



SFMTA
Municipal
Transportation
Agency



**San Francisco
Planning
Department**

T-Third – Phase 3 Concept Study

**Citizens Advisory Committee
December 3, 2014**

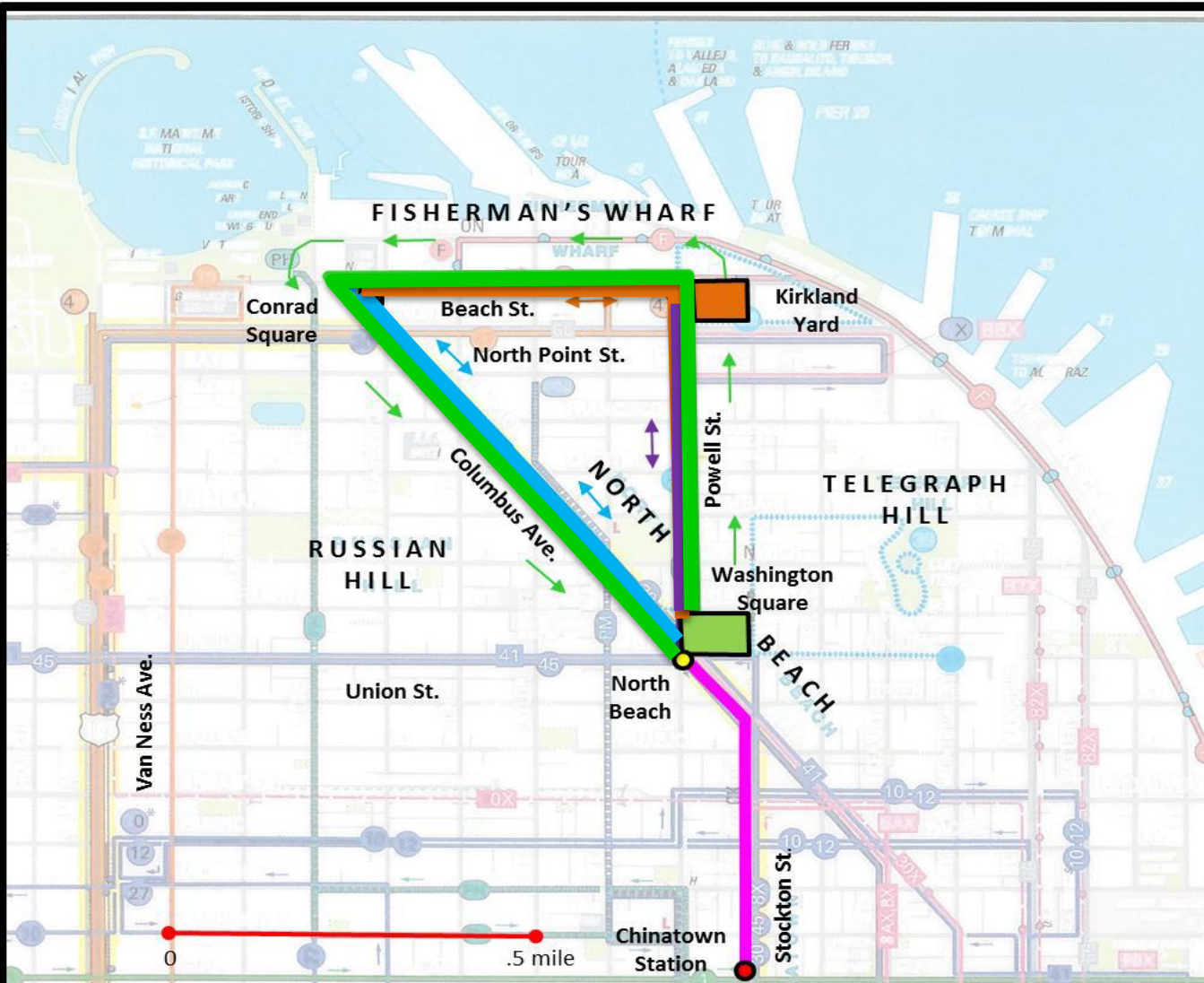
Origins of the Study

- **Interest in the extension due to T-Third Phase 2 (Central Subway) – especially after tunnel boring machines reach North Beach; preserving right-of-way**
- **Interest from the Board of Supervisors (Sup. Chiu), public**
- **Funds approved for limited consultant assistance by SFCTA Board – March 2014**
 - **Three agency team: SFMTA, SFCTA and SF Planning Department**
- **Concept Study started in March 2014 and a draft report completed in October 2014**

Concept Alignments

T-Third – Phase 3 Conceptual Alignment Alternatives

- Option 1:
Columbus Avenue (2-way)
- Option 2A
Powell Street (2-way)
- Option 2B
Powell Street (Option 2A) +
Beach Street (2-way)
- Option 3
Powell Street–Beach
Street–Columbus Avenue
(One-way Loop)
- Concept Station Site
- T-Third Phase 2
(Existing tunnels – no tracks)
- Central Subway Station



