San Francisco-Oakland Bay Bridge West Span Bicycle/Pedestrian/Maintenance Path

Prepared for

BAY AREA TOLL AUTHORITY

Caltrans

Prepared by

T·Y·LIN INTERNATIONAL

December 13, 2011

Presentation Overview

- Project overview
- Background
- Project goals
- San Francisco downtown connections
- Path on West Span
- YBI/TI connections
- Project schedule, cost & phasing
- Next step

Project Overview

Background

- 1936 – Bay Bridge Opened
- 1950's – Rail Removed from Lower Deck
- 1989 – Loma Prieta Earthquake Damage
- 2001 – West Span Bike/Ped/Maint. Pathway Feasibility Study Completed
- 2004 – West Span Seismic Retrofit Completed
- 2006 – West Span Deck Overlay Completed
- 2009 – BATA authorizes preparation of a Project Study Report to identify alternatives and update costs for future funding decisions on a West Span Bike/Ped/Maint. Pathway

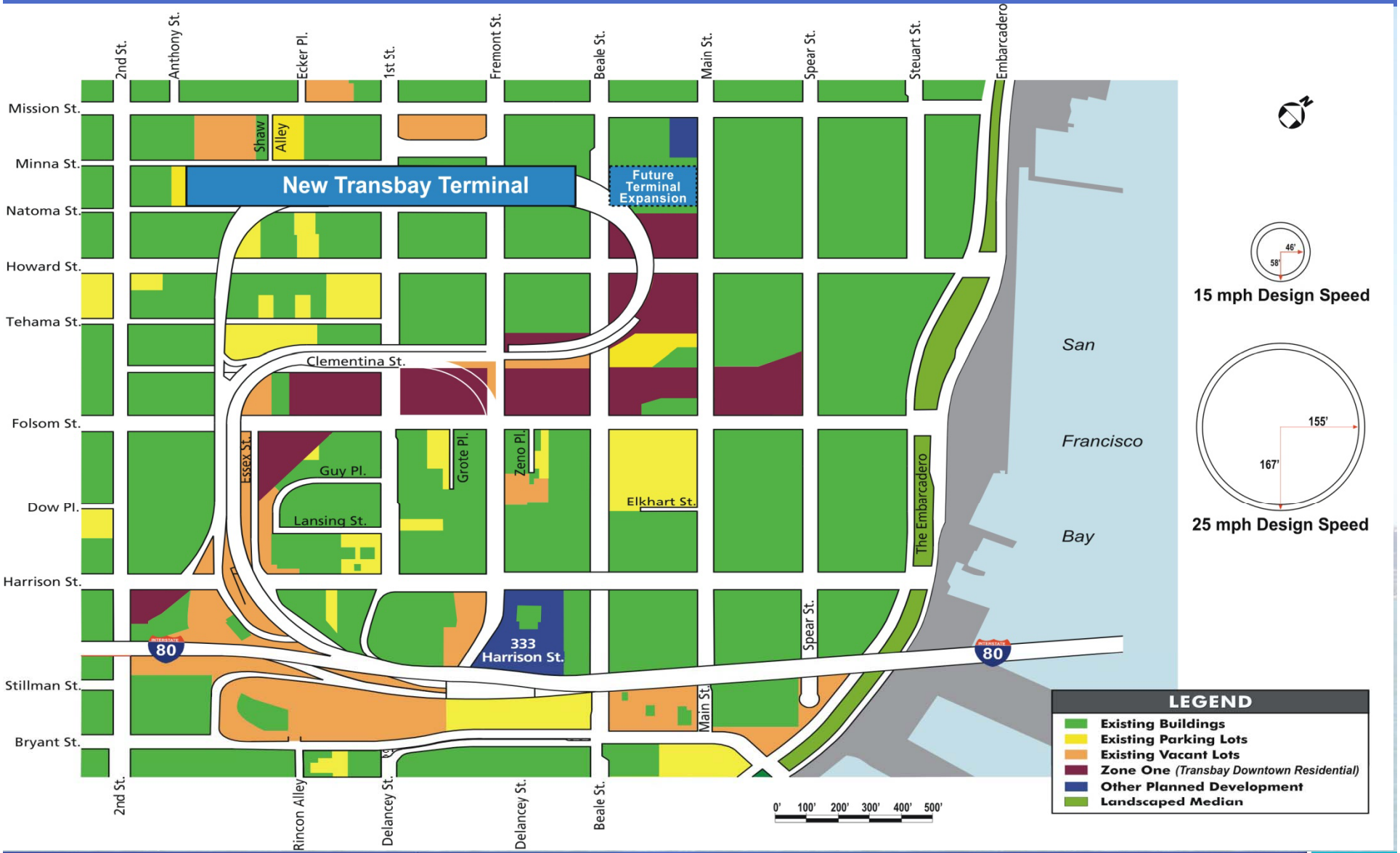
Project Goals

- San Francisco downtown bicycle & pedestrian link to East Bay & Treasure Island
- Caltrans maintenance access to reduce daily maintenance closure

San Francisco Design Considerations

- ADA requirements
- Bicycle design requirements
- Lack of right of way
- Planned development
- Connectivity
- Safety
- Costs
- Environmental impact

