
FUTURE375

I-375 ALTERNATIVES STUDY

Economic Case Study Analysis

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Executive Summary

Using comparable projects across the country where an urban segment of a freeway was converted to a traditional roadway, this case study analysis aims to broadly highlight overarching themes from the examples evaluated, and identify potential economic impacts of Detroit's proposed I-375 improvement project. The three benchmarks chosen for the purposes of this study include:

- *Fort Washington Way* in Cincinnati, Ohio
- *Central Freeway* in San Francisco, California
- *Park East Freeway* in Milwaukee, Wisconsin

Fort Washington Way – Cincinnati, OH

Fort Washington Way was initially built in the 1950s to connect I-75 with I-71 in order to provide direct access to downtown Cincinnati. However, over time, traffic volumes began to exceed capacity and the freeway was seen as a physical barrier for pedestrian and cars to access the riverfront from the Central Business District. Fort Washington Way was reconstructed into a narrower highway, of approximately 1.3 miles. There was broad community support for the project not only because of the significant benefits that were anticipated, but also because of the extensive outreach that was conducted for the project

The reconstructed Fort Washington Way now carries 100,000 vehicles daily, compared to 120,000 vehicles in 1998. In addition to traffic impacts, the project was a catalyst for a larger riverfront revitalization effort, including:

- The Banks mixed-use development, the first phase of which resulted in 300 apartments, 76,000 square feet of commercial space, and 6,000 structured parking spaces to service commuters, sports fans, and festival attendees. The second phase, when complete, will include 300 residential units and more than 60,000 square feet of commercial space.
- The National Underground Railroad Freedom Center, a museum dedicated to the history of the Underground Railroad, opened in 2004 and is located above a two-deck parking garage that is intended to lift the development out of the flood plain and replenish the supply of parking that was removed with the demolition of the Riverfront Stadium.
- The Paul Brown Stadium and the Great American Ballpark collectively represent more than \$800 million of public and private investment.
- Phase 1 of the Smale Riverfront Park has been completed and includes a number of amenities, including an event lawn and a meditative labyrinth.

Key takeaways from the Fort Washington Way example include:

- *Stakeholder engagement*: Collaboration with stakeholders is critical in moving the project forward.

- *Public outreach:* An extensive public outreach effort helps facilitate buy-in.
- *Project definition:* Project was not simply a highway reconstruction, but was promoted and developed as part of a larger effort to stimulate economic development and improve riverfront access.
- *Public-private partnerships:* Enlisting private public partnerships to transform downtown was a critical component of the project.

Central Freeway – San Francisco, CA

The Central Freeway was converted into an at-grade boulevard after Hayes Valley activists rallied enough support to pass Proposition E, which authorized Caltrans to replace the Central Freeway with an at-grade boulevard from Market Street along Octavia Street. The freeway was seen as a physical barrier that divided the Hayes Valley community. Octavia Boulevard replaces what was formally the terminal portion of the Central Freeway, stretching approximately 0.6 miles from Market Street to Hayes Street. The objective of the Octavia Boulevard project was to increase capacity and connectivity to east-west Oak and Fell Streets and north-south Franklin and Gough Streets, without negatively impacting the surrounding neighborhood.

There were many positive impacts that resulted from the conversion of Central Freeway into Octavia Boulevard. In 2006, the number of vehicles measured on the boulevard was approximately 45,000 cars per day (compared to almost 95,000 cars per day along the freeway in 1995). Other impacts include:

- Approximately half of the 7 acres of the land reclaimed from the freeway removal will be designated for affordable housing, and there are several market rate housing developments underway.
- The City is working to install a number of ancillary projects that will enhance the urban fabric of the neighborhood and improve transportation safety.
- There were several temporary uses of the parcels to act as placeholders until construction for permanent developments began. These temporary uses include the Hayes Valley Farm, the Growing Home Community Garden, and the Proxy Project, a two-block installation constructed from modified shipping containers, of retail, food vendors, art galleries, and gardens.

Key takeaways from the Central Freeway example include:

- *Project revenue use:* Implementation of related ancillary projects from land sales can increase community support and further the benefits of highway deconstruction
- *Creative use of land:* Since it may be difficult to sell parcels of land right of way, temporary “pop-up” installations or alternative uses are a great way to fill the space in the interim before development begins
- *Local support:* Support from local residents was critical to getting Proposition E on the ballot
- *Policy and land use planning:* An area plan will help establish a direction to guide future growth

Park East Freeway – Milwaukee, WI

The Park East Freeway was originally planned as a 3.5 mile freeway connecting to the I-794 freeway. However, the project was faced with strong opposition from local residents and only a one mile, elevated segment of the freeway spur was completed, extending from I-43 to North Milwaukee Street in downtown Milwaukee. The freeway was severely underutilized and created a physical barrier between the northern part of downtown and the rest of the central city, and the surrounding land was primarily used for surface parking. Mayor John Norquist championed the idea of converting the freeway to an at-grade boulevard and started a community-based campaign to gain support. The one-mile freeway spur was removed from 6th Street to Jefferson Street and replaced with McKinley Avenue, a six-lane, at-grade tree-lined boulevard with granite pavers and wide sidewalks, that connects to the existing and reconstructed street grid.

