

THESIS RESEARCH AND PREPARATION COURSE MASTER OF URBAN DESIGN PROGRAM (MUD)

## **Embarcadero Center Effect**

Stitching downtown San Francisco through the transformation of Embarcadero Center's lower levels The Advanced Design Project of Styliani Kalomoira Kontogianni

UCB Thesis by Stela Kontogianni

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## EXECUTIVE SUMMARY

This thesis explores how downtown revitalization can be catalyzed through the reimagination of an iconic urban complex: the Embarcadero Center in San Francisco.

Focusing on its lower levels - currently underutilized and disconnected from street life - the project proposes a redesign that turns Embarcadero Center into a porous, mixed-use neighborhood embedded within the broader urban fabric.

It challenges the legacy of internalized circulation systems and introduces a spatial and programmatic strategy that reorients the built form toward the street and the waterfront.

The design is anchored by a central allege almost a hidden passage - activated through layered programming: live/work spaces, a university cluster, food market, art and performance spaces, play areas, and gardens. These interventions build on the idea that urban flows - social, ecological, infrastructural - must be made visible, legible, and inviting through design. With rising sea levels, shifting downtown dynamics, and post-pandemic rethinking of work and public space, this thesis positions the Embarcadero Center as a catalyst.

Ultimately, it argues for a holistic approach to design; one that treats every project as a critical piece of a more connected city.

The report is organized in four (4) sections:

- Section 1. Project Background: Introduces the context of downtown San Francisco, focusing on the Embarcadero Center as a site of untapped potential. It positions this infrastructure as a catalyst for broader downtown revitalization and a precedent for reimagining how the lower levels of high-rise buildings can better engage with the street.
- Section 2. Layers of Analysis: Outlines the thesis methodology and emphasizes its multiscalar approach. A key component is the street flow analysis, which provides insights into the existing pedestrian experience and spatial dynamics of the surrounding neighborhood.
- Section 3. Design Framework: Presents the strategic design vision for transforming the lower levels of Embarcadero Center and its interface with the city. It introduces spatial and programmatic interventions that support mixeduse development, enhance porosity and create lively streets.
  - Section 4. Summary: Reflects on the Embarcadero Center's role in reconnecting parts of downtown and its broader contribution to a more connected city, followed by the bibliography used throughout the research and design process.

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# SI PROJECT BACKGROUND



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### Downtown trajectories + San Francisco on a path for sustainable resurgence

Cities are here to stay. They represent not only physical infrastructure but also deep social, economic, and cultural investments. Therefore, maintaining and adapting urban environments to address contemporary urban challenges is essential.

Downtowns, in particular, play a critical role in this effort. While occupying a small fraction of urban land, they contribute greatly to economic output (as shown in the table below; source: Cushman & Wakefield, Reimagining Cities – Disrupting the Urban Doom Loop). As ever-evolving urban codes, downtowns have followed varied trajectories: some, like San Jose and Houston, have seen steady growth; others, like Detroit, have endured long-term decline and struggled to recover. A third category emerged in the late 20th century—cities like Lower Manhattan, Los Angeles, and Seattle—that experienced decline but later achieved significant revitalization.

Could San Francisco follow a similar path toward resurgence too? Could it evolve from an agglomeration of single-use office towers into a vibrant community? With office vacancy rates now reaching a historic high of 35.9%, the city's overdependence on office-based activity has exposed it to economic shocks triggered by remote work and pandemic-related disruptions. Recent global events have brought downtown revitalization back to the forefront of urban discourse. Still, a pressing question remains: What defines a resilient and sustainable downtown? San Francisco has begun taking steps in this direction, implementing small-scale placemaking initiatives and exploring office-to-residential conversions. However, these efforts often operate in silos, lacking a cohesive framework with a broader vision for the city.

As Chinese-American geographer Yi-Fu Tuan insightfully asks: "And how can we envisage a good life and plan for the future unless we have some clear idea as to the sort of places that we wish to exist?" This question lies at the heart of this design thesis.

This thesis explores the concept of urban flows as a design tool to create a more connected city. In American downtowns, large urban footprints often create "city walls," isolating blocks from their surroundings. By contrast, this work aims to reveal and activate flows making them visible, legible, and inviting.

