Transbay Transit Center: Key Investment in San Francisco's Future as a World Class City

Seifel Consulting
The Concord Group
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TJPA

Transbay Transit Center

Visionary transportation and TOD development that will transform downtown San Francisco

Transbay Transit Center

Summary of Findings

Transbay Transit Center and Transit Center District Plan

- **Key Investment in San Francisco's future as world class city**
- **Supports San Francisco's Economic Strategy**
- **Provides substantial economic benefits to the Bay Area region and supports regional land use, transportation and economic growth policies**
- **Will enhance surrounding property values by providing enhanced transit access, parks and open space and a new compact, TOD neighborhood in downtown San Francisco**

Transbay Transit Center Features

- Welcoming, secure and sustainable Transit Center design
- City Park, a 1,400-foot long, 5.4-acre linear green park
- Exciting new retail seamlessly integrated within the Transit Center and lining the surrounding streets
- Key anchor to walkable TOD neighborhood

US Investment in Transit Key to Global Competitiveness

America's third century urgently requires a new strategy to lay the foundation for the nation's future competitiveness, sustainability, and quality of life….[We must] promote integrated investments in mobility, environment, and economic development….and provide capacity for growth by creating a world-class multimodal transportation system of new smart highways, high-speed rail, airports, and seaports, all of these linked to concentrated developments at central hubs.

– America 2050, A Prospectus

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Interconnected Cities are Hubs of Global Integration and Engines of Growth

…the world's biggest, most interconnected cities help set global agendas, weather transnational dangers, and serve as the hubs of global integration. They are the engines of growth for their countries and the gateways to the resources of their regions.

- Foreign Policy Magazine

FP Foreign Policy

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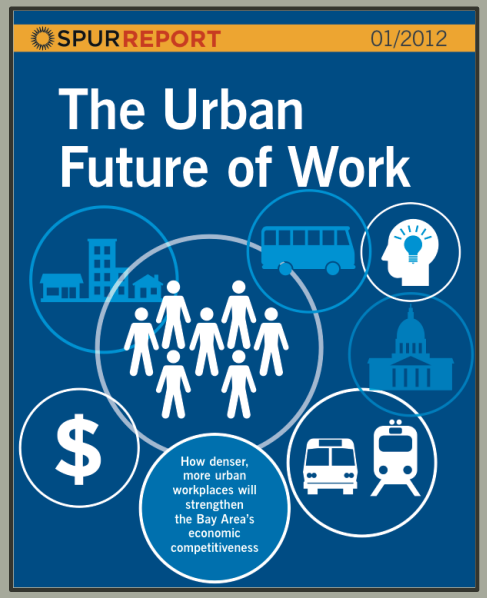
Thriving Knowledge Sector Demands Compact, Transit-oriented Environment

…companies in the knowledge services sector increasingly value collaborative work and encourage their employees to do this work wherever they are most productive, not necessarily in the traditional office….This emphasis on interactivity is changing the approach some companies take toward where they locate their offices….



…the [Bay Area] region's future economic and environmental prospects would be best served by focusing future work into more compact, transit-friendly locations, like downtowns, mixed-use neighborhoods and transit-served nodes throughout the region.

- Urban Future of Work, SPUR, January 2012, page 3-4.

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Integrated Multi-modal Transit Infrastructure key to Bay Area's future

Downtown San Francisco's capacity to support more workers, through enhanced transit investments that expand its regional accessibility, may be critical to the region's ability to grow in a sustainable way.

- San Francisco Economic Strategy

Too many cars and trucks on highways that are unable to handle ever-increasing volumes inflict time-wasting costs and productivity declines, exacerbated by expected population gains in the nation's important gateways.

- What's Next, Real Estate in the New Economy, Urban Land Institute, 2011

Transbay Transit Center will be a central destination, giving access to downtown San Francisco and invigorating the surrounding community

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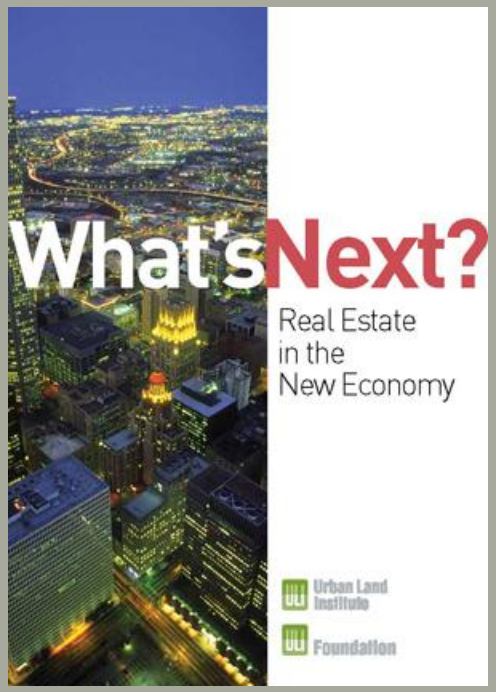
A. What Investments Are World Class Cities Making?



…nearly 500 million more people will live in cities over the next decade, and 60 percent of the world population will settle in urban areas. Here is where business, commerce and wealth creation happen. Expect international city-to-city networks to form, creating new economies and conceivably a new geopolitical power structure, serviced along increasingly well-traveled global pathways.

- Urban Land Institute – What's Next? Real Estate in the New Economy, 2011

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Investments in World Class Cities

- World Class Cities invest in public transportation, create policies to encourage density, and facilitate development of transit oriented neighborhoods served by public parks and neighborhood amenities:

New York City

London

Paris

Tokyo

Berlin

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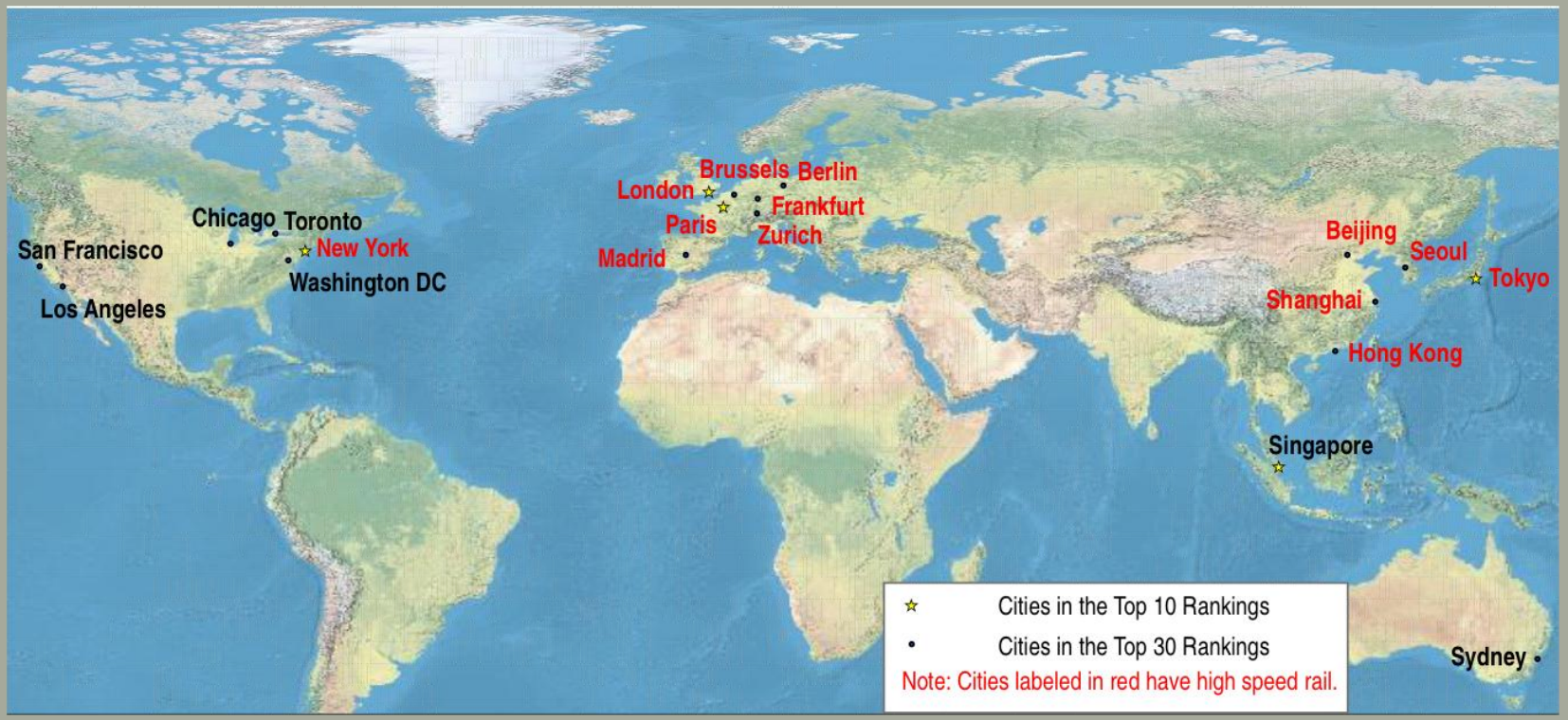
World Class Cities and High Speed Rail



Sources: Compiled from Global Cities Index, Foreign Policy Journal, 2010; World City Survey, Knight Frank LLP, 2010; Global Power City Index, Institute for Urban Strategies at Mori Memorial Foundation in Tokyo, 2010

Note: US DOT defines high speed rail as faster than 125 mph (201 km/h).
The European Union defines it as 200 km/h for existing and 250 km/h for new rail.

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Global High Speed Rail Investments

	Country	In Miles: In Operation	Under Construction	Subtotal	Planned	Total High Speed Rail by 2025
1	China	3,914	2,696	6,610	1,803	8,413
2	Spain	1,278	1,098	2,376	1,058	3,433
3	Japan	1,655	235	1,890	362	2,252
4	France	1,178	130	1,309	1,626	2,934
5	Germany	798	235	1,033	416	1,450
6	Italy	574	245	819	0	819
7	Portugal	625	0	625	0	625
8	Sweden	466	0	466	0	466
9	Turkey	146	317	463	1,043	1,506
10	Poland	442	0	442	0	442
11	Russia	404	0	404	0	404
12	South Korea	256	116	372	30	402
13	India	308	0	308	0	308
14	Iran	295	0	295	0	295
15	United States	225	0	225	559	784
16	Taiwan	214	0	214	0	214
17	Belgium	130	0	130	0	130
18	Moracco	0	124	124	298	423
19	The Netherlands	75	0	75	0	75
20	United Kingdom	70	0	70	127	197
Total		**12,778**	**5,072**	**17,851**	**6,897**	**24,748**

Source: International Union of Railways High Speed Lines in the World (July 2011), Seifel Consulting Inc.

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New York City

- Transit Investments
  - New subway lines to underserved areas in Manhattan
  - Cross-town improvements: 7 subway extensions on Manhattan, Long Island Rail Road connection at Grand Central Station
- World Trade Center / PATH Hub
  - Rebuilding of World Trade Center after 9/11
  - Features soaring tower (One World Trade Center, at 100 stories, 2.6m sq ft), a 9/11 Memorial and cultural amenities, PATH transit hub, high rise office buildings
- The High Line
  - Greenway built on 1930s era elevated freight rail line
  - Major destination for residents and visitors
  - Provides open space to west side of Manhattan
  - Increased values for abutting properties and sales for nearby businesses.