Downtown SF Planned Development



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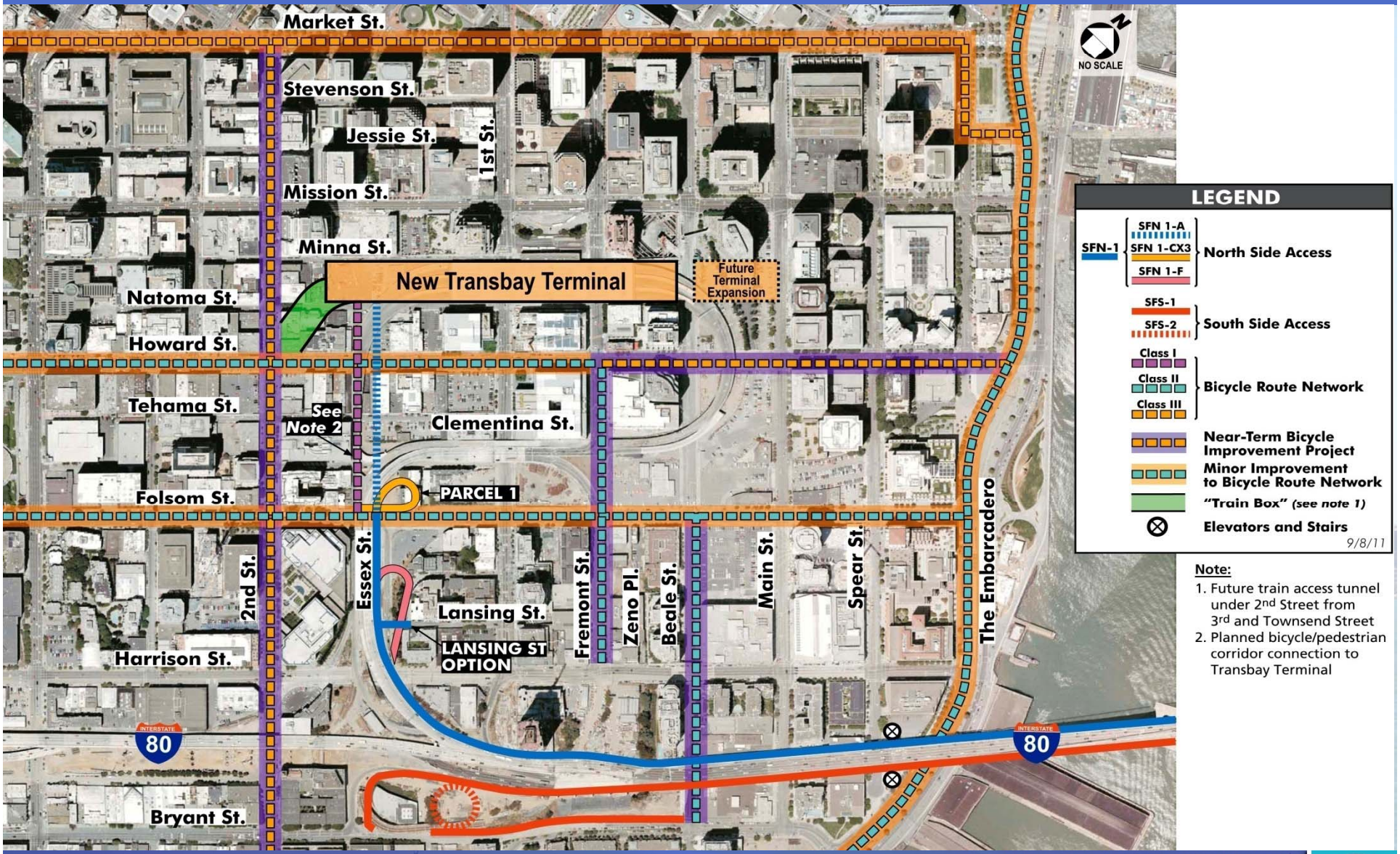
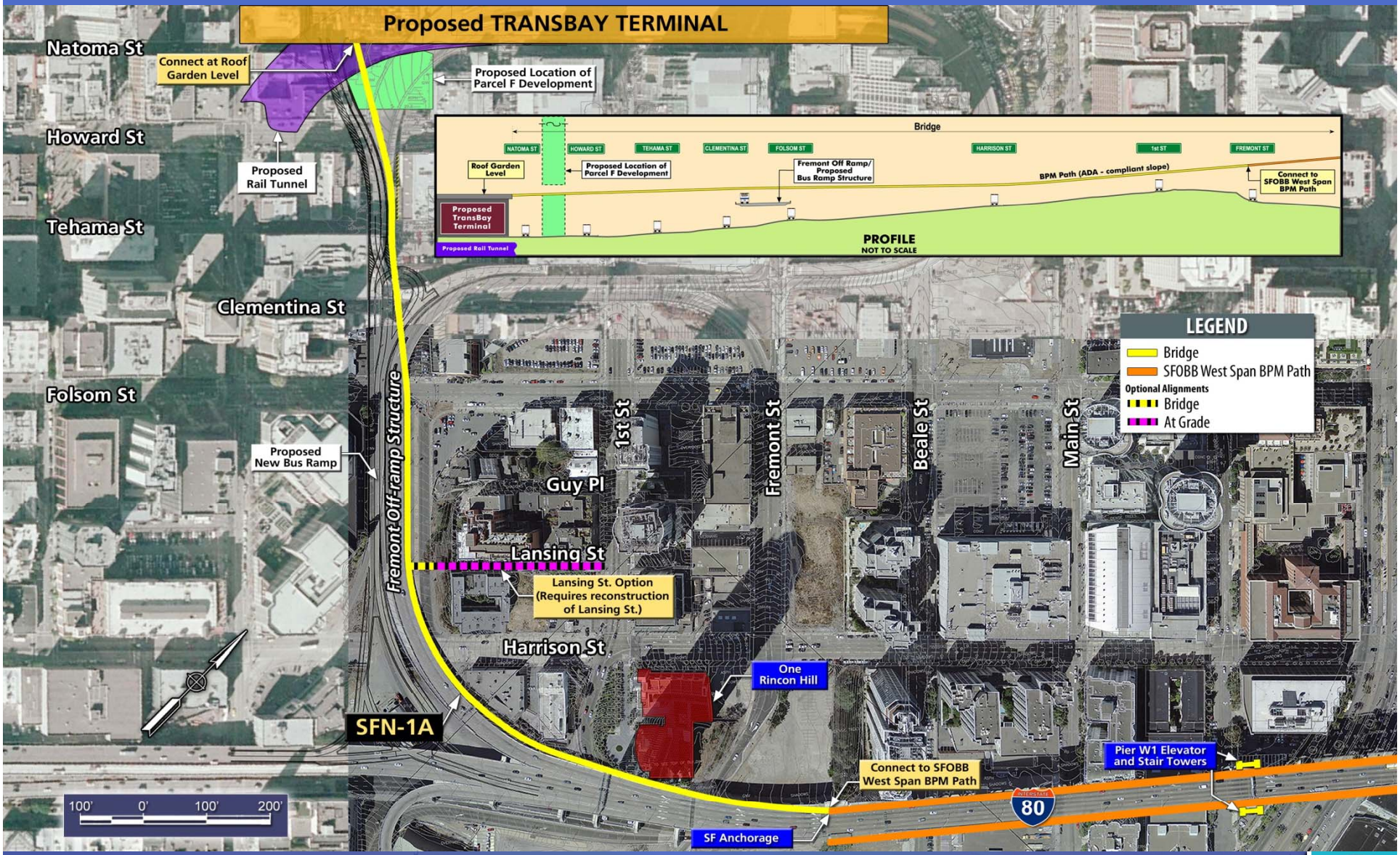
SF Bike Plan & Connectivity



