SFMTA
Municipal Transportation Agency

San Francisco Planning Department

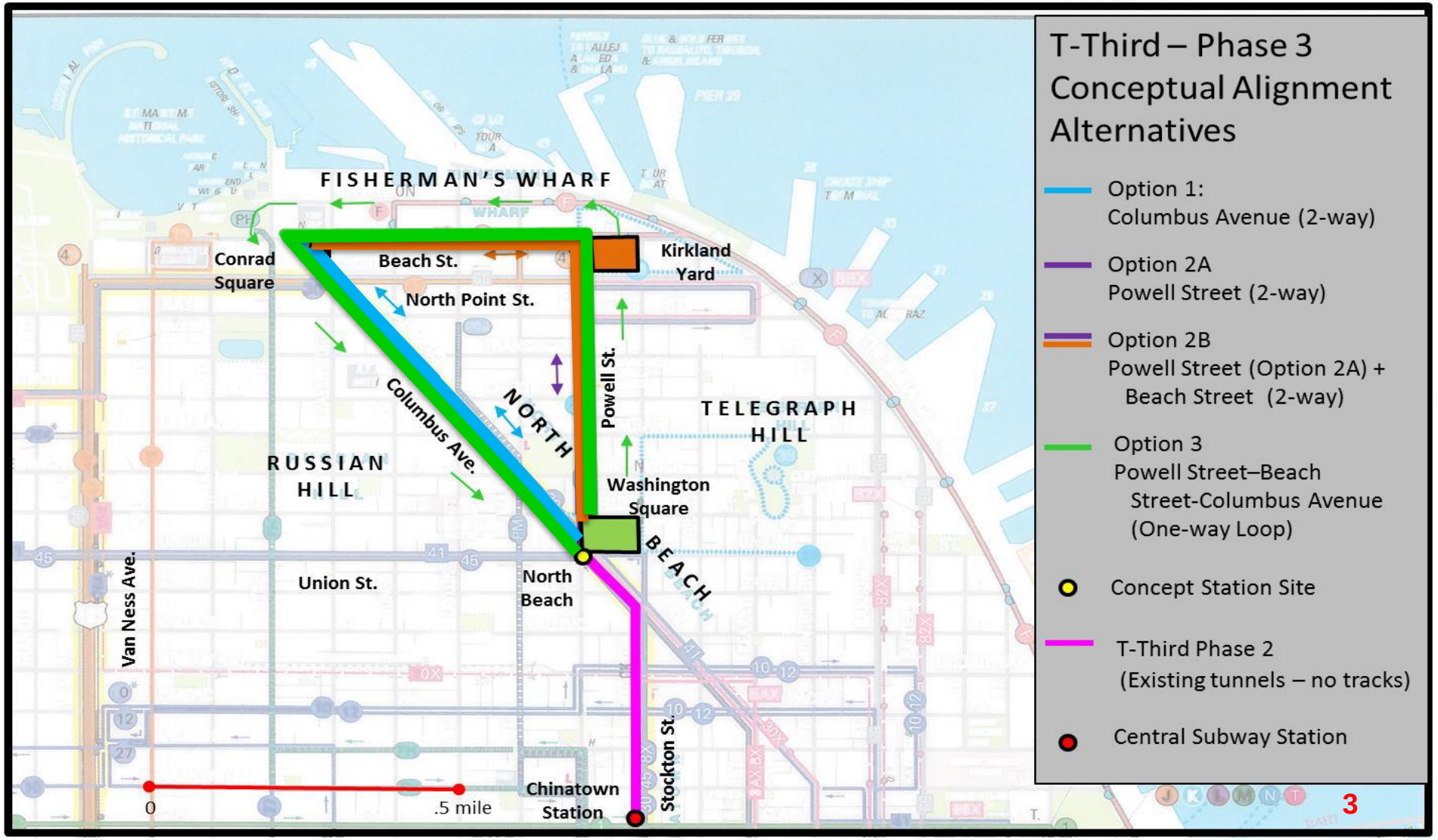
T-Third – Phase 3 Concept Study

December 2, 2014

Origins of the Study

- **Interest in the extension due to T-Third Phase 2 (Central Subway) project – especially after tunnel boring machines reach North Beach**
- **Interest from the Board of Supervisors**
- **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



