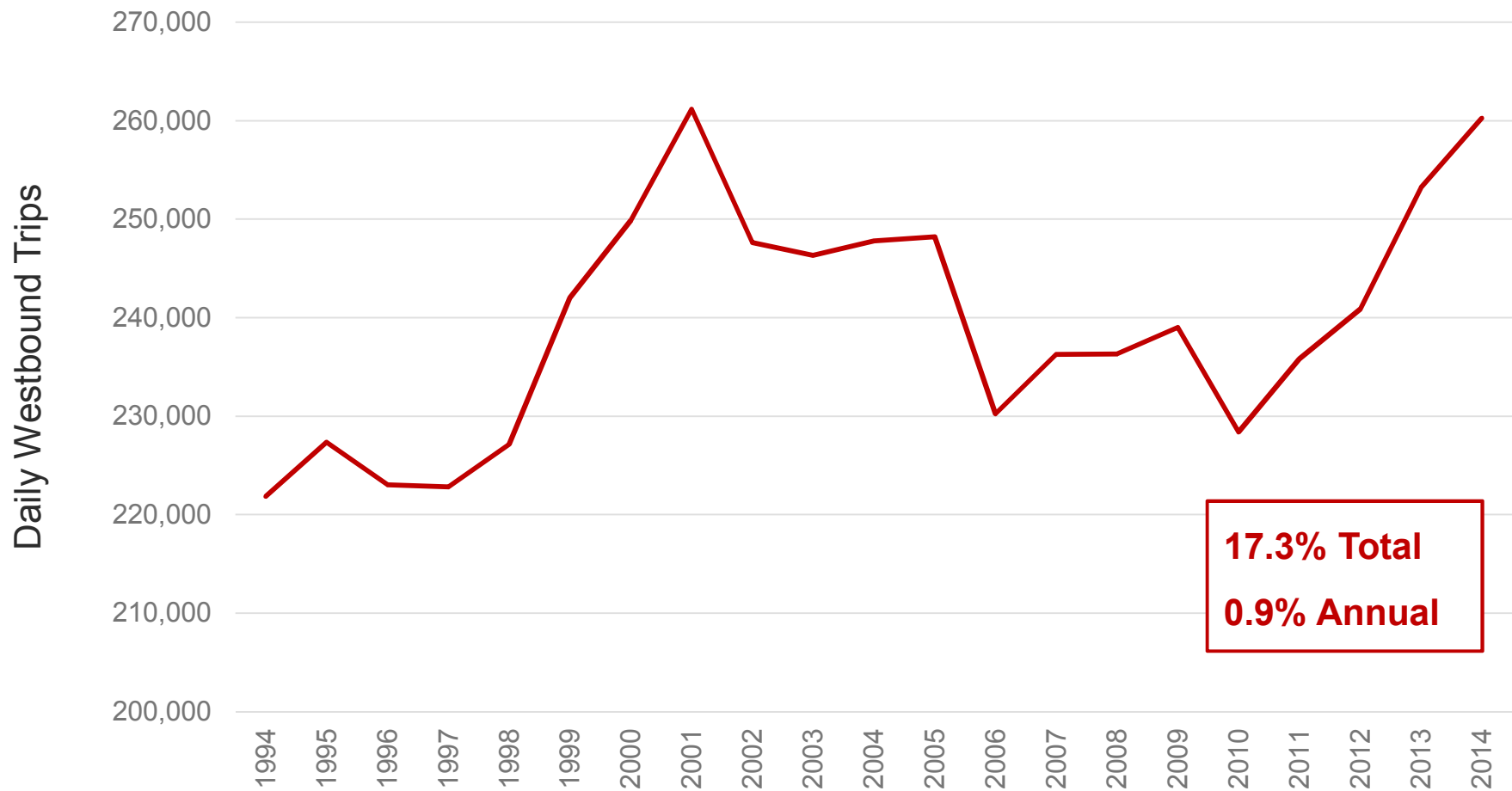
- Peak-hour transit demand grew by 35% from 2010-2014.
- There is **limited additional transit capacity** under current conditions—operating at 96% of overall capacity standard.
- NOTE: Modes and routes will be evaluated individually to optimize capacity increases.