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I want London to be the best big city on earth.
London Mayor Boris Johnson

London

- Transit Investments
  - $25 billion Crossrail (Central London/Canary Wharf connection to Heathrow/eastern suburbs and subway, commuter and Eurostar rail to major European cities)
  - $52 billion “High Speed 2” from London to Birmingham, with potential stops in Manchester, Leeds and Scotland
- London Bridge Quarter (Central London, southeast of London Bridge)
  - Mixed use project with iconic tower (the “Shard” at 72 stories, 1.2m sq ft, designed by Renzo Piano):
    - Office and retail space, residential units, hotel
    - 10,000 square feet public green space
    - Revamped London Bridge subway and bus station
- Royal Docks and Olympic Village/Parklands
  - Royal Docks and Olympic Village envisioned as mixed use, TOD neighborhood, featuring range of housing and new 250-acre Olympic Parklands, largest open space project in Europe for over a century
  - Transit improvements and connections to Royal Docks and other parts of London.

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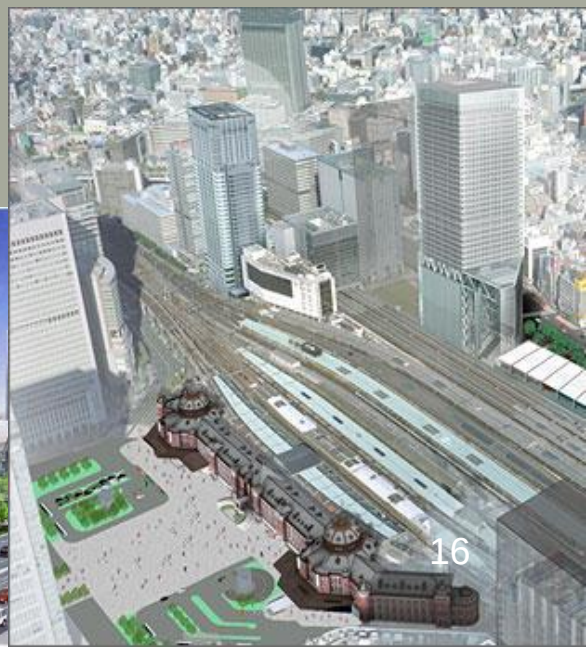
The economic crisis can only be beaten by grand projects…
no grander project than to create a Greater Paris."
French President Nicolas Sarkozy

Paris

- Transit Investments
  - New rapid rail line encircling Paris, connecting suburbs, high speed rail stations and airports
- La Défense
  - One of largest dedicated business districts in Europe, home to many of Paris' tallest buildings
  - Anticipated rail expansions to connect Greater Paris to metro region and suburbs
  - Features Le Parvis (esplanade running through district, providing public space for all)
- Hermitage Plaza
  - One of La Defense's latest development projects (to be completed in 2016)
  - Twin high rises (91 and 93 stories, 2.7m sq ft, designed by Norman Foster) and riverside park lined with cafes and restaurants

Tokyo

- Transit Investments in Japan
  - Highly efficient and extensive public transportation systems, particularly in Tokyo, Nagoya and Osaka
  - Successful implementation of high speed rail in 1960s
  - Continually improved HSR systems increase train speed, latest technology achieves streamlined connections
- Tokyo Station City
  - TOD at major regional gateway and historic site
  - One of Tokyo's busiest railway hubs and terminus of high speed rail
  - Transit facilities undergoing renovation, plans for new retail space
  - Recent additions Gran Tokyo North and South Towers (42 and 43 stories, 3.8m sq ft) located near transit
  - Pedestrian deck (Gran Roof) connects towers and provides outdoor space



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Berlin

- Transit Investments
  - Central multi-modal station (*Hauptbahnhof*) opened in 2006
  - Located on former boundary of West and East Berlin
    - New glass structure represents openness and transparency, commemorates fall of Berlin Wall
  - Largest rail station in Europe (five stories tall, containing 756,000 square feet)
  - Provides access between different transportation modes—long distance trains, commuter rails and buses—as well as to Tegel and Schoenefeld airports
  - Features 80 retail spaces serving passengers and visitors, rooftop solar paneling provides renewable energy
- TOD near Hauptbahnhof
  - Two TOD developments less than a mile from Hauptbahnhof:
    - 4.3-acre Station Quarter, featuring retail, office and hotel
    - 40-acre master-planned Europa City—6.5 million square feet of residential, commercial and cultural uses

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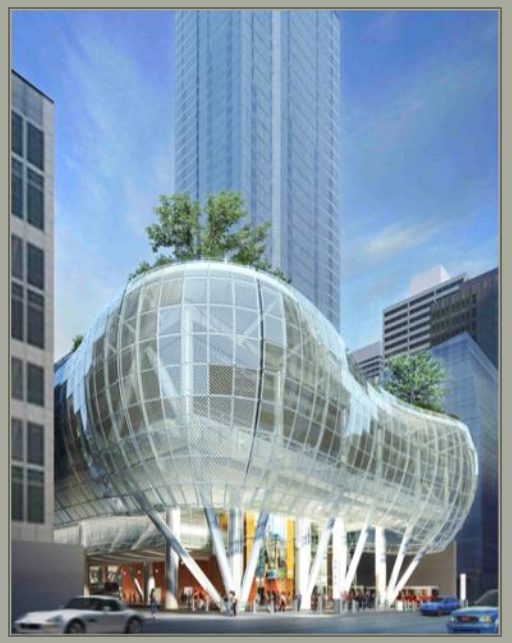
B. Transit Investments Critical to Bay Area's Economy

- Bay Area is home to nation's most competitive knowledge service sector
- Knowledge service sector businesses thrive in compact, transit served environment
- Dense urban-style settings facilitate collaboration, sharing of ideas and information, promotes business innovation and competitiveness
- Creating urban fabric of dense office space near transit is key to City's future economic growth



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Regional Benefits of Transit Center

- **Construction and permanent job creation** - Create more than 125,000 jobs.
- **Affordability mobility** - Open up significant number of employment opportunities for residents that live in San Francisco and along the Peninsula corridor.

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Regional Benefits of Transit Center

- **Expansion of labor market** – As residents enjoy better access to jobs, companies will have better access to a larger labor pool of workers
- **Improved travel efficiency and decreased traffic congestion** –Caltrain Extension to downtown will help remove thousands of daily-commute vehicles from the Peninsula, translating to $360 million in travel time savings, more than $120 million in avoided vehicle operation and maintenance costs, and more than $20 million in benefits from improved safety

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Regional Benefits of Transit Center

- **Decreased GHG emissions** – From Caltrain Extension ridership, reduction of tons of carbon dioxide emissions are estimated each year.
  - If California High Speed Rail moves forward, a projected 1.4 percent reduction in carbon monoxide is expected statewide.
- **Gross Regional Product** – Regionally, construction of the Transbay Transit Center and buildout of the surrounding Transbay neighborhood will generate more than $87 billion in Gross Regional Product and $52 billion in personal income through 2030.

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Further Benefits of Transit Center

- **Health Benefits** – Residents and workers will realize the many health benefits related to public transit, including increased physical activity, mental health and improved access to housing, medical care and other health services.
- **Art and Amenities** will not only serve to inspire, it will contribute to the social and cultural life of the city.

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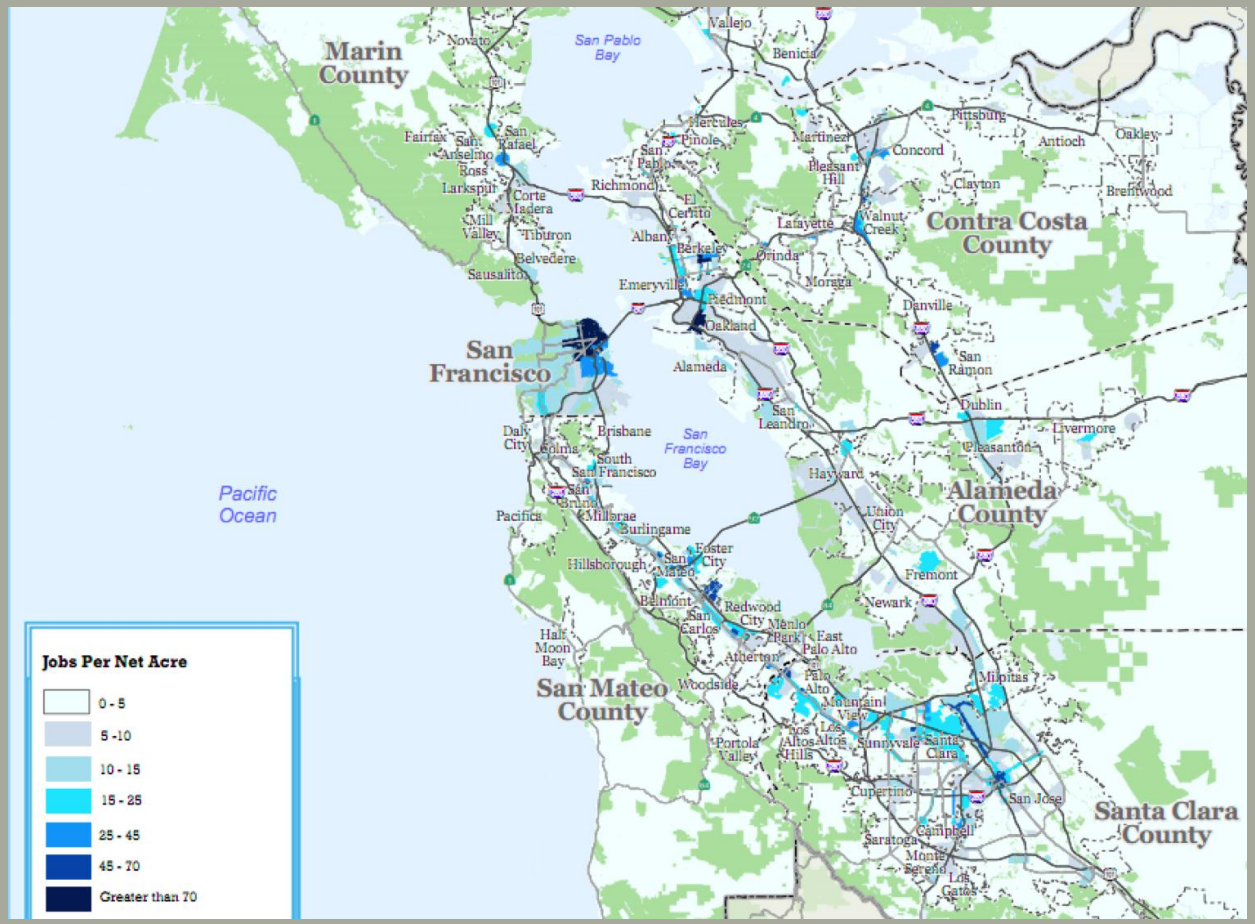
Focusing Future Work into More Compact, Transit Friendly Locations: Key to Economic Competitiveness



In order for the Bay Area to remain an economically competitive region, we need companies and individuals to share ideas, talent, new market insights and tools that will increase productivity and innovation. This productive interactivity occurs naturally in great urban spaces. Consequently, the region's future economic and environmental prospects would be best served by focusing future work into more compact, transit friendly locations….

