

Urban Redevelopment and Rehabilitation for Detroit

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Abstract: Detroit has been one of the leading cities in the 20th century in the US. Manufacturing, especially, automobile industry created and continued the thriving economy in Detroit, MI in the early to mid-1900s. When outsourcing impacted the industry, people began to leave the city. That turned into a demographic catastrophe in Detroit. Economy had continuously fallen and many of the properties were foreclosed. After the housing market crash in 2008, a big economic crisis effected all country. After such a strong economic crisis, Detroit has been desperately in need of economic revival which has begun to turn around very slowly in last 10 years. In this paper, Detroit has been investigated through the experienced constructional problems. Sustainable solutions for Detroit are discussed in a broader aspect. The main purpose of the research is to understand the current problems in construction in Detroit after a decade of the economic crisis and bring sustainable solutions for urban redevelopment and rehabilitation for Detroit. Paper also details the problems in Detroit area, reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results.

Key words: Detroit, economic crisis, urban redevelopment, urban rehabilitation.

1. Introduction

Detroit has been one of the leading cities in the 20th century in the US. Manufacturing, especially, automobile industry created and continued the thriving economy in Detroit, MI in the early to mid-1900s. The automobile industry created the thriving economy in Detroit, MI in the early to mid-1900s. There had been a massive increase in people moving to Detroit, which led to an increase in construction industry in the city. The automobile industry sustained the flourishing economy in Detroit until the auto companies experienced union strikes and factories were relocated outside of the city. Many automobile companies moved production out of those plants and began to manufacture in more efficient ways. When outsourcing impacted the industry, jobs diminished and people began to leave the city to find work elsewhere. Abandoned houses and factories remained. The economy continued to fall and many of the properties were foreclosed after the housing market crash in 2008 which turned a big economic

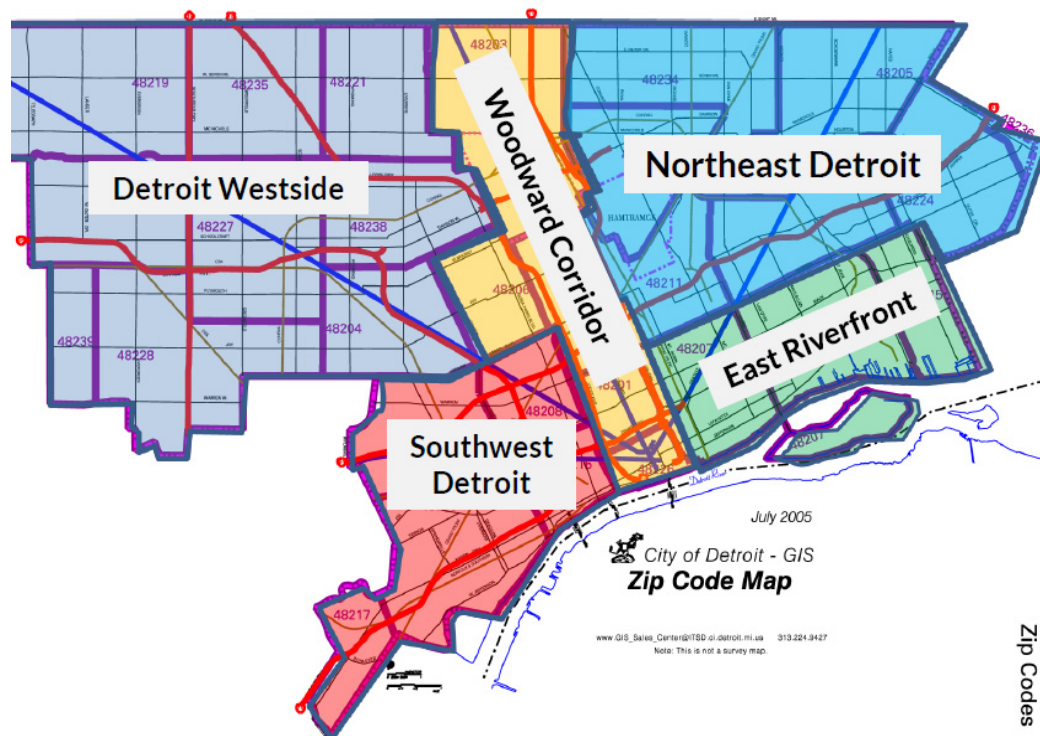
crisis effecting all country. After such a strong economic crisis, Detroit has been desperately in need of economic revival which has begun to turn around very slowly in last 10 years. The professional sports and entertainment districts have set the foundation for reviving the downtown area in recent years. The revival of the downtown district will spread outward and upward by bringing new businesses to the city as well as new residents.