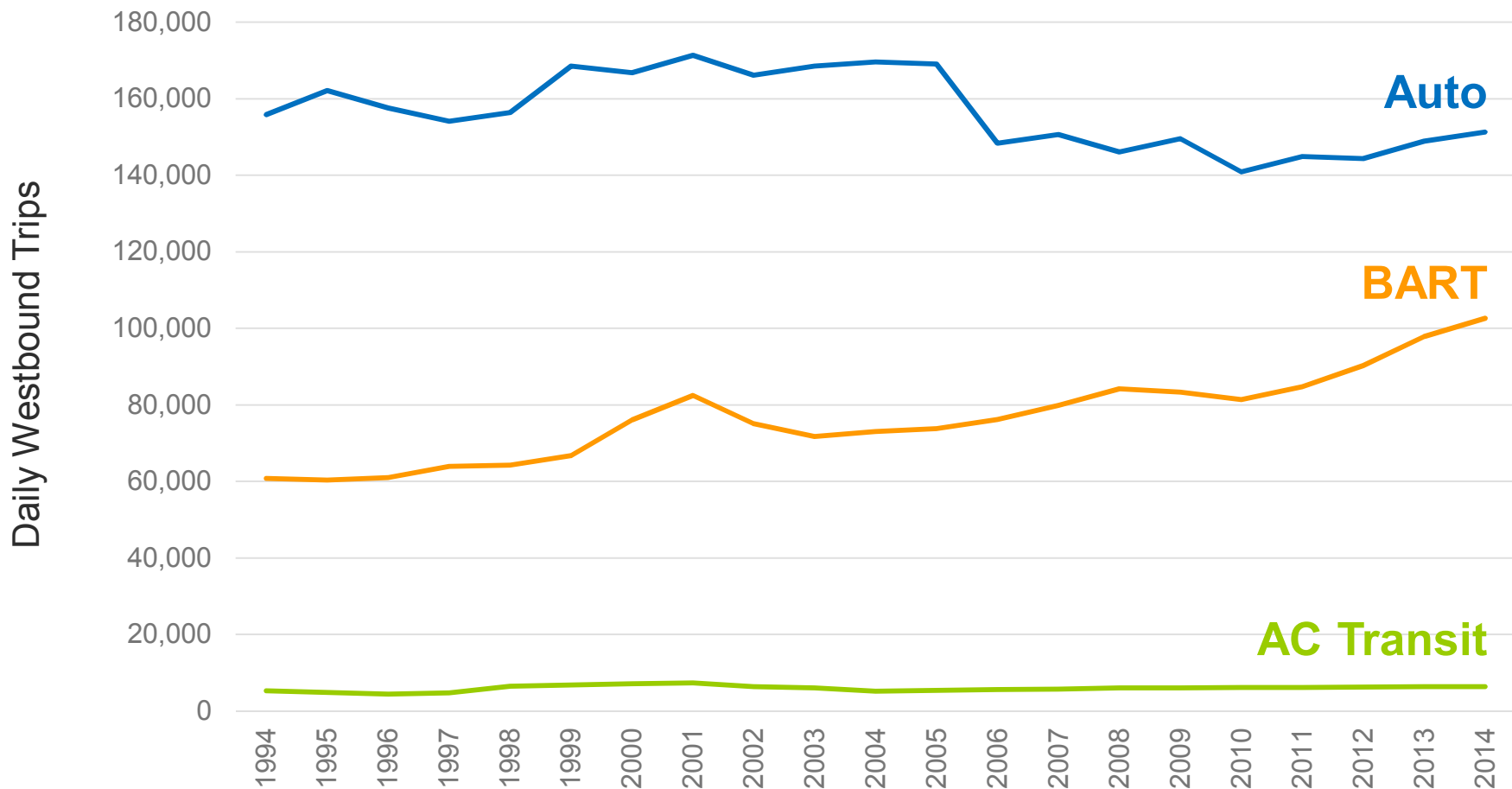
# Study Screenlines



# Transbay Corridor Historical Growth: All Daily Travel

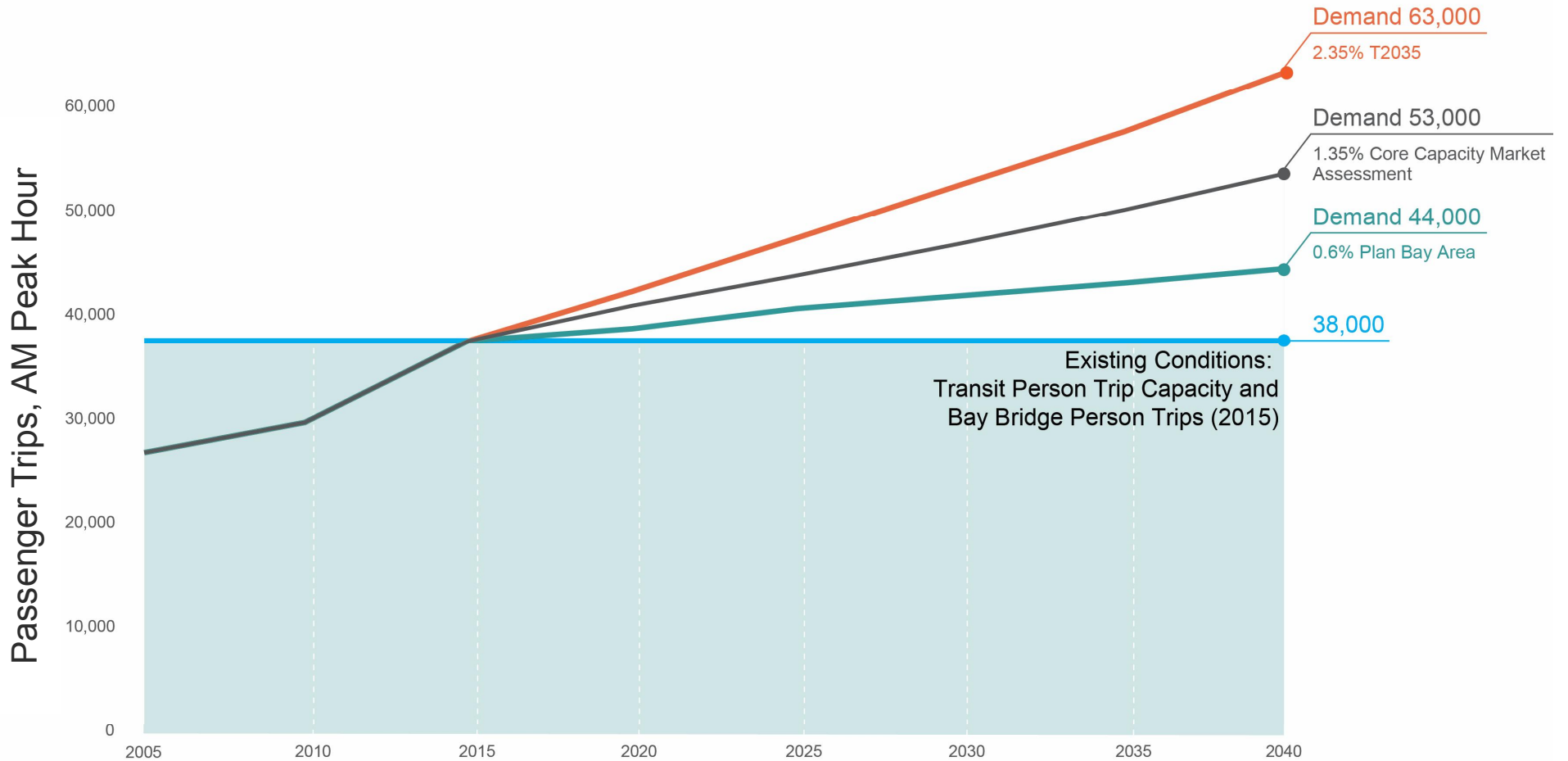