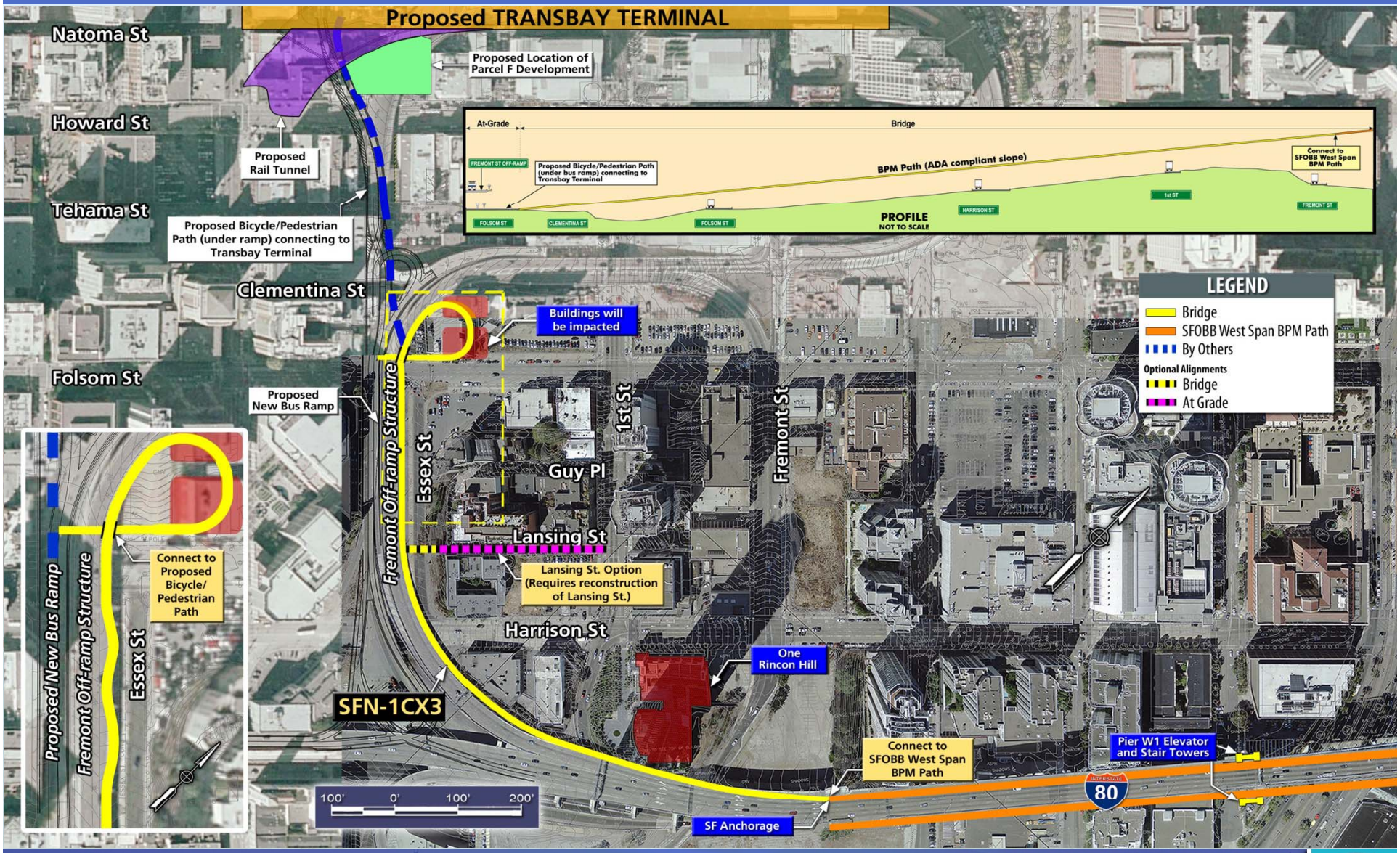
Note:

1. Future train access tunnel under 2nd Street from 3rd and Townsend Street
2. Planned bicycle/pedestrian corridor connection to Transbay Terminal