McKinley Avenue carries 15,800 cars per day, which is less than half of the 40,000 cars per day that Park East Freeway carried in 1999 prior to construction. Removal of Park East Freeway also resulted in 26 acres of residual land, which was officially established by the City as the Park East Corridor development area. Much of the development in the Park East Corridor was guided by the Park East Redevelopment Plan. Impacts of the project include:

- The Fortune-500 Manpower Corporation moved its headquarters a block from the former highway and two new residential developments, the A-Loft hotel and the Flat Iron were recently completed.
- Viets Field, formerly known as the Milwaukee School of Engineering (MSOE) soccer field, opened in late August 2013, which sits on top of a parking structure that replaces parking spaces that were removed as part of the construction of McKinley Avenue. There is also a small ground-level park on the northern end of the soccer field site and 12,000 square feet of storefront space for retail development.
- The first two phases of the North End Development, an extensive mixed-use development which sits at the northeast end of the Park East Corridor on the site of a former tannery, have also been completed. The development includes residential units, indoor parking, retail space, and Denim Park, a public plaza. The project will also extend the Riverwalk pedestrian pathway along the Milwaukee River.

Key takeaways from the Park East Freeway example include:

- *Planning*: Importance of having not only a project, but a plan that provides the foundation for moving the project forward
- *Visioning*: Project framed as a vision for the area that was to human scale and economically vibrant, rather than simply a removal of a freeway
- *Project champion influence*: Community buy-in and project scheduling was expedited due to having Mayor Norquist as a vocal champion of the project

- *Pragmatic development expectations:* Development opportunities along the corridor from freeway removal contingent on wider market forces

1 Introduction

Using comparable projects across the country where an urban segment of a freeway was converted to a traditional roadway, this case study analysis aims to broadly highlight overarching themes from the examples evaluated, and identify potential economic impacts of Detroit's proposed I-375 improvement project.

Impacts assessed vary by project, but focus primarily on: land use and real estate-related impacts (including induced development and increased property values), economic development (including business attraction and employment), physical enhancements (including connectivity and public spaces), and neighborhood cohesion.

In selecting the three case studies for further study, the objective was to select examples that held parallels to the I-375 project, while still being varied enough to demonstrate a range of potential outcomes and takeaways. As such, the three benchmarks chosen for the purposes of this study include:

- *Fort Washington Way* in Cincinnati, Ohio
- *Central Freeway* in San Francisco, California
- *Park East Freeway* in Milwaukee, Wisconsin

While its current economic climate and land parcel availability makes the existing Detroit market a unique scenario, there were attributes of the selected examples that are similar to the I-375 project, including project size, traffic levels, and the socio-economic characteristics of the surrounding neighborhoods. Other examples considered, such as the Embarcadero in San Francisco or The Big Dig in Boston, were not selected for further study due to their considerable scale and surrounding land use context.

This study is intended to be a high-level analysis by utilizing a comparative approach, and does not aim to provide quantitative projections of the economic outcomes for the various I-375 alternatives under study. Rather, it provides insight as to project characteristics and implementations strategies that would be most conducive to generating the potential economic benefits. Additionally, in highlighting the impacts of these projects this analysis does not intend to conclude that post-project benefits were a direct result of freeway removal, but rather, that the project accelerated and enhanced opportunities that were possible due to wider regional economic forces at play.

2 Fort Washington Way – Cincinnati, OH

The Fort Washington Way example in Cincinnati was selected for further study as part of this analysis due to a number of parallels to the I-375 project, including:

- A depressed highway within a downtown context
- Similar traffic levels and length
- Restricted access to riverfront was a major driver for the project
- Highway was narrowed rather than a direct conversion to an integrated at-grade boulevard (an existing alternative for I-375)

2.1 Background and History

Fort Washington Way was originally built in the 1950s to connect I-75 with I-71 in order to provide direct access to downtown Cincinnati. The highway, which consisted of two lanes of through traffic in each direction and several existing overpasses, was seen as a physical barrier for pedestrians and cars to access the riverfront from the Central Business District. This prompted the City of Cincinnati to ask the Ohio, Kentucky, and Indiana Council of Governments (OKI) to conduct a sub-corridor analysis for Fort Washington Way to determine how these



Figure 1 - Fort Washington Way, 1998

issues could be remedied and whether the freeway should be rebuilt, modified, or eliminated altogether. The findings of the analysis indicated that the highway should be reconstructed to address traffic congestion, since traffic volumes exceeded capacity. Stakeholders went through a collaborative process to develop 25 different alternatives, and five of those alternatives were selected for further analysis. The final design selected favored a narrowed highway of the depressed area of Fort Washington Way, with increased access points between the highway and

Fort Washington Way Project Snapshot

Project Description: Reconstruction of depressed segment of highway by narrowing width but increasing the total number of travel lanes from four to eight lanes of through traffic for I-71 and U.S. Route 50, constructing 42 new bridges, and streamlining several exits and entrances to reduce weaving and improve traffic circulation

Length of Freeway: 1.3 miles

Traffic Levels Before Project: 120,000 vehicles per day

Traffic Levels After Project: 100,000 vehicles per day

Number of Acres of Reclaimed Land: 14 acres

Surrounding Land Use: The current surrounding land use of Fort Washington Way is primarily commercial use and includes high-rise office buildings, the Riverfront Coliseum, multi-story and open parking lots, and produce warehouses

Year Project Opened: 2000

City Population in 2000: 331,285

Median Household Income in 2000: \$29,493

Central Business District. A traffic analysis found that this alternative would result in the least congestion within Fort Washington Way.