# Transbay Corridor Historical Growth: Daily Travel By Mode

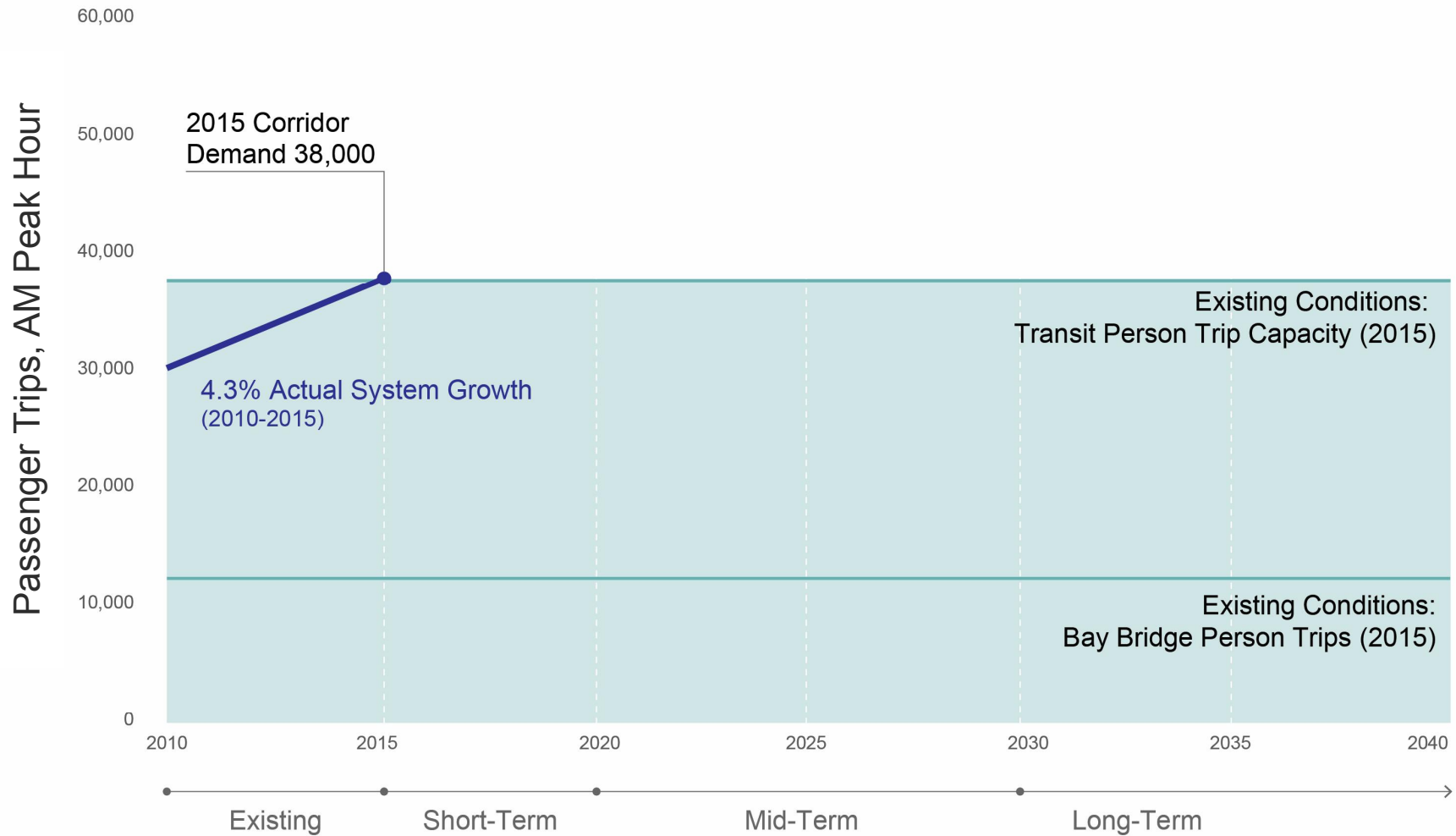


WETA line not included due to insufficient data  
2013 WETA ridership: ~2,300 daily westbound trips