#### WALKUP SHARE OF GDP AND LAND MASS

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Relative	importance	or	ID.	sample	cities	and	their	WalkOF

	Real GDP, 2023	% of U.S. GDP	Land Mass (Sq. Acres)	% of U.S. Land Mass
Downtown	\$804,833,137,742	3.6%	12,734	0.0005%
Downtown Adjacent	\$437,824,666,843	2.0%	17,771	0.0007%
Urban Commercial	\$387,456,251,017	1.7%	17,296	0.0007%
Urban University	\$76,280,472,977	0.3%	13,873	0.0006%
WalkUPs	\$1,706,394,528,580	7.6%	61,675	0.0025%
Rest of City	\$1,311,153,241,512	5.9%	1,966,466	0.0807%
All City	\$3,017,547,770,092	13.5%	2,028,140	0.0832%
Non-City	\$5,770,130,114,336	25.8%	74,084,660	3.0386%
Metro	\$8,787,677,884,428	39.3%	76,112,800	3.1218%
U.S. GDP	\$22,376,900,000,000		2,438,096,000	

## Embarcadero Center as a catalyst

This design thesis positions the Embarcadero Center complex as a catalyst for broader downtown revitalization. By reimagining the complex's lower levels—from a shopping mall into a mixed-use community—the project aims to repair disconnected urban flows and help stitch the city's core back together.

Part of the larger Golden Gateway project, including the Hyatt Regency and Golden Gateway Apartments, the Embarcadero Center represents a pivotal moment in San Francisco's urban history. It was designed in response to the surrounding context serving as a connector for cars and people.



#### 1971-1991

Embarcadero Center as a connector for cars, people and surroundings. A car-dominated environment where circulation was split across levels to separate the pedestrians from the street

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Fast forward to today: much has changed that shifted the spatial dynamics affecting the performance of the lower levels and the experience in the neighborhood. Once an iconic piece of infrastructure and a connector, it now struggles to engage with its surroundings—an area also undergoing significant transformation. The demolition of the freeway, the decline of retail, reduced foot traffic, the impact of Covid-19, and more recent developments such as discussions around the redevelopment of Embarcadero Plaza and projected waterfront rise of 3.5 ft to possibly 7-10 ft by end of the century, put Embarcadero Center in the middle of a great opportunity - to prototype a new downtown neighborhood that reinvents live, work and play.

#### The Embarcadero Center Effect becomes

both a catalyst for downtown revitalization and a guiding vision: how can we design for a connected city in a sustainable way?

#### Over the years

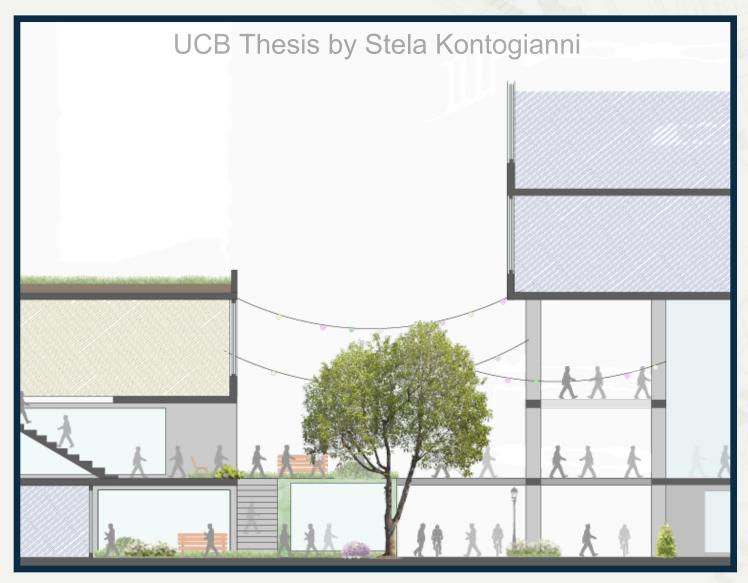
Key facts: freeway demolition, improved waterfront access, Ferry building as a destination, retail decline, reduced foot traffic, high vacancy rates and underused open spaces

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#### Today

Current and future plans: Waterfront to rise 3.5 ft (potentially 7-10 ft by century's end) for sea level rise and seismic resilience, Embarcadero Plaza redevelopment underway

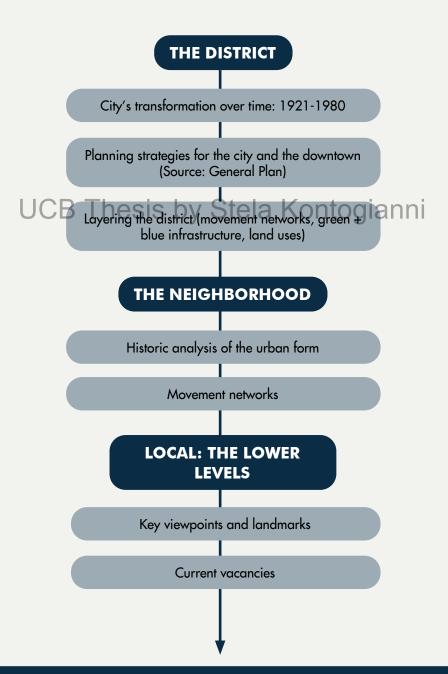
## S2 LAYERS OF ANALYSIS



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## Methodology for baseline analysis

The methodology used to build the baseline analysis focused on unfolding three (3) layers, each complementing the other: district, neighborhood and local, the Embarcadero Center site.