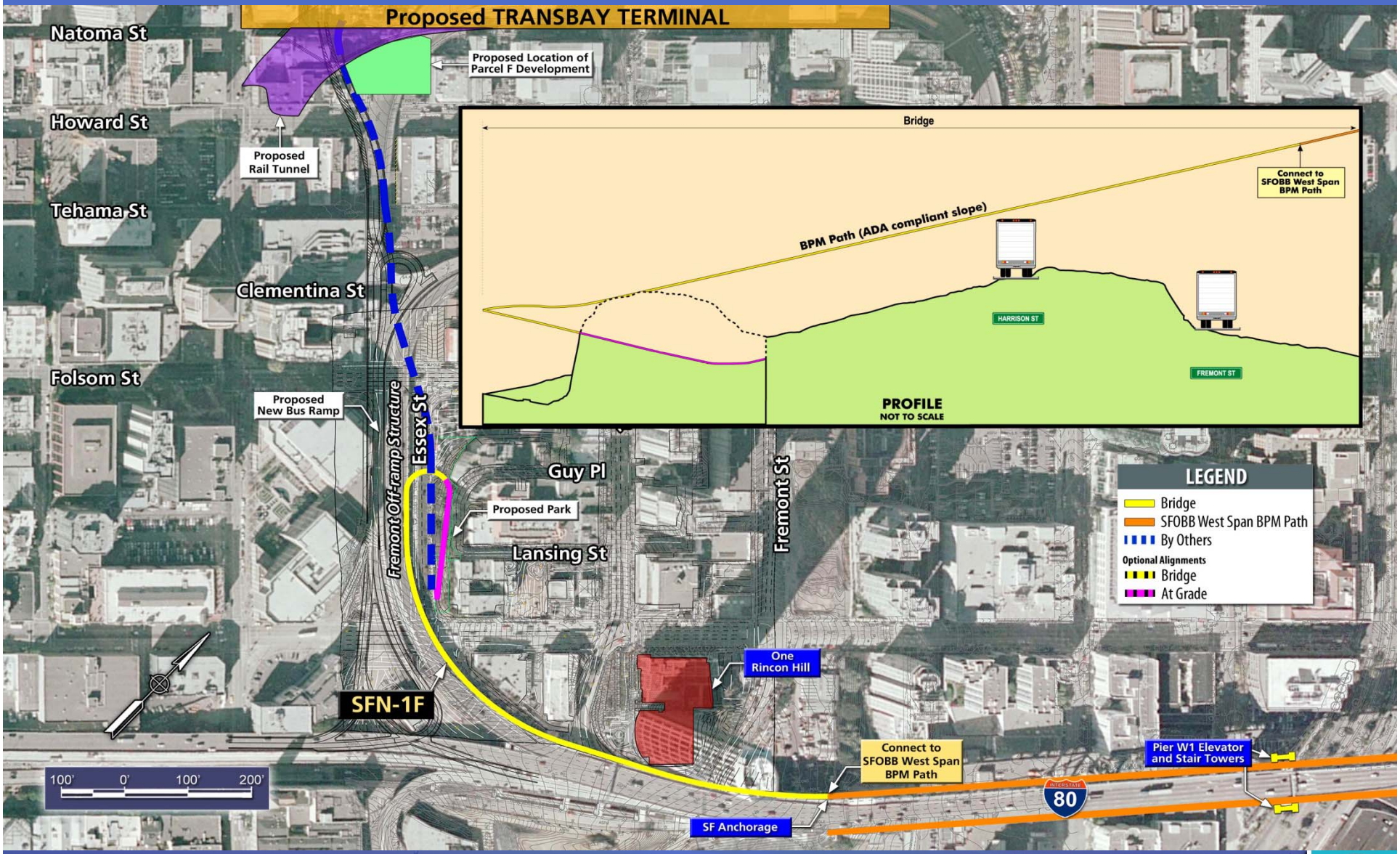
San Francisco-Alt SFN – 1A



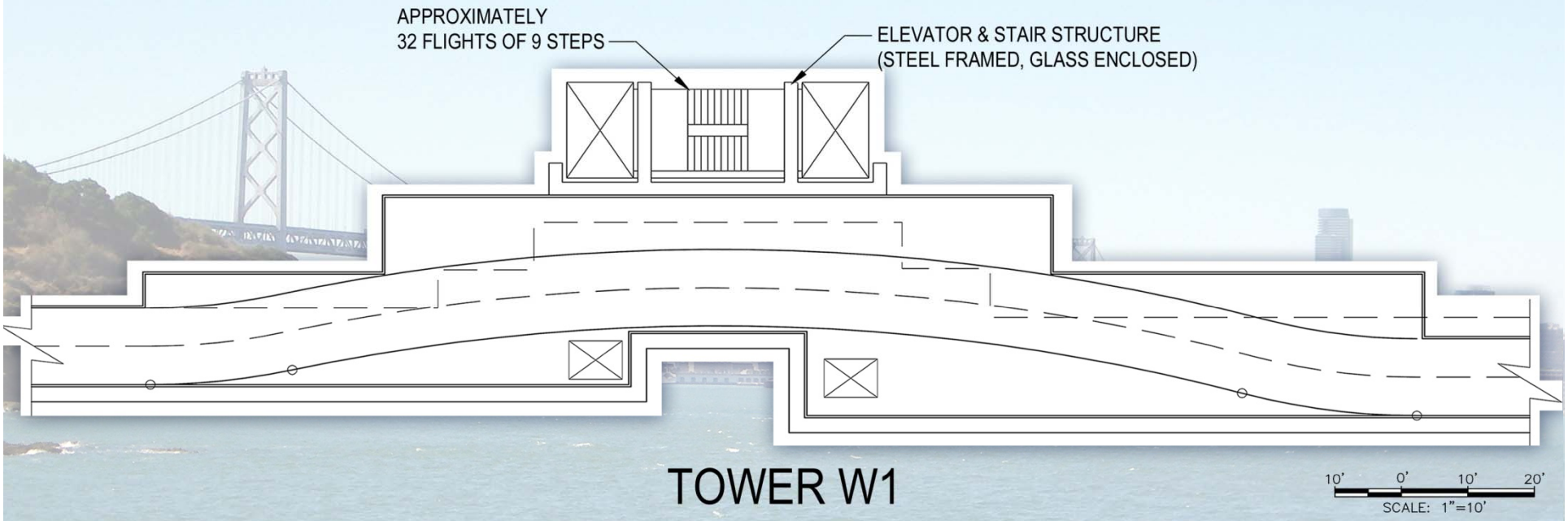
Alternative SFN – 1CX3



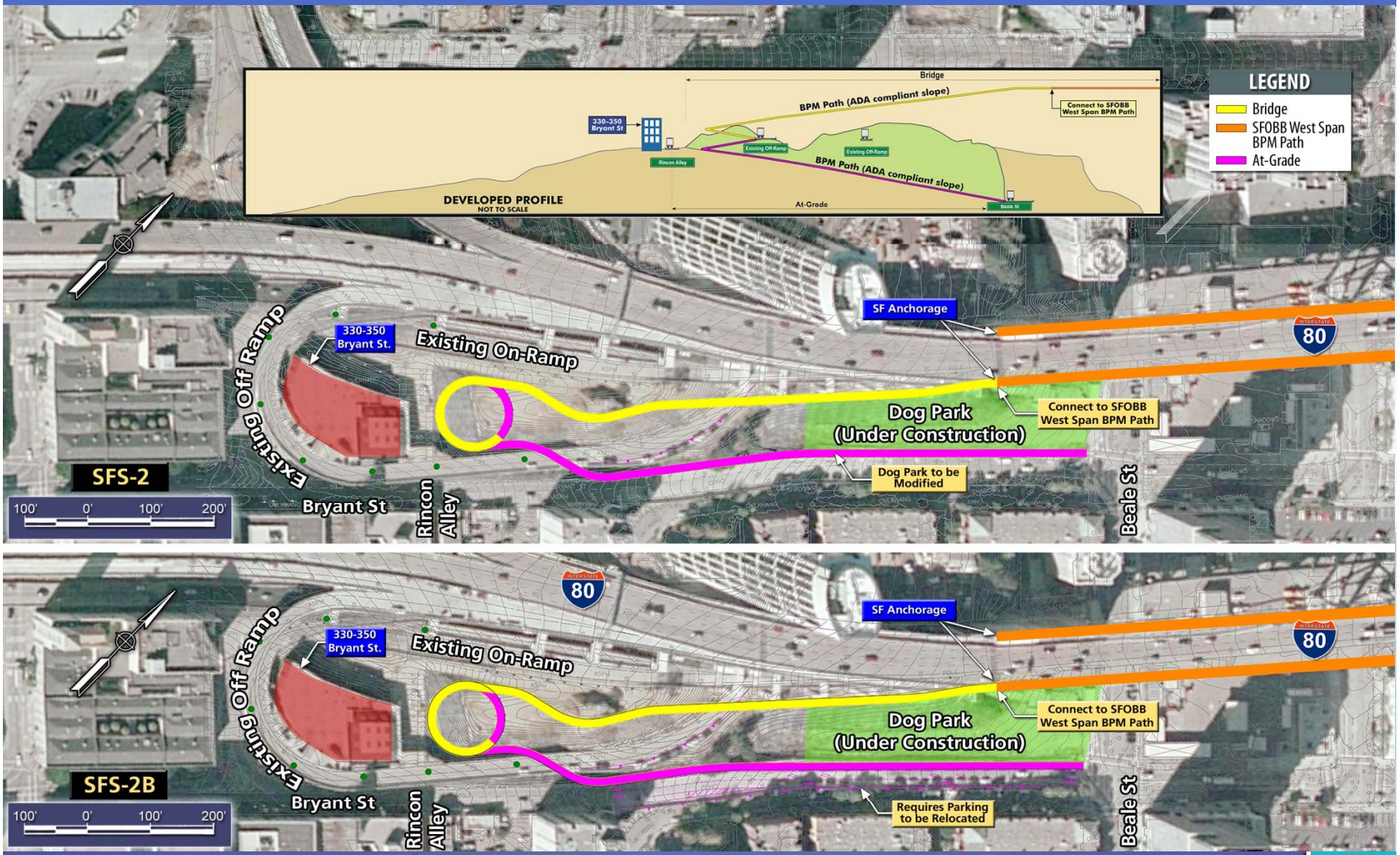
Alternative SFN – 1F



Pier W1 Elevator & Stairs Tower



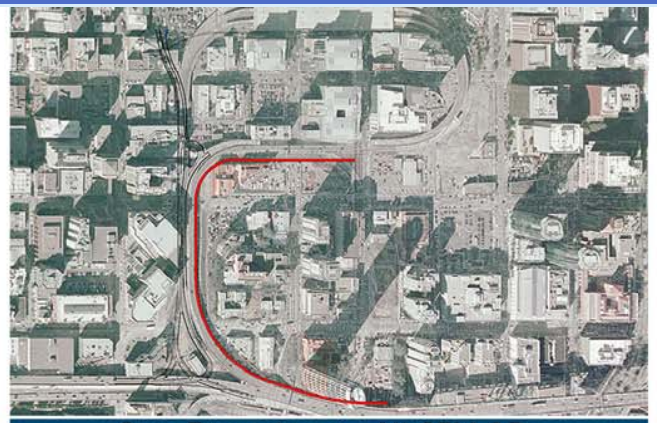
Alternative SFS – 2 and 2B



Alternatives Considered & Deferred

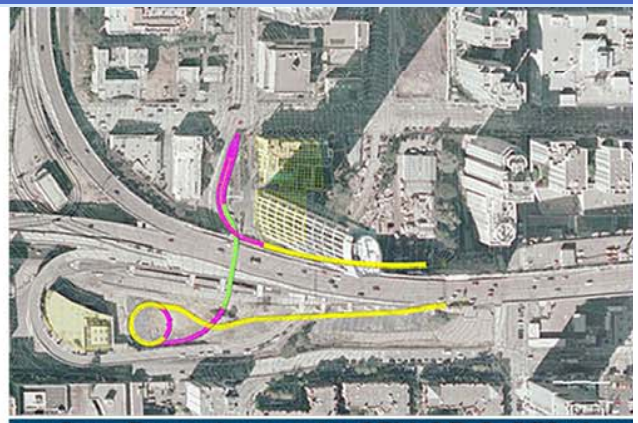
San Francisco - Alt SFN-1C

- Potential Safety Concern due to Tight Radius



San Francisco - Alt SFN 1D

- Safety - Steep Gradiant
- Mandatory Use of Elevators

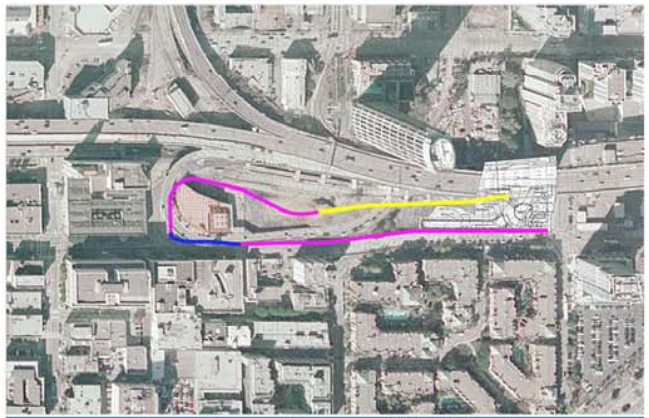