Concept Alignments

Number	1-1	1-2	2A-1	2A-2	2A-3	2A-4	2A-5	2A-6	2B-1	2B-2	2B-3	2B-4	3-1	3-2
Street (s)	Columbus		Powell						Powell-Beach				One-Way Loop	
Subway / Surface	Subway / Surface	Subway	Subway / Surface	Subway	Subway / Surface	Subway	Subway / Surface	Subway	Subway / Surface	Subway	NOT FEASIBLE	NOT FEASIBLE	Subway / Surface / Subway	Subway
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Data Highlights

4 Corridors

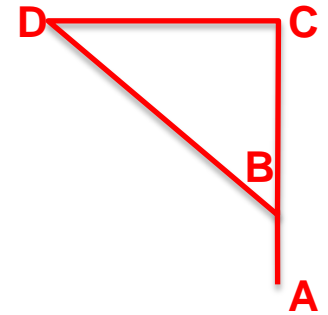
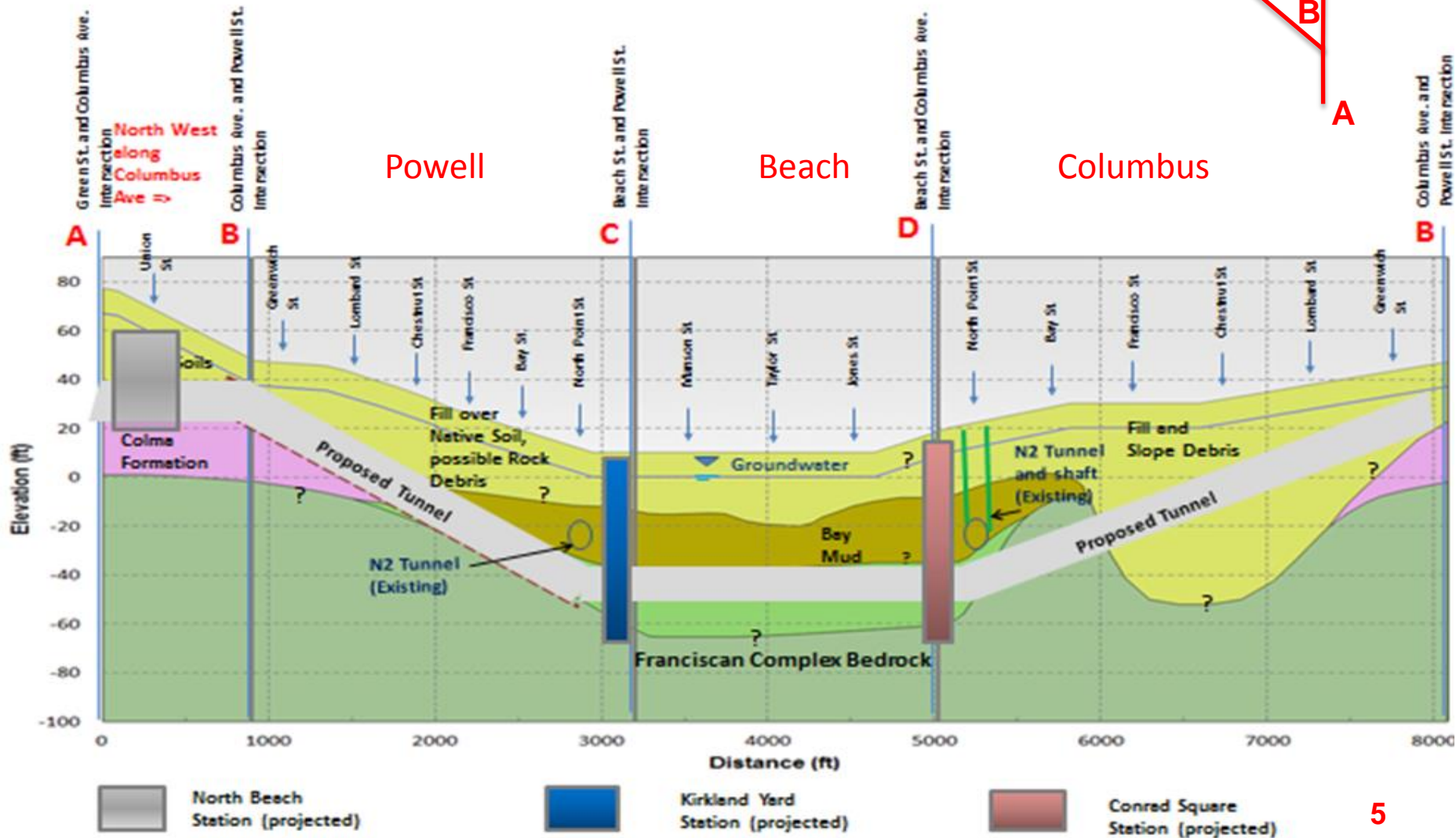
14 Concept Alignments