The key stakeholders of the project included the Ohio Department of Transportation, Kentucky Transportation Cabinet, OKI, the Southwest Ohio Regional Transit Authority, the City of Cincinnati, and Hamilton County.

There was broad community support for the project not only because of the significant benefits that were anticipated, but also because of the extensive outreach that was conducted for the project. There were more than 200 presentations that were given prior to construction of the first phase of the project and the City worked with numerous businesses and civic groups to obtain buy-in and build strong project support. In addition, there were also regular feedback sessions that were held with employees from the police department, fire department, traffic helicopters, and ARTIMIS, the regional traffic information system. The project also received a lot of media attention and public participation, which provided decision makers with a wealth of information about public opinion to use as a basis for building consensus.

2.2 Project Description

When Fort Washington Way first opened, it was able to accommodate up to 90,000 vehicles per day, but in 1998, as businesses began to grow, the highway began to exceed its capacity, with more than 120,000 vehicles traveling on the freeway per day. The highway now accommodates about 100,000 vehicles daily. The objectives of the project were to provide a safer roadway for motorists and pedestrians, improve local and regional access by reconnecting downtown

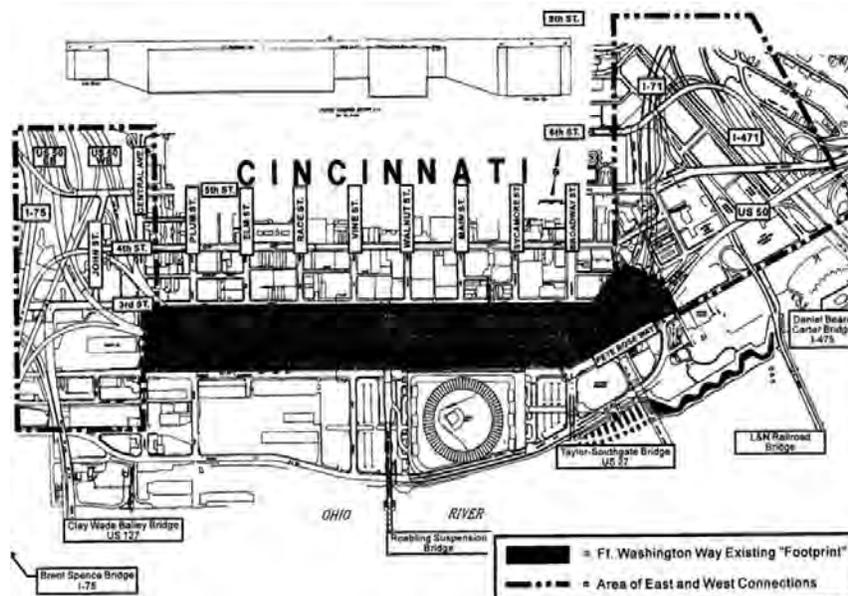


Figure 2 - Project Area

riverfront, and stimulate economic development opportunities with the land reclaimed from narrowing the highway.

Fort Washington Way/I-71 was reconstructed into a narrower highway, stretching from the Brent Spence Bridge to the Lytle Tunnel in downtown Cincinnati (approximately 1.3 miles). The project increased the total number of travel lanes from four to eight lanes of through traffic for I-71 and U.S. Route 50, constructed 42 new bridges, and streamlined several exits and entrances to reduce weaving and improve traffic circulation. In addition, safer access ramps into downtown and improved pedestrian

access were constructed through Fort Washington Way and the surrounding area. The highway edge is now defined with vertical retaining walls rather than sloped embankments, reducing about 40 percent of the original highway width and reclaiming 14 acres of property that is now occupied by the National Underground Railroad Freedom Center, a museum dedicated to the history of the Underground Railroad, and portions of the Banks Development, a mixed use development consisting of residential units, office space, and a variety of dining and entertainment venues. The Fort Washington Way project also included construction of the Riverfront Transit Center, a \$35 million project that was built on the reclaimed land. The multimodal transit center is a local and commuter bus hub with grade-separated transit and pedestrian access for major riverfront events and has the capacity to handle up to 500 buses and 20,000 people. Construction of the new Fort Washington Way began in 1998 and was completed in 2000. The total cost of the freeway reconstruction was \$328 million.



Figure 3 - Reconstructed Fort Washington Way in 2000

The current surrounding land use of Fort Washington Way is primarily commercial use and includes high-rise office buildings, the Riverfront Coliseum, multi-story and open parking lots, and produce warehouses. The riverfront was previously predominantly occupied by parking and industrial development, lacking residential development.

2.3 Impacts

The Fort Washington Way project received recognition for the extent of cooperation between the City and other stakeholders, which helped drive the project forward and expedite its implementation. The project was a catalyst for the larger riverfront revitalization effort, which transformed the obsolete riverfront from an aging industrial space to a bustling destination that includes the Banks mixed-use development, the Great American Ballpark, the Paul Brown Stadium, and the Smale Riverfront Park.