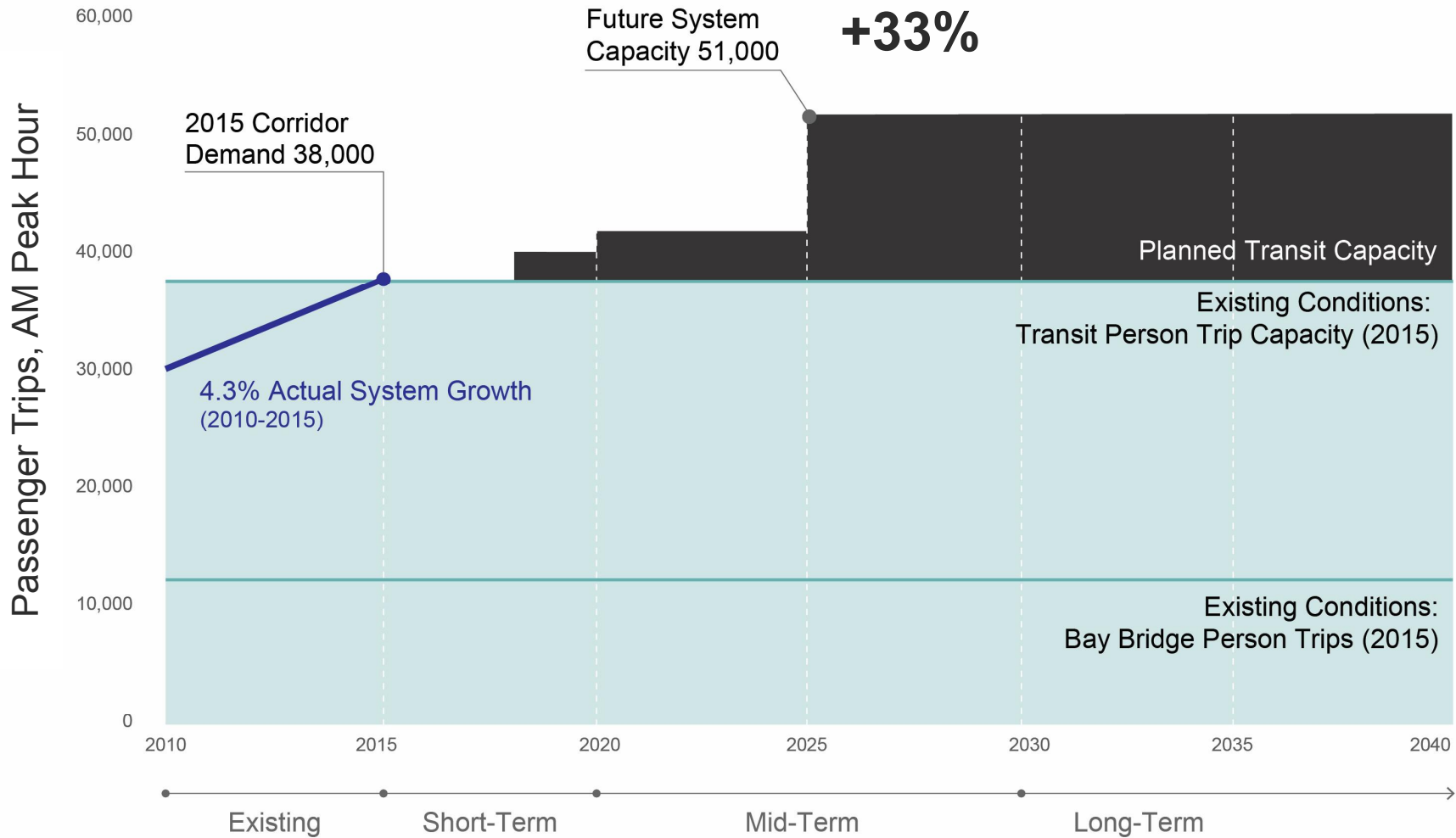
# Transbay Corridor Future Growth



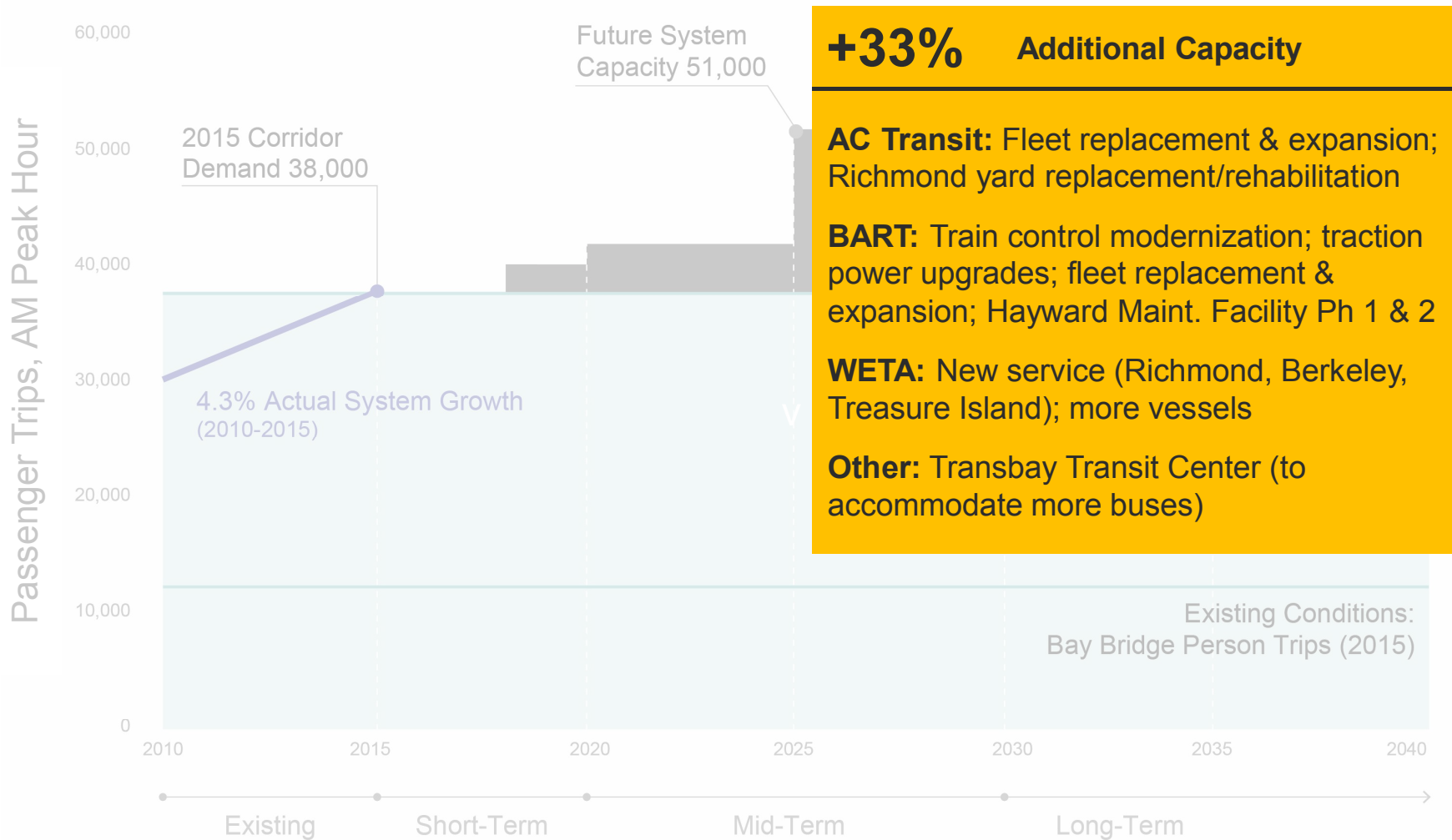
