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MEMORANDUM

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TO: **THE APA FREEWAY REMOVAL TASK FORCE**

FROM: **A-HIGH 89BHG**

RE: **BEST PRACTICES FOR TIGHT-MARKET CITIES CONSIDERING EXPRESSWAY REMOVAL**

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### **Recommendations**

Cities considering urban expressway removals must view these transit interventions as social investments with far-reaching equity implications. Precedent cases in Boston, San Francisco, and New York show that such projects potentially have significant consequences for local real estate markets and neighborhood composition. A wide range of tools can potentially mitigate these changes. A review of the strategies used and outcomes in each of these three cases provides the following insights, which can guide future projects in other tight-market cities:

1. Value capture is warranted so that the all members of the public can share the positive externalities generated by public infrastructure investments. A wide variety of mechanisms can be used to accomplish this.
2. The value returned to the public sector through these mechanisms may be used to pay for the highway or to offset negative externalities created by the original highway or replacement.
3. Effectively capturing value requires public sector willingness and capacity, the ability to envision a range of potential future development, and sensitivity to the unique social and economic context of the project.
4. Citywide policies and community organizing capacity must be in place at the outset, before speculation occurs and entrenched interests form.
5. Cities should broaden their metrics for success to include social and economic outcomes as well as transportation and environmental ones.

### **Context**

- **Highway teardown is a new priority.** Urban expressways often negatively impact adjoining neighborhoods and communities in myriad ways, through reduced air quality, noise pollution,

congestion, and diminished land values and uses. Many expressways are now either functionally obsolete or in need of structural repair. Many cities across the US are considering removal.

- **Teardowns create benefits but not without drawbacks or risks.** Replacement with at or below-grade roadways can reduce or eliminate these negative impacts and externalities, while also improving public health outcomes and quality of life for community members, opening up wide ribbons of developable land, and increasing both private property values and the development potential of adjacent blocks. However, they also create the potential for speculation and gentrification, which can, ironically, wind up driving out the residents and businesses that initially stood to benefit from the redevelopment.
- **Teardowns present a natural opportunity to deploy equitable development tools.** While highway removal projects carry the possibility of displacement, they also offer a critical opportunity to intervene to promote equitable development and spatial justice. Because the removal is typically predicated on the highway's obsolescence or structural flaws, the public generally agrees that government must invest public funds to reshape the built environment. Highway removals therefore present a "natural" leverage point and opportunity for residents to lobby for benefits.
- **Highway removal alters local land markets and exposes the link between public investment and private property values.** As a case for theorists, highway removals also challenge the dominant conception of Western capitalist property rights. In the United States, where the myth of individual achievement is embodied by the American Creed<sup>1</sup>, moments where the socially constructed nature and unearned component of private property values are explicitly revealed may be rare. But when the state acts to remove a piece of infrastructure that transforms the nature of a neighborhood and directly results in dramatic increases in property values at a rate far exceeding the wider market, the social and public nature of private property value is made clear. Cast in a Marxist frame, the transportation investment exposes the commodity fetishization involved in the creation of private property. It therefore represents a moment to be capitalized upon to redefine property rights in a manner more consistent with their true nature. But to capitalize on such moments, advocates and planners must be able to utilize mechanisms or processes which may or may not be readily available in their existing "cultural tool kit"<sup>2</sup>.
- **Teardowns should be reconceptualized as social investments.** Planners and politicians have conceptualized and evaluated highway removal projects primarily as transportation investments. However, given their impact on land supply, property values, and potentially on neighborhood

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<sup>1</sup> See Chapter 1. Myrdal, G. 1944. *An American Dilemma: The Negro Problem and Modern Democracy*. Harper & Bros, New York.

<sup>2</sup> Swidler, A. 1986, *American Journal of Sociology* (51-2) "Culture in Action: Symbols and Strategies".

composition, we argue that highway removal must be re-conceptualized as an economic development and social investments as well. Seen through this lens, a successful project entails effectively managing new public land, preserving housing affordability, and creating economic opportunity, rather than simply relieving traffic congestion.

## **Boston: The Central Artery by Maggie Tishman**

### **Background**

The Central Artery (I-93/Massachusetts Turnpike) was originally built in 1959 and ran through 3.5 miles of Downtown Boston, between Causeway Street and the I-90/I-93 interchange. It touched five neighborhoods, which represented three different types of land use:

- (1) Bulfinch Triangle, a primarily commercial and industrial area
- (2) The Financial District and the Downtown Waterfront, which comprised the city's commercial core
- (3) Chinatown and the North End, two of the city's densest residential neighborhoods<sup>3</sup>

The expressway formed a barrier between the waterfront and most of downtown, contributed to Boston's heavy traffic congestion, and produced significant air pollution.