- SPUR Future of Work

Source: Association of Bay Area Governments, SPUR Future of Work

Transbay Transit Center Aligns with San Francisco Economic Strategy

Transit Center will help San Francisco achieve its economic goals:

- Maximize San Francisco's accessibility to a local and regional workforce
- Upgrade neighborhood commercial areas
- Provide sufficient real estate for strategic priorities
- Recognize and enhance the value of parks and open spaces
- Encourage creativity by continuing to develop San Francisco as a center for the arts
- Streamline business interaction with the city government
- Increase business outreach and private sector partnerships
- Better prepare San Francisco's youth for careers

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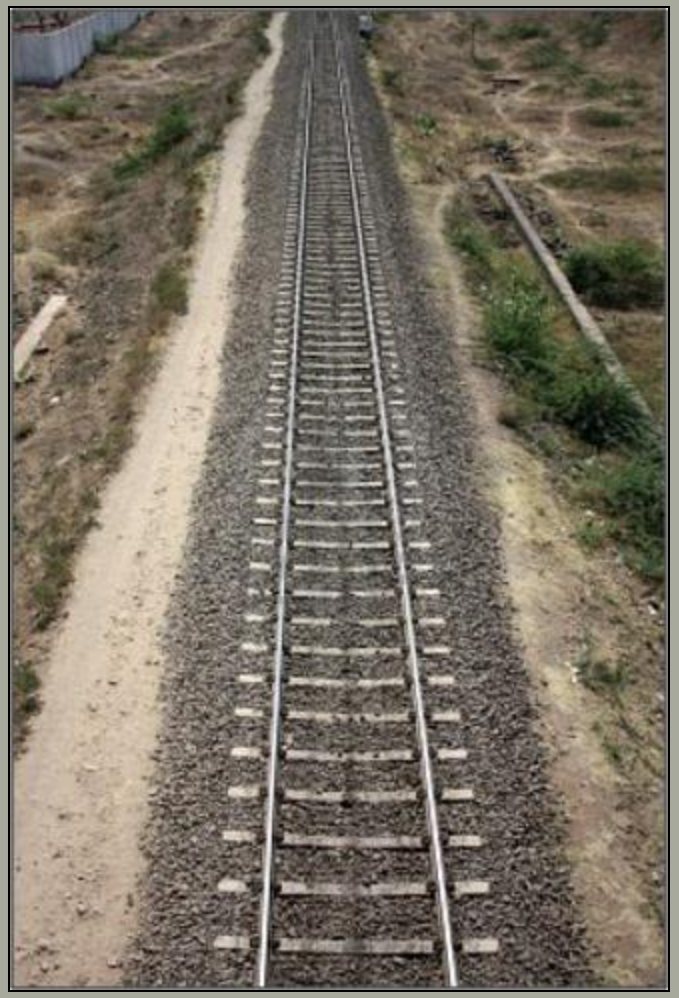
C. Transit, Open Space and Neighborhood Amenities: Enhancements to Property Values

- Numerous studies have examined how transit, open space and other neighborhood amenities increase the value of surrounding properties
- Studies also find that a strong and supportive policy framework and neighborhood plan must exist to maximize increased real estate values near transit stations.



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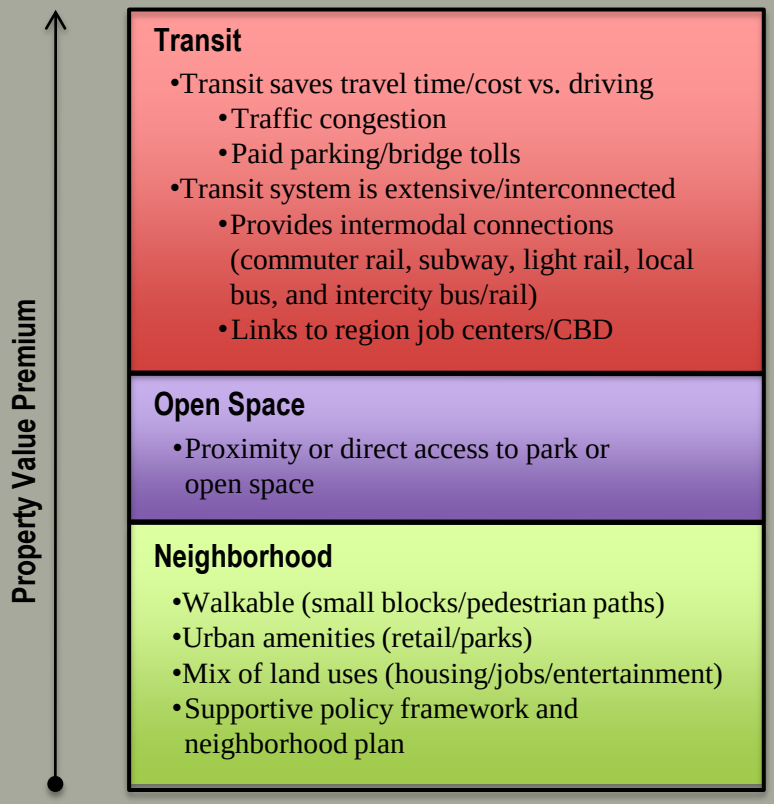
Transit, Open Space and Neighborhood Amenity Benefits



A combination of open space, neighborhood and transit amenities will increase property value premiums

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Summary of Transit Benefits

Higher quality public transportation → People own fewer vehicles, drive less, use alt. modes

People own fewer vehicles, drive less, use alt. modes →

- •Fewer traffic crashes
- •Reduced pollution emissions

People own fewer vehicles, drive less, use alt. modes →

- •Improved physical fitness and mental health
- •Better access to healthy food, housing, and medical care

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Transit Related Value Enhancements
Case Study: San Diego

The Impact of Transit-oriented Development on Housing Prices in San Diego, CA - Michael Duncan (2010)

- 15% premium on residential condominium properties for sale within **1,000 ft** of a walk-up trolley station in neighborhood with good pedestrian quality
- 11% premium for residential condominiums in the same radius of a park and ride station in neighborhood with good pedestrian quality
- Conclusion:
  "TOD has a synergistic value greater than the sum of its parts"

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Transit Related Value Enhancements Case Study: Toronto, Canada

Sheppard Subway Financing Study - John Farrow, et al (1991)

- Toronto, Canada
- Condominium sale price 20% higher in communities **adjacent** to subway station
- Condominium sales in communities **within 1,000 ft** (.19 mi) of station had 15% higher sale price
- Condominium sales in communities **within 2,000 ft** (.38 mi) of station had 5% higher sale price

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Open Space Related Value Enhancements
Case Study: New York

High Line Revenue Generation – Bay Area Economics (2007)

Premiums associated with direct connection to High Line Park

- 3% premium on residential uses
- 5% premium on commercial and retail uses

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European Open Space Survey

Open Space in Close Proximity to Commercial Space Adds 3% to Value

Rank	Reasons for Selecting Commercial Location
1	Geographic Location
2	Cost
3	Proximity to Public Transportation
4	Amenities (retail, food outlets, gyms, entertainment, etc.)
5	Access to Open Space
6	Prestige of Address
7	Building Aesthetics

95% of respondents believe that open space adds value to commercial property and would be prepared to pay at least 3% more to be in close proximity to open space.

Source: 2011 Gensler/ULI European Open Space Survey of 350 European developers, investors, consultants and public staff.

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Retail/Other Neighborhood Amenities Value Enhancements Case Study

An Assessment of the Marginal Impact of Urban Amenities on Residential Pricing – Johnson Gardner (2007)

- Proximate availability of a range of urban amenities have a substantive impact on achievable residential pricing (from 3% - 17%)
- Grocers and wine bars and shops specifically demonstrate statistically significant positive price premiums for homes nearby

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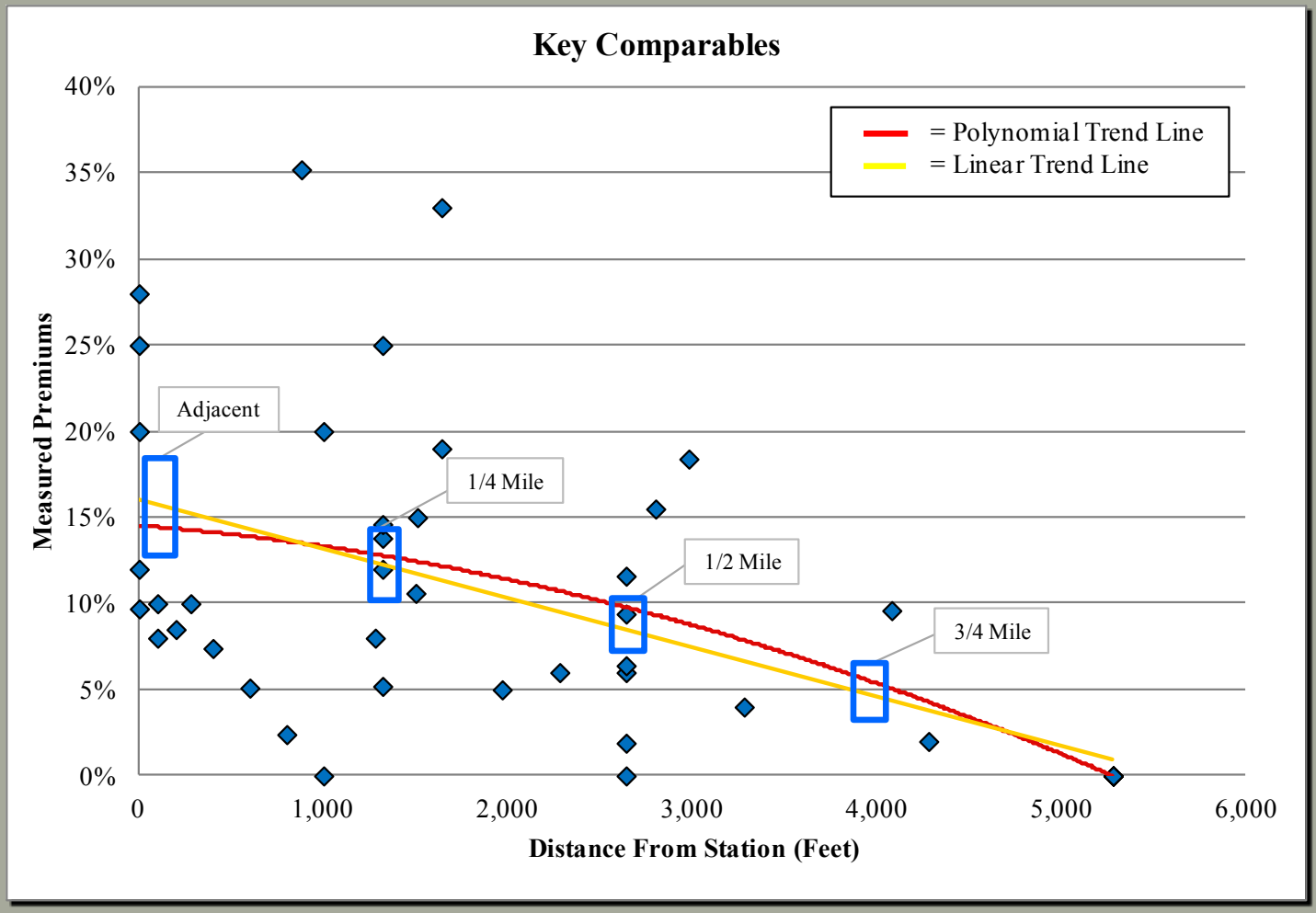
Summary of Transit Benefit Literature Review