WHAT IS THE CURRENT PEDESTRIAN EXPERIENCE IN THE NEIGHBORHOOD?

## The district

#### Transformation over time (1921-1980)

Downtown San Francisco evolved from an industrial port into a vertical, corporate cityscape. In the early 20th century, areas like South of Market thrived on shipping and warehousing, but post-WWII redevelopment brought freeways, high-rises, and displacement. The Financial District grew into a hub for finance, while grassroots opposition in the 1970s halted further freeway expansion and pushed for more controlled growth. By 1980, downtown reflected both corporate ambition and strong efforts for preservation.

#### Planning strategies for the city and the

**downtown** related to green infrastructure, S by building heights and density, land uses, commercial streets, flood risks zones etc. These strategies set the high level baseline for getting an understanding of the current constraints and future directions, both planning and design.

#### Layering the district

- Movement networks: The city has a transitfirst policy to decrease the use of cars in the downtown and improve integration with the surrounding neighborhoods.
- Green infrastructure: The green coverage within the downtown is very limited whilst there are spaces that are currently underutilized like the Embarcadero Plaza and Maritime Plaza. The grid maximises strong views towards the sea, the hills and historic landmark buildings.
- Land uses: The financial core of banks and offices (light blue layer) is mainly concentrated to the east of the downtown, whilst the retail and commercial hub (dark blue layer) is found around Union Square and Yerba Buena Gardens. Hotels, theatres, clubs (purple layer) are mainly found to the southwest, whilst there is a small amount of housing (yellow layer) in the area.







## The neighborhood

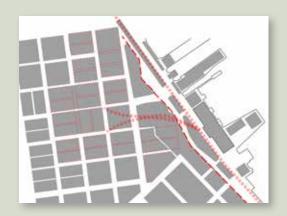
#### A neighborhood with rich history

- Gold Rush origins: A maritime hub with wooden wharves extending into the Bay to serve arriving ships during the 1849 Gold Rush. One of the early Gold Rush wharves used to run beneath the Embarcadero Center.
- Buried ships: Dozens of abandoned Gold Rush-era ships were repurposed or buried beneath landfill, forming the foundation of the modern Financial District.
- Shoreline expansion: The original waterfront was pushed outward through massive land reclamation, reshaping the coastline and burying parts of the bay.
- Freeway construction: Mid-20th-century urban renewal projects introduced elevated freeways, like the Embarcadero Freeway, slicing through neighborhoods and disconnecting downtown from the waterfront. After the 1989 Loma Prieta earthquake, the damaged Embarcadero Freeway was demolished, reconnecting the city to the water.

#### A walkable neighborhood

The area is well-served by public transportation, including the BART network, MUNI buses and trams, and ferry connections from the Embarcadero. It is overall highly walkable, with wide sidewalks, pedestrianized routes, and elevated walkways. Numerous pedestrian crossings enhance accessibility across major roads.

However, what's often missing is a deeper analysis of the pedestrian experience (shown in the next pages)—how factors like comfort, safety, wayfinding, shade, noise, and street-level activity influence people's perception of space and movement patterns.







## Local - The lower levels

#### Key viewpoints and landmarks

- When moving through the lower levels of the Embarcadero Center—Levels 1 and 2—the design is largely introverted, with internalized circulation and limited visual connection to the surroundings. These levels prioritize inwardfacing retail and office lobbies, creating only occasional "peek-a-boo" views to the outside (e.g. along the walkways and some edge points). It's not until reaching Level 3, the promenade, that the infrastructure opens up, offering expansive views toward the Bay and the city skyline.
- When walking around the Embarcadero Center, the experience is more dynamic, with several key view corridors. Looking west along Sacramento Street, part of the Transamerica Pyramid appears in the skyline, whilst Market Street frames a strong view toward the Ferry Building. The SOM-designed building is another landmark for the area set on top of the 2-story parking garage offering a strong view at the end of Front Street.

#### **Current vacancies**

The retail decline and reduced foot traffic have significantly impacted the lower levels of the Embarcadero Center, with vacancy rates reaching approximately 30%, according to interviews with Boston Properties and my personal site visits. Many retail spaces remain unrented, reflecting broader downtown struggles and shifts in commercial demand. Diagrams show vacant spaces in red, active ones in green, and service areas in grey, with inactive façades marked with dotted lines. These inactive frontages, combined with high vacancy rates, contribute to a fragmented urban experience; a network of underused spaces that lack vibrancy, offering little reason for people to linger or pass through unless they have a specific destination.