The city limits and neighbourhood are given in Fig. 1 [1]. As it is seen in Fig. 1, city limits are way bigger comparing to other cities in the US. It also makes the problem complicated and finds a sustainable solution for such a huge area.

2. Research Motivation

The main purpose of this paper is to evaluate the Detroit redevelopment and rehabilitation in a sustainable frame. Sustainable solutions for Detroit are discussed. To understand the current state of Detroit area after a decade of the economic crisis, sustainable solutions should be brought for urban redevelopment and rehabilitation for Detroit. In the paper, a detailed evaluation is carried. The paper details

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Sources: Federal Reserve Bank of Chicago and Mapsof.net.

Fig. 1 Detroit city and neighborhoods [1].

the main problems in Detroit, along with the reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results.

Comparing to other US cities, Detroit has a unique structure. Due to its geographical limits, and location, city has various urban levels throughout the city. Different from other US cities, there are many interlarded urban areas which can be seen in one subdivision. For instance, a home buyer and real estate agent relationship has succumbed to an influx of home buyers and not enough saleable properties in a neighbourhood. Through the new development areas, some anticipated projects have been completed or under construction. Such projects in the market are directly affecting the construction industry. Detroit has lots of exciting places for people to visit such as stadiums, casinos, restaurants, retail, entertainment

venues. With QLine and People Mover people can also jump in and off around the city that makes it easier to get around the city.

For Detroit, some investors make new places with high demand. They are converting old buildings to high demand buildings, where it is a business center designed to provide companies with easy, affordable access to the demanding environment. With the current demand, it is very possible for Detroit to get recovered in a short period of time.

3. Analysis

Following the housing market crash in 2008, Detroit's economy was hit significantly. The rapid growth of Detroit in the mid-1900s coupled with the large population growth and in addition, many houses and commercial buildings got vacant. Many of them have been neglected that they cannot be repaired. In

such a problematic habitat, properties are often demolished to create large areas of open land that is used to redevelopment projects.

With initiation of government or state, a variety of efforts and programs have been dedicated to revitalizing the housing industry in Detroit. Many of these efforts have been focused on reviving specific neighborhoods to aid in and encourage community development. Resources have been allocated to providing affordable housing in many neighborhoods. Deng [2] outlines the ways in which the LIHTC (low-income housing tax credit) program has impacted the redevelopment efforts in neighborhoods in Detroit. Between 1987 and 2007 there were 255 LIHTC projects leading to 12,297 units created in Detroit through the program. He concluded that LIHTC neighborhoods often experienced greater social, economic, and cultural growth.

The city of Detroit NSP (neighborhood stabilization program) outlines the plan that the City of Detroit has

for utilizing the funds allocated to the city through the Housing and Economic Recovery Act of 2008. This funding was provided to cities that experienced heavy economic hits due to foreclosures caused by the economic crisis in 2008. Table 1 gives allocation of funds from NSP. The legislation had the goal of aiding in economic recovery and revitalization of neighbourhoods.

According to the plan, Detroit had the largest foreclosure rate out of the country's largest 100 cities. 65% of the 67,000 foreclosed homes remained vacant in the beginning of 2009 [3]. Table 2 summarizes numbers of abandoned and empty houses in Detroit area [4-7].

Table 3 summarizes the investment data for the specific area in Detroit. The data represent last three years with construction perspective. In last three years, loans are provided to developers for investments to help to save buildings in really bad conditions structurally and constructionally [8, 9].

Table 1 Detroit neighborhood stabilization program allocation of funds [3].

Items	Amount	Percentage	Cumulative percentage
Acquisition	\$4,000,000	8.49%	8.49%
Administration	\$4,713,769	10.00%	18.49%
Demolition	\$14,000,000	29.70%	48.19%
Disposition	\$4,200,000	8.91%	57.1%
New construction	\$4,250,000	9.02%	66.12%
Public improvements	\$2,000,000	4.24%	70.36%
Rehabilitation	\$13,973,921	29.64%	100%
Total	\$47,137,690	100%	100%

Table 2 Numbers of abandoned and empty houses in Detroit area [4].