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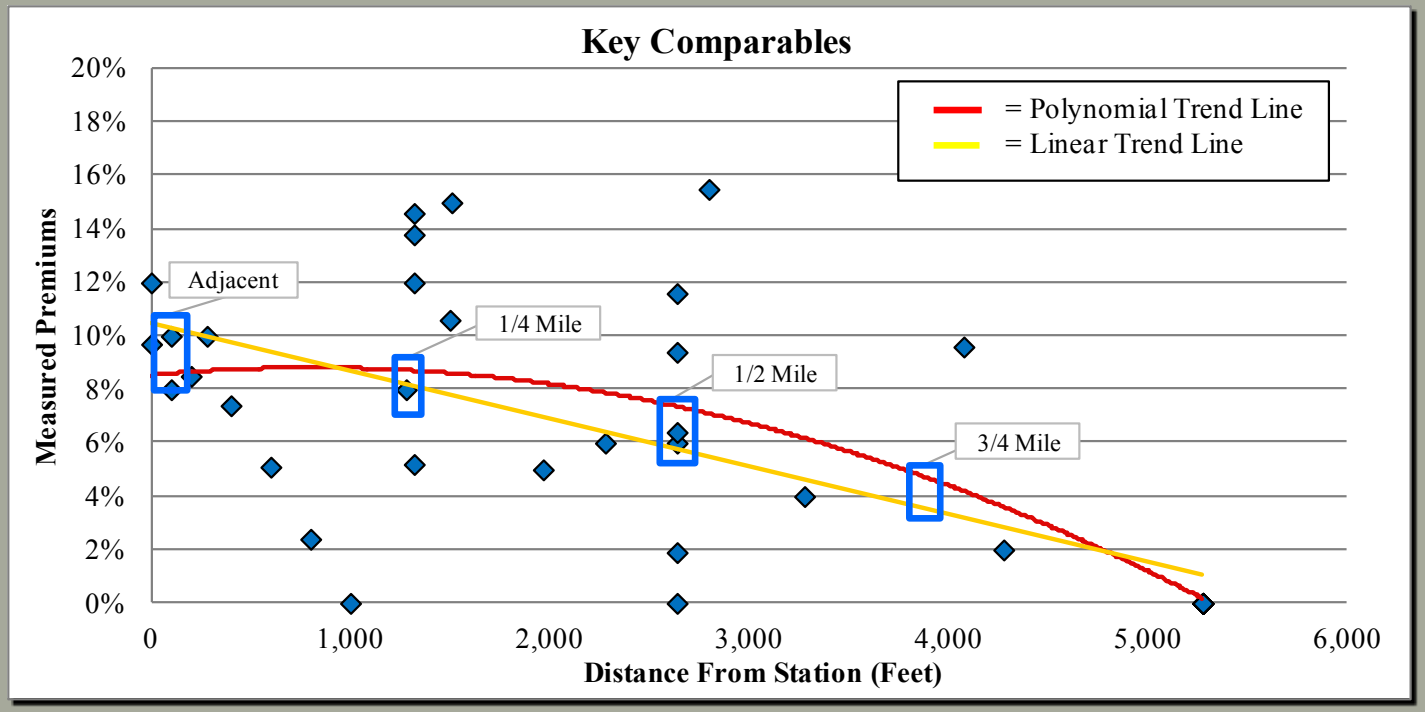
Summary of Constrained Transit Benefit Literature Results- Emphasizing Urban Projects



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Summary of Transit Benefit
Adjusted Literature Review Results

Summary

Stations that are connected to mature, multimodal transit systems located in walkable neighborhoods tend to generate the greatest benefit to nearby property values.

	Adjusted Transit Literature Review Results			
Radius	Commercial	Residential	Overall	Concluded
Adjacent	12.2%	9.1%	10.4%	5.2%
1/4 Mile	9.2%	7.1%	8.1%	4.0%
1/2 Mile	6.2%	5.1%	5.7%	2.9%
3/4 Mile	3.3%	3.1%	3.4%	1.7%

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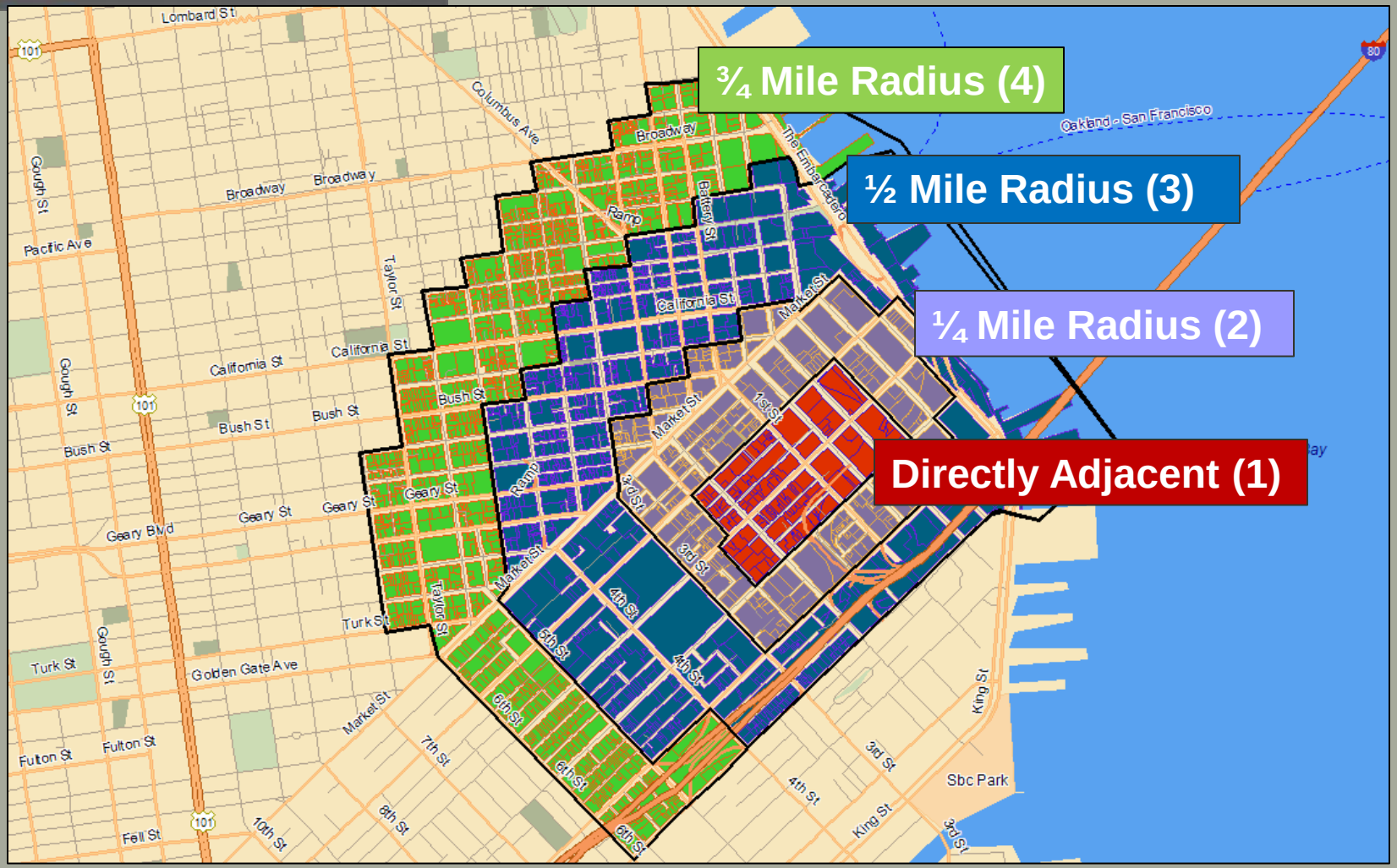
Transbay Area: Premium Zones



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Summary of Transit, Open Space and Neighborhood Amenity Benefits

- Using data from 15 peer-reviewed studies, 3% open space and neighborhood premiums were included in the adjacent and ¼ mile radii. No premium was assumed beyond ½ mile

Transit, Open Space and Neighborhood Value Premiums within Transbay Transit Center Area

	Transit Premium					
Approximate Radius	Repreresentative Literature Review Results	Adjusted Literature Review Results	**Adjusted Conclusion**	**Open Space Premium**	**Neighborhood Premium**	**Total Premium**
Adjacent	16.0%	10.4%	5.2%	3.0%	3.0%	**11.2%**
1/4 Mile	12.2%	8.1%	4.0%	3.0%	3.0%	**10.0%**
1/2 Mile	8.4%	5.7%	2.9%	0.0%	0.0%	**2.9%**
3/4 Mile	4.7%	3.4%	1.7%	0.0%	0.0%	**1.7%**

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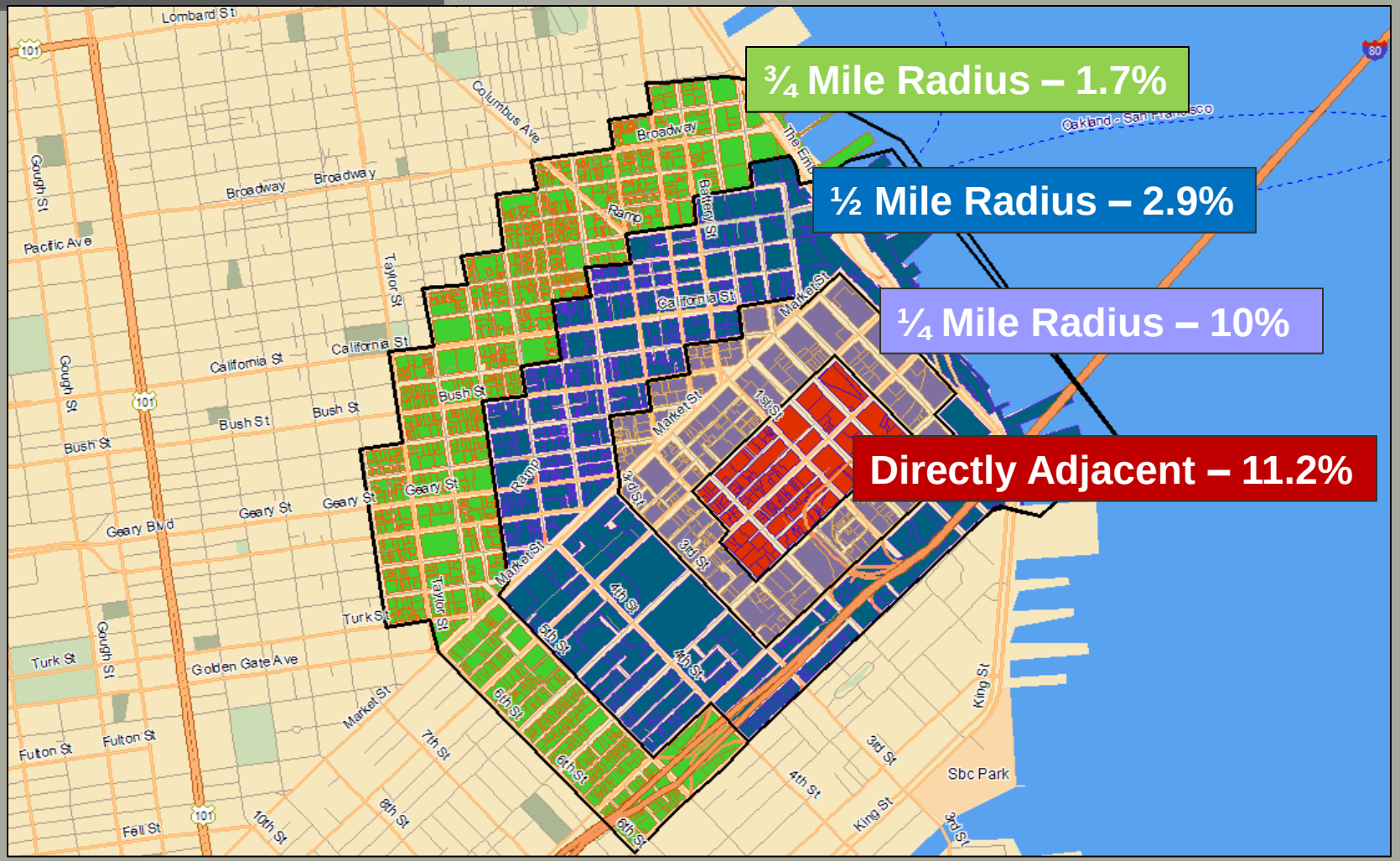
Summary of Transit and Amenity Benefit: Premium Assignment