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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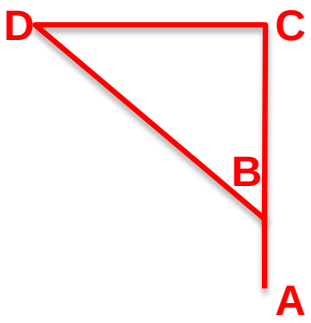
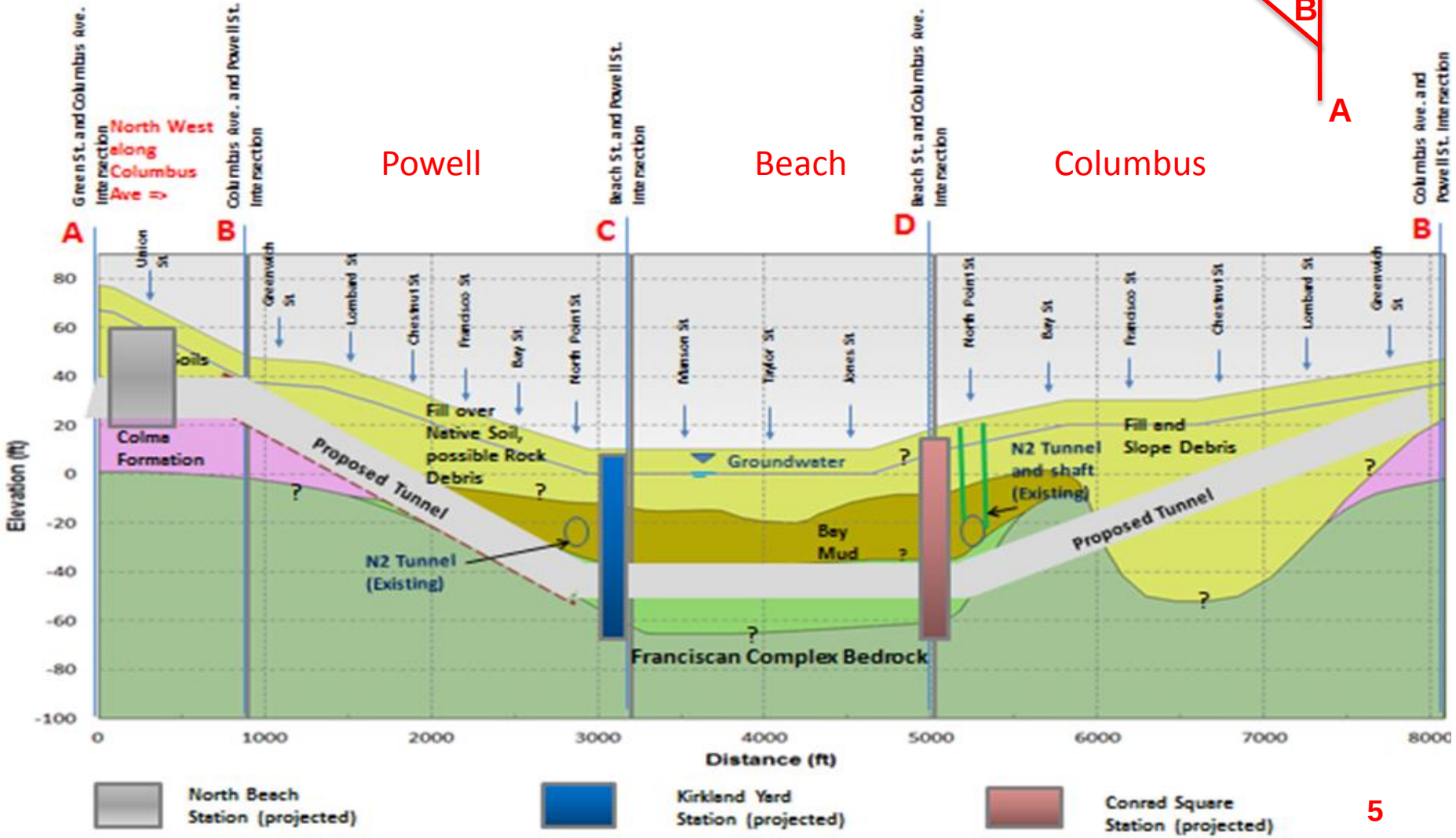
Data Highlights

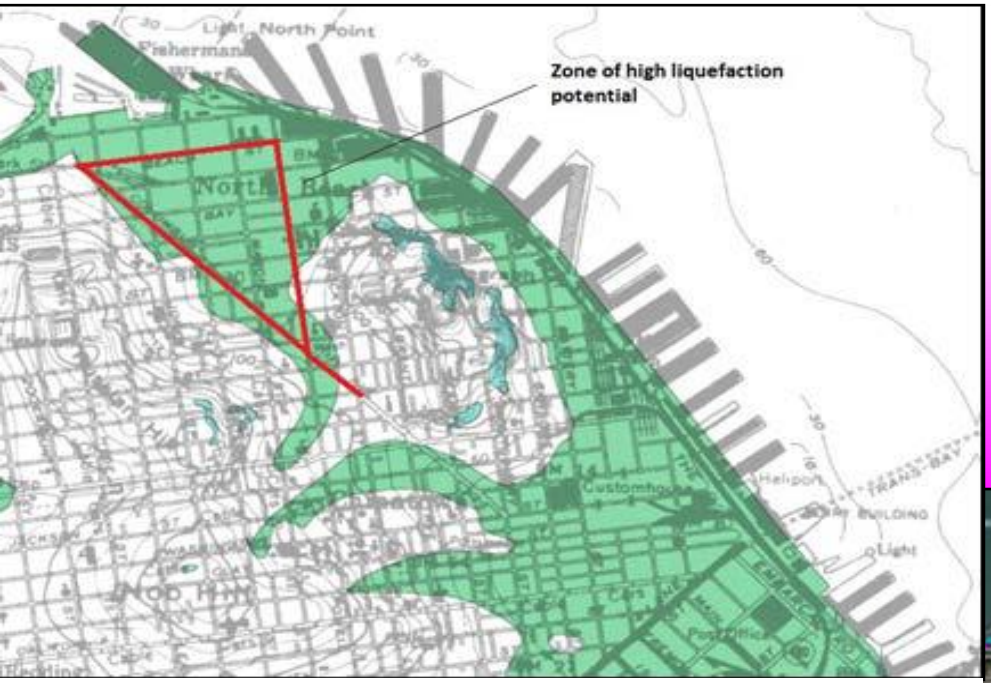
4 Corridors
14 Concept Alignments
2 or 3 stations
Subway and Subway-Surface combination