2 or 3 stations

Subway and Subway-Surface combination



Constructability Ground Cross Sections



Constructability Issues

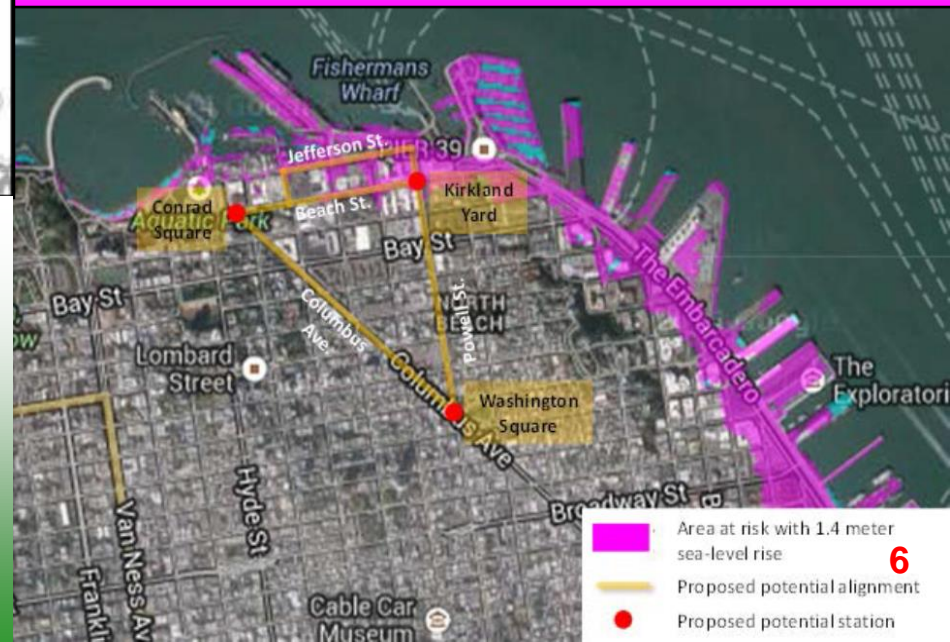


Areas of possible liquefaction

Data Highlight

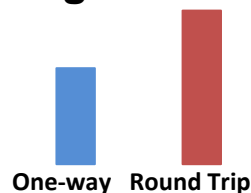
No Fatal Flaws

Areas at risk with sea-level rise



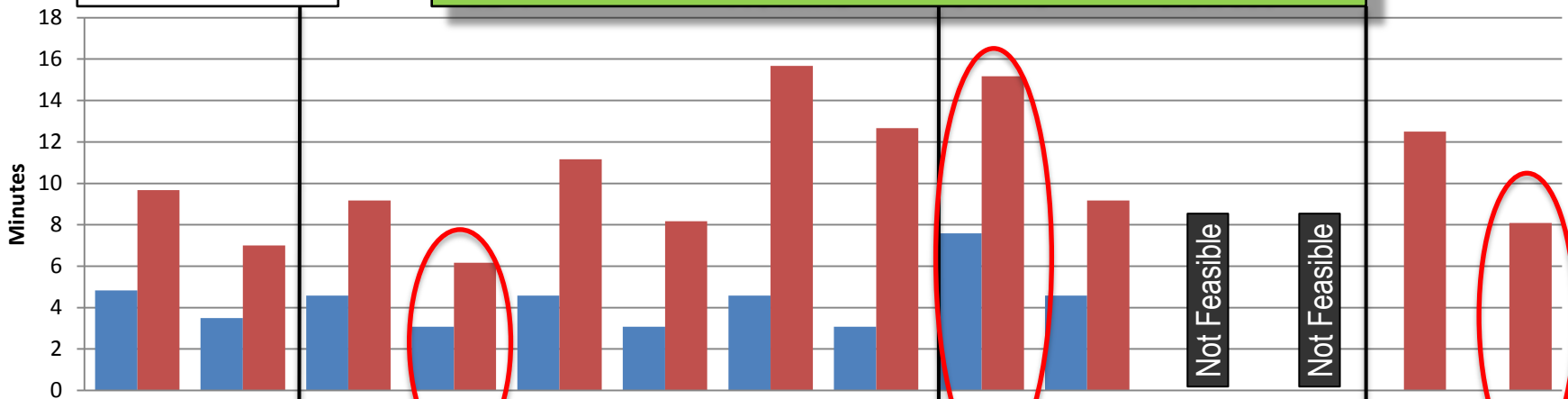
Travel Time Estimates

Legend



Data Highlights

Concept	One-way	Round Trip	Rating
2A-2	= 3 mins	7 mins	fastest
3-2 Loop	= N/A	8 mins	fastest loop
2B-1	= 7½ mins	15 mins	slowest