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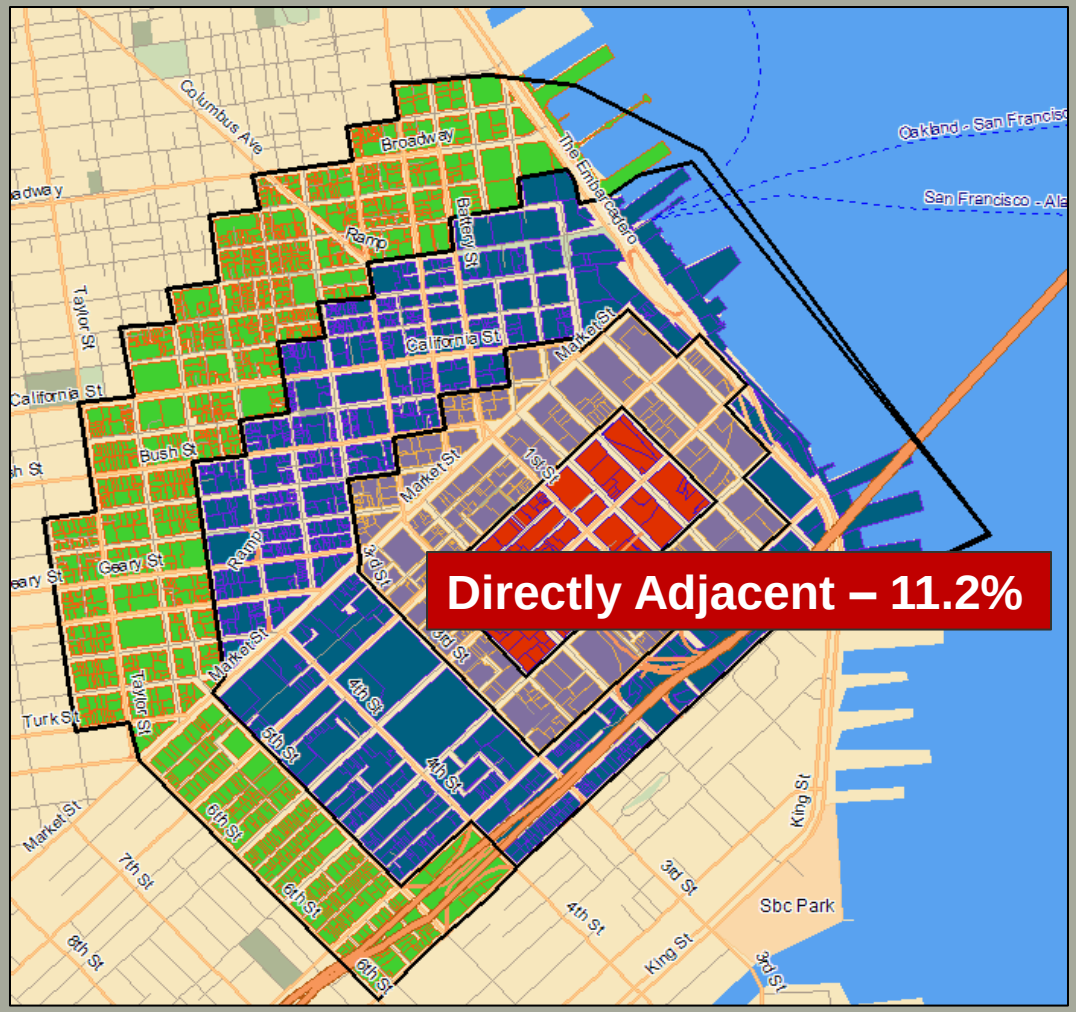
Summary of Transit and Amenity Benefit: Adjacency

- Defined by Mission St, Main St, Folsom St, and Second St.
- Increased activity in area, especially pedestrian Traffic
- “New” Neighborhood
- Retail access/ neighborhood amenities of Transit Terminal
- Park Access
- Immense positive change in fabric of neighborhood due to redevelopment
- Immediate access for commuters to employment



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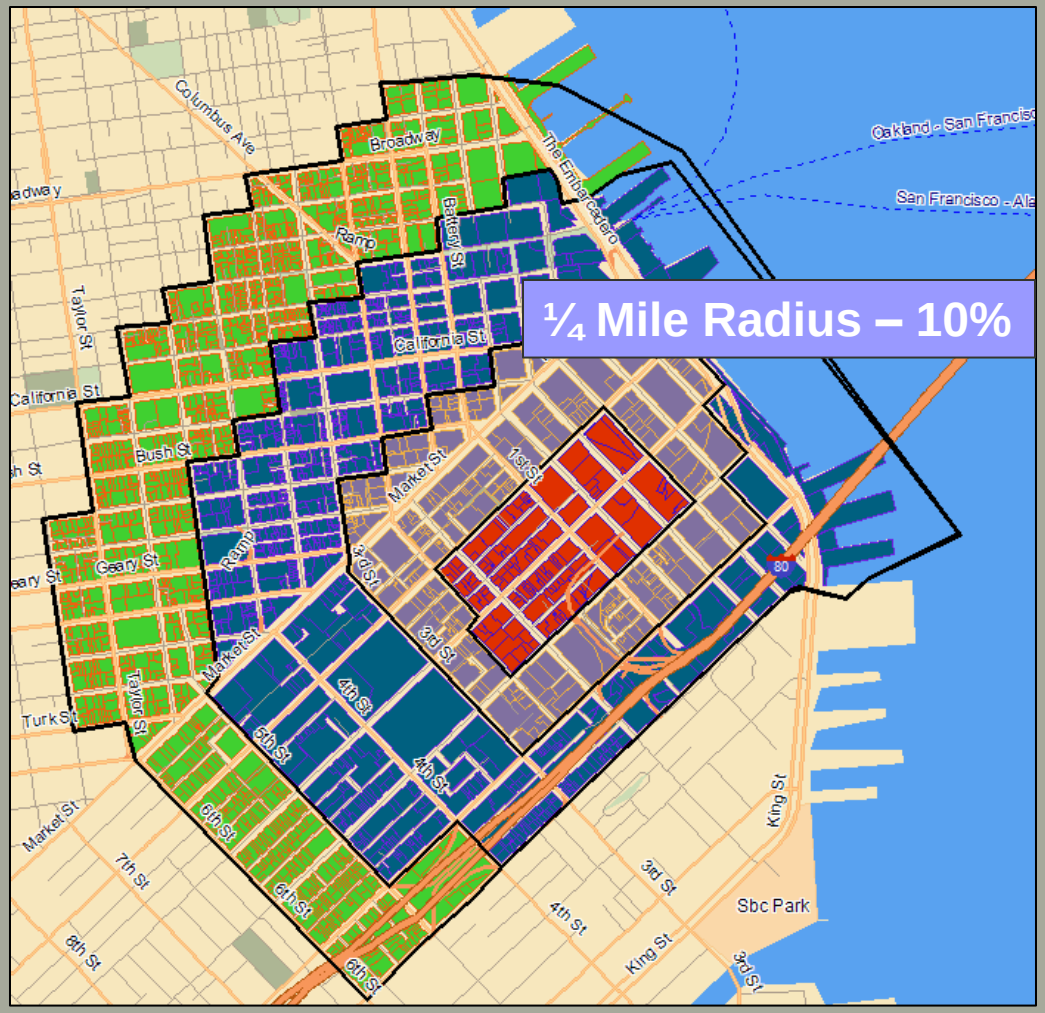
Summary of Transit and Amenity Benefit: ¼ Mile

- Easy walking distance to retail and neighborhood amenities of Transit Terminal
- Short walk to Terminal Park
- Access for commuters to employment (Caltrain riders that would have otherwise transferred to a bus)
- Increased activity in neighborhood



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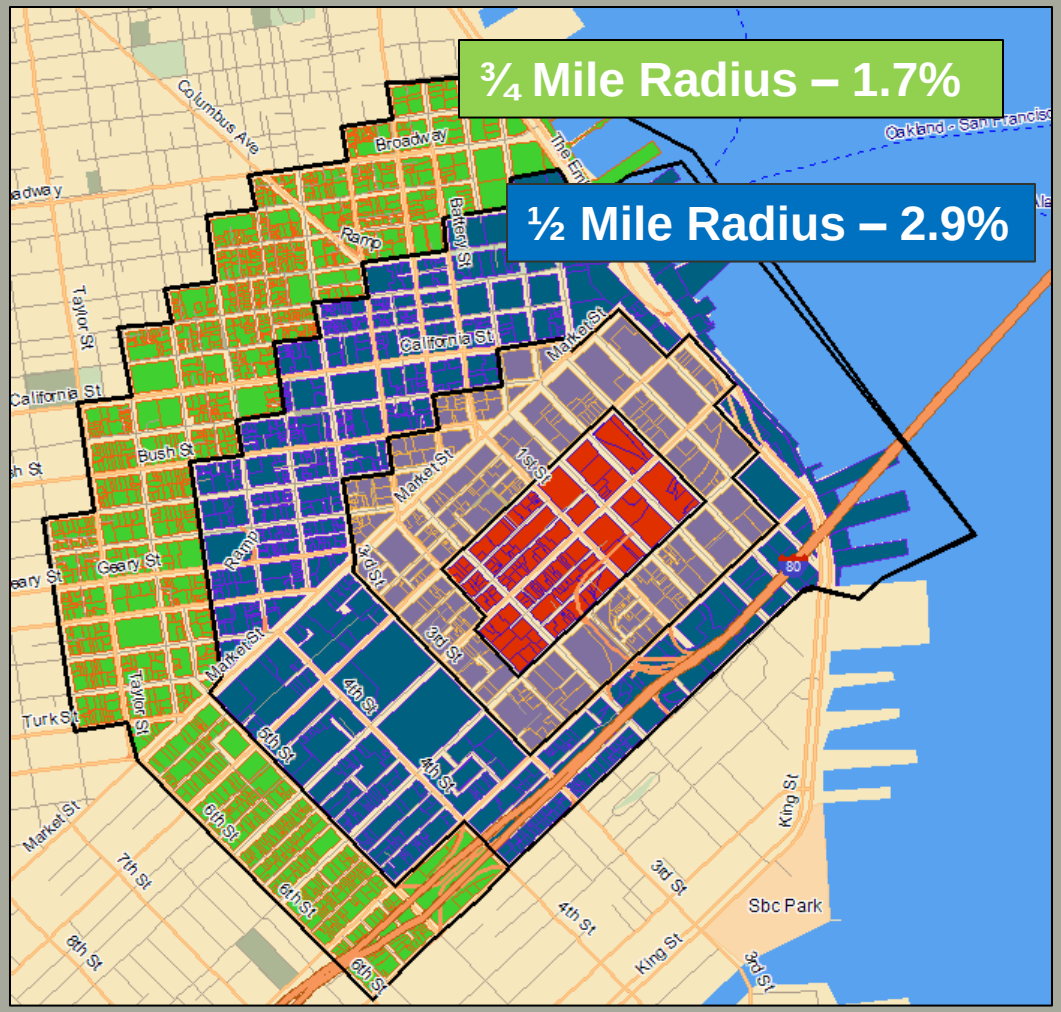
Summary of Transit and Amenity Benefit: ½ and ¾ Mile