Constructability Ground Cross Sections





Constructability Issues



Areas of possible liquefaction

Data Highlight

No Fatal Flaws

Areas at risk with sea-level rise

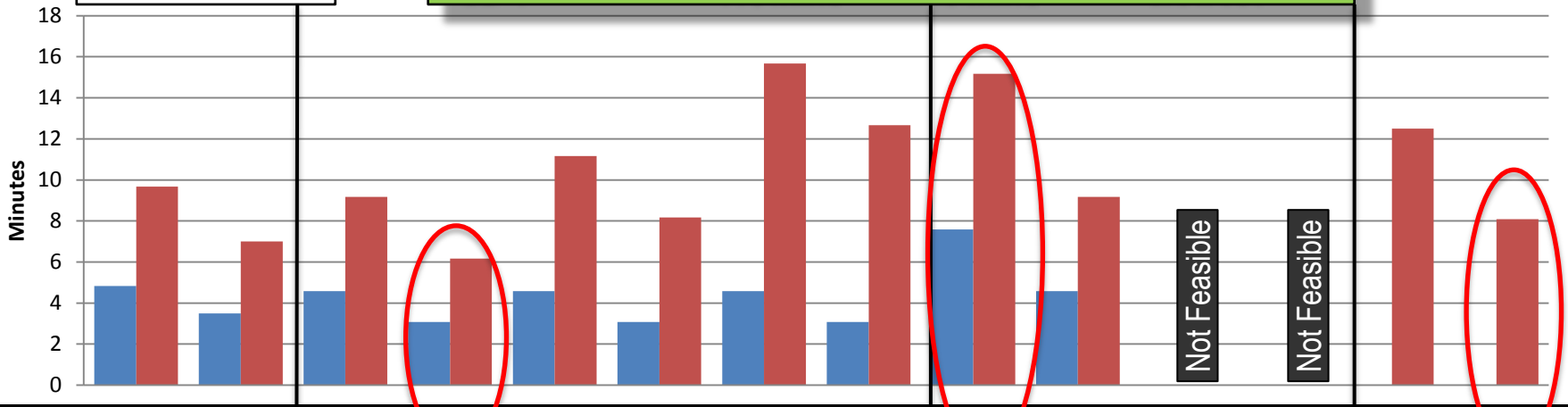
Travel Time Estimates

Legend

One-way Round Trip