## Current experience on the street

#### Methodology

Multiple sections were drawn and evaluated using data collected from the baseline analysis (presented in previous pages) and key spatial and experiential parameters (shown on the next page).

#### Key findings

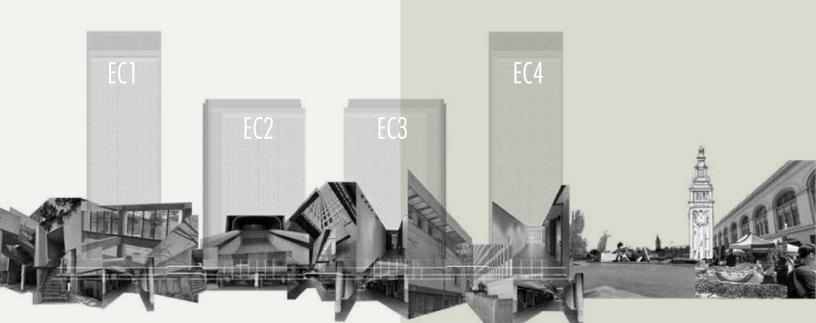
Strong urban flows identified along the waterfront and Market Street, with pockets of high activity. Weaker flows to the north and east expose disconnections - offering opportunities to extend vitality and improve underperforming edges.

#### Key topics to address

- 1. Inactive façades;
- 2. Uninviting service streets (e.g. Clay Street); V
- 3. Low foot traffic on Embarcadero levels 2+3;
- 4. Levels act as plinths blocking views, casting shadows;
- 5. Complex, unclear circulation;
- 6. Monotonous streetscape lacking visual interest;
- 7. Weak urban flows to the north and south; and
- 8. No programming to anchor it as a destination.



Level 1





900 ft

300

0

600

Low quality

High quality

## **S3** DESIGN FRAMEWORK



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## Study area boundary

Drawing the boundary site of this thesis was an ongoing process in capturing all the key components to achieve the wider effect of the transformation of the lower levels.

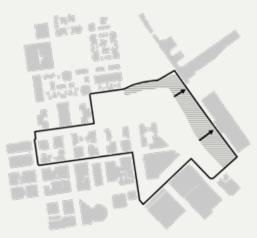
These components included:

- The four blocks of the Embarcadero Center as a key catalyst;
- Enhance pedestrian flows along Market and Drum Streets: Key gateways to the Embarcadero Center, the plaza, and the waterfront.
- Establish a cohesive open space strategy for
  Embarcadero Plaza and Maritime
  Plaza: Integrate these public spaces with the lower levels of the Embarcadero Center while/ Stela reactivating inactive façades along Clay and
  Davis Streets, draw foot traffic from the north, and establish a stronger connection with the Ferry Building.
- Address the waterfront edge facing the Ferry Building: Prepare for sea level rise of 3.5 feet (and potentially 7–10 feet by the end of the century), enabling a smooth transition between the rising shoreline, the Embarcadero Center, and the broader city.

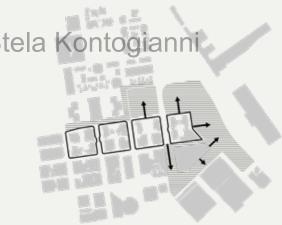
## District strategy

The broader vision for the Embarcadero Center is to unlock opportunities to connect with historic landmarks in the area, key destinations, and broader urban flows, aiming for seamless integration.

The goal is to reweave downtown San Francisco into its surrounding neighborhoods, allowing natural urban movements to flow in and out of the city core.







Revision 1



## Neighborhood strategy

Superlevee approach: Projected future waterfront rise of 7 to 10 ft. Superleveean elevated landform that raises the entire promenade—gradually transitioning back down to the existing city elevation to ensure flood protection and seamless urban integration.

Open space strategy: A necklace of open spaces that offer varied sensory experiences. from east to the north: A performance area linking the Ferry Building to the new museum, a skate/public space, a rainwater garden with soft landscaping and a neighborhood park with integrated low-rise development. besis by Stela-Kontogianni

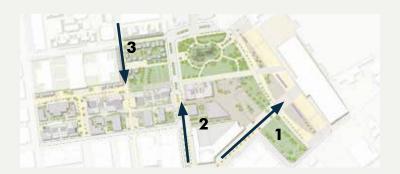
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#### Placemaking interventions at gateways

The journey towards the Embarcadero Center is now enriched with high quality streetscape. Variety of enclosure levels aims to create street hierarchy and thus, help legibility and orientation for users. Street types include key transportation corridors, neighborhood streets, streets with limited access to cars and alleys.