- Transit Center will make the Financial District more attractive, desirable place for businesses to locate, driving rents and land values
- Access for Caltrain Commuters
- Moderate walk to retail and neighborhood amenities of Transit Terminal
- Moderate walk to Terminal Park
- Access for commuters to employment



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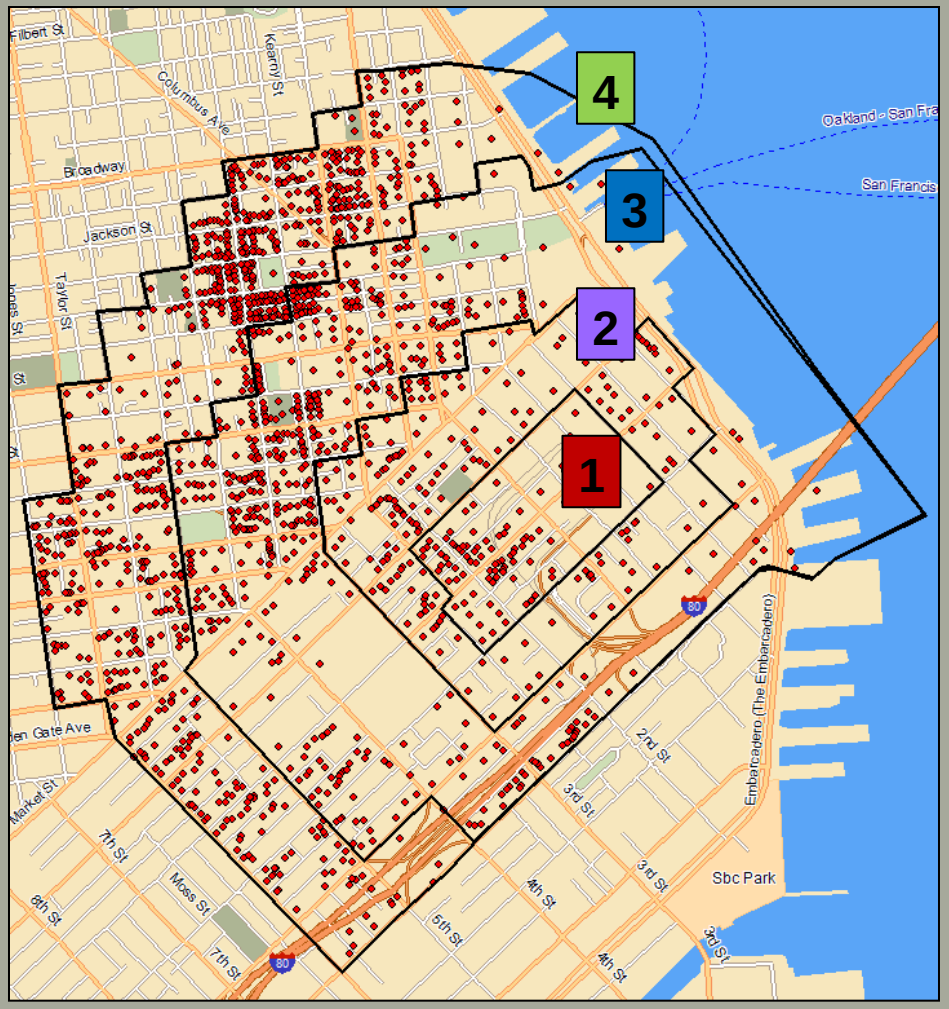
Summary of Transit and Amenity Benefit: Existing Commercial Parcels

Summary

- 1,640 commercial properties
- 104,390,458 Square Feet
- Average vintage 1925
- $41.8 Billion in existing value based on $400/SF
- $2.3 Billion premium created by Transit Center

	No. of Properties	Existing Value ($MM)	Premium	Premium Potential ($MM)
Zone 1	88	$2,778	11.2%	$312
Zone 2	187	$13,262	10%	$1,333
Zone 3	538	$17,031	2.9%	$489
Zone 4	827	$8,685	1.7%	$147
Total	1,640	$41,756		$2,281



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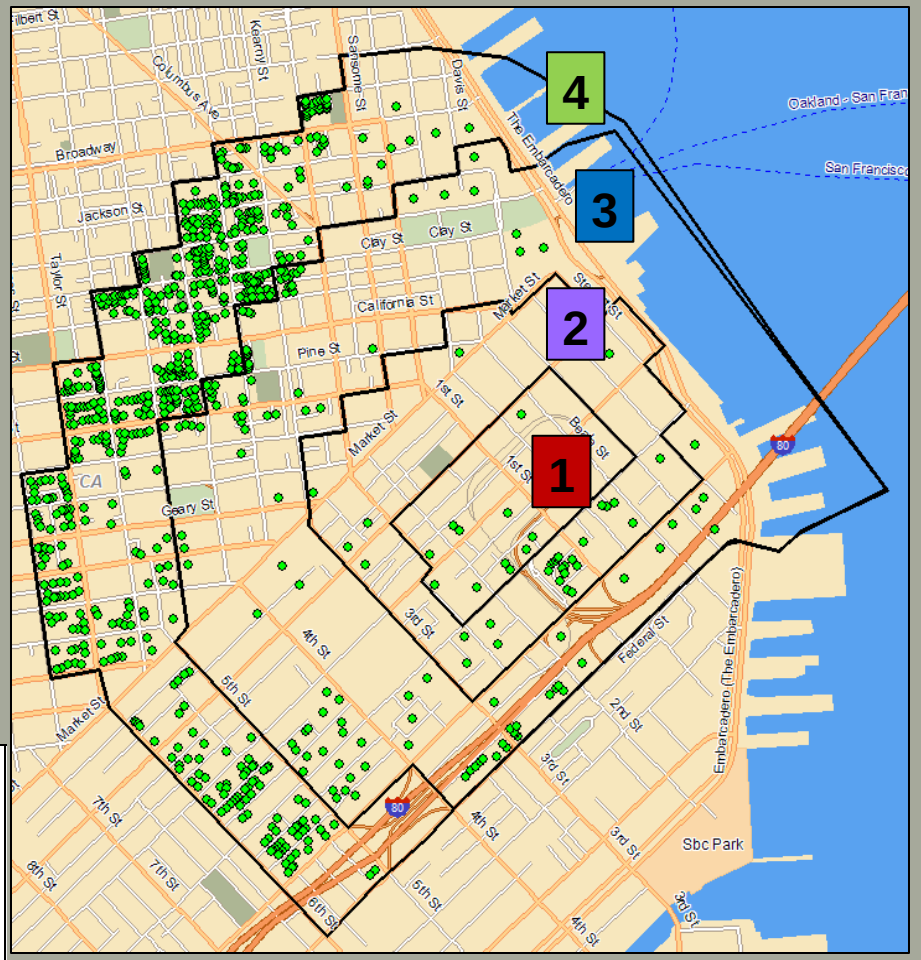
Summary of Transit and Amenity Benefit: Existing Residential Parcels

Summary

- 1,021 residential properties
- 44,099 residential units
- Average vintage 1942
- $22.1 Billion in existing value based on $500,000 per housing unit
- $835 million premium created by Transit Center, open space and neighborhood amenities



	Number of Properties	Existing Value ($MM)	Premium	Premium Potential ($MM)
Zone 1	11	$388	11.2%	$43
Zone 2	55	$4,113	10%	$413
Zone 3	186	$6,806	2.9%	$196
Zone 4	769	$10,744	1.7%	$182
Total:	1,021	$22,050		$835

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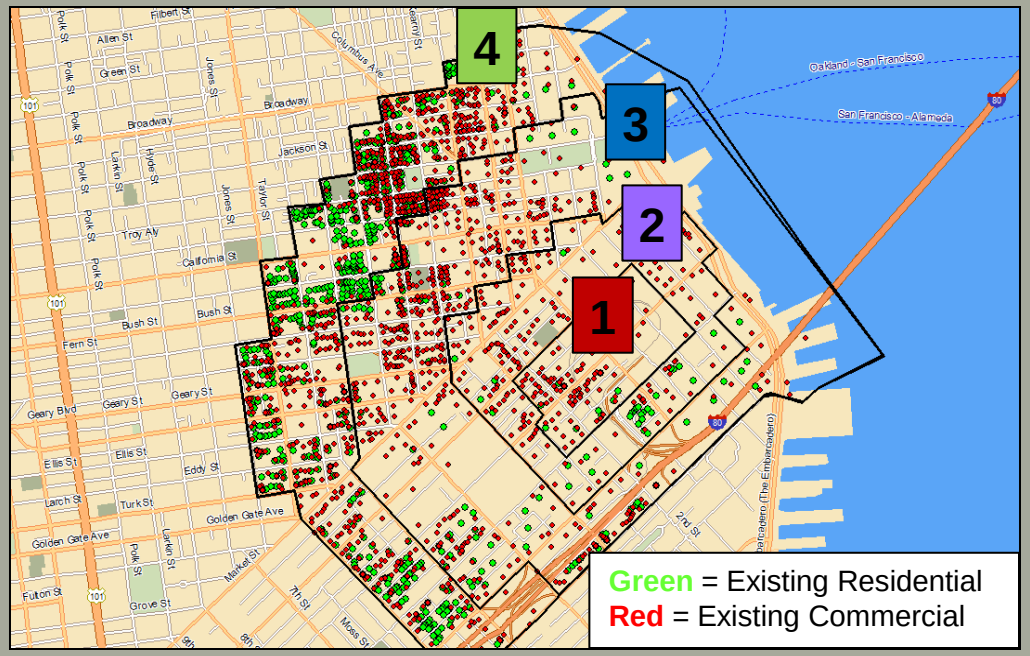
Summary of Transit and Amenity Benefit: All Existing Development

		Existing Value						Premium Potential					
		Commercial		Residential		Total		Commercial		Residential		Total	
Zone	Description	$million	%	$million	%	$million	%	$million	%	$million	%	$million	%
Zone 1	Adjacent	$2,778	7%	$388	2%	$3,166	5%	$312	14%	$43	5%	$355	11%
Zone 2	1/4 Mile	$13,262	32%	$4,113	19%	$17,375	27%	$1,333	58%	$413	50%	$1,746	56%
Zone 3	1/2 Mile	$17,031	41%	$6,806	31%	$23,837	37%	$489	21%	$196	23%	$685	22%
Zone 4	3/4 Mile	$8,685	21%	$10,744	49%	$19,428	30%	$147	6%	$182	22%	$330	11%
Total:		**$41,756**	**100%**	**$22,050**	**100%**	**$63,806**	**100%**	**$2,281**	**100%**	**$835**	**100%**	**$3,116**	**100%**
						Average Per Property Premium:		***5.5%***		***3.8%***		***4.9%***	
						Share of Total Benefit:		**73%**		**27%**		**100%**	