### **Redevelopment**

#### *A. The Big Dig*

In the early 1980s, a broad coalition formed in support of the Central Artery/Tunnel (CA/T) Project, or the "Big Dig," which involved three major components:

- (1) Removing the elevated expressway and replace it with an eight- to ten-lane underground tunnel<sup>4</sup>
- (2) Building a new underground tunnel to Logan International Airport<sup>5</sup>
- (3) Enhancing public transit service in Downtown Boston<sup>6</sup>

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<sup>3</sup> *Boston 2000: A Plan for the Central Artery: Progress Report*. Alex Krieger, William H. Whyte, Vanasse Hangen Brustlin, Inc. Boston: Boston Redevelopment Authority, 1990.

<sup>4</sup> Campbell, Robert. "The Big Dig." *Architectural Record*, 190:3 (Mar2002), p. 84.

<sup>5</sup> Diesenhouse, Susan. "Boston's Big Dig brings big values to area property." *Chicago Tribune* (via *New York Times News Service*). Apr 18, 2004.

The project received Congressional approval in 1989, and construction began in 1991. Though lawmakers initially expected the project to be finished by 1998, the project went significantly overschedule and over-budget. The Big Dig was completed in 2007 for a total of \$23.4 billion (including debt service).<sup>7</sup>

### *B. Planned Land Uses*

Burying the Central Arter created 40 acres—30 parcels—of newly developable, publicly owned land. According to *Boston 2000: A Plan for the Central Artery*, planners were concerned that any new development would “detract from the value of existing downtown property.” Therefore, they proposed 25 percent of the new land would be developed into a mix of housing, commercial buildings, and city facilities. The remaining 75 percent would be made into public park space (the Rose Kennedy Greenway) to preserve the value of downtown office space.<sup>8</sup> In accordance with the plan, the Boston Redevelopment Authority (BRA) established the Central Artery Overlay District, which prescribed specific uses for each parcel.<sup>9</sup>

The project’s Supplemental Environment Impact Report expressed concerns over affordability after the project’s completion: “The Artery/Tunnel Project construction is likely to [result] in higher rents and house prices and possibly the exclusion of low-income residents from some sections in the City.”<sup>10</sup> The Central Artery Corridor Plan thus included a housing mitigation strategy that included 1,000 additional affordable rental, condominium, and limited-equity cooperative units distributed across Downtown and South Boston.

## **Effects on Local Real Estate Market**

### *A. Both housing construction and costs increased in response to the Big Dig.*

Roughly 1,000 units of housing were built in the city of Boston between 1990 and 2000; fully two-thirds of these were constructed in the census tracts immediately adjacent to the Central Artery.<sup>11</sup> Moreover, the planners’ predictions about affordability were correct. Hedonic price modeling shows that both the removal of the expressway and the introduction of new greenspace independently drove up the sale prices of

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<sup>6</sup> Moskowitz, Eric. “True cost of Big Dig exceeds \$24 billion with interest, officials determine.” *Boston Globe*. 10 Jul 2012. <<http://www.boston.com/metrodesk/2012/07/10/true-cost-big-dig-exceeds-billion-with-interest-officials-determine/AtR5AakwfEyORFSeSpBnIK/story.html>>

<sup>7</sup> Campbell

<sup>8</sup> *Boston 2000: A Plan for the Central Artery*

<sup>9</sup> *Article 49: Central Artery Special District*. Boston Redevelopment Authority. Boston: Jun 7, 1991.

<sup>10</sup> *Boston 2000: A Plan for the Central Artery*

<sup>11</sup> US Decennial Census 1990 and 2000; American Community Survey 2010

condominiums in Downtown Boston.<sup>12</sup> Vacant or underused commercial buildings were converted to condominiums in order to satisfy demand.<sup>13</sup>

The effects on rental values are more difficult to discern because a statewide referendum eliminated rent control in 1994—in the middle of the Big Dig construction.

### *B. Office construction boomed.*

Throughout the 1990s, real rises in office rents as well as speculation about future rises encouraged an office construction boom. Even after 2000, when leasing rates began to drop, speculative construction continued until the economic downturn in 2008.<sup>14</sup>

### *C. Land values rose.*

Land values rose significantly in the area around the Central Artery between 2000 and 2012. However, much of this property is not taxable, either because it is publicly owned, owned by a nonprofit or religious organization, or was granted tax abatements through Massachusetts Chapter 121A redevelopment program.<sup>15</sup>

## **Changes in Neighborhood Composition**

### *A. Incomes rose in the census tracts adjacent to the Big Dig.*

Between 1990 and 2010, the median income across the city remained almost stagnant, while they rose from \$16,000 to \$25,000 within these census tracts. The average income meanwhile increased from \$86,000 to \$114,000, far outpacing growth in the city as a whole.

### *B. Racial transition is not a good indicator of gentrification in this case.*

Typically, an influx of white or Asian residents might signify gentrification; however, in this case, the North End was traditionally home to white immigrants and Chinatown to Asian immigrants, so no large-scale racial transition occurred. However, the percentage of white residents living below the poverty line did drop

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<sup>12</sup> Tajimo, Kayo. “New Estimates of Demand for Urban Green Space: Implications for Valuing the Environmental Benefits of Boston’s Big Dig Project.” *Journal of Urban Affairs*, 25:5, 641-655.