2.3.1 Real Estate Investment

The first phase of the Banks development began in 2007 and resulted in 300 apartments, 76,000 square feet of commercial space, and 6,000 structured parking spaces to serve commuters, sports fans, and festival attendees. According to an economic impact study conducted by the University of Cincinnati, the first phase of the Banks project was estimated to yield:

- \$91 million annual economic impact from housing and retail uses
- \$276 million annual economic impact from hotel and office uses
- \$556 million one-time construction impact
- \$157.8 million investment made by public parties and developers (parking, park space, street grid, utilities)

Additional impacts of Phase 1 identified in the study include the addition of approximately 1,400 direct jobs through businesses located at the Banks, with 1,231 of those jobs estimated to be new to downtown. The study also estimates the creation of 1,000 indirect jobs, bringing the total to 2,400 jobs with nearly \$81 million in annual earnings in



Figure 4 - Banks Development Rendering, All Phases Complete (2011 Rendering)

Hamilton County.

Phase 2 of the Banks development will consist of 300 residential units and more than 60,000 square feet of commercial space, and when completed, the entire development will have resulted in \$600 million worth of private investment.

The Paul Brown Stadium, home of the Cincinnati Bengals, opened in 2000, and the Great American Ballpark, home of the Cincinnati Reds, opened in 2003. Both stadiums are located along the corridor, representing a \$450 million private investment and \$370 million public investment, respectively. The National Underground Railroad Freedom Center opened in 2004 and is located above a two-deck parking garage that is intended to lift the development out of the flood plain and replenish the supply of parking that was removed with the demolition of the Riverfront Stadium. The Freedom Center, which represents a private and public investment of approximately \$110 million, is a key tourist attraction for regional and national visitors.

2.3.2 Open and Park Space

The Smale Riverfront Park, a 45-acre site located between the Great American Ballpark and Paul Brown Stadium, is under construction concurrently but independently with the Banks development. Phase 1 has been completed and includes the Schmidlapp Stage and Event Lawn, the Walnut Street Steps and interactive fountain, tree groves, a meditative labyrinth, the Cincinnati Bike and Visitor's Center, and the Moerlein Lager House, a popular local restaurant. Phase 2 of the park is underway and will include a playground, marina and boat dock, garden, carousel, and other amenities.



Figure 5 - Smale Riverfront Park

2.3.3 Connectivity and Accessibility

The reconstructed Fort Washington Way and extension of the street grid over the highway has made it safer for pedestrians to access the riverfront park and has provided improved connectivity between the park and the larger downtown street network. Other improvements to the street grid include the relocation of Mehring Way, a new Freedom Way between Great American Ball Park and Paul Brown Stadium, and an extension of Race Street.

2.3.4 Connect the Blocks Design Competition

The Fort Washington Way project made 250 to 300 feet of land available for development between Elm and Sycamore streets and has provided flexibility for development south of Fort Washington Way. The City of Cincinnati is holding a design competition that is currently underway called “Connect the Blocks” to solicit ideas for developing the decks between Elm and Main Street, which connects the Central Business District to the Banks. The decks were constructed as part of the Fort Washington Way improvements in the early 2000s through a \$10 million investment from the City of Cincinnati, Hamilton County, and private investors. The City of Cincinnati is currently seeking input from the public about what they would like to see on the decks through an online survey tool. Once the public input process concludes, the City will then release a call for design proposals for the decks over Fort Washington Way. Results from the survey will then help to inform the design proposals.

2.3.5 Riverfront Master Plan

All of these projects were underway regardless of the freeway conversion, but some were made possible by land that was reclaimed as a result of the highway narrowing. These projects, including Fort Washington Way, were part of the Riverfront Master Plan, which was published in April 2000 and became a critical mechanism that set the framework for developing the central riverfront.



Figure 6 - Riverfront Master Plan, 2000 Rendering

The Plan sets forth design principles to link the riverfront with the central business district and grew out of the planning process to site the Paul Brown Stadium and the Great American Ballpark. In 1996, a ½ percent sales tax to finance the construction of both stadiums was passed and Hamilton County and the City of Cincinnati funded a planning study that was focused on creating two stadiums that would contribute to the economic development and spin-off other private development, enhancing the riverfront and reconnecting the area to downtown, whilst involving the public.

2.3.6 Other Policies and Incentives to Encourage Development

The Economic Inclusion and Workforce Development Policy was adopted for the Banks Development by the City of Cincinnati and Hamilton County to promote small businesses, including minority-owned and women-owned firms, in contracting and business ownership, and to encourage small business enterprises to participate in business opportunities in the retail, hospitality, and entertainment components of the Banks development. Strategies to implement the policy include marketing, outreach, active recruitment, and information sharing. The City and County have also established a Disadvantaged Business Enterprise (DBE) program for federally funded portions of the development to remove the barrier for these businesses to take part in economic revitalization opportunities.

2.4 Takeaways

Key takeaways from the Fort Washington Way example include:

- Stakeholder engagement: Collaboration with stakeholders is critical in moving the project forward.
- Public outreach: An extensive public outreach effort helps facilitate buy-in.
- Project definition: Project was not simply a highway reconstruction, but was promoted and developed as part of a larger effort to stimulate economic development and improve riverfront access.
- Public-private partnerships: Enlisting private public partnerships to transform downtown was a critical component of the project.