#### Key gateways - examples of revised streetscape

1. Market Street. A multi-modal street (tram, bus, vehicles, bicycles) that prioritizes pedestrian movement with a clearly defined pedestrianized paving centered towards Ferry building and decreased right of way for vehicular traffic.

<b>Current</b>	<b>Proposed</b>
Roadway: 77 ft (for vehicles, buses, trams, bikes)	Roadway: 25 ft (for cars, buses, bikes)
Sidewalks: 40 ft (left side), 22 ft (right side)	Shared surface: 30 ft (for tram, buses, cars, bikes)
Total Right of Way: 139 ft	Sidewalks: 62 ft (expanded left side), 22 ft (right side)

2. Drum Street. As the main gateway from Market Street and Embarcadero Bart Station, the central tree line is extended to become a pedestrianized path that leads to Embarcadero Center, whilst either side accommodates vehicular traffic and parking bays with tree verges.

Current	Proposed
Roadway: 66 ft (incl. parking bay)	Roadway: 54 ft (incl. parking bay)
Sidewalks: 10 ft (left side), 24 ft (right side)	Pedestrianized central route: 26 ft
Total Right of Way: 100 ft	Sidewalks (both left + right side): 10 ft

3. Davis Street. A street that accommodates only neighborhood traffic including bus services, framed by housing on either side for higher levels of enclosure. The landscape layer is essential to offer soft edges and help integrate built form into the existing underutilized Maritime Plaza.

Current	Proposed
Roadway: 45 ft (incl. parking bay)	Shared surface: 27 ft (incl. parking bay)
Sidewalks (both sides): 11 ft	Sidewalks: 5 ft (left side),8 ft (right side)
Total Right of Way: 67 ft	Total Right of Way: 40 ft

#### Page 23





Market Street



Drum Street











## The concept for lower levels

**Current condition:** The entire infrastructure of the lower levels builds around level 3: the promenade, where it opens up to the sea and the city. However, levels 1 and 2 are characterised by an introverted approach to design with minimum interaction with the surroundings.

**The intention** is to reorient the lower levels back to the city by rethinking the façades, the floor plates and the programming.

Key intervention is opening up the central spine at street level as a **NESIS** landscape alley, a passage with fuzzy edges and surprise moments in true Portman spirit. "In Portman's work, the surprise is often tucked within—the moment you step inside, the unexpected unfolds.

So, what if this alley becomes that moment of wonder for Embarcadero Center? A hidden passage, a quiet revelation"

- Stela Kontogianni

by Stela Kontogiano

## Spatial strategy



Break the concrete walls at places to restore visibility and bring activity outside - on the new street. The current façades and high vacancy rates at lower levels result in empty, dark and uninviting spaces.



Introduce infill development along inactive façades (like Clay and Davis Street) to create rhythm, scale and life along the street. The current 2-storey parking garage affects the user experience on the street.



Retain the interconnectivity on the upper levels and expand it beyond the block - into the nature where possible. This way flows can happen at any level and direction.

## Programmatic strategy

The intention is to offer the diversity of uses found in the district within these four (4) blocks.

Together the spatial and programmatic strategies aim to enhance porosity within and around the Embarcadero Center.

More specifically:

#### Permeability + Openness

Enhance strategic gateways to Embarcadero Centrer as pedestrian priority links.

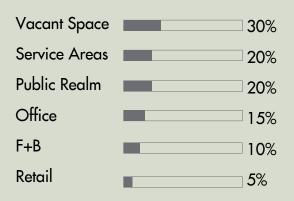
#### Preservation + Celebrate history Respect the architectural significance of

the infrastructure by preserving key elements.

#### Grouping + Relationships Better integrate

Embarcadero Center to the surroundings through programming.

#### **Current condition: Land uses**

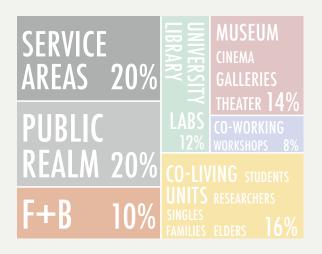




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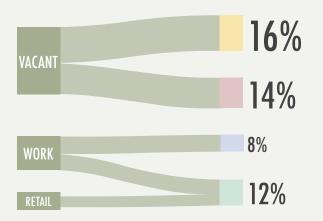
#### Proposed condition: Floor plate spatial revisions and proposed program



#### Key changes in land uses

Certain land uses—such as service areas, food and beverage, and the public realm—will retain their current footprint.