<sup>13</sup> Diesenhouse, Susan. “Commercial Real Estate: Big Dig’s Ripples Extend Far Past Downtown Boston.” *New York Times*. Apr 14 2004. < <http://www.nytimes.com/2004/04/14/business/commercial-real-estate-big-dig-s-ripples-extend-far-past-downtown-boston.html?pagewanted=2&src=pm>>

<sup>14</sup> IBID

<sup>15</sup> City of Boston Assessing Department

relatively to the city as a whole, indicating rising incomes, an influx of wealthier white residents, displacement of poorer white residents, or a combination of all three.<sup>16</sup>

*C. The most extreme transformation has occurred in the Bulfinch Triangle.*

This neighborhood has changed from a primarily commercial and industrial district to an upscale residential neighborhood that markets itself to young professionals.<sup>17</sup>

## **Lessons Learned**

The Big Dig was originally conceptualized with primarily transportation objectives in mind. Measured along these dimensions, the Big Dig is generally considered a success: It reduced traffic delays by increasing capacity and Boston saw its carbon monoxide levels drop 12 percent drop as a result.<sup>18</sup> However, less research has been done on the project's implications for land use and real estate values, and their resultant social impact. Below are some of shortcomings of the project according to this lens.

*A. The Massachusetts Turnpike Authority has not been able to develop most publicly owned parcels.*

Twenty-five percent of the parcels created by the Big Dig were slated to be developed in partnership with private developers. However, to date, few of these have been developed. The completion of the Big Dig unfortunately coincided with the global financial crisis, which has made project financing difficult to come by and depressed development citywide. The logistical challenges of developing on parcels adjacent to entrance and exit ramps for the underground highway has also deterred some private developers. The project is still fairly recent, however, so it is possible that redevelopment will proceed as the economy recovers.

*B. The City poorly managed private development.*

As demonstrated, the Big Dig generated significant demand development pressure in Downtown Boston. The City's primary mechanism for managing this development was zoning. However, the Boston Redevelopment Authority granted zoning variances haphazardly, in exchange for developers' commitments to provide off-site infrastructure improvements. However, the compensation developers provided did not correspond to the amount they stood to gain, nor did the improvements they provided necessarily correspond to community

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<sup>16</sup> US Decennial Census 1990 and 2000; American Community Survey 2010

<sup>17</sup> *Bulfinch Triangle*. Downtown North Association. Dec 1, 2012 <[www.bulfinchtriangle.com](http://www.bulfinchtriangle.com)>

<sup>18</sup> *The Big Dig: Facts & Figures*. Massachusetts Department of Transportation Highway Division. 2012. Nov 28, 2012 <<http://www.massdot.state.ma.us/highway/TheBigDig/FactsFigures.aspx>>.

needs. Moreover, because the zoning exceptions were not granted in accordance with any coherent land use plan, the City effectively relinquished its ability to steer development to more equitable outcomes.<sup>19</sup>

The Boston Redevelopment Authority and Mayor Thomas Menino did establish an Inclusionary Development Policy (IDP) that requires a 10 percent set-aside for affordable units, which increases to 15 percent if developers opt to build them offsite.<sup>20</sup> However, the policy was not established 2000, when much of the speculative private development was already completed or underway.

*C. The public sector failed to recapture some of the private profit that the project generated.*

Given the expected and observed rise in real estate values, the area around the Big Dig seems like a prime candidate for value capture mechanisms like Tax Increment Financing or a Special Assessment District, which could have been used (1) to finance the astronomical costs of the project itself or (2) to fund much needed affordable housing development. Meanwhile, the private sector has been more aggressive in capturing and managing increased values: In 2011 the Downtown Boston Business Improvement District (BID) became the city's first BID.

## **San Francisco: The Case of the Central Freeway by Annemarie Gray**

### **History**

The Central Freeway, a section of Highway 101, was constructed under the 1959 Trafficways Plan for the city of San Francisco. It was intended to connect through the Golden Gate Bridge by way of Golden Gate Park as part of a network of freeways criss-crossing the city<sup>21</sup>. However, the Plan scaled back after a series of citizen-led “freeway revolts” in the 1960s, and further freeway construction halted. The San Francisco Board of Supervisors passed resolutions in favor of removing some of the existing structures in 1970, 1980, and 1985, but they were unsuccessful at the regional and state levels. The construction of the freeway severed the predominantly African-American neighborhood of Hayes Valley and led to urban blight and disinvestment in the area for decades.

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<sup>19</sup> Curtin, Daniel J. and Witten, Jonathan D. “Windfalls, Wipeouts, Givings, and Takings in Dramatic Redevelopment Projects: Bargaining for Better Zoning on Density, Views, and Public Access.” *Boston College Environmental Affairs Law Review*, 32:2 (2005), 325-356.

<sup>20</sup> Boston Redevelopment Authority. *BRA Inclusionary Development Program: IDP Policy Guidelines*. Boston: July 2009.

<sup>21</sup> MacDonald, Elizabeth. “Building a Better Boulevard.” *Access*: Issue 28/ Spring 2006, page 4.