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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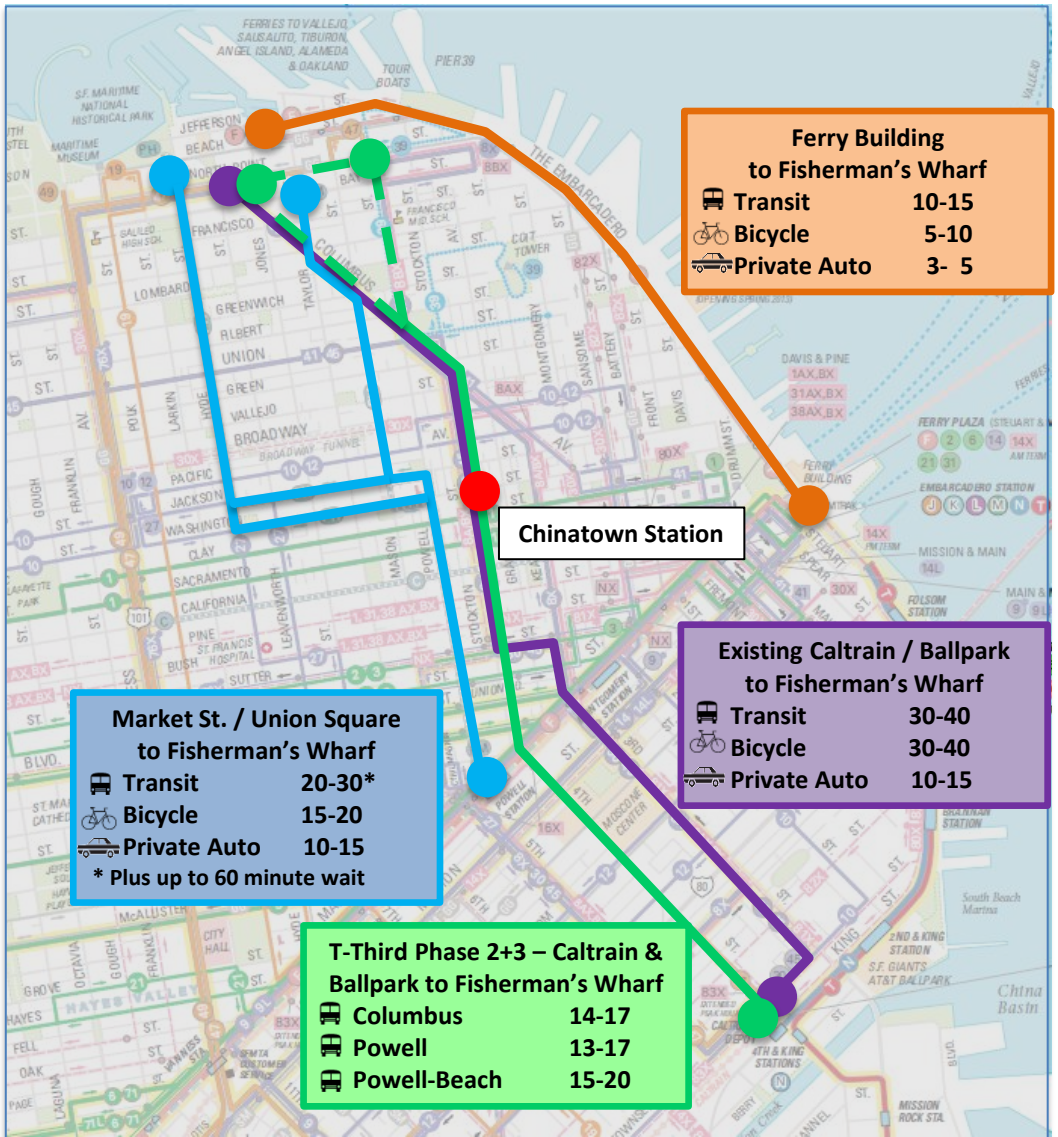
Travel Time Comparison

Data Highlight

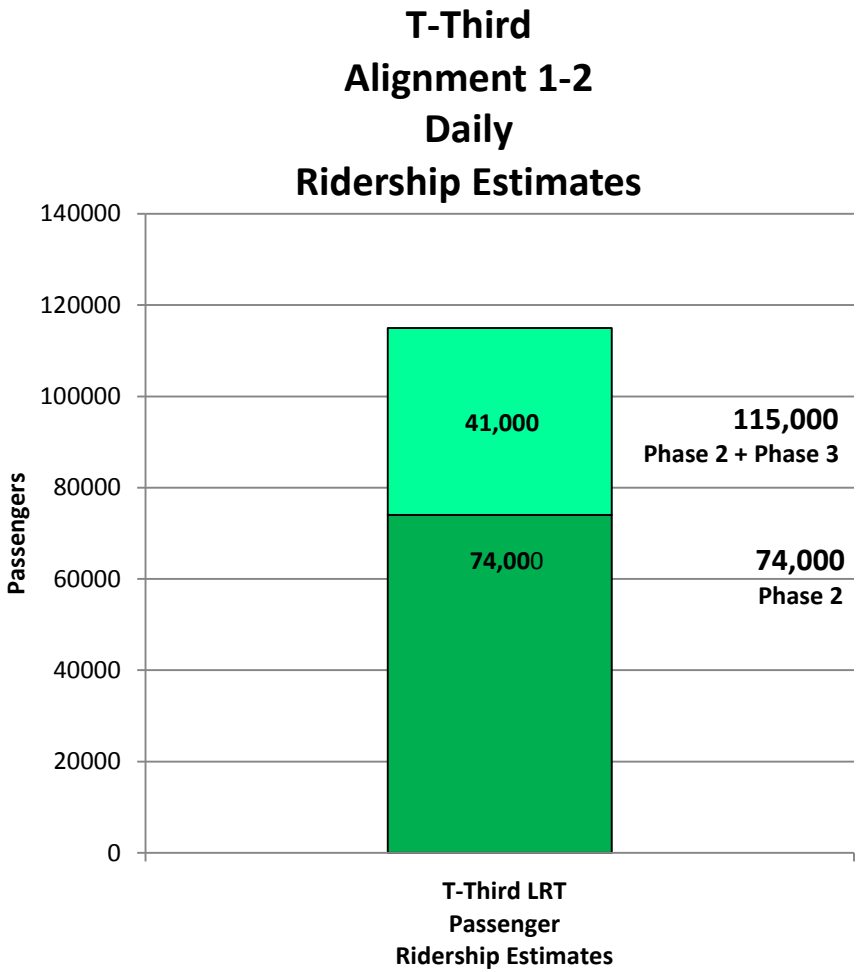
50% - 65% quicker than existing transit service