Photo Credits:

1. City of Cincinnati
2. Balke Engineers, Fort Washington Way Subcorridor Analysis
3. City of Cincinnati
4. Economics Center of the University of Cincinnati, Economic Impact of the Banks Project in the Redevelopment of the Cincinnati Central Riverfront
5. Smale Riverfront Park
6. Central Riverfront Urban Design Master Plan

3 Central Freeway – San Francisco, CA

The Central Freeway example in San Francisco was selected for further study as part of this analysis for a number of parallels to the I-375 project, including:

- Central Freeway was a replacement of a final segment of freeway with an at-grade boulevard
- Similar project objectives, including improving surrounding corridor environment and enhancing transportation network and safety
- Similar traffic levels and surrounding land use context

3.1 Background and History

The Central Freeway was built in 1959, extending from Bayshore through Hayes Valley as part of U.S. Route 101. Although there were plans to build the freeway out to the Golden Gate Bridge as part of the City's overall freeway system, these plans were halted because they were met with strong resident opposition. In 1989, the Loma Prieta earthquake damaged the Central Freeway, prompting its closure. The portion of the Central Freeway north of Fell Street was demolished entirely and the California Department of Transportation (Caltrans) began to plan for seismic retrofits for the remainder of the freeway.

The gridlock that was anticipated from demolishing the portion of the



Figure 7 - Central Freeway, Pre-Construction

Central Freeway north of Fell Street never materialized, and instead, residents began to see multiple benefits arise, including lower noise and fume levels. Local residents began to question whether or not the

Central Freeway Project Snapshot

Project Description:
Conversion of an elevated freeway to an at-grade roadway boulevard consisting of two one-lane frontage roads for on-street parking, separated by a landscaped buffer from two median-divided lanes of faster-moving through traffic

Length of Freeway: 0.6 miles

Traffic Levels Before Project:
95,000 vehicles per day

Traffic Levels After Project:
45,000 vehicles per day

Number of Acres of Reclaimed Land: 7 acres

Surrounding Land Use: A mixture of commercial and residential; the pattern of development in the Market and Octavia neighborhood is marked by individual buildings on small lots

Year Project Opened: 2005

City Population in 2005:
719,077

Median Household Income in 2005: \$57,496

remaining portion of the freeway needed to be rebuilt. Concurrent to this shift in thinking was a research project conducted by Allan Jacobs and Elizabeth MacDonald of the University of California, Berkeley, which concluded that multi-way boulevards were able to handle large volumes of through traffic without imposing on the local environment and were not any more dangerous than normally configured streets carrying similar traffic loads, if designed properly. As a result, the concept of replacing the remaining portion of Central Freeway north of Market with an at-grade boulevard began to gain traction.

The general level of support for the project was split. Proponents of the project, who were supported by Mayor Willie Brown, felt that the freeway was a physical barrier that divided the Hayes Valley community and limited the impacts of the neighborhood commercial district. In contrast, opponents of the project, which included many business owners, felt that the freeway was an important connector between the Haight, Sunset, and Richmond neighborhoods. There were also concerns that freeway deconstruction would lead to increased traffic congestion and safety issues.

The politics of the project were complicated. In 1997, Proposition H, which authorized Caltrans to build a portion of the Central Freeway and ban construction on new above ground freeway ramps north of Fell Street, was championed by a local merchant association and passed with 53 percent of voters favoring the rebuild of the freeway. However, this ballot measure was overturned a year later by Proposition E, which authorized Caltrans to replace the Central Freeway with an at-grade boulevard from Market Street along Octavia Street. Proposition E was championed by Hayes Valley activists who ramped up their efforts to reach out to the community and build support and buy-in to the surface boulevard idea. Its passage led to the demolition of the Central Freeway north of Market in 2002 and the subsequent opening of Octavia Boulevard in 2005.

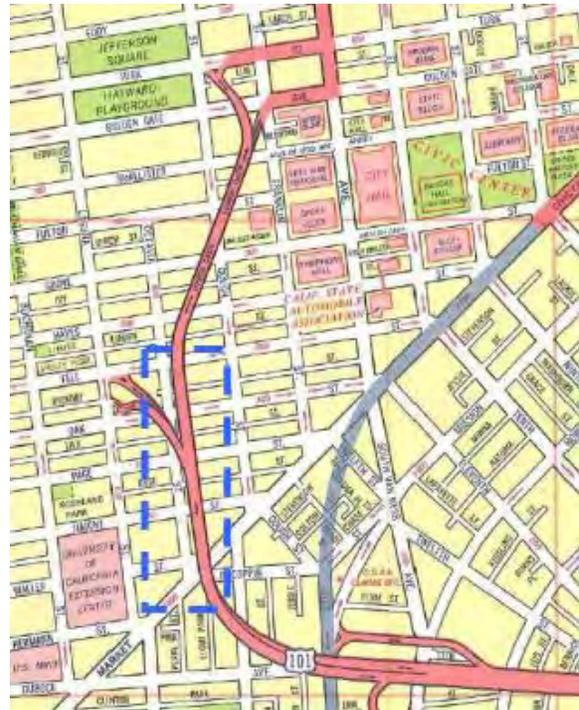


Figure 8 - Map of Project Area

3.2 Project Description

The objective of the Octavia Boulevard project was to increase capacity and connectivity to east-west Oak and Fell Streets and north-south Franklin and Gough Streets, without negatively impacting the surrounding neighborhood, as an overhead freeway would have done. Octavia Boulevard replaces what was formally the terminal portion of the Central Freeway, stretching approximately 0.6 miles from Market Street to Hayes Street. The design of the boulevard consists of two one-lane frontage roads for on-street parking and slower traffic, separated by a landscaped buffer from two median-divided lanes of faster-moving through traffic.