## Process of Removal

Thanks in part to the Loma Prieta earthquake of 1989, city officials were forced to make a decision between dedicating funds to retrofitting freeway infrastructure or removing it altogether. In 1996 the city removed the top deck of the structure in line with a new single-ramp freeway plan, temporarily closing the freeway north of Mission Street. The traffic, now dispersed throughout the neighborhood, proved to be manageable, reviving arguments that the freeway was nonessential and beginning a nine-year-long battle for its eventual full removal.

The process of removal involved three ballot measures:<sup>22</sup>

- The first to pass was sponsored by the Coalition to Save the Central Freeway, and alliance of residents from the wealthy and politically-powerful Richmond and Sunset districts who relied on the freeway for their downtown commute.
- The following year opponents passes another initiative to end the freeway at Mission Street and replace it with a five-block long, 133-foot-wide ground-level boulevard that could accommodate high-speed through traffic, local traffic, parking, and a new streetscape design.
- In 1999 freeway backers made a final proposal to save the freeway, but voters sided with the boulevard once again. Demolition began in 2003 and Octavia Boulevard opened in September 2005.

In 2007 the project won the National Planning Achievement Award for Hard-Won Victories from the American Planning Association. The project was a joint effort by the City of San Francisco, Caltrans (the transportation authority of the State of California), and the San Francisco County Transportation Authority. The total price tag came to: \$26 million freeway removal (Caltrans) and \$24.3 million boulevard design and construction (San Francisco City Department of Public Works).<sup>23</sup>

## Key Successes

### 1. *Urban design model*

Octavia Boulevard has become a national urban design best practice of boulevard design. It accommodates high-speed through traffic, local traffic, parking, protected bike lanes, wide sidewalks, and

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<sup>22</sup> "Timeline / A look back at Octavia St. and the Central Freeway." SF Gate Online. Published 20 October 2004. Accessed on 9 December 2012. <<http://www.sfgate.com/news/article/Timeline-A-look-back-at-Octavia-St-and-the-2680322.php>>.

<sup>23</sup> "Octavia Boulevard." San Francisco Department of Public Works. Accessed on 9 December 2012. <<http://38.106.4.205/index.aspx?page=61>>.

plentiful leisure and park space.<sup>24</sup> The plan focuses on transit-oriented and mixed-use development along the Market Street and Octavia Boulevard corridors.<sup>25</sup>

## 2. *Formalized public engagement*

The city made a strong effort to include local residents' voices and equitable development strategies in the planning process. The San Francisco Planning Department designated Market and Octavia one of three pilot planning areas in its new Better Neighborhoods program in 2002. In exchange for stringent community planning processes and public benefit exactions in line with the area plan, developers would have a guarantee that their projects would not require extensive discretionary approvals.

While establishing a formal mechanism for community engagement was a step forward, the process in this case was unduly long—8 years in total—and subsequently less effective: “The main lesson from the Market and Octavia planning process is clear: we have to learn how to do these plans faster.”<sup>26</sup> The large percentage of new residents who had not participated in early stages of the Better Neighborhoods planning process weakened the sense of ownership of the values laid out in the plan and exposed it to attacks by other interests.

## 3. *Ample affordable housing provision*

The Market and Octavia Plan employed four mechanisms for affordable housing provision:

- the existing citywide inclusionary affordable housing requirement
- development impact fees going to the city's affordable housing fund for on- and off-site affordable housing development in the area
- the San Francisco Redevelopment Agency committed to funding an additional approximately 450 affordable housing units on the former freeway parcels<sup>27</sup>
- the city lowered the required private parking ratios from 1 to 0.25-0.5 to decrease the cost of constructing affordable units

There were 650 affordable units in nine publicly subsidized housing projects within the plan area boundaries at the time the plan was adopted. Of the 576 new units built in the Plan area between 2005 and 2009, 144 or

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<sup>24</sup> MacDonald, Elizabeth. “Building a Better Boulevard.” *Access*: Issue 28/ Spring 2006, page 6.

<sup>25</sup> Market and Octavia Area Plan 2010. San Francisco Planning Department.

<sup>26</sup> Karlinsky, Sarah. “The Long Road Home.” SPUR Publication, July 2008.

<sup>27</sup> Market and Octavia Plan Monitoring Report 2005-2009. San Francisco Planning Department, November 2010.

25% were affordable units, and over 130 more are in progress. Many of these are concentrated in one project: a 100% affordable 101-unit senior housing project on a parcel cleared from the freeway removal.<sup>28</sup>

#### *4. Creative and complementary projects*

In 2000, a cooperative agreement between Caltrans and the City of San Francisco transferred 22 parcels, approximately seven acres, of previously state-owned former-freeway land to the city. The city will raise approximately \$35 million through the sale of eleven of these parcels to for-profit developers so far. The majority of those funds is required by state law to go to transportation improvements and paying off debt from the initial boulevard construction.<sup>29</sup> The current administration estimates that \$13.2 million will be left over to fund ancillary projects that complement Octavia Boulevard and improve the neighborhood, to be determined with input from the community advisory board.<sup>30</sup>

The city was also able to creatively use parcels slated for development but halted by economic downturn by renting them out to temporary tenants. These projects, such as a pop-up beer garden and an urban farm, both brought in extra revenue for the city and improved the quality of the neighborhood.