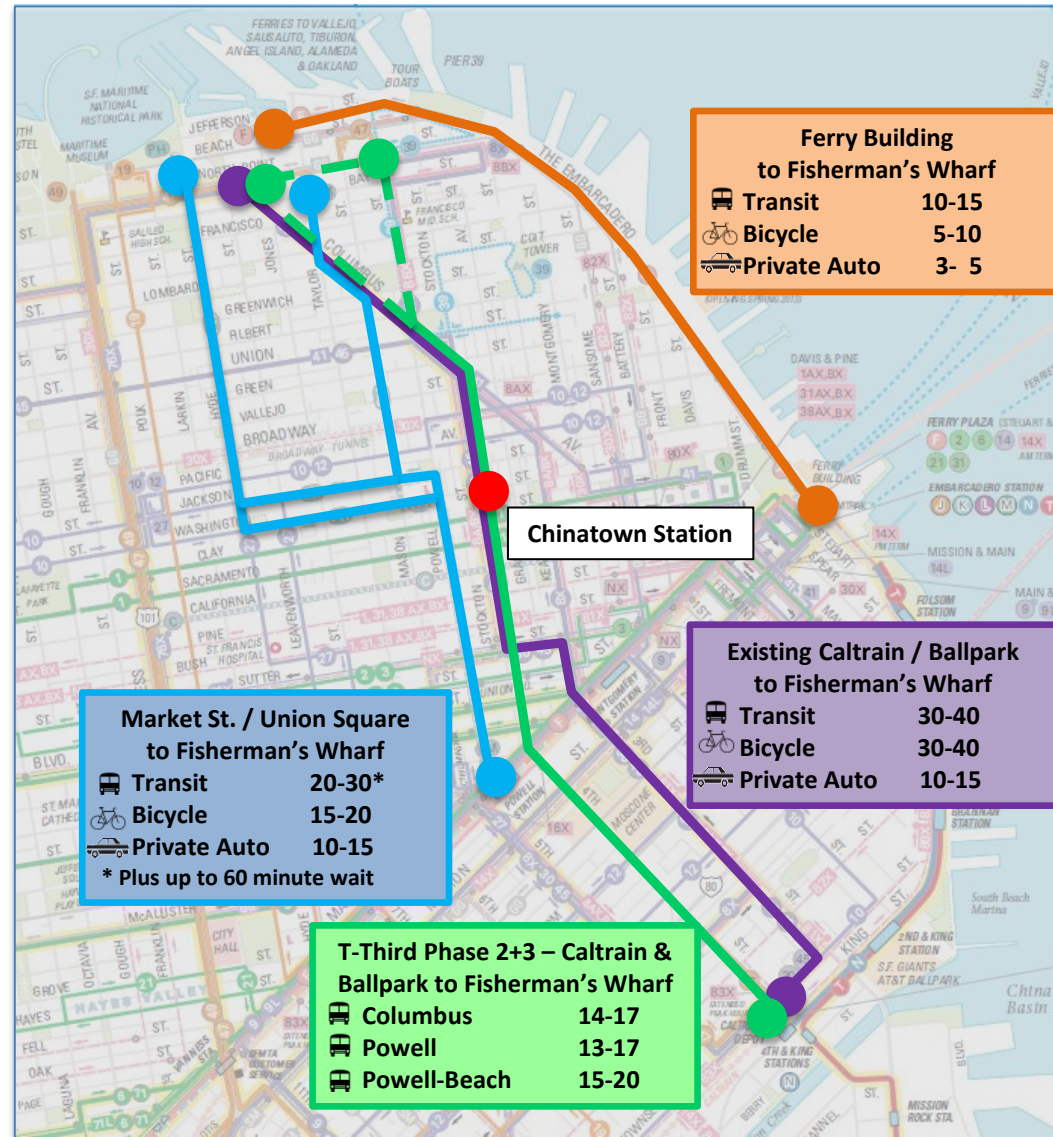


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Travel Time Comparison

Data Highlight

**50% - 65% quicker than
existing transit service**

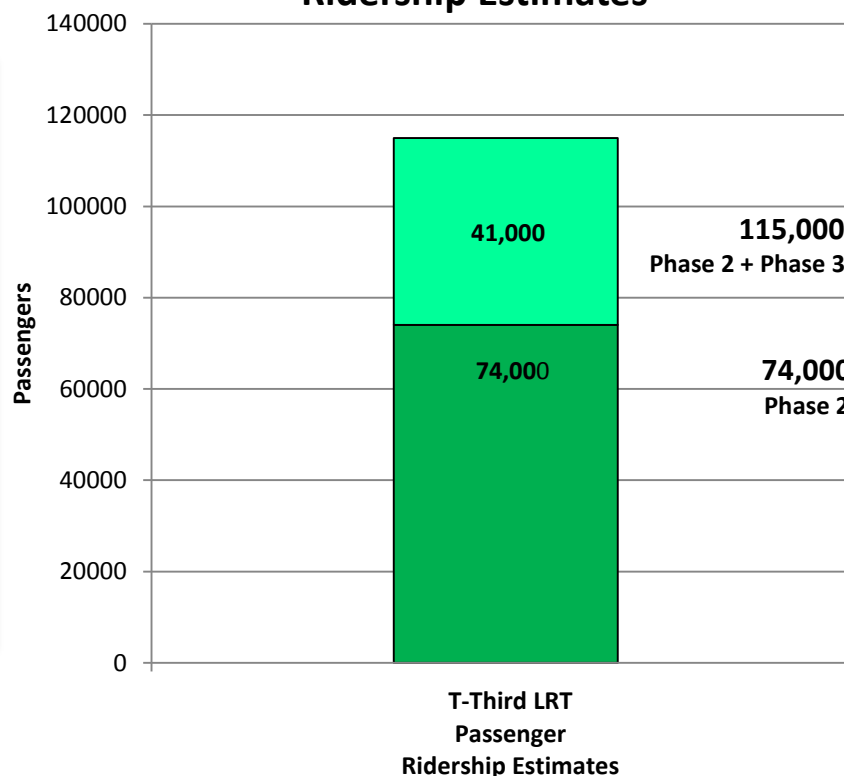


Daily Ridership Estimates

Data Highlights

- **55% increase in T-Line passenger levels**
- **At least 1/4 of the increase is from new trips on the Muni system**
- **Up to 3/4 of new trips are passengers moving to the T-Line, relieving overcrowding and pass-ups on buses, cable cars, and the F-Line**

T-Third Alignment 1-2 Daily Ridership Estimates