San Francisco - Alt SFN-1E & SFS-4

- Poor Connectivity
- Potential Safety Concern - Subway Curve

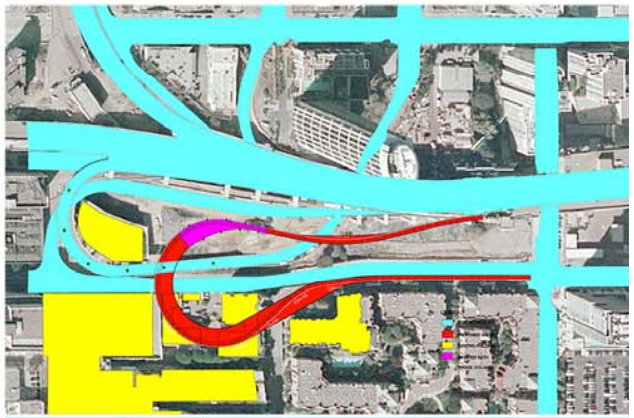
San Francisco - Alt SFN-FS

- Significant Right of Way Impact



San Francisco - Alt SFS-1

- Right of Way Impact
- Discontinued Class 1 Path



San Francisco - Alt SFS-FS

- Significant Right of Way Impact

Main Span Design Considerations

- Seismic
- Wind
- Constructability
- Maintenance considerations
- Shipping channel clearance

Shipping Channel Clearance

- Suspender cable shortening
- Deck replacement
  - Savings For BPM Path Project
  - Minimize traffic disruption