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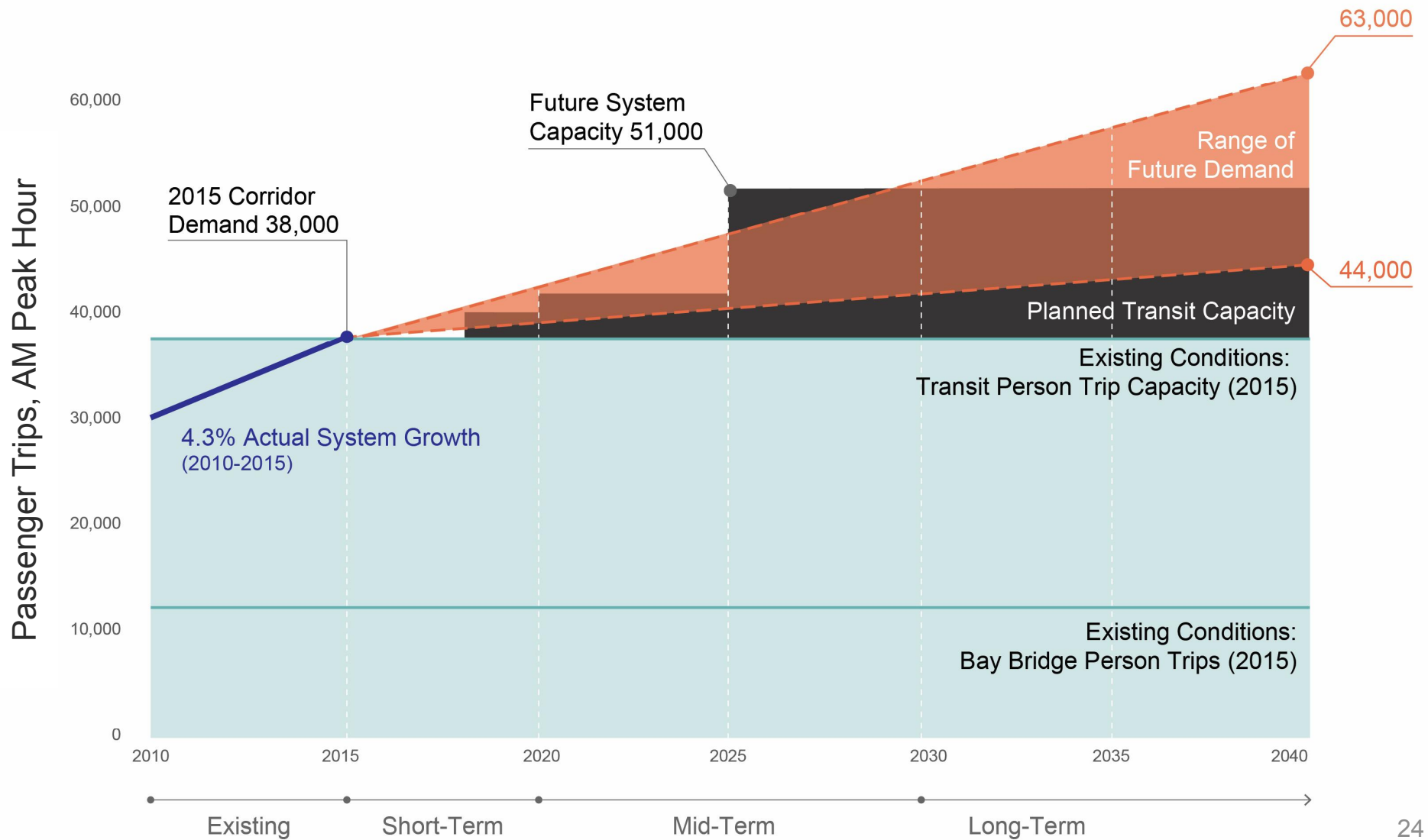