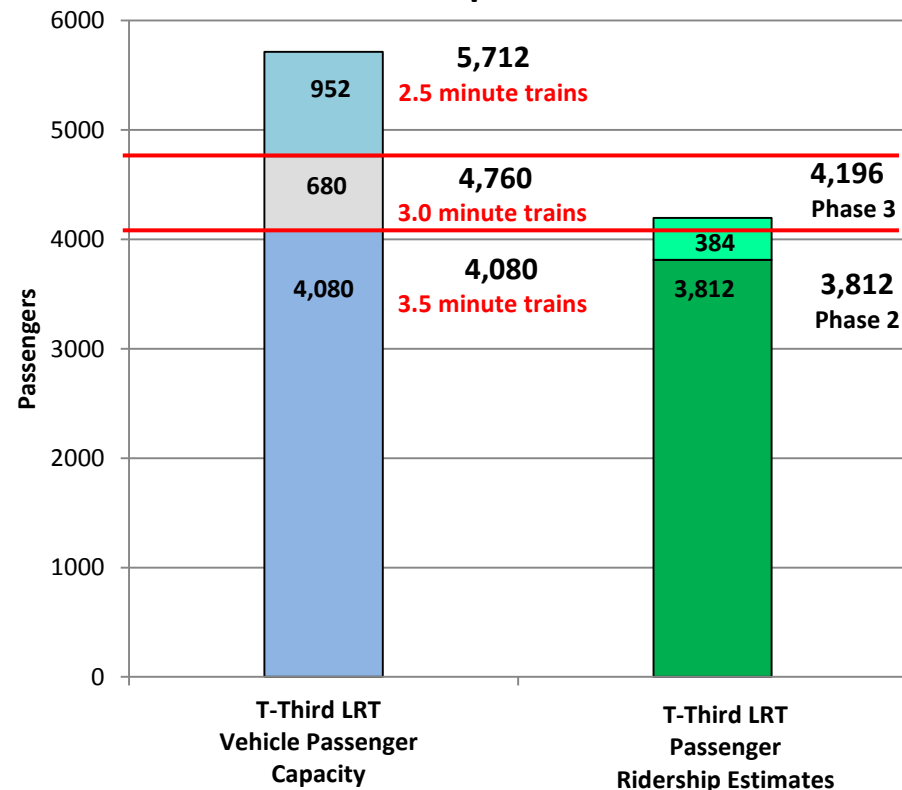


Peak Ridership and Capacity

Data Highlights

- *At the maximum load point (MLP) – T-Line trains spaced no more than 3 minutes apart will be required to meet projected passenger levels*
- *Peak ridership changes less than daily ridership due to the all-day nature of demand in these neighborhoods.*
- *By 2030, T-Line trains are scheduled at 2.5 minutes apart in the peak period*

T-Third Concept Alignment 1-2 Peak Hr. / Peak Direction Ridership Estimates



Existing Land Use

Data Highlights

Planning Department
analyzed:

- Land Use
- Demographic conditions
- Development potential

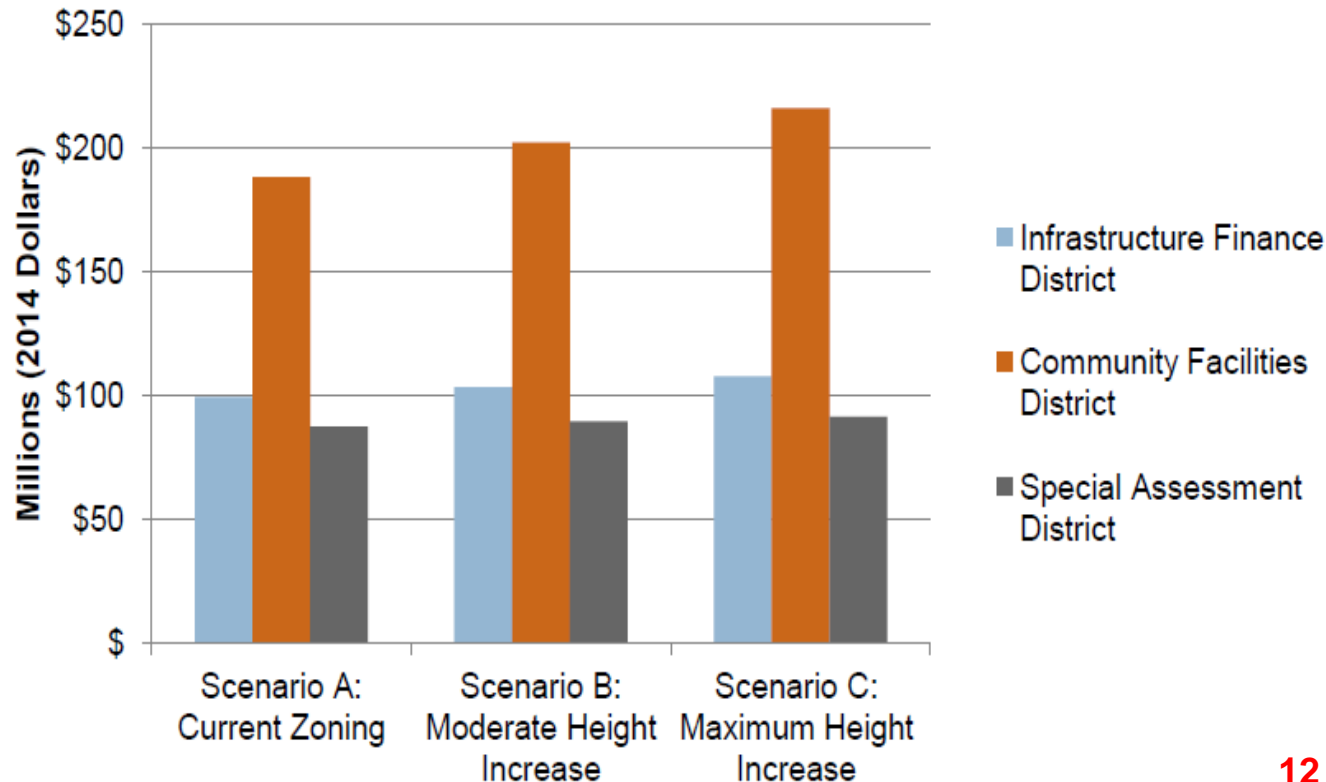


Value Capture Opportunities

Estimated Bonding Capacity of local financing mechanisms*

Concept Alignment 1-2 analysis

(* all figures in 2014 dollars)