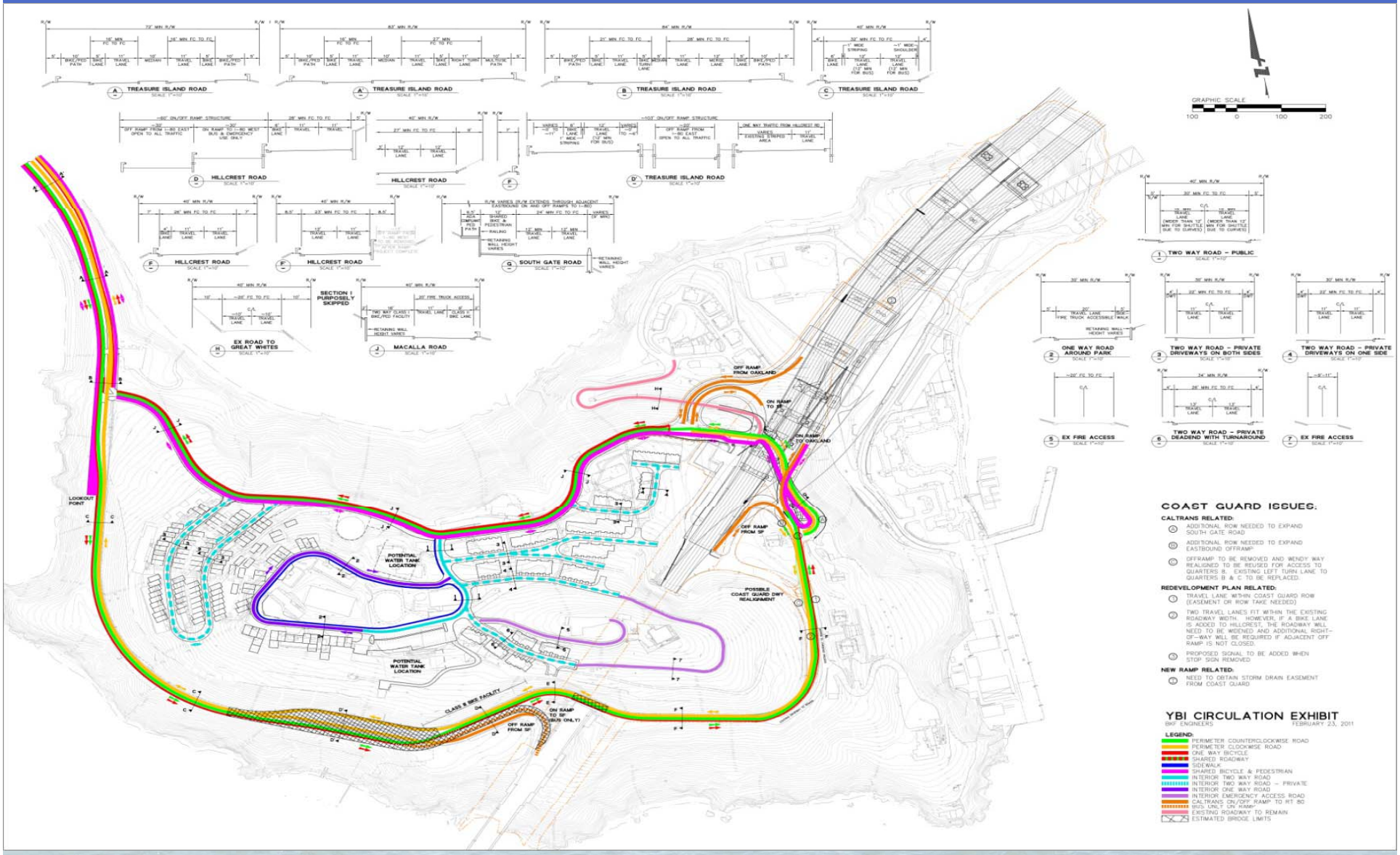
Main Span Cross Section

Main (West) Span

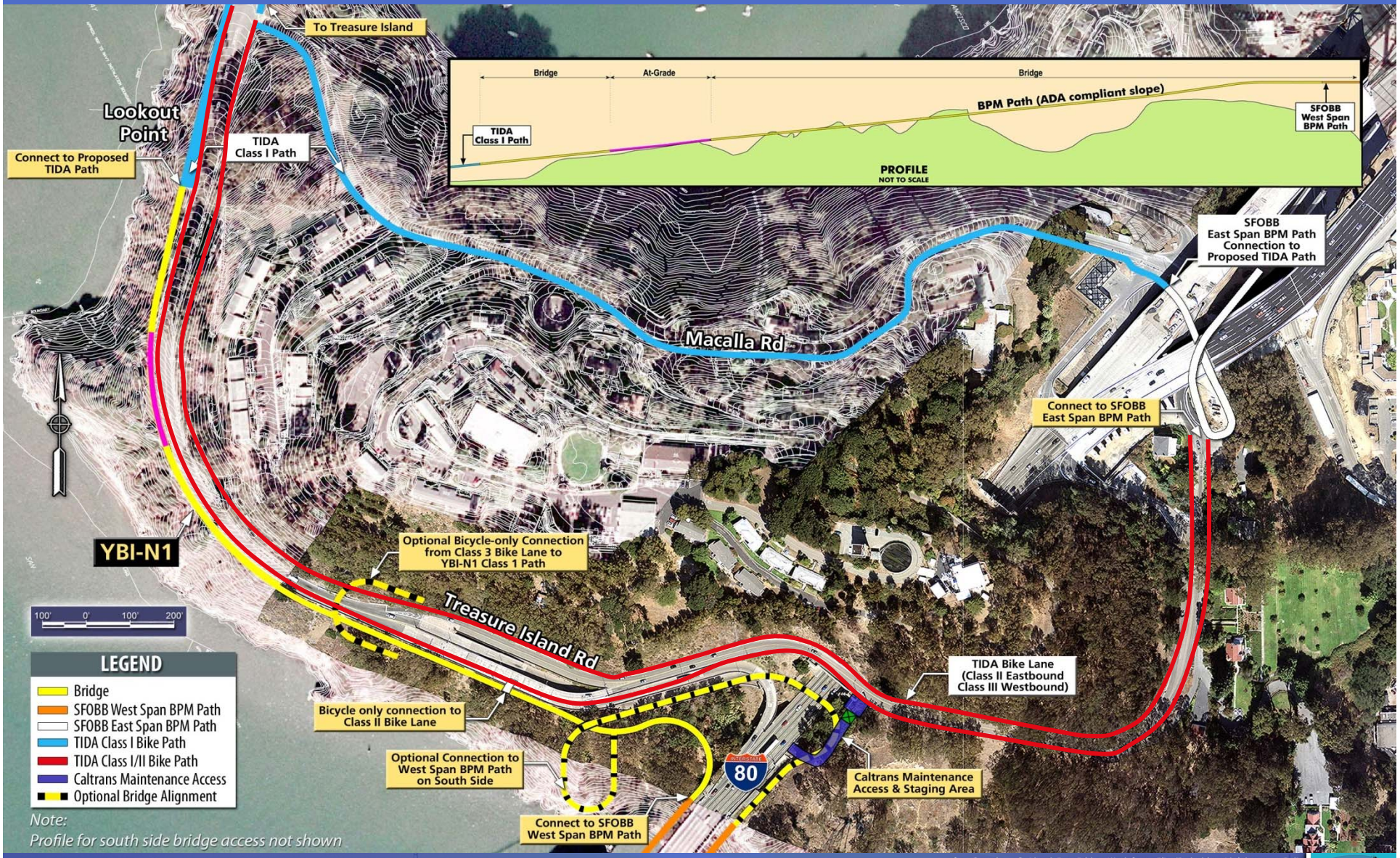
YBI Design Considerations

- ADA requirements
- Steep terrain
- Planned development
- Lack of right of way
- Maintenance of USCG operations
- Safety
- Cost
- Environmental impact

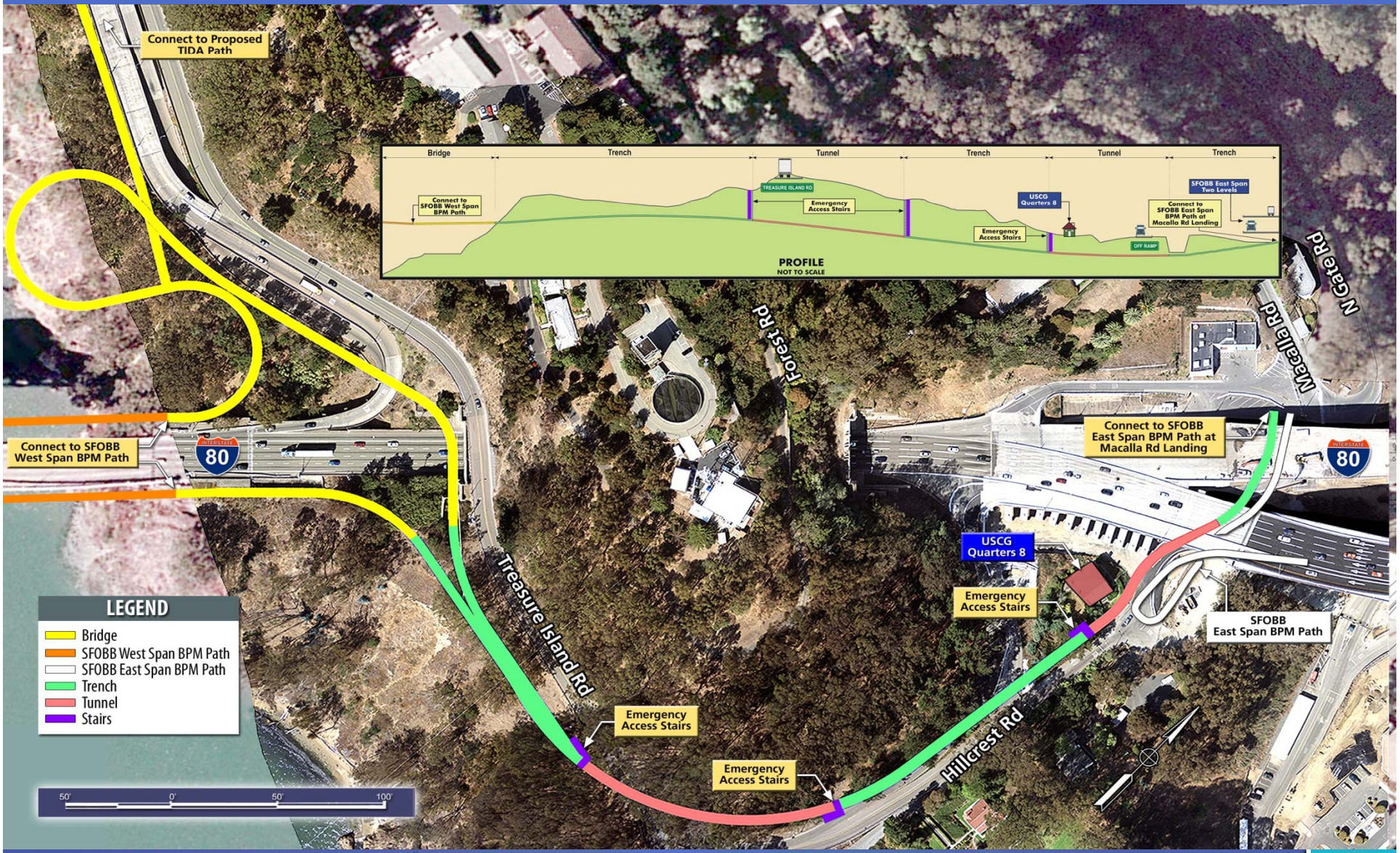
Treasure Island Circulation Plan



Alternative YBI – N1



Alternative YBI – 2A



Alternatives Considered & Deferred

Yerba Buena Island - Alt YBI-1C

- Lack of Right Way
- Impacts to USCG Operations

Yerba Buena Island - Alt YBI-3A

- Lack of Right Way
- Impacts to USCG Operations
- Safety - Need to Cross Busy Roadway