However, others will undergo significant transformation; office space, which currently accounts for approximately 15% of the lower levels, will be reconfigured into 8% flexible workspaces and 7% academic space. Traditional retail will be replaced, while currently vacant areas will be repurposed for cultural uses and co-living units, introducing new layers of activity and community life to the site.





## A day in Embarcadero Center Neighborhood

What is the new experience in the neighborhood and how does it improve upon the current one?

The following pages offer an overview of the proposed transformation, illustrated through sectional drawings and renderings.

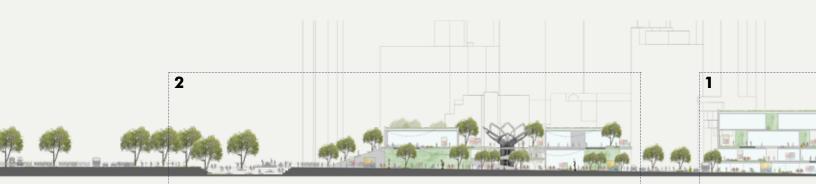




## 2. The Cultural heart of the City







#### University hub in the center of the City

View showing multiple levels - Food court area at street level, public realm with soft (landscape), as well as hard surfaces (preserved paving patterns), open views towards Ferry building, connections across levels, collaborative space for academia, industry and general public.



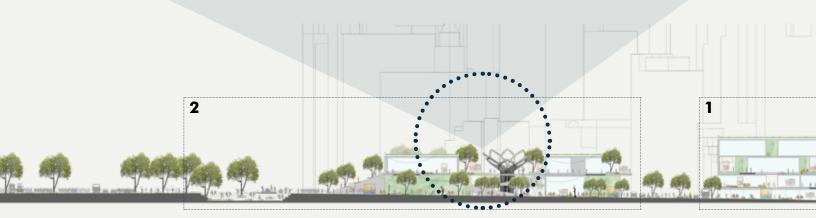


#### The Cultural heart of the City

A space for galleries, outdoor exhibitions, a history museum, performances and other events.

View showing the raised level transitioning from the waterfront and new frontage relationships with levels 1 and 2. New level is now closer to level 2 offering new spatial opportunities.





#### Affordable options for working + living

View showing an active version of Clay Street that promotes a neighborhood vibe through placemaking and frontage reconfigurations. New uses include live/work units, flexible workspace and research labs as well as dorm-style residential units to attract wider demographics.





## Embarcadero Center Neighborhood

**New neighborhood park.** The underutilized Maritime Plaza is reimagined as a neighborhood hub—transformed into a complex of low-rise housing, tennis courts, public spaces, and landscapes. Proposed infill development along Washington, Davis, and Clay Streets creates a strong street edge, reinforcing a sense of enclosure and a neighborhood atmosphere.

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Affordable working & living. A flexible co-working space is paired with dorm-style housing above, offering affordable living and working options for professionals, academics, entrepreneurs, and individuals of all ages and family structures. **University hub.** A cluster of local and international universities to share knowledge between academia, industry and public. **Ecological corridor.** Rich topography with multiple landscaped rooms offering different sensory experiences. Examples include the rainwater garden in the center as a key attraction, the existing playground, resting areas and 'forest' rooms.

**Embarcadero.** Placemaking interventions include more crossing points and paving improvements to create a shared surface zone that prioritizes pedestrian movement.

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### Arts+culture hub.

A space to celebrate memory, arts and public performances. A space for outdoor public exhibitions, museum, play, music and other events.

300

150

0

**Performance area.** A space for performances, protests, outdoor events and celebrations. A skate/ public plaza integrated in the public realm.

600 ft

450

Current elevation





#### Key elements of architectural importance

Iconic bridge connecting EC2 and EC3 with double side stairs leading to level 3: Promenade.



Twisted stairs to transition from level 1 to level 2 - leading to the central bridge of EC2 and EC3.



Tulip main staircase at EC4 which is the central piece of this block connecting all levels.



## Proposed elevation



Paving patterns on all levels as well as on the surrounding public realm.



Vines as the signature green asset of Embarcadero Center's lower levels.



Columns, as structural elements for the towers, but also part of the experience at all levels.



# S4 SUMMARY



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## Final thoughts

Downtown revitalization has sparked countless strategies—from planning upgrades and policy shifts to adaptive reuse, office-to-residential conversions, programmatic changes, and small-scale public realm interventions. But at the heart of it all lies a fundamental question: what makes a great city? And more importantly, what broader vision connects all these fragmented, granular interventions?