The freeway was demolished in 2002, construction began in 2003, and Octavia Boulevard opened to traffic on September 2005. In 2006, the number of vehicles measured on the boulevard was approximately 45,000 cars per day (compared to almost 95,000 cars per day along the freeway in 1995). The City has analyzed the traffic impacts of the boulevard and has found that there has not been any significant increase in congestion from diversion. Traffic along detour routes in the South of Market neighborhood, adjacent to Central Freeway to the east, either experienced decreases in traffic or increases in traffic that were no greater than 10 percent. Fell and Oak Streets have also experienced decreases in traffic.

The current surrounding land use is a mixture of commercial and residential. The pattern of development in the Market and Octavia neighborhood is marked by individual buildings on small lots. The City has encouraged infill development that maintains the integrity of the existing character of the neighborhood.

3.3 Impacts

Hayes Valley has seen a significant transformation since the construction of Octavia Boulevard. The elevated freeway had fragmented the neighborhood and fostered urban blight and decay. However, the neighborhood has become a trendy destination and vibrant community—as higher end retail shops, restaurants, and bars have replaced liquor stores and mechanic shops. In addition, the average sales price of a condominium in Hayes Valley increased from \$203,000 in 1996 to \$760,000 in 2006, according to the Multiple Listing Service.

The removal of the Central Freeway north of Market Street resulted in 7 acres of residual land (totaling approximately 22 parcels). Proposition I, which was adopted by voters in November 1999, required all proceeds from the sale of the Central Freeway parcels to go towards the Octavia Boulevard project and towards ancillary transportation improvements. The State of California transferred these parcels to the City and County of San Francisco in January 2001,

which the City subsequently put up for sale.



Figure 9 - Octavia Boulevard, Post-Construction

3.3.1 Real Estate Investment

Roughly half of this land is designated for affordable housing, since the City has an existing policy to use surplus publicly-owned land to house residents, according to the Octavia Market Area Plan. The San Francisco Redevelopment Agency (SFRA) purchased several parcels to develop affordable housing, including Parkview Terraces for low income and senior housing (100 units), Mary Helen Rodgers Senior Community for low income and homeless seniors (100 units), Richardson Apartments for formerly homeless individuals (120 units), and Octavia Court for persons with Developmental Disabilities (15

units). Three additional projects are proposed, an apartment complex (80-20 percent of area median income) with 20-25 units and ground floor retail, 100 units of family rental housing (up to 50 percent of area median income), and another complex with 32 units for transition-aged youth.

There are several other market rate housing developments that are underway. Octavia Gateway, a luxury condominium, is planned for completion in 2014. The building will consist of 47 condominiums with ground-floor retail when completed. Avalon Bay is also constructing an apartment complex which will include 182 new rental units in four main buildings.

3.3.2 Transportation Improvements

The City and County of San Francisco has dedicated revenues from the sale of the vacant land parcels previously occupied by the Central Freeway to the implementation of ancillary projects that will enhance the urban fabric of the neighborhood and improve transportation safety. The San Francisco County Transportation Authority initiated a study to determine the best use of the revenues since the cost of constructing all of the proposed projects would exceed parcel sale revenues. Projects were prioritized based on a set of criteria that measured the project's performance. These criteria included neighborhood enhancements, pedestrian and bicyclist safety and comfort, livability and traffic conditions, enhancement of mass transit, high benefit-to-cost ratio, and implementable within a one year time-frame in order to yield immediate benefits. The study identified 12 ancillary projects for implementation. Five of the projects have been completed, including McCoppin streetscape improvements (the number of vehicular traffic lanes were reduced and sidewalk width was increased), Valencia Street sidewalk trees, pedestrian-scale lighting under and around the Valencia Street freeway ramp, Market Street bike lanes between 8th Street and Octavia Boulevard, and 13th Street Americans with Disabilities Act (ADA) improvements. Four others are in progress, including the Stevenson/Jessie Street traffic calming, Pearl/Elgin traffic calming, McCoppin Community Park, and right of way improvements for a skate park and dog run. The traffic calming projects may include one-way designation, signage, chicanes, speed bumps, and bulb-outs.

3.3.3 Open and Park Space

Revenues from selling the parcels of land resulting from the freeway deconstruction were also used to construct a 16,500 square foot park, Patricia's Green, at the corner of Octavia Boulevard and Hayes Street. The park is a popular destination among local residents and features rotating art exhibits every 6 months.

3.3.4 Temporary Uses of Land Parcels

There are several temporary uses of the parcels that have sprung up in the area. With the realization that some of the parcels that were reclaimed from the removal of the Central Freeway would be undeveloped for several years due to the recession, residents petitioned the Mayor to do something about the vacant lots. The Mayor's Office enlisted local architect Douglas Burnham to design a space that would bring vibrancy back into the neighborhood and act as a placeholder until 2021 for a more permanent development. The result is Proxy Project, a temporary, two-block installation, constructed from modified shipping containers, of retail, food vendors, art galleries, and gardens. Proxy has been

well received, which is partially attributed to the close consultation the developers had with the neighborhood in developing the project.