### **Effect on Neighborhood Makeup**

While San Francisco as a whole has experienced gentrification over the past two decades, the shift in Hayes Valley has been particularly pronounced, despite the equitable development strategies in place. The neighborhood sits at the intersection of three city grids and tangent to major city and regional roadways as well as multiple public transit lines. Its central location, new Octavia Boulevard amenities, and new developments in the old freeway parcels continues to attract new and wealthier residents, leading to an increase in property values.

The three census tracts in the Market-Octavia area have seen:<sup>31</sup>

- a disproportionate decrease in the African-American population of 20.4% from 1990-2010, compared to 4.8% in the city overall

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<sup>28</sup> Market and Octavia Plan Monitoring Report 2005-2009. San Francisco Planning Department, November 2010.

<sup>29</sup> Proposition I: Octavia Boulevard Plan, City of San Francisco. 2 November 1999 Election Measure. Accessed through the League of Women Voters. <<http://www.smartvoter.org/1999nov/ca/sf/meas/I/>>.

<sup>30</sup> Finnie, Chuck. "Freeway Land Vote Postponed--Sales to Support New Housing Development." SF Appeal Online. 30 March 2009. Accessed 8 December 2012. <<http://sfappeal.com/news/2009/03/supes-ok-sale-of-former-central-freeway-land--housing-on-the-way.php>>.

<sup>31</sup> Data from 1990, 2000, 2010 Census reports and the 2006-2010 American Community Survey. Compiled by author.

- a disproportionate increase in the white population of 10.7% from 1990-2010, compared to a 5.1% decrease in the city overall
- a disproportionate increase in average income of \$41,200, compared to a \$23,200 increase in the city overall (see presentation slides for full charts)

It was difficult to determine the specific changes in property values for this study, but many articles and first-hand accounts discuss an influx of wealthy residents and businesses buying new residential and commercial property, suggesting a noticeable and ongoing increase in property values in the area.

## **Conclusions**

- *The Central Freeway removal project represented a thorough and well-intentioned attempt at equitable development in a tight-market city.* The removal itself originated from local activism, and the city made notable efforts at inclusive decision-making throughout the development process. However, the length of the process inhibited consistent and engaged participation.
- *Ample affordable housing provision and development impact fees likely minimized the amount of displacement in the neighborhood.* However, while many units have been built in the plan area, the city's inclusionary zoning policies also allow developers to pay a fee that will contribute to the construction of affordable units in other neighborhoods of the city, making it difficult to determine which neighborhoods and populations benefit from these funds.
- *The city could have been more aggressive with equitable development strategies for uses beyond transportation and housing.* The sudden availability of nearly seven acres of public land presented an opportunity for a value catchment mechanism to redistribute the investment gains. While the city dedicated funds from these sales to projects to better the neighborhood, they were primarily focused on transportation-oriented improvements rather than social investments to further maintain diversity and affordability. Few research materials focused on local economic development in the neighborhood, so further investigations would explore the effects of development on local businesses and potential mechanisms to retain and expand opportunities for pre-freeway removal businesses.
- *Despite aggressive affordable housing policies, the Market and Octavia area saw gentrification and increase in property values exceeding the rate of San Francisco as a whole over the past twenty years.*

These rates would have likely been even more severe had the strategies not been implemented. This leads to the question that in a city as desirable and tight-market as San Francisco, equitable development may only lead to modest effects in affordability in the face of large infrastructure improvements.

## **New York: The Westside Highway by Jason Spicer**

### **Summary overview:**

- *Limited Land Produced, But Transformative Nonetheless.* Very limited urban land was directly produced by the replacement of New York's Elevated Westside Highway with an at-grade, landscaped boulevard and park. But the replacement directly supported redevelopment of the adjacent Far West Side of Manhattan, transforming it from a sparsely, unevenly populated area and declining industrial district into a high-income, luxury neighborhood. This transformation was further enabled by multiple public sector actions/mechanisms (rezoning, tax abatements, condemnation) indirectly linked to the Highway.
- *Degree of Displacement Unclear, But Equity Concerns Abound.* Because the area grew so much, the degree of displacement is unclear from Census data. But weak equity provisions in the zoning and tax abatement mechanisms deployed appear to have exacerbated gentrification: the area now houses an extremely wealthy population, many of whom do not even pay property taxes due to the abatement programs used to spur housing production. Such development patterns reinforced Manhattan's standing as having the third-highest income inequality counties in the US (based on most recent five-year ACS data, Manhattan's GINI coefficient is .601). Though income data for Highway-abutting Census Tracts was too thin to construct a comparable GINI coefficient, incomes here appear to be even more unequally distributed than in Manhattan overall.
- *Policy Changes Made In Response, But After The Fact. Moral of Story? Mechanisms and Community Base Must Be In Place Before Removal.* In response, a host of relevant policy reforms have been implemented in New York, but they are likely too late to significantly impact the Far West Side abutting the Highway. We conclude that because the area lacked a sufficiently large, in-place, formally recognized resident population at the time of the Highway replacement, there was a limited and geographically uneven local constituency around which to organize to extract further benefits and protections. The lack of critical local mass and capacity, coupled with exogenous factors (e.g. recovery of city's fortunes, return of urban living's appeal), turned the publicly-funded Highway removal and park construction into a "welfare for