#### For me, the answer is a connected city—one defined by its flows.

San Francisco, with its compact urban form and variety of street typologies—including alleys, elevated walkways and parks, underground corridors and so many more—offers a great opportunity to study, create, and repair these flows. My thesis on the Embarcadero Center pushed me to think beyond a single block and toward the larger systems that shape this part of the City. I studied flows across multiple scales: district, neighborhood and local; wide enough to grasp the city's structure, yet close enough to understand the more social and spatial disconnections.

By following this methodology of repair, we can set the foundation for site-specific interventions - but not the other way around. Only with this layered, systems-first approach can a larger vision become attainable. A vision for a connected city - one that rethinks how high-rises engage with the street, what new uses to bring in, how conversions might target just the lower levels rather than entire towers and how we can animate inactive streets to foster life and community.



One flow at a time!

## Bibliography

#### General

- Jacobs, Allan B. (1978). Making city planning work. American Society of Planning Officials Chicago.
- Cushman & Wakefield (2024). Reimagining cities, Disrupting the urban doom loop. Places Platform. (Link to pdf: https://www.cushmanwakefield.com/en/united-states/insights/reimagining-citiesdisrupting-the-urban-doom-loop)
- Organisation for Economic Co-operation and Development (OECD), (1999). Boosting Innovation: The Cluster Approach.
- Jacobs B., Allan (1971). The Urban Design Plan. For the Comprehensive Plan of San Francisco. San Francisco Public Library.

#### Bay area region

- Bay Area Alliance for Sustainable Communities (2003). Compact for a sustainable Bay Area: Economy, Environment, Equity. Bay Area Alliance for Sustainable Communities.
- Wollenberg, Charles (1985). Golden Gate metropolis: Perspectives on Bay Area History. Institute of Governmental studies, University of California, Berkleley.
- Cowan, Greer. Monteleone, Isabel, Bellisario, Jeff (2021). The Megaregional Case for a New Transbay Rail Crossing. Bay Area Council Economic Institute.

#### San Francisco

- Frederick, Wirt M. (1974). Power in the city: Decision making in San Francisco. University of California Press.
- Deleon, Richard Edward (1992). Left Coast City. Progressive politics in San Francisco 1975-1991. University Press of Kansas.
- Hartman, Chester with Carnochan, Sarah (2002). City for sale : The transformation of San Francisco (Revised and updated edition). University of California Press.
- McGovern, Stephen J. (1998). The politics of downtown development: Dynamic political cultures in San Francisco and Washington, D.C. (p.p. 61-189). University Press of Kentucky.

#### Downtown

- Ford, Larry R. (2003). America's new downtowns: Revitalization or Reinvention?. The Johns Hopkins University Press.
- American planning association, (February 1994). Host bibliographic record for bound with item barcode \$C 79 374 (v.60 (1994)), (p.p. 8-21, vol.60 no.2).
- Bennett, Larry (1990). Fragments of Cities. The New American Downtowns and Neighborhoods. Ohio State University Press.
- Peterson, Marina and McDonogh, W. Gary (2012). Global Downtowns. University of Pennsylvania Press.
- Buraydi, Michael A. (2013). Resilient Downtowns. A new approach to revitalizing small and medium city downtowns. Routledge.
- Garvin, Alexander (2019). The Heart of the City. Creating vibrant downtowns for a new century. Island Press.

## Articles

- Birch, Eugénie L. (2008). Downtown in the "New American City". Sage Publications, Inc. in association with the American Academy of Political and Social Science. Retrieved from: https://www.jstor.org/ stable/40375928.
- McGovern, Stephen J. (2014). The Politics of Downtown Development. Published by The University Press of Kentucky. Retrieved from: https://muse.jhu.edu/book/38083.
- Annis, Kelly (2024). The Future of American Downtowns. How seven cities are tackling the future of downtowns. ULI Advisory Services.
- MacNeil, Patricia. Jugdev, Kam. Khare, Anshuman (2002). A review of COVID-19: Implications for Canadian cities to enhance well-being and resilience. Lecturer, Dalhousie University, Canada.
- Leo, Christopher (2003). Are There Urban Regimes in Canada? (p.p.344) Canadian Journal of Urban Research.
- Tomer, Adie. Fishbane, Lara (2020). Big City Downtowns: Are booming, but can their momentum outlast the coronavirus?. The Brookings Institution.
- Birch, Eugenie L. (2005) Who Lives Downtown. The Brookings Institution.
- Cohen, Lizabeth (2007). Buying into Downtown Revival: The Centrality of Retail to Postwar Urban Renewal in American Cities. Sage Publications, Inc. in association with the American Academy of Political and Social Science. Retrieved from: https://www.jstor.org/stable/25097910.
- Palmer, Jeffrey W. (2003). Developing a housing based strategy towards downtown revitalization: A case study of Winnipeg. A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of the requirements of the degree of Master of City Planning.
- Graham, Stephen & Guy, Simon (2010). Digital space meets urban place: Sociotechnologies of urban restructuring in downtown San Francisco. Retrieved from: https://doi.org/10.1080/1360481022000 037788.
- Robertson, Kent A. (2010). Downtown retail revitalization: a review of American development strategies. Retrieved from: https://doi.org/10.1080/026654397364591.
- Forouhar, Amir. Chapple, Karen. Allen, Jeff. Jeong, Byeonghwa. Greenberg, Jualia (2024). Assessing downtown recovery rates and determinants in North American cities after the COVID-19 pandemic. Sage Publications, Inc. in association with the American Academy of Political and Social Science.
- Goldberg-Miller, Shoshanah B. D. (2018). Keeping Creativity Downtown: Policy Learning from San Francisco, Seattle, and Vancouver for Municipal Cultural Planning in Toronto. The Ohio State University, Columbus, Ohio.