Daily Ridership Estimates

Data Highlights

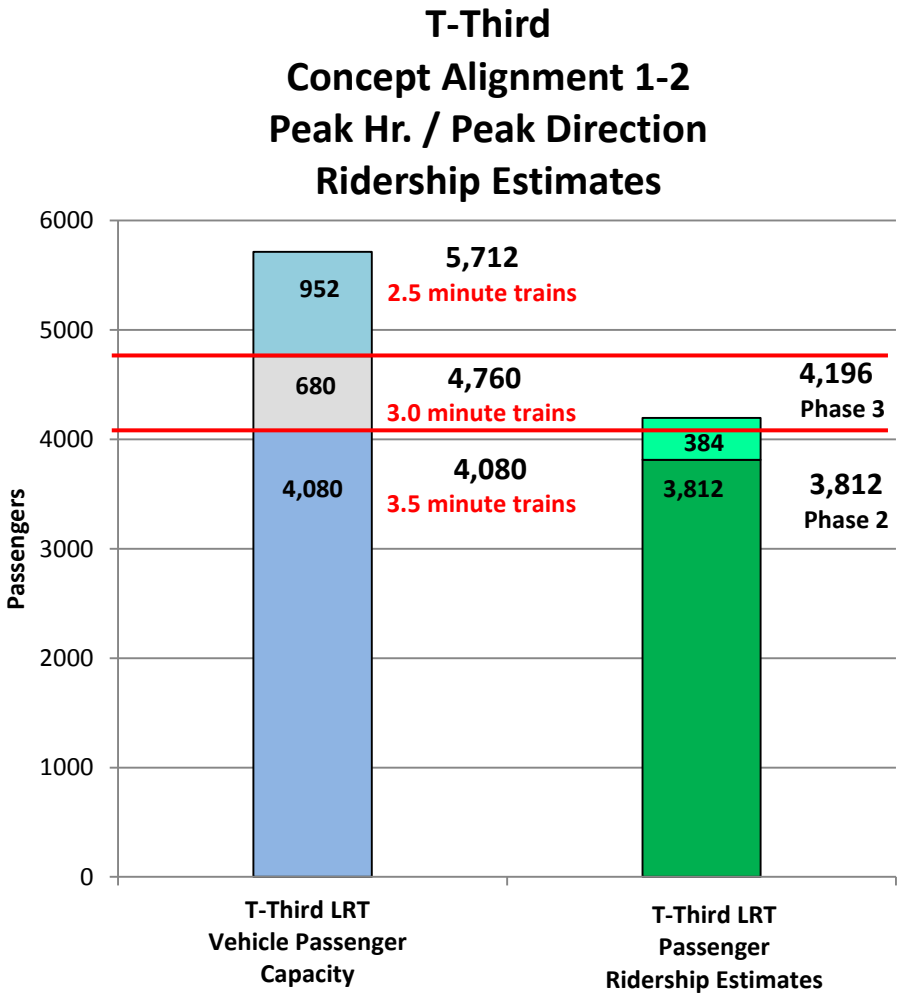
- ***55% increase in T-Line passenger levels***
- ***At least 1/4 of the increase is from new trips on the Muni system***
- ***Up to 3/4 of new trips are passengers moving to the T-Line, relieving overcrowding and pass-ups on buses, cable cars, and the F-Line***



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***



Existing Land Use

Data Highlights

Planning Department analyzed:

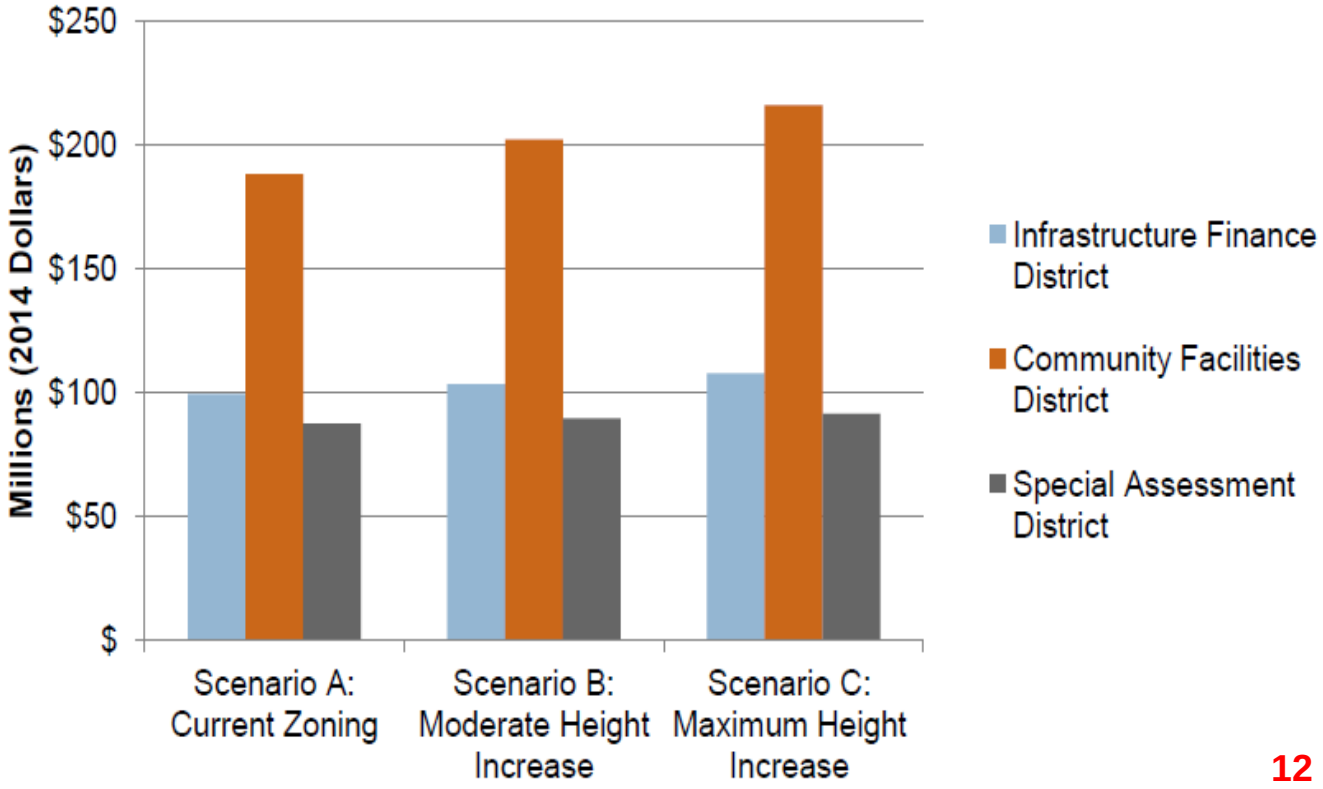
- ***Land Use***
- ***Demographic conditions***
- ***Development potential***