the wealthy” project. The case underscores the importance of having strong equity mechanisms in place before beginning an urban infrastructure investment, and also offers a cautionary tale as a missed opportunity for value recapture.

### **Before Removal:**

- *Physical Logistics/Design.* Constructed 1932-1951, the Elevated West Side Highway ran parallel to the Hudson River, six miles along the Western edge of Lower and Midtown Manhattan. As an early highway, it had many design flaws (e.g. steeply graded “S-curve” left-side entrance/exit ramps), making it difficult for autos to safely traverse at high speed or in inclement weather, and exceedingly difficult for truck use at all<sup>32</sup>. Industrial/shipping piers and the Hudson River lay to its west; warehouses and manufacturing facilities producing the goods being shipped out the piers lay to the east.
- *Problems and Collapse.* Because of its structural design problems, calls for replacement began nearly as soon as it was completed; in December 1973, the highway collapsed when a dump truck fell through the upper level at Little West 12th Street and Gansevoort in Greenwich Village, resulting in the Highway’s immediate closure south of 23rd Street; by the following spring of 1974, the Highway was closed south of 46th Street. South-to-North demolition commenced in 1976 and was completed in 1989-1990; a temporary at-grade roadway operated along some stretches during this period.<sup>33</sup>
- *Uneven, Sparsely Populated Area.* At the time of collapse, adjoining Census Tracts’ population was just over 12,000, with a population density of just over 7,000 people per square mile, about one-tenth the population density of Manhattan. But this population was spread unevenly along the length of the Highway. Of the 12 census tracts along the Highway south of 59<sup>th</sup> Street, three accounted for 70% of the total population: Census Tracts 75 and 79 (which combined formed the core of the West Village) and Census Tract 129, the western edge of Clinton/Hell’s Kitchen. As a result, many of the impacted areas were nearly devoid of a (formally recognized) residential population.

### **During Removal:**

- *Controversial Replacement Plan “Westway” Killed.* The grandest replacement plans would have depressed the highway under the piers and covered it with landfill, and produced as much as 700 acres of new urban land and housing for 85,000 families, and completely eliminated the roadway as a physical barrier

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<sup>32</sup>p. 112 Stern, R, Mellins, T and Fishman, D., 1995. New York: 1960, Architecture and Urbanism Between the Second World War and the Bicentennial. The Monacelli Press, New York.

<sup>33</sup> Stern, R, Fishman, D. and Tilove, J., 2006. New York 2000, Architecture and Urbanism Between the Bicentennial and the Millennium, The Monacelli Press, New York.

to waterfront access<sup>34</sup>. Due to concerns from city-wide community groups (led by residents of Greenwich Village, where most existing population along the Highway was concentrated), a broader backlash against large-scale interventions, ecological concerns, and a desire to see funds used for transit instead of roads during a tightening fiscal climate, a more modest landfill/underground replacement option was approved, but this, too, met with resistance: “Westway” wound its way through the courts, where it was ultimately stopped in 1985.

- *Alternative Plan “Lessway” Emerges.* An alternative plan for an at-grade green boulevard and park by Vollmer Associates, a transportation firm hired to design the replacement in 1986, met with the approval of the West Side Highway Task Force, a group created in 1987 by the City and State to reach consensus on the replacement plan<sup>35</sup>. Their preferred approach also matched the vision of the 197-a Comprehensive Manhattan Waterfront Plan of 1992, a non-binding community plan which positioned the new Highway and a waterfront park as a centerpiece of its effort to restore public access to the entire island’s shoreline. Final approval for “Lessway” (projected cost of \$380M) was ultimately granted in 1993. Construction of the at-grade boulevard was largely completed in 1995-1996, when development of the waterfront/pier Hudson River Park began; the boulevard was fully completed in 2001, while the final stages of the park below 59<sup>th</sup> Street are currently finishing completion. The park’s lands, fashioned out of vacant waterfront piers and land, had been condemned for the never-built Westway. They were contributed to the Hudson River Park Trust, established in 1998 as a public benefit corporation held by the City and State of New York, with an independent board and private operating partners.
- *Local Housing and Zoning Policy Changed, Ultimately Enabled Transformative Change in Adjoining Area.* During the replacement process, a series of local zoning changes, inclusionary zoning policies, and city-wide tax abatement programs were put into place; they had been enacted to spur housing production at a time when the city was losing employment and population and facing fiscal constraints. While these changes were followed by an uptick in housing production throughout the city, they enabled the Highway-abutting district to be transformed via an extraordinary amount of residential (and to a lesser extent, office) development, which took hold in the area after the Highway removal:
  - Chelsea was dramatically rezoned in 1999 to allowing significant new residential development and new density levels, including a large Highway-abutting block at 23<sup>rd</sup> Street/11<sup>th</sup> Avenue which would ultimately witness construction of 1,000+ mostly luxury housing units. A second rezoning, proposed in 2003 to allow more residential development in Far West Chelsea, was approved in 2005. Tribeca and Clinton similarly experienced rezonings to allow broader residential development.