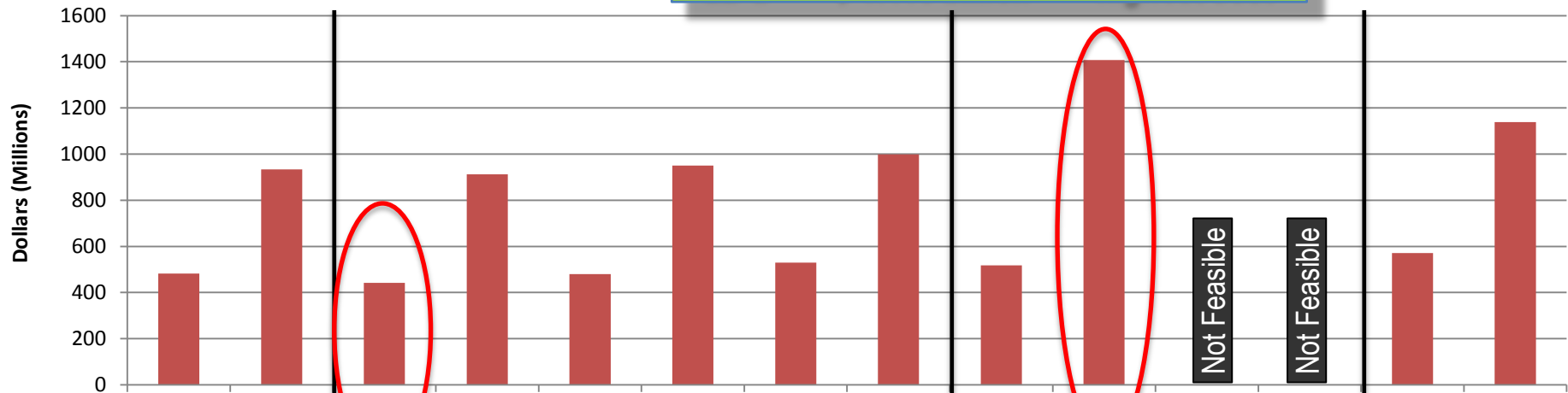
Data Highlights

- **CFD = \$180-\$220 million**
- 2/3 voter approval
- **IFD = \$100-\$110 million**
- 55% voter approval
- **SpAD = \$90 million in**
- simple majority approval
- **Modest revenue differences between current zoning and limited zoning increases**

Capital Costs (2014 \$ Estimate)

Data Highlights

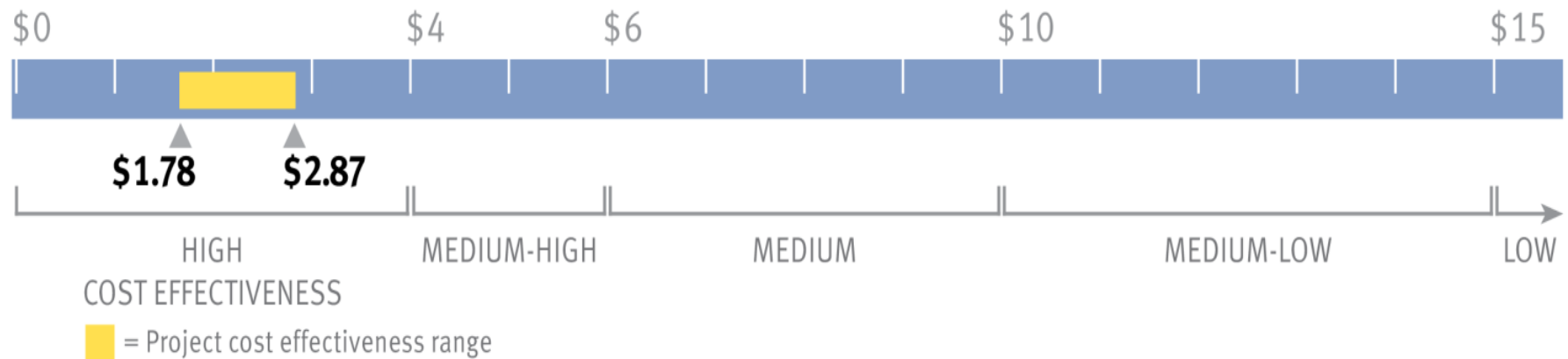
Concept	Cost Estimate	Rating
2A-1	\$ 440 million	lowest cost
2B-2	\$ 1.410 billion	highest cost



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Cost / Benefit Analysis

Central Subway Phase III Cost Effectiveness with Federal Transit Administration New Starts Breakpoints



Data Highlight

\$1.78* - \$2.87* = 2040 projected cost per new trip – (FTA Formula)
Concept Alignment 1-2 (low cost and high cost estimate)

** Costs are in 2014 dollars*

Potential Funding

Federal Sources

Federal Transit Administration (FTA)
New Starts program

Land Use Value Capture

Infrastructure Finance District (IFD)
Community Facilities District (Mello-Roos) (CFD)
Special Assessment District (SpAD)

Local Sources

Sales Tax (Proposition K)
Future Transportation Funding Measures

Other Sources

Joint Development ?

North Beach Station

Rail to North Beach Facts

- New environ. review process required
- Tradeoffs with different construction methods
- Offstreet construction access lessens neighborhood disruption