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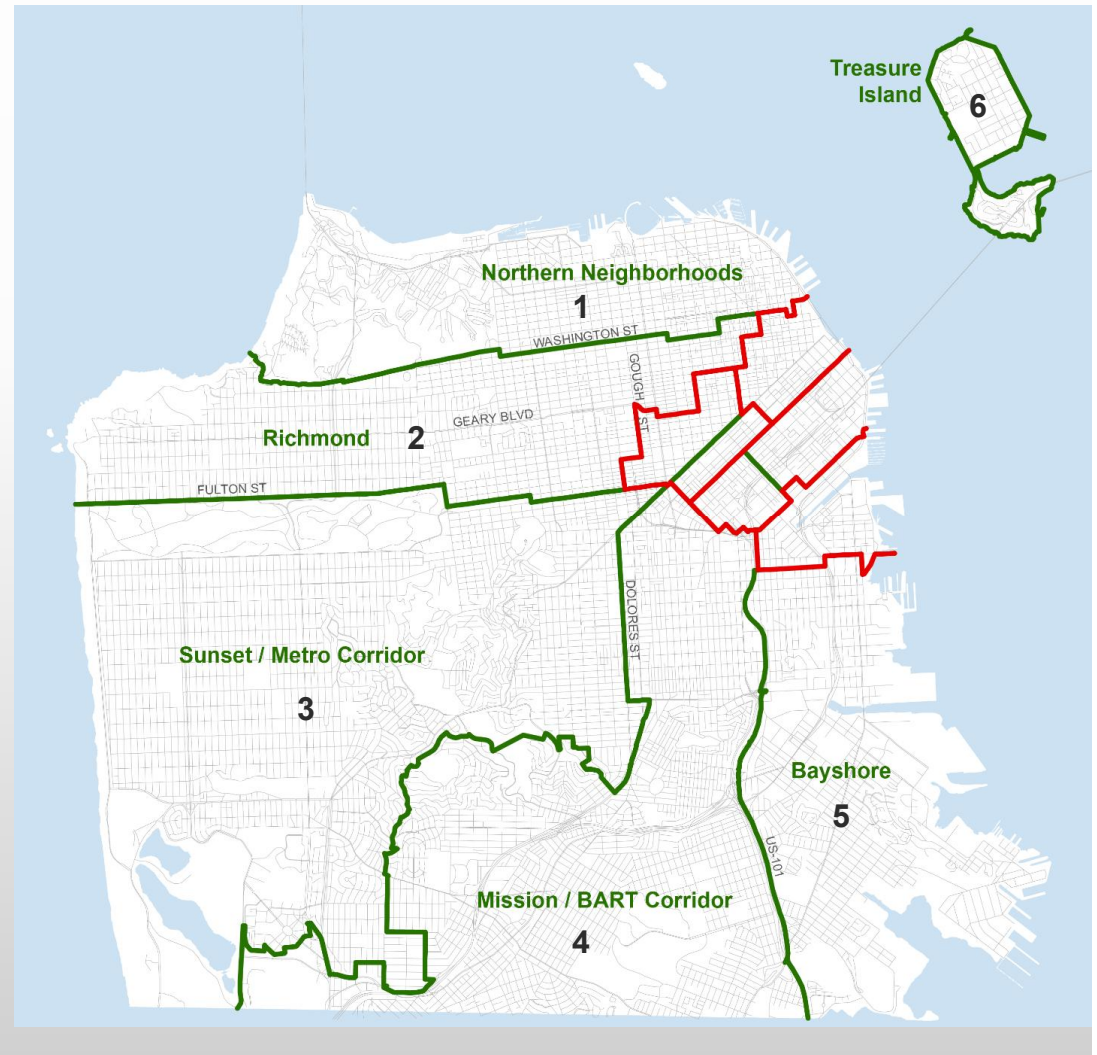
# Transbay Corridor Future Growth