Value Capture Opportunities

Estimated Bonding Capacity of local financing mechanisms*

Concept Alignment 1-2 analysis

(* all figures in 2014 dollars)



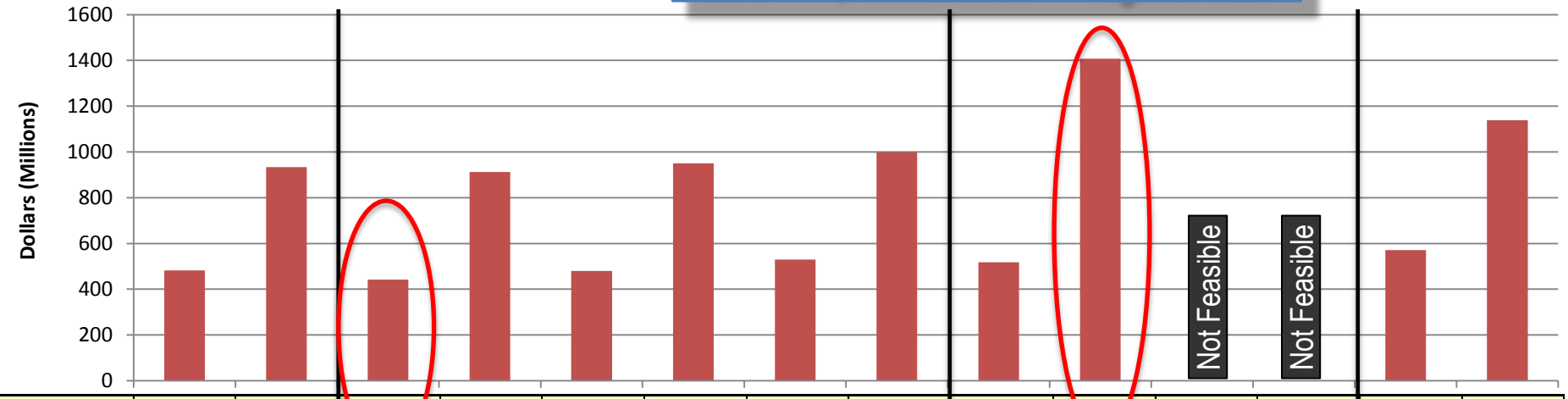
Data Highlights

- ***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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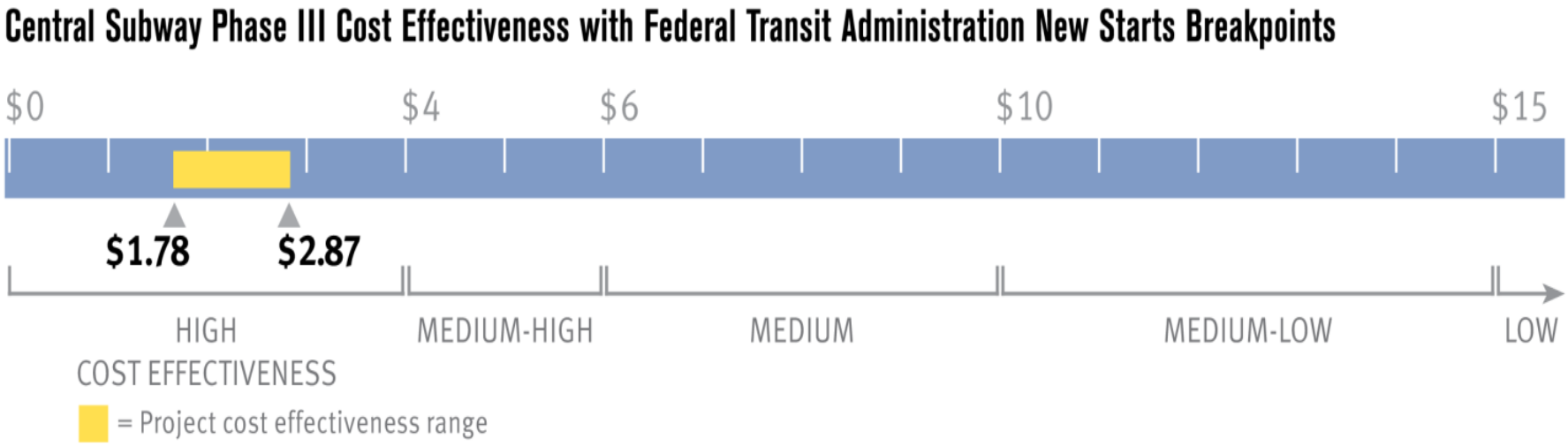
Cost / Benefit Analysis