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<sup>34</sup> Stern, 1995, also Herzlinger, R. Spring 1979, National Affairs, “Costs, Benefits and the West Side Highway”.

<sup>35</sup> “Flexibility in Highway Designs”, 2004. Federal Highway Administration. Washington, DC.

- An inclusionary zoning program, introduced in 1987 to very high density districts, was expanded in 2005 to other areas (including Chelsea and Clinton) to allow density bonuses of up to 20% to developers who produce permanently affordable units. For each square foot (sf) of permanently affordable residential space created, the developer may receive an FAR bonus between 1.25 and 3.5 sf, depending on a number of factors, including whether the unit are provided on or off-site. Participation by developers, however, was initially optional.
- The J-51 and 421-a tax abatements (expanded and created in 1976 and 1971, respectively) provided partial tax abatements and exemptions for developers converting other uses to residential /rehabilitating existing residential (J-51), or constructing new residential(421-a). Additional abatements were provided if construction included affordable units, but many market rate projects were still able to utilize both programs.<sup>36</sup>
- *The “Invisible” Other: Informal Communities Considered.* Such changes might have been unilaterally beneficial for a desolate area decimated by the shipping industry’s rapid decline, but the local area was not vacant. Beyond the small formally-recognized residential neighborhoods and population, the area’s “vacant” industrial area informally housed a range of marginalized communities: the piers and collapsed highway became meeting places for sex and socializing in New York City’s ostracized gay subculture; they also became shelter for the homeless, many of whom were likely gay: as much as 20-40% of the 1.6M homeless youth in the US are LGBT (2006 NGLTF Survey). Many piers were used as gay artists’ studios and performance/exhibition spaces, as was recently detailed in the 2012 “The Piers: Art and Sex Along the New York Waterfront” exhibition at The Leslie-Lohman Museum of Gay and Lesbian Art in New York. Construction of the park destroyed the ability of the homeless and gay communities to use the piers for shelter and “safe space”.
- *New Abatement-Oriented Approach Supplanted Successful, But Higher Up-Front Cost, Housing Model.* Further, though these changes may have spurred housing production elsewhere in the City, the West Side was still seeing residential development even during the dark economic times at which the Highway collapsed: the construction of residences at Battery Park City on government-owned landfill, a model for the early West Side Highway replacement-with-landfill proposals, had continued apace in the 1970s. The success of early residential projects there, delivering as the first parts of the highway were removed, proved out the idea that obstruction-free waterfront living was a viable concept for market-rate units. At the same time, on the fringes of Greenwich Village, the Westbeth Artists Housing Corporation had converted a

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<sup>36</sup> “Subsidize Affordable Homes, Not Luxury Development:421-a Report”, Pratt Center/Habitat For Humanity, 2006.

defunct industrial/Bell labs building into affordable/income-restricted artists' housing in 1970, also setting precedent for the wave of waterfront industrial-to-residential conversions to come.

Yet these approaches required significant up-front public funds and were therefore supplanted by the abatement approach. Given that Manhattan and New York were losing population and jobs, facing a grim financial outlook, successful scalable housing production was of paramount importance if the City was to continue to be a “growth machine.”<sup>37</sup>

### **After Removal:**

- *Luxury Playground for White and Asian Wealthy Households?* Highway-abutting Census Tracts, which exhibited more modest demographics than Manhattan as a whole at the time of the Highway's collapse (incomes and rents 15-20% below Manhattan), have since more than quadrupled in population and now boast income levels nearly 50% above Manhattan overall (see presentation materials). This is a direct consequence of the production of largely market-rate, luxury housing units, enabled by the aforementioned public abatements and rezoning policies. Explicitly linked to the Hudson River Park, the at-grade replacement boulevard rendered largely vacant industrial facilities and infill lots attractive for adaptive reuse, as they no longer faced the noise, visual and air pollution or physical obstruction created by the elevated highway.

Notably, the area is not only more White and Asian than Manhattan overall, but they are far richer than their Manhattan-wide counterparts; the local black population is poorer than the Manhattan-wide benchmark (see presentation materials). The primary beneficiaries of the Highway removal have thus largely been high-income White and Asian residents and unit owner/landlords, who have further benefited from property value increase.