Other temporary uses of the reclaimed land include the Hayes Valley Farm and the Growing Home Community Garden. The Hayes Valley Farm opened in 2010 and was an interim project focusing on strengthening community ties and raising awareness about growing local foods in the city. The Growing Home Community Garden was a half-acre garden operated by Project Homeless

Connect. Homeless individuals worked side by side with volunteers to grow food and foster a sense of community. Both the farm and garden have since closed to make way for the construction of mixed use developments.



Figure 10 – Proxy Project Rendering

3.3.5 Market and Octavia Area Plan

The planning, design, and construction of Octavia Boulevard was guided by planning efforts that were undertaken by the City and County of San Francisco to direct and grow future land use, while still maintaining the existing scale and character of the neighborhood. The Market and Octavia Area Plan seeks to achieve a balance between providing housing, building whole neighborhoods that provide a full range of services and amenities, and offering transportation choices to help people get around by setting forth a series of objectives and corresponding policies to achieve this. One of the supporting policies seeks to repair the damage caused by the Central Freeway by encouraging mixed-use infill on the former freeway land so that these lands can be reincorporated into the urban fabric of the neighborhood. The Area Plan is critical to fostering future development and realizing the full potential of economic benefits to the neighborhood and surrounding region.

3.4 Takeaways

Key takeaways from the Central Freeway example include:

- Project revenue use: Implementation of related ancillary projects from land sales can increase community support and further the benefits of highway deconstruction
- Creative use of land: Since it may be difficult to sell parcels of land right of way, temporary “pop-up” installations or alternative uses are a great way to fill the space in the interim before development begins
- Local support: Support from local residents was critical to getting Proposition E on the ballot
- Policy and land use planning: An area plan will help establish a direction to guide future growth

Photo Credits:

1. San Francisco Office of Economic and Workforce Development, Octavia Boulevard/Central Freeway Project Update
2. SFMTA, Octavia Boulevard 2007 Update
3. San Francisco Recreation and Park, Hayes Valley Neighbors at Patricia's Green: <http://sfrecpark.org/hayes-valley-neighbors-at-patricias-green/>
4. Envelope A+D, Proxy Project: http://www.envelopead.com/proj_octaviakl.html

4 Park East Freeway – Milwaukee, WI

The Park East Freeway example in Milwaukee was selected for further study as part of this analysis for a number of parallels to the I-375 project, including:

- Similar length and project type
- Highway segment was a spur
- Consideration for replacing the freeway versus conversion to at-grade boulevard
- Project was seen as a physical barrier that divided the community
- Similar downtown context

4.1 Background and History

The Park East Freeway was part of a system of planned expressways that would run through the Central Business District of Milwaukee. The Park East Freeway was originally planned as a 3.5 mile freeway extending past Juneau Park, continuing to Lake Michigan, and then connecting to the I-794 freeway. However, the project was faced with strong opposition from local residents and only a one mile, elevated segment of the freeway spur



Figure 11 - Park East Freeway Site Plan

was completed, extending from I-43 to North Milwaukee Street in downtown Milwaukee. The original freeway had been designed to accommodate large volumes of traffic, but since it was never built out, the one-mile segment spur was underutilized, carrying as much traffic as most surface streets in the surrounding area (up to 22,000 vehicles daily). The freeway created a physical barrier between the northern part of downtown and the rest of the central city, and the surrounding land was primarily used for surface parking. In addition, the right of way acquired to build out the Park East Freeway remained vacant for many years. In the

Park East Freeway Project Snapshot

Project Description:
Replacement of freeway from 6th Street to Jefferson Street with McKinley Avenue, a six-lane, at-grade tree-line boulevard with granite pavers and wide sidewalks, that connects to the existing and reconstructed street grid

Length of Freeway: 1 mile

Traffic Levels Before Project:
40,000 vehicles per day

Traffic Levels After Project:
15,800 vehicles per day

Number of Acres of Reclaimed Land: 26 acres

Surrounding Land Use: The current surrounding land use consists of a mixture of commercial, public, manufacturing and residential space

Year Project Opened: 2003

City Population in 2003:
586,941

Median Household Income in 2003: \$39,067

1990s, the state removed the designation of the right of way land as a transportation corridor, which gave way to its redevelopment as the East Pointe neighborhood, which grew into a vibrant community of shops and residences. This development was part of a larger effort to revitalize the downtown area.

The success of the East Pointe neighborhood led to a reevaluation of whether reconstruction of the Park East Freeway was the best course of action. Peter Park, the City Planning Director at the time, proposed removal of the freeway in favor of replacing it with an at-grade boulevard. Mayor John Norquist championed this idea and started a community-based campaign to gain support. The general level of support for the project was strong as many other city agencies and community leaders advocated for the project. However, opponents of the project felt that removal of the freeway would negatively impact businesses and institutions downtown and increase congestion. Governor Tommy Thompson was initially opposed to the project, but eventually changed his stance because of the low traffic volumes on the freeway. Traffic



Figure 13 - Underpass of Park East Freeway, Prior to Removal



Figure 12 - Park East Freeway, Prior to Removal

reports indicated that removing the highway and reconnecting the street network would provide enough capacity to accommodate current and future traffic volumes.

The project moved through the public process and in 1999, was approved by the State of Wisconsin, Milwaukee County, and the City of Milwaukee. The project was also subsequently adopted as part of Milwaukee's 1999 Downtown Plan.