Threshold	Passenger Trip Capacity (Peak Hour)	Year When Demand Exceeds Capacity (Estimate)		
		T2035 Growth Rate (2.35%/yr)	Market Assessment Growth Rate (1.35%/yr)	Plan Bay Area Growth Rate (0.6%/yr)
2015 Capacity	38,000	2015	2015	2015
2025 Capacity	51,000	2029	2037	2040+

# San Francisco Metro Corridor Capacity and Demand

# SF Metro Capacity and Demand Analysis (In Progress)

- Assess trips to the Core from within San Francisco and the peninsula
- General methodology:
  - Divide city into sub-areas
  - Assign routes to sub-areas
  - Assess current and planned capacity and demand by sub-area



# Second Transbay Crossing Landing Findings

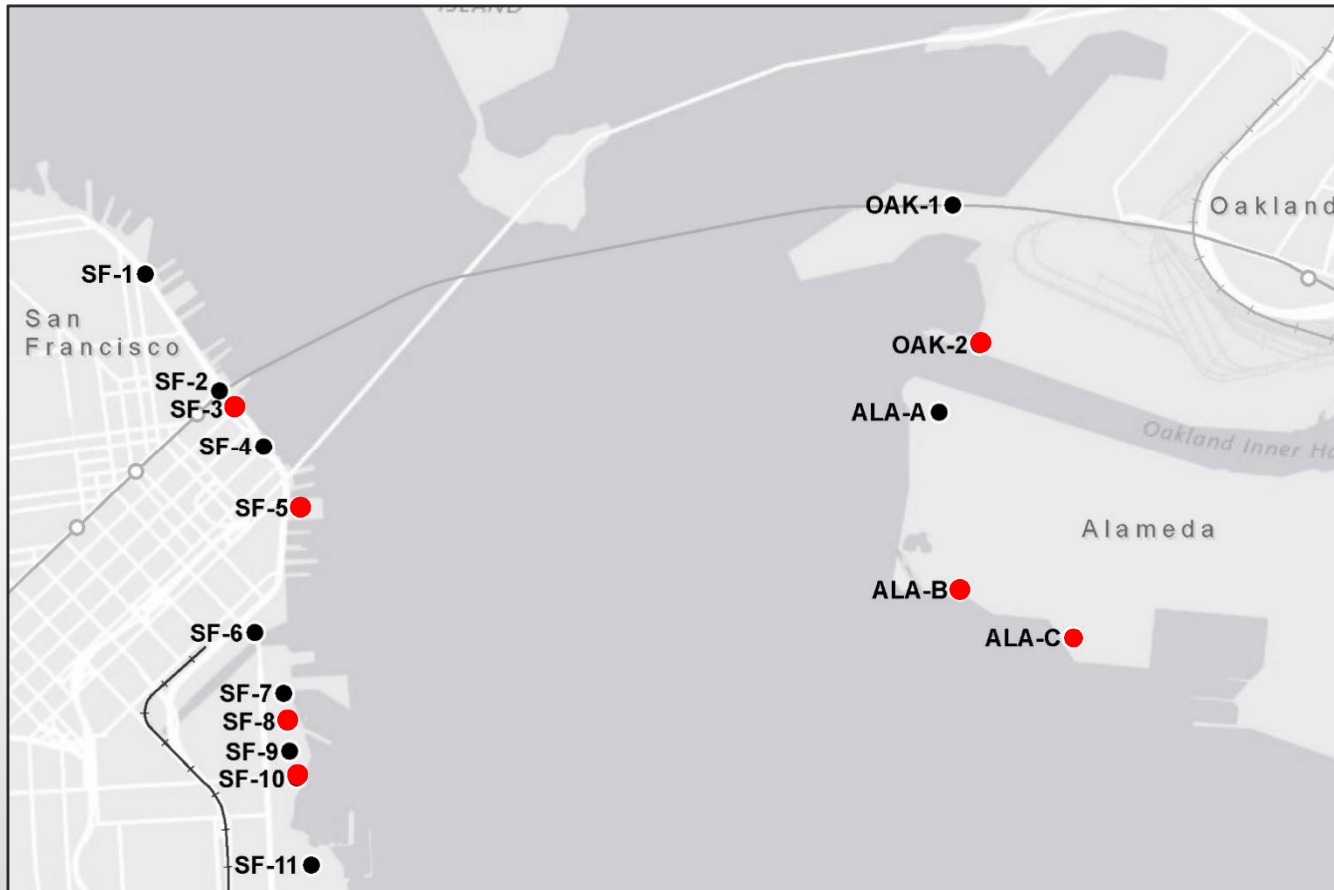
# Goals for Second Crossing Initial Engineering

- High level review of constraints and opportunities of plausible tunnel/immersed tube alignments
- Identifying “fatal flaws” and constraints associated with bay crossing landing corridors
- Review of:
  - Mined tunnels and immersed tube configurations
  - Technology and ROM costs
  - Qualitative risk assessment of permitting issues
- Reference for planning decisions going forward