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

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
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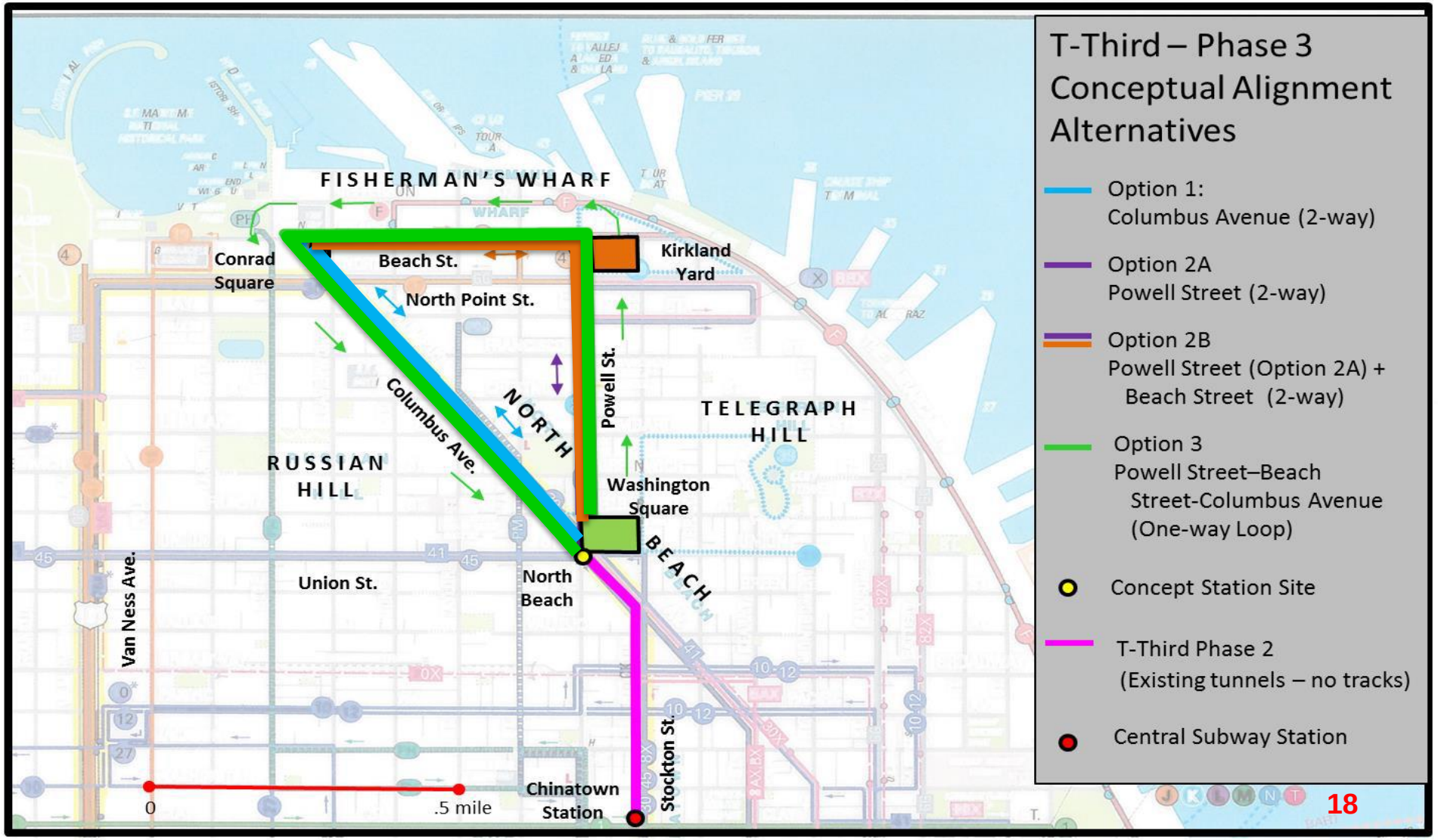
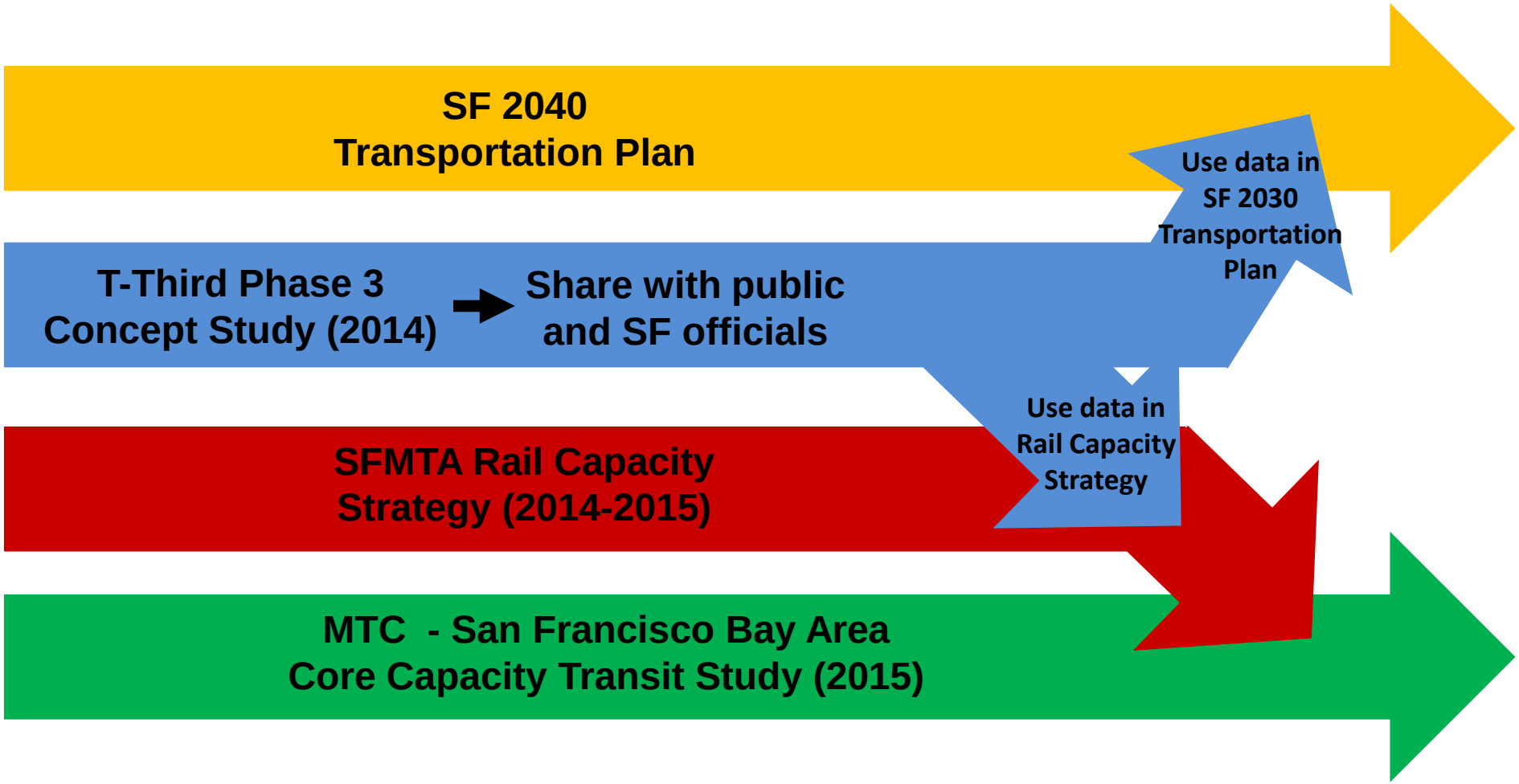
Passenger Experience	0	+	0	+	-	-	-	-	-	+	NF	NF	0	+
Operational Efficiency	-	+	-	+	-	0	-	-	-	+	NF	NF	+	+
System Performance	0	+	0	+	0	+	-	-	0	+	NF	NF	+	+
Local Operations	-	+	-	+	-	0	-	-	-	+	NF	NF	-	+
Infrastructure Resiliency	+	+	0	+	0	-	0	-	0	+	NF	NF	0	0
Construction Disturbance	-	0	-	0	-	-	-	-	-	-	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

NF = Not Feasible

Concept Alignments



Next Steps


SF 2040
Transportation Plan
T-Third Phase 3
Concept Study (2014)
Share with public
and SF officials
Use data in
SF 2030
Transportation
Plan
Use data in
Rail Capacity
Strategy
SFMTA Rail Capacity
Strategy (2014-2015)
MTC - San Francisco Bay Area
Core Capacity Transit Study (2015)