- *Reforms In Response.* As a result of this type of development pattern, however, a number of policy reforms have been recently implemented: the 421-a abatement program has been restricted and reformed as to stop its promotion of luxury development; inclusionary housing requirements associated with rezonings have been strengthened; and a new NYC affordable housing trust has been created, seeded by revenue generated by the Battery Park City Authority, which benefited from the Highway's removal. Fierce NYC (LGBT youth of color organization) has successfully fought against further pier access restrictions and redevelopment, and also worked with the City and Cyndi Lauper to establish True Colors Residence, the

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<sup>37</sup> Molotch, H., 1976. American Journal of Sociology (82-2) “The City as Growth Machine”.

first affordable residence in the nation geared towards LGBT with a history of homelessness, opened in 2011.

- *New Benefits District Hints At Bigger Value Creation Story.* As the Hudson River Park seeks to find new ways to fund operations, it recently proposed a benefits assessment district<sup>38</sup> for abutting parcels, in part justified by a 2008 Regional Plan Association-led study which found that 20% of property values' increase in the blocks along the West Village segment of the highway could be attributed to the park. Though unable to obtain exhaustive "before" data (not yet digitized) to compare against current property values, we analyzed the City assessor's current 2012 market value for all parcels in Highway-abutting Census tracts; they currently contain \$24B worth of property. We believe that "before" data would show at least \$1B of this amount could likely be directly attributed to the highway removal and associated park (we would propose doing this by comparing to the Manhattan rate of increase as a benchmark over the time period).<sup>39</sup>

## **Lessons Learned and Missed Opportunities From All Three Cases**

*1. Value capture is warranted in order to appropriate some of the positive externalities generated by public infrastructure investments. A wide variety of mechanisms can be used to accomplish this.*

In all three cases, the highway removal and replacement generated dramatic value for private property owners in the immediate catchment area of the project. A variety of tools were deployed with varying degrees of success to attempt to capture this, including:

- Community Benefits Agreements (SF somewhat)
- Public-Private Partnerships & Public Land Leasing (BOS, NYC)
- Inclusionary Zoning & Impact Fees (BOS, SF, NYC)
- BIDs, TIFs, SADs (BOS, NYC somewhat)

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<sup>38</sup> 3/14/2011, "Special Tax Sought to Fund Hudson Park", The Wall Street Journal.

<sup>39</sup> Additional references for NY Case include a range of studies/articles from the Fordham Law Journal, NYU Furman Center, NYC HPD, and The New York Times. Income/population data from Census Bureau; compiled by author.

Notably, the strongest potential tools were not deployed: community land trusts or the *plusvalías* structure of Bogota, Columbia (whereby some baseline property value is established, and any excess value increase over and above some broader benchmark may be partially claimed by the government at sale/disposition).

*2. The value returned to the public sector through these mechanisms may be used to pay for the highway, or may be used to offset negative externalities created by the original highway or replacement.*

While it may be more politically feasible to use the value recaptured to repay for the infrastructure investment, this may not be equitable: the benefits might be more appropriately used to offset the negative externalities impacting the local community, who may have spent years being subject to noise and air quality pollution, and who may be at risk for displacement. Directly linking the value recaptured to the creation of affordable housing, for example, might be more appropriate.

*3. Citywide policies and community organizing capacity must be in place from outset before speculation occurs and entrenched interests form.*

- San Francisco had comparatively stronger policies/mechanisms, and a smaller project that directly impacted a smaller area, perhaps enabling an organized response from the directly impacted neighborhood/community.
- Boston had a history of successful, multi-jurisdiction transit equity organizing (Inner Belt Coalition) to draw on, and has a history of some state-wide affordable housing/inclusionary zoning policies.
- New York's highway was in an unevenly populated area, where the informal communities in occupancy were weak in legal standing and capacity, especially when viewed in comparison to the size of the project. Further, the mechanisms around which to organize for justice were not in place, and in fact, citywide protections on renter's rights were actively under assault (e.g. rent control weakened in 1969 and 1974, and again in the early 2000s)

*4. Effectively capturing value requires public sector willingness and capacity, the ability to imagine a range of potential future development, and sensitivity to the unique social and economic context.*

When the value capture mechanisms instituted in these cities failed, it was because of weak implementation, a failure of imagination or insensitivity to local circumstances. For instance:

- Weak implementation: Zoning variances were granted haphazardly in Boston, undermining the existing land use plan.

- Failure of imagination: New York’s tax abatement program failed to foresee the future development of luxury apartment buildings, which wound up benefitting from the tax breaks.
- Not contextually sensitive: San Francisco was gentrifying overall yet planners’ attempts to mitigate displacement were not aggressive enough.

5. *Reconsider metrics for success.*

- Even in the best case scenario, which was San Francisco in our analysis, was some gentrification unavoidable? Over what time frame do we deem a project “successful”? What is our theory of urban change that allows for dynamic neighborhoods?
- What lens does one use to judge “success”: equity, transportation efficiency, urban design? All three, and more?

6. *More research is needed in several areas.*

- the effect on local businesses
- the broader citywide impact (such as the effects of off-site affordable housing)
- outcomes for displaced residents
- the exact value created in the private market due to public investment

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