# Initial Engineering Methodology: Criteria

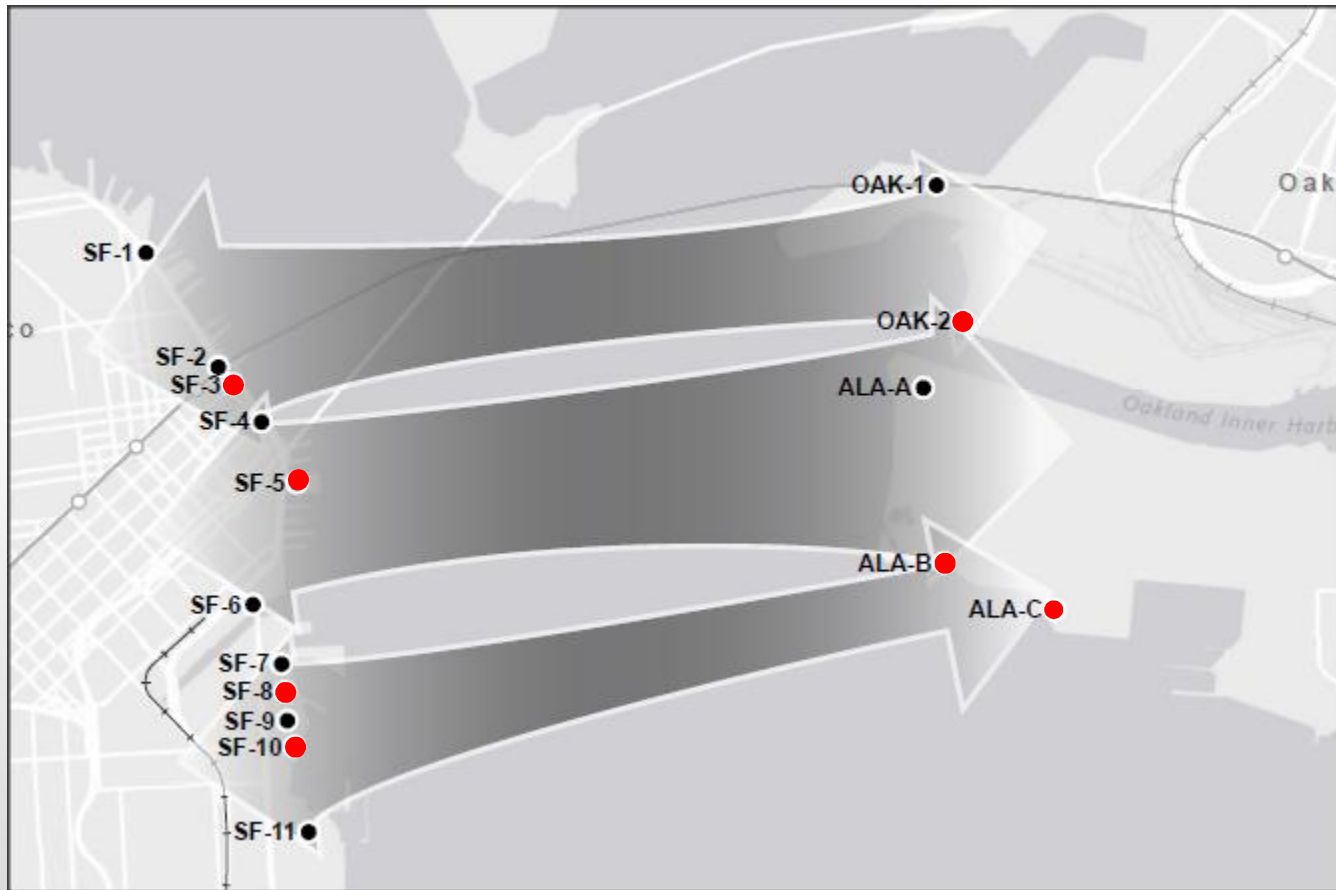
- Qualitative landing review
- Shoreline and adjacent constraints
  - **Rail Geometry Constraints**
    - Landing/Station Depth
    - ROW Width
    - Transition Structure/Staging Suitability
  - **Geotechnical Conditions**
  - **Constructability Risks**
    - Major Utility Relocations/Interferences
  - **Environmental Risks**
  - **Construction Impacts**

# Promising Landings



- San Francisco SF-3
- San Francisco SF-5
- San Francisco SF-8
- San Francisco SF-10
- Oakland OAK-2
- Alameda ALA-B
- Alameda ALA-C

# Potential Corridors



- Mission Street to Oakland Outer or Middle Harbor
- Pier 30–32 to Alameda NAS
- Central Mission Bay to Alameda NAS



# Package Development

# Package Development Process

1  
**Create  
Themes**

Pre-define themes for up to three packages

2  
**Package  
Workshops**

Multiple workshops to develop, refine packages of projects

3  
**Deliver  
Packages**

Deliver three refined packages to TAC, Executive Team

# Next Steps

# Upcoming Tasks

## Oakland Market Assessment

### Tasks 5 & 6: Preliminary Concepts and Service Package Development

- Screen candidate projects
- Create project packages

### Tasks 7 & 8: Service Package Evaluation

### Tasks 9: Implementation and Funding

# Stakeholder Engagement

## **CCTS engaging with various stakeholders across the community:**

- Advocacy organizations: Summer/Fall 2015 (ongoing)
- PMT (monthly)
- TAC: October 2015
- ET: December 2015
- Public: March-April 2016 (coincide with Plan Bay Area outreach)