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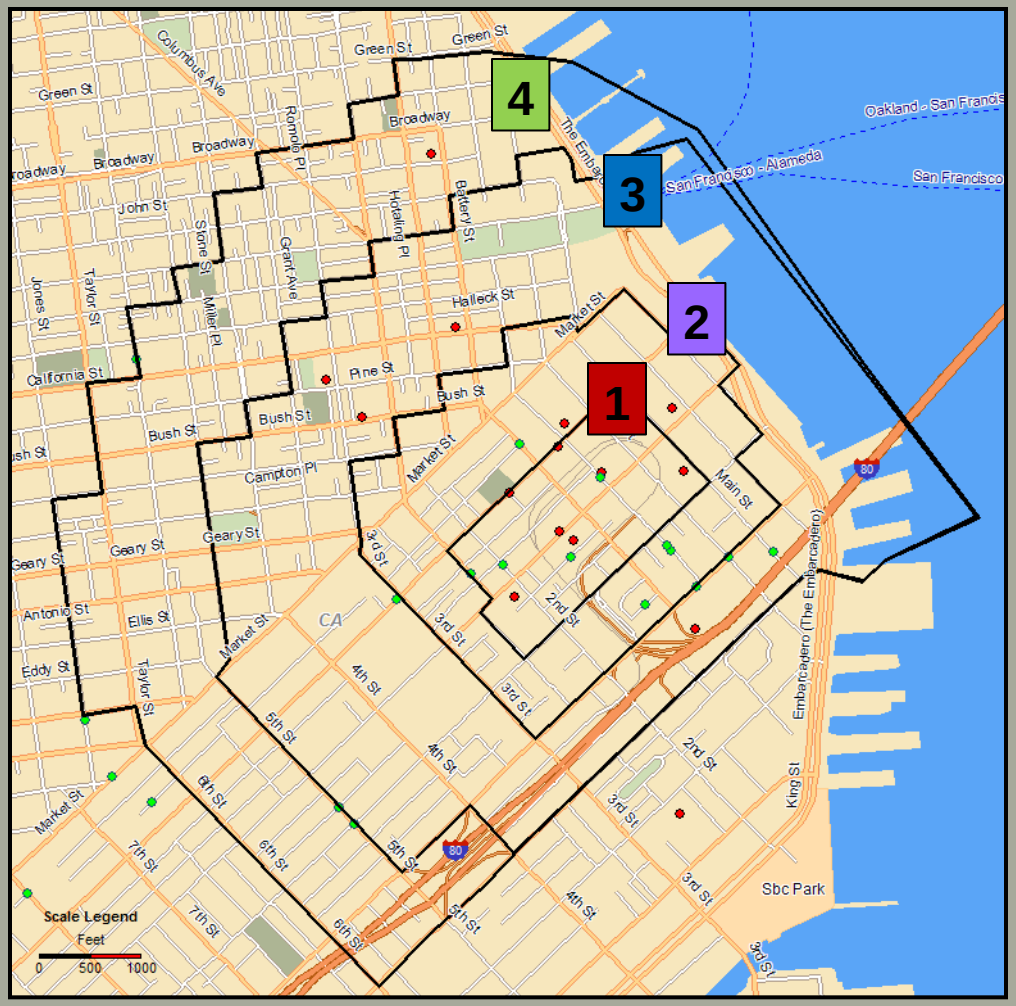
Calculation of Value Premiums to San Francisco: New Development

New Development

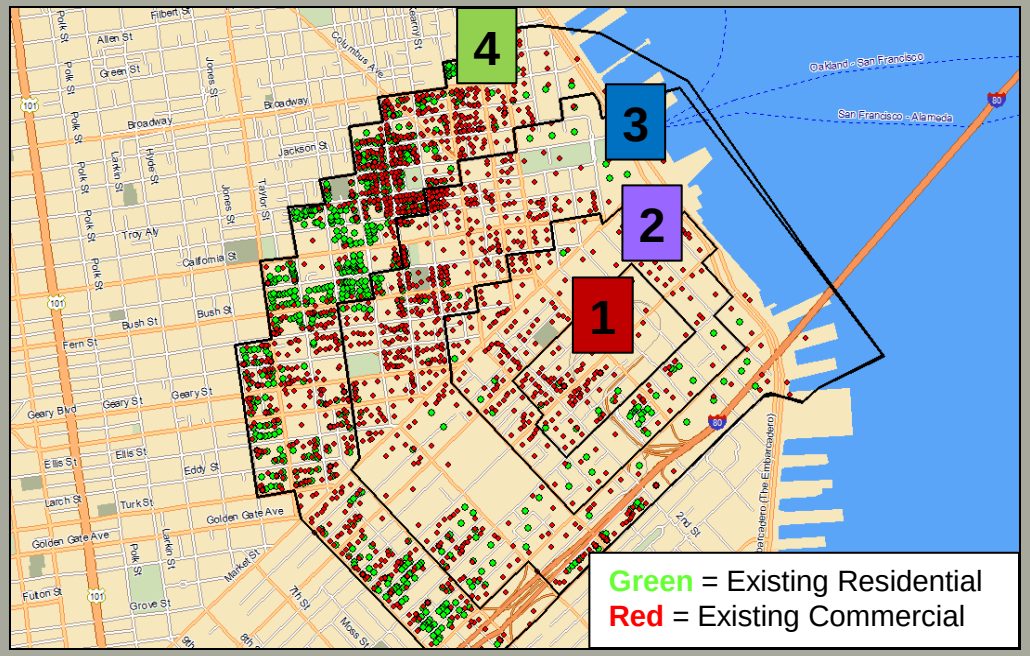
- 7.8 million square feet commercial space
- 2,900 market rate residential units
- Value added is $6.8 Billion, based on $600/SF for commercial and $750,000 per housing unit.
- Premium is $584 million created by Transit Center, open space and neighborhood amenities



Transbay Transit Center

Summary of Transit and Amenity Benefit: All New Development

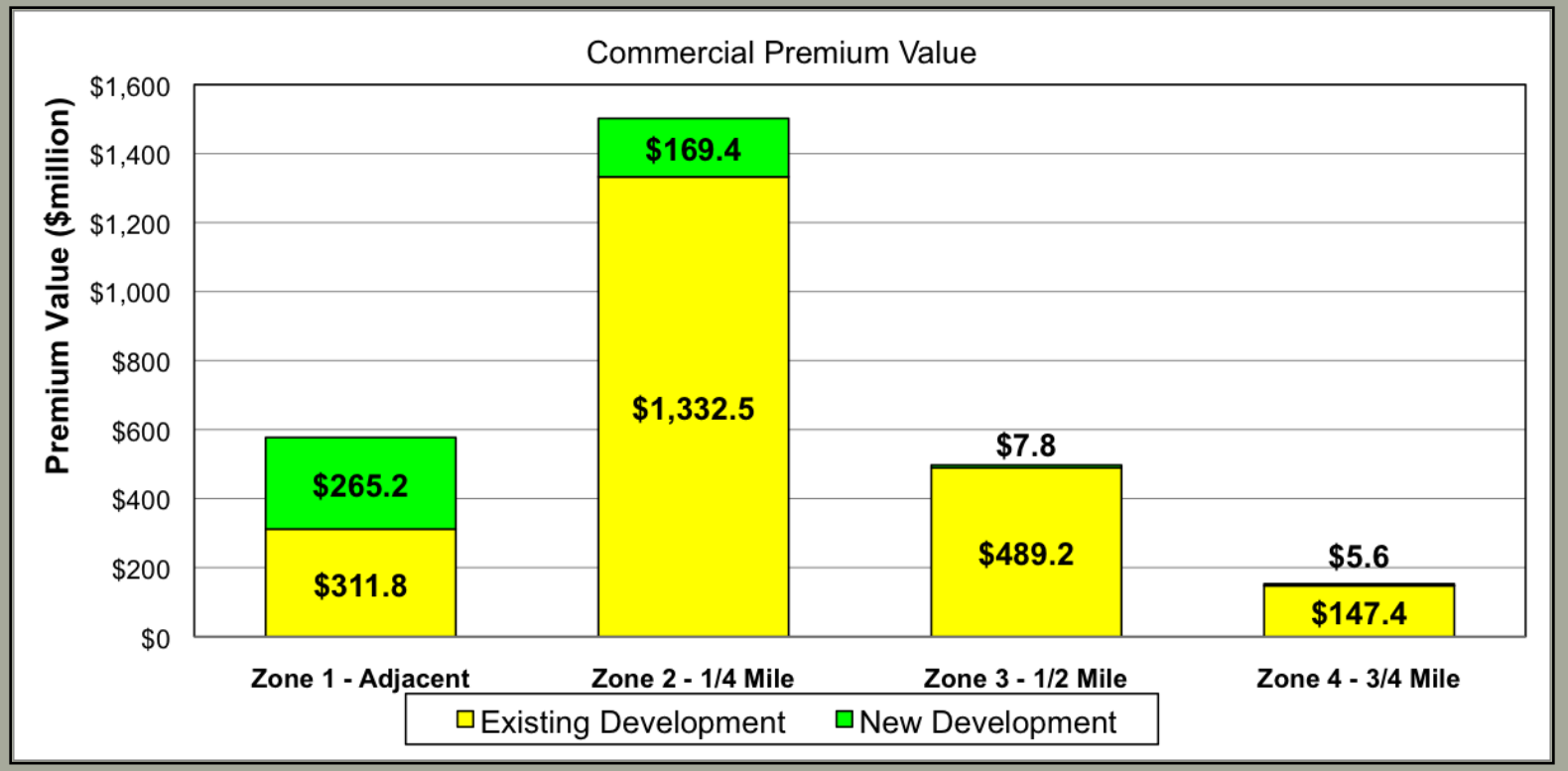
		New Value						Premium Potential					
		Commercial		Residential		Total		Commercial		Residential		Total	
Zone	**Description**	**$million**	**%**	**$million**	**%**	**$million**	**%**	**$million**	**%**	**$million**	**%**	**$million**	**%**
Zone 1	Adjacent	$2,363	51%	$385	18%	$2,748	40%	$265	59%	$43	32%	$308	53%
Zone 2	1/4 Mile	$1,686	36%	$589	27%	$2,275	33%	$169	38%	$59	44%	$229	39%
Zone 3	1/2 Mile	$271	6%	$1,083	50%	$1,354	20%	$8	2%	$31	23%	$39	7%
Zone 4	3/4 Mile	$332	7%	$120	6%	$452	7%	$6	1%	$2	2%	$8	1%
Total:		**$4,653**	**100%**	**$2,177**	**100%**	**$6,830**	**100%**	**$448**	**100%**	**$135**	**100%**	**$584**	**100%**
						Average Per Property Premium:		***9.6%***		***6.2%***		***8.5%***	
						Share of Total Benefit:		**77%**		**23%**		**100%**	