Yerba Buena Island - Alt YBI-3B

- Lack of Right Way
- Impacts to USCG Operations

Yerba Buena Island - Alt YBI-4

- Lack of Right Way
- Impacts to USCG Operations
- Mandatory use of Elevator

Yerba Buena Island - Alt YBI-5

- Lack of Right Way
- Impacts to USCG Operations
- Mandatory use of Elevator

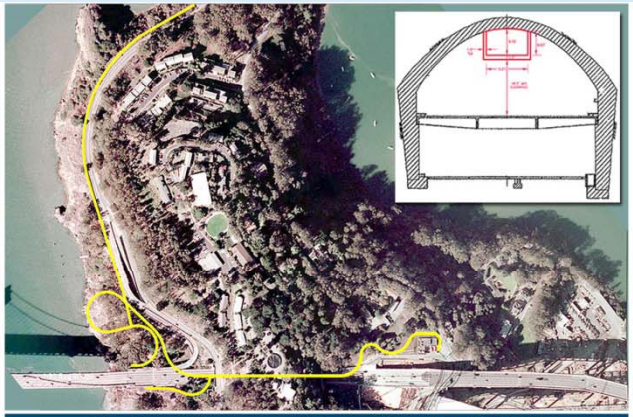
Yerba Buena Island - Alt YBI-6B

- Lack of Right Way
- Impacts to USCG Operations

Alternatives Considered & Deferred

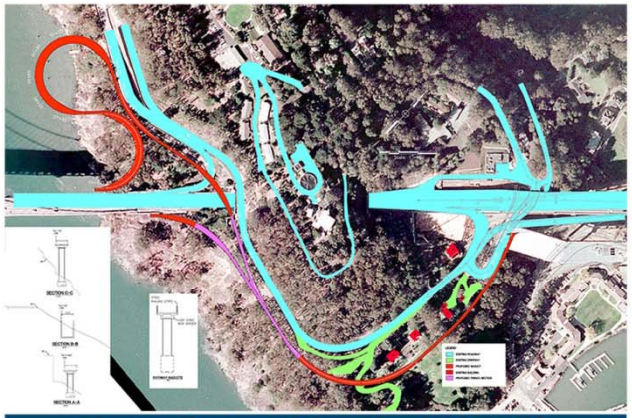
Yerba Buena Island - Alt YBI-6C

- Lack of Right Way
- Impacts to USCG Operations



Yerba Buena Island - Alt YBI-7

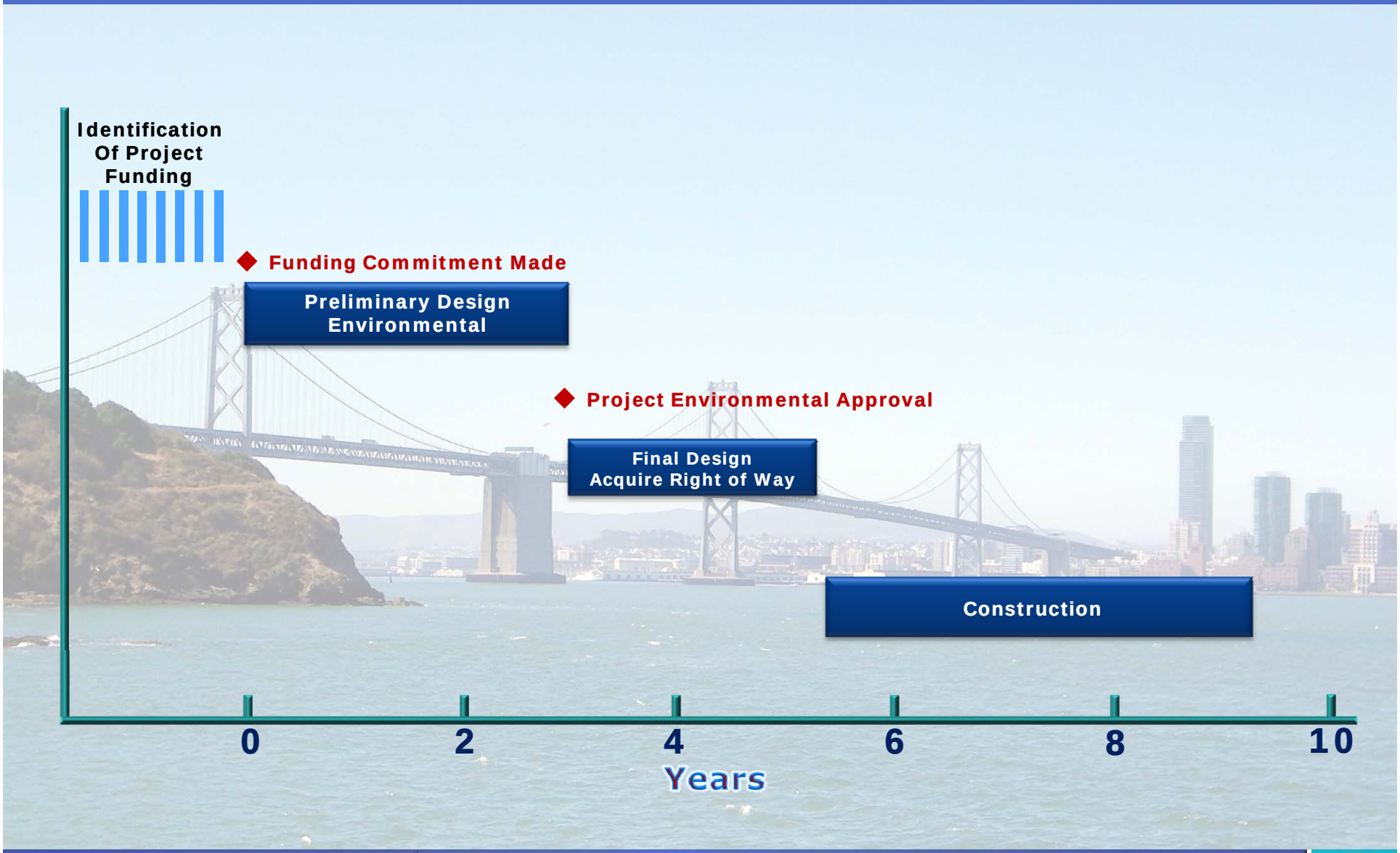
- Constructabiliy Issues
- Poor User Experience



Yerba Buena Island - Alt YBI-FS

- Lack of Right Way
- Impacts to USCG Operations

Project Schedule



Project Cost

- High project cost is a challenge
- Estimate being developed
- 2001 Study Estimate $300 to $350 million (2011 Dollars)
- Additional escalation of $200 million if project proceeds today
- Cost escalation for future start undetermined

Project Phasing

- Minimum Cost Initial Segment
- Phased/Initial phased segment approach
  - North side- public access
  - South side- maintenance only
  - Does not preclude further south side access
- Cost reduction w/Deck replacement
- Potential savings $70 million range (2011$)

Next Step

- Public meeting: December 13, 2011
- PID completion : Summer 2012
- Allows for programming of funds to develop project

Information Request/Comments/Ideas

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