4.2 Project Description

Demolition of the Park East Freeway began in 2002 and was completed in 2003. The one-mile freeway spur was removed from 6th Street to Jefferson Street and replaced with McKinley Avenue, a six-lane, at-grade tree-lined boulevard with granite pavers and wide sidewalks, that connects to the existing and reconstructed street grid. Part of the effort to reconstruct the street grid included building the Knapp Street Bridge, which provides connectivity across the Milwaukee River. Most of the one-way streets in the area were converted to two-way streets to improve traffic circulation, and lane widths were

narrowed to slow down traffic and allow for more space for pedestrians. Sidewalks and pedestrian connections were also constructed over the bridges. In 1999, the Park East Freeway carried an estimated 40,000 cars per day. In 2007, the replacement boulevard carried approximately 15,800 cars per day.

The project was funded by the Intermodal Surface Transportation Efficiency Act (ISTEA) funding and local Tax Incremental Financing through the City of Milwaukee. Construction costs were estimated at \$25 million, in contrast to the estimated \$100 million it would have cost to rebuild the freeway.



Figure 14 - Present Day McKinley Avenue

The objective of the project was to reinstate the traditional street grid, increase connectivity to downtown Milwaukee, encourage mixed-use development in the area, and generate new investment and business opportunities and jobs.

The current surrounding land use consists of a mixture of commercial, public, manufacturing and residential space.

4.3 Impacts

As a result of the removal of the Park East Freeway, approximately 26 acres of residual land was made available for redevelopment. This land was officially established by the City as the Park East Corridor development area and was divided into three neighborhoods: McKinley Avenue District, for a mix of office, retail, and entertainment uses; Lower Water Street District, for office and residential uses; and Upper Water Street District, for higher density residential. As part of the Park East Area Redevelopment Plan which arose after the removal of the freeway, a form-based code (rather than use-based zoning codes) was drafted to ensure new development and infill into the area would maintain the area's existing character.

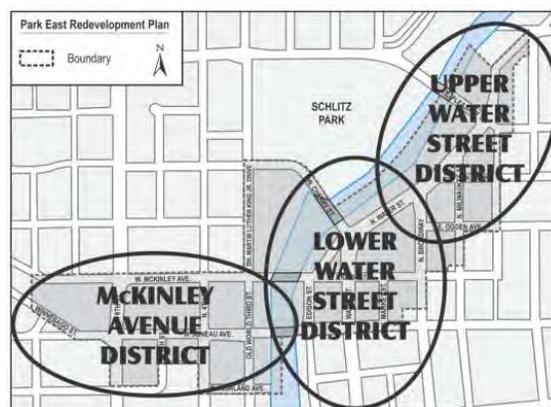


Figure 15 - Park East Corridor Districts

The first two phases of the North End Development, an extensive mixed-use development which sits at the northeast end of the Park East Corridor on the site of a former tannery, have also been completed. Phase I was completed in 2009, and consists of an 83-unit residential building, indoor parking, and 12,000 square feet of retail space that includes a fitness center, a nail salon, and a dry cleaner. Phase 2 was



Figure 17 - North End Development

completed in 2013, and consists of two five-story buildings with 155 residential units, 20 percent of which will be affordable, and 2,280 square feet of retail space. Included in Phase 2 is Denim Park, a public plaza, and transportation improvements that will extend the Riverwalk pedestrian pathway along the Milwaukee River. Future phases of the development will consist of adding another 300 to 400 apartments and additional retail space.

The Avenir, another apartment complex, is underway and expected to be completed by September 2014. The first phase of the project will include 103 apartment units and 6,500 square feet of commercial space and a parking structure.

The average assessed land values per acre in the area where the Park East Freeway spur was previously located increased after removal of the freeway. Between 2001 and 2006, values per acre in the Park East Freeway vicinity increased by over 180 percent, and the average assessed land values in the Park East Tax Increment District grew by 45 percent. This compares to a 25-percent increase in the city overall during the same period. As a result, the City has seen a significant fiscal benefit. In the North End development example, total valuation on site increased from \$2.4 million in 2007 to \$16.6 million in 2011 after construction, resulting in a four-fold increase in property taxes collected by the City to \$480,000.

According to the City of Milwaukee, the removal of the Park East Freeway will bring more than \$780 million of new commercial, office, and residential development to the Park East Corridor in the next 10 to 15 years.

4.4 Takeaways

Key takeaways from the Park East Freeway example include:

- Planning: Importance of having not only a project, but a plan that provides the foundation for moving the project forward
- Visioning: Project framed as a vision for the area that was to human scale and economically vibrant, rather than simply a removal of a freeway

- Project champion influence: Community buy-in and project scheduling was expedited due to having Mayor Norquist as a vocal champion of the project
- Pragmatic development expectations: Development opportunities along the corridor from freeway removal contingent on wider market forces

Photo Credits:

1. Southeastern Wisconsin Regional Planning:
http://www.wisconsinhighways.org/milwaukee/park_map_parkeast1965.html
2. Park East Master Plan
3. Park East Master Plan
4. Google Maps via PPS: <http://www.pps.org/reference/conversion-of-park-east-freeway-sparks-economic-revitalization/>
5. Park East Master Plan
6. Park East Master Plan
7. North End Development, Department of City Development