Transbay Transit Center

Calculation of Value Premiums to San Francisco

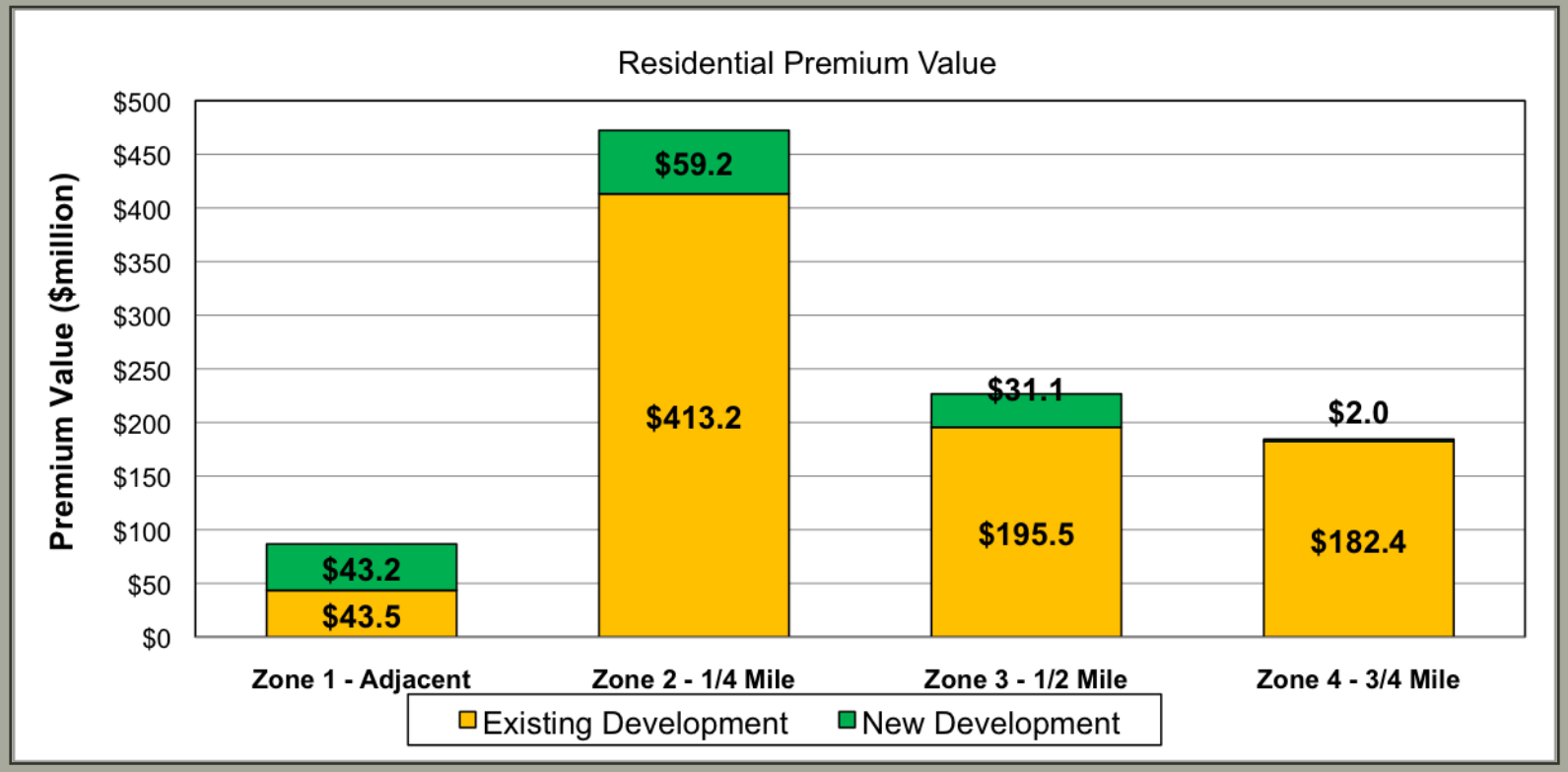
Total Commercial Premium Value across all zones: $2.7 Billion



Transbay Transit Center

Calculation of Value Premiums to San Francisco

Total Residential Premium Value across all zones: $970 Million

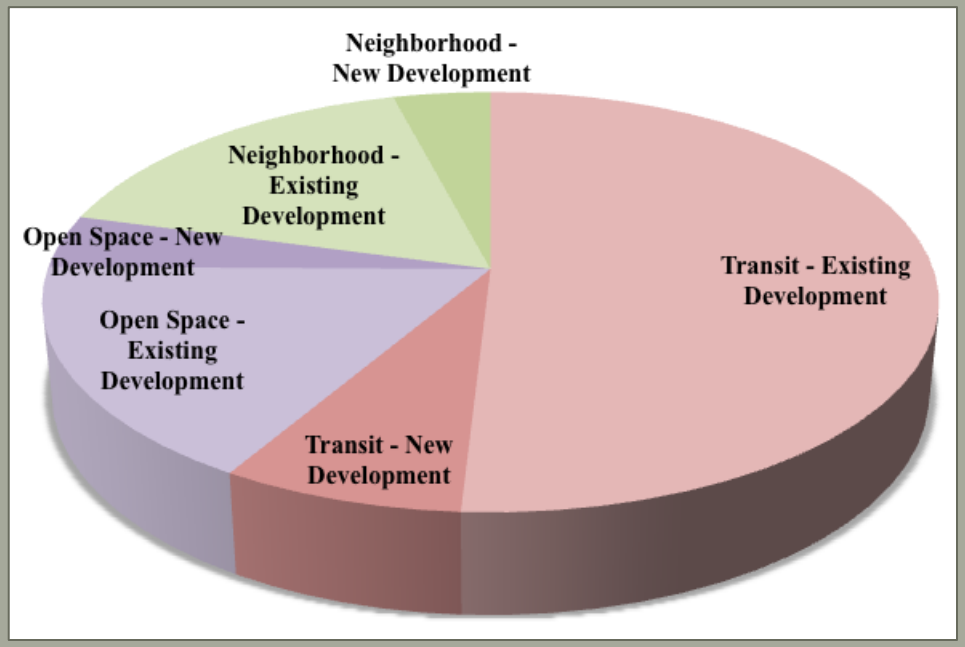


Transbay Transit Center

Summary of Value Premiums From Transit Center, Park and Neighborhood Amenities

- Estimated premium value, related to proximity to transit, open space and other neighborhood amenities, is $3.7 billion:
  - $3.1 billion from existing development
    - Commercial $2.3 billion
    - Residential $0.8 billion
  - $580 million from new development
    - Commercial $448 million
    - Residential $135 million

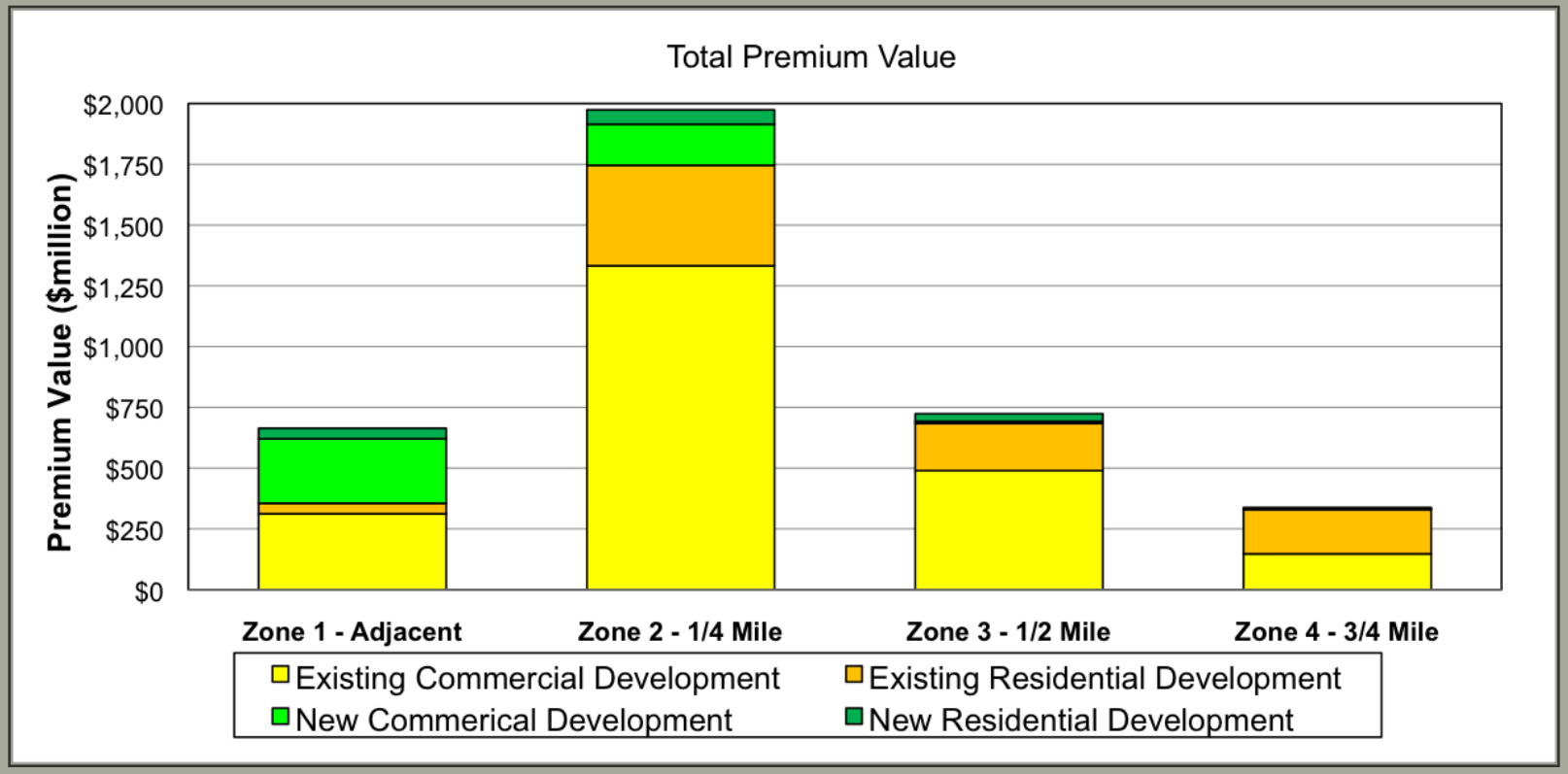
Distribution of Total Property Value Premium



Transbay Transit Center

Calculation of Value Premiums

Total Premium Value across all zones: $3.7 Billion



Transbay Transit Center

Conclusion

Transbay Transit Center and Transit Center District Plan

- **Key Investment in San Francisco's future as world class city**
- **Supports San Francisco's Economic Strategy**
- **Provides substantial economic benefits to the Bay Area region and supports regional land use, transportation and economic growth policies**
- **Will enhance surrounding property values by providing enhanced transit access, parks and open space and a new compact, TOD neighborhood in downtown San Francisco.**

Transbay Transit Center

Transbay Transit Center
Key Investment in San Francisco's and the Bay Area's Future

Regional planners need to …integrate multimodal infrastructure initiatives– including mass transit alternatives– into future land use schemes, helping connect evolving suburban centers, metropolitan cores, and transportation hubs. These networks will take decades to build, but the time to start is now.

Urban Land Institute – What's Next? Real Estate in the New Economy, 2011

Pelli Clarke Pelli Architects, Singer Associates Inc.