## Articles

- Ryberg-Webster, Stephanie (2013). Preserving Downtown America: Federal Rehabilitation Tax Credits and the Transformation of U.S. Cities. Journal of the American Planning Association. Retrieved from: https://doi.org/10.1080/01944363.2014.903749.
- Cooke, Philip (2012). After the Contagion. Ghost City Centres: Closed "Smart" or Open Greener? Ghost City Centres.
- Leinberger, Christopher B. (2005). Turning Around Downtown: Twelve Steps to Revitalization. The Brookings Institution. Urban Land Institute (2023). San Francisco California Downtown Revitalization. A ULI Advisory Services Panel Report.
- Hu, Richard (2013). Urban Design Plans for Downtown San Francisco: A Paradigm Shift? Journal of Urban Design. Retrieved from: https://doi.org/10.1080/13574809.2013.824366.

## Links

#### Boom + Bust story

- https://www.capbridgepartners.com/post/boom-bust-tales-of-the-city-and-its-office-cycles
- https://theweek.com/in-depth/1025947/san-francisco-boom-bust-decline
- google cancels projects in bay area
- https://www.costar.com/article/1423194550/end-of-google-development-deal-raises-questions-ontimeline-for-some-bay-area-projects
- https://www.commercialsearch.com/news/is-google-canceling-15b-in-bay-area-projects-an-isolatedproblem/
- https://www.constructiondive.com/news/lendlease-google-15b-bay-area-cancellation/698800/
- https://www.pcmag.com/news/google-cancels-plan-to-build-thousands-of-homes-in-bay-area
- converting office to housing
- https://www.sf.gov/reports/september-2024/30-x-30
- https://www.pewtrusts.org/en/research-and-analysis/articles/2024/10/22/co-living-could-unlockoffice-to-residential-conversions
- buried ships in san francisco
- https://www.nps.gov/safr/learn/historyculture/buried-ships-in-san-francisco.htm
- earthquake seismic gamble
- https://www.nytimes.com/interactive/2018/04/17/us/san-francisco-earthquake-seismic-gamble.html

#### Caltrain extension in San Francisco

- https://sfist.com/2024/05/20/feds-pony-up-3-4-billion-for-caltrain-extension-to-salesforce-transitcenter-which-is-now-being-called-the-portal/
- https://www.smdailyjournal.com/news/local/caltrain-to-salesforce-gets-boost-in-downtown-sanfrancisco/article\_0aafd1d0-171e-11ef-a087-47ad4cb2c539.html
- https://www.sfmta.com/projects/salesforce-transit-center
- https://www.nbcbayarea.com/news/local/san-francisco/san-franciscos-caltrain-extensionplan/3537025/

## Links

- https://www.tjpa.org/portaldtx
- https://link21program.org/en/about/northern-california-megaregion

#### Megaregion

• chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.bayareaeconomy.org/wpcontent/uploads/2021/01/FINAL\_NTRCmegaregion\_1.27.2021a.pdf

#### Embarcadero Plaza

- https://sfstandard.com/2024/11/04/embarcadero-plaza-park-ferry-building/
- https://sfstandard.com/2024/07/17/mark-farrell-downtown-recovery-plan/
- https://sfstandard.com/opinion/2024/08/15/skaters-mecca-embarcadero-plaza/
- https://www.sfchronicle.com/sf/article/s-f-embarcadero-plaza-new-park-19577945.php

#### Historic landmarks map

- https://sfplanning.org/resource/historic-landmarks-map
- sustainable goals for mission rock development in som franciscontogianni
- https://www.ever-greenenergy.com/posts/ever-green-energy-system-online-at-historic-mission-rockdevelopment/#:~:text=At%20full%20build%2Dout%2C%20the,by%201%2C600%20tons%20per%20 year

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