Pagoda Palace Site Facts

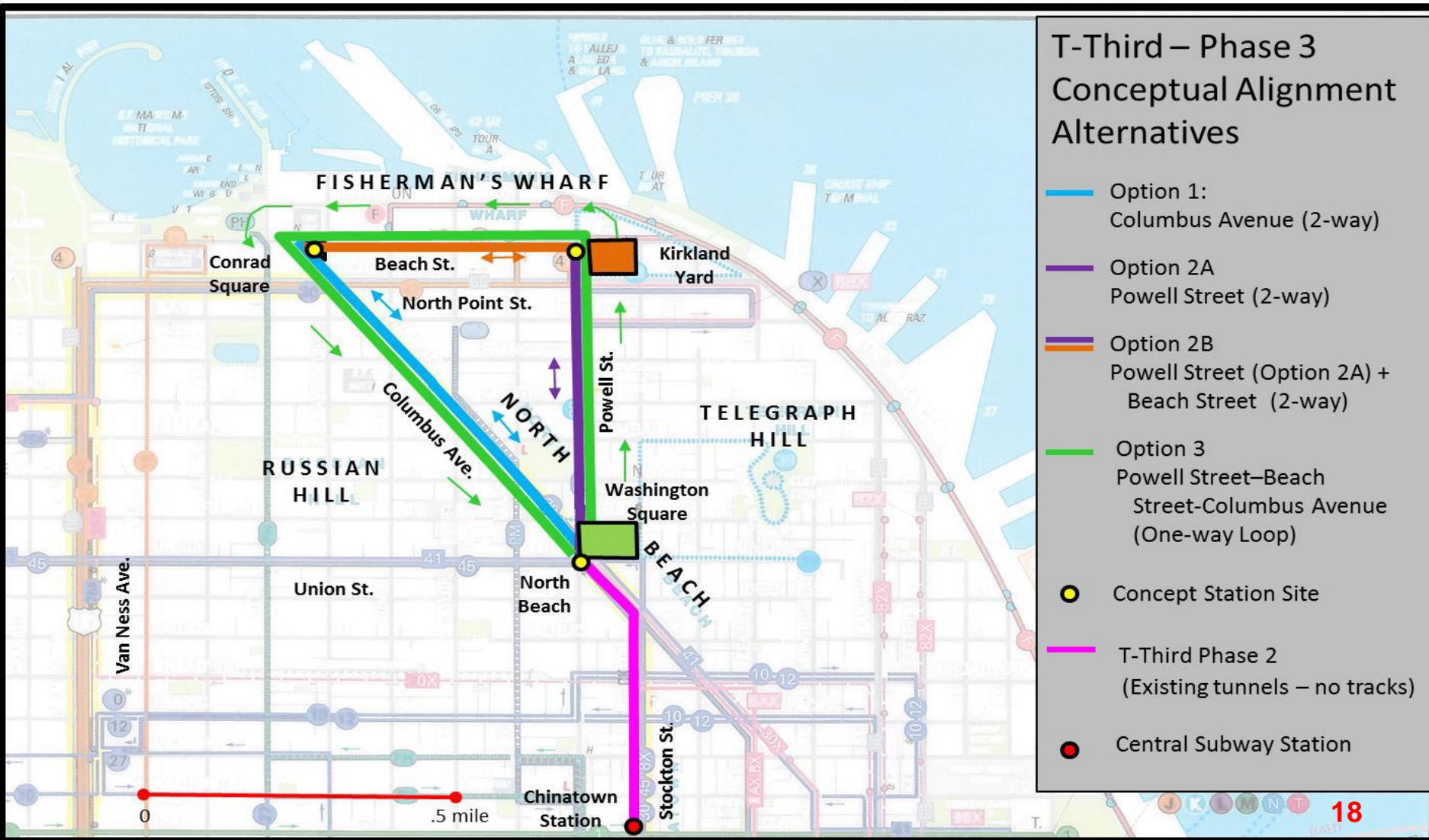
- SFMTA has active lease until May 10, 2015 to use parcel as a TBM retrieval site
- SFMTA has “right of first refusal” to purchase if owner decides to sell property
- Owner preparing to build 19 units of housing



Summary Evaluation Of Concept Alternatives

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Passenger Experience	0	+	0	+	-	-	-	-	-	+	NF	NF	0	+
Operational Efficiency	-	+	-	+	-	0	-	-	-	+	NF	NF	+	+
System Performance	0	+	0	+	0	+	-	-	0	+	NF	NF	+	+
Local Operations	-	+	-	+	-	0	-	-	-	+	NF	NF	-	+
Infrastructure Resiliency	+	+	0	+	0	-	0	-	0	+	NF	NF	0	0
Construction Disturbance	-	0	-	0	-	-	-	-	-	-	NF	NF	-	-
Capital Const. Cost and Risk	+	0	+	0	+	0	+	0	+	-	NF	NF	+	0
Total	-1	5	-2	5	-3	-2	-4	-6	-3	3	NF	NF	1	3
Capital Cost (2014 \$\$) (millions)	407-482	848-933	367-442	837-912	406-480	875-950	454-529	924-999	443-518	1,333-1,408	NF	NF	496-571	1,087-1,139
Constructability Rating	4	5	3/4	4	3/4	2	3/4	2	3/4	4	1	2	3	3/4

Concept Alignments



Next Steps

**SF Transportation
Plan Update (2014)**

Use data in
SF
Transportation
Plan

**T-Third Phase 3
Concept Study (2014)** → **Share with public
and SF officials**

Use data in
Rail Capacity
Strategy

**SFMTA Rail Capacity
Strategy (2014-2015)**

**MTC - San Francisco Bay Area
Core Capacity Transit Study (2015)**