	Number of abandoned buildings	Empty houses	Vacant lots	Total
Number	70,000	31,000	90,000	191,000
Percentage	37%	16%	47%	100%

Table 3 Investment data for residential, office and retails.

	Residential	Office	Retail
Occupancy	97%	96%	95%
Sale prices	Condo Sales-\$200-\$250/SF Rental-\$1.60-\$2.05/SF (14% increased in last 3 years)	\$18-\$20/SF	\$18-\$25/SF
Under construction	487 new unit		68,000SF
Planned	1,836 new unit		



Fig. 2 Ongoing projects from Detroit.

There are various ongoing projects dedicated to commercial sites that involve renovating historic buildings in Detroit area as seen in Fig. 2. Loans are used to revitalize historical buildings in Detroit. The historical preservation program has started to protect these buildings. The program has begun in mid-1990s and expanded their impact.

According to EPA, a brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of hazardous substance, pollutant, or contaminant. So, it is standing for old buildings, new uses. Detroit Brownfield Redevelopment Authority serves the city of Detroit as an organization that provides developers incentives to restore buildings that are not used due to contamination or abandonment.

4. Evaluation

The city of Detroit has been experiencing economic fights in various areas in the past decades. It began with the automobile industry crisis. The crisis has started with more efficient methods of production and relocation of factories outside of cities due to union strikes. This economic impact moved money out of the city and caused residents to leave Detroit. With the auto industry crisis, the housing market crashed in 2008 which also impacted the existing economic struggles in the state. With the effect of the crisis, many houses and neighborhoods in Detroit area have been left vacant in a short period of time that also

made the problem hard to solve or bring realistic solutions. Many of the residents who remained in the city faced economic struggle due to lack of jobs and many houses came to the market that made house prices half even less. The foreclosure rate peaked in 2008. However, in years, it turned into the normal ranges. In last three years, construction industry started to recovery. Even it is slow, it is way better comparing to 2008s. With the crisis, a high crime rate becomes normal that effected daily life deeply along with the economy. Moreover, there are not enough jobs to sustain the economy. There are also many vacant properties in need of demolition. The revitalization has been challenged since people did not want to live or rise their kids. The key for the revitalization of Detroit should be investigated and feasibility assessment should be carried out to define viable options [10].

Small business is a critical issue. The city is investing so heavily in small businesses. Many successful businesses encompass economy. Eastern market is a good example for that. They are supporting farmers and small businesses. Moreover, sports would be one of the possible solutions. The presence of professional sports venues may allow the city to become a destination point for sports fans all year-round. In addition to the venues, there are restaurants, bars, and other services that use the teams to draw in fans. This further contributes to bringing back the downtown area and making it successful

again. The sports and entertainment culture is an economic, money making powerhouse. Alternatively, education can be a suitable alternative for the city as well. In Detroit area, education can also be a good solution. There is one trade school in Detroit. Fieldwork-centric trade schools can work with the city to offer discounted tuition rates to those students willing to take on work-study courses addressing in a tangible way the city's housing crises, creating a system of tax credits and scholarship or grant funds to help students, especially those in certain geographic locations in Detroit. In short and long terms, Detroit city needs to capitalize one of such opportunities to rebuild and establish the city for future [11, 12].

Small businesses, sports, or education can be a long term and sustainable solutions for the city. Autonomous vehicle industry can also be initiated in Michigan in the long run. Such possibilities should be detailed with various parameters and their effects on construction industry. To detail such economic development alternatives in Detroit area, experienced and expected problems should be defined well with reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results should be defined [13-15].

5. Conclusion

For a decade, Detroit has been struggling with many economic problems. The vacant buildings present vast opportunities for revitalization and development. There are options for both businesses as well as housing. Before there can be too much of a recovery in the construction industry, the central economy in the city needs to continue to improve. Such development will bring more opportunities, job alternatives to Detroit. As the city recover, it will be attractive to various opportunities. Throughout the sustainable progress, construction industry will also

improve Detroit. For sustainable solutions for the city, construction industry is at a critical role.

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