Analytical Approach for Detroit Urban Redevelopment and Rehabilitation

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Abstract. Detroit had been the leader city in manufacturing in the 20th century in the US. The 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 felt 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 need of economic revival which has begun to turn around very slowly in last ten years. In this paper, while defining the nature of the problem, workable solutions for Detroit area are discussed with certain and framed techniques. The main purpose is to understand the current case for Detroit after a decade of the economic crisis and bring solutions for urban redevelopment and rehabilitation for Detroit area with real examples. A detailed evaluation is carried through comparison with other cities. Paper also details the problems in Detroit area, reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results.

1. Introduction
Detroit had been the leader city in manufacturing in the 20th century in the US. The city has been one of the important US city and the city limits and neighborhood are given in Figure 1 [1]. The automobile industry created and sustained 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 need of economic revival which has begun to turn around very slowly in last ten 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.
Economic crisis has resulted in loss of funding for operation of Detroit’s CDC (Community Development Corporations). These corporations have been responsible for urban growth of the area. After the crisis, population of the city has drastically fallen. In the meanwhile, Detroit’s real estate market has become the main concern for the state. Homebuyers did not have enough money to buy houses, the demand of houses is also very low and hence CDC’s cannot invest in new projects or sell existing houses. The situation was a disaster for the state and the country which was stated to be called as Mortgage crisis. Various related problems have been created as a part of each other. Each problem caused other and none of them was be able to be solved in short term.

The main purpose of this paper is to define the problem in analytical way, while defining the nature of the problem. Workable solutions for Detroit area are discussed with certain and framed techniques. To understand the current state of Detroit area after a decade of the economic crisis, concrete solutions should be brought on the table for urban redevelopment and rehabilitation for Detroit area. In the paper, real examples and projects are brought to the attention for possible solutions. A detailed Evaluation is carried through comparison with other cities or cases in similar condition. The paper details the main problems in Detroit area, along with the reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results.

2. Analysis

Following the housing market crash in 2008, Detroit’s economy was hit significantly. The rapid growth of Detroit in the mid-1900 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, 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 (2011) outlines the ways in which the Low-Income Housing Tax Credit (LIHTC) 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 [2].

The City of Detroit Neighborhood Stabilization Program (NSP) 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 Neighborhood Stabilization Program (NSP).

| 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%                  |

The legislation had the goal of aiding in economic recovery and revitalization of fallen neighborhoods. 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]. Figure 2 represents the Detroit’s Foreclosure Crisis with numbers on a regional map [5].

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

Figure 2. Map of Detroit’s Foreclosure Crisis [5]

There are various ongoing projects dedicated to commercial sites that involve renovating historic buildings in Detroit area as seen in Figure 3. 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 by financing projects that involved restoring historically important buildings. The program has also focus on community development in various areas. All the projects have a vital importance on the community socially and economically through job creation and neighborhood enrichment [6,7].

Figure 3. Sample Ongoing Projects from Detroit Area

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. In this frame, 17 Funding sources provided by HUD (2), Michigan State Housing Development Authority (2), National Affordable Housing Trust, City of Detroit, Detroit Brownfield Redevelopment Authority, Wayne County, State of Michigan and the MEDC, Huntington National Bank, The Kresge Foundation, The Harry and Jeanette Weinberg Foundation, Sponsor Equity and Gap Financing (4). Initial grant to start financing drove site selection is $2M from Community Foundation of Southeast Michigan’s Detroit Neighborhood Fund. State participation with Low Income Housing Tax Credits is $11.0M, Brownfield Tax Credit is $2.3M, and Brownfield Tax Increment Financing is $0.6M. The incentives increased the attendance historical importance or culturally important buildings. In turn, those buildings are used to be a better reason to serve community. Table 3 summarizes an investment data for the specific area in Detroit. The data represents 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 in structurally and constructionally [8,9].

Table 3. Investment Data for Residential, Office and Retails

|                | Residential | Office | Retail |
|----------------|-------------|--------|--------|
| Occupancy      | 97 %        | 96 %   | 95 %   |
| Sale Prices    | Condo Sales - $200-$250/SF | $18-$20/SF | $18-$25/SF |
|                | Rental - $1.60-$2.05/SF |         |        |
|                | (14% increased in last 3 years) |     |        |
| Under Construction | 487 new unit |       | 68,000SF |
| Planned        | 1,836 new unit |      |        |
3. 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. Table 4 gives the numbers of the sales in the area for last three years [2].

Table 4. Sales in last Three Years

| Years | New Construction | Resale | Others | Total |
|-------|------------------|--------|--------|-------|
| 2014  | 218              | 6461   | 3375   | 10,054|
| 2015  | 183              | 5484   | 3252   | 8,919 |
| 2016  | 173              | 5131   | 2500   | 7,804 |

With the crisis, a high crime rate become 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 encompassing economy. Eastern market is a good example for that. They are supporting farmers and small businesses. Moreover, sports would be one of the possible solution. 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. Or alternatively, education can be a suitable alternative for the city. 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. The city needs to capitalize one of such opportunities to rebuild the city [11,12].

So, small business, sports, or education can be a sustainable solution for the city. These possibilities should be detailed with various parameters and their effects on construction industry. To detail these alternatives in Detroit area, problems should be defined well with reasons behind the complications, components/parameters, constraints/limitations, solutions, people involved and expected results should be defined. In Table 5, these parameters are defined [13,14].
4. Solution
There are some investors in the city. For instance, Mike Ilitch owns Little Caesars Pizza, the Detroit Red Wings, and the Detroit Tigers. Dan Gilbert is a native of Detroit and owns a variety of corporations including Quicken Loans. Together Gilbert and Ilitch have been bringing alternative jobs to the city through their businesses, brining construction to the city, and actively redeveloping the downtown area. These investors have been investing money into the city in the hopes that reviving the downtown economy will eventually spread to the outer parts of the city. For such a result, Detroit should be cantered for business with its new culture and investors will need to continue to renovate and redevelop struggling areas of the city. This solution will increase business for constructors and contractors which will provide more jobs for local businesses. As the city grows, more people will come to the city for work and business. The vacant houses in the city will be diminished until the entire city is flourishing both economically and socially. When the detroit area begins to draw in new business owners, more jobs will follow. As more jobs are created and areas become safer, people will want to live in Detroit instead of commuting. Hence, there will be direct effect on the construction industry [15].

| Table 5. Parameter Definition in Detroit Area Urban Redevelopment |
|-----------------------|-------------------|
| Parameters            | Definition |
| Problem statement/ reason behind problem | Problem with Detroit is economic decline as mentioned earlier in the assignment. The reason behind this problem is relying on a single industry (automobile) and its decline due to labor unions multiplied by recession gave rise to unemployment, crimes and population loss. The current situation is that a lot of real estate properties are vacant and Detroit needs to be renovated. |
| Components/ Parameters | Collecting data is important for buildings in need to be re-established. |
| Constraints/ Limitations | The limitation for solving the Detroit’s problem is the financial weakness of CDC. According to one report, the total revenue of Detroit CDC is $1.2 million which is less than what is required by CDC. |
| People involved        | The people who should be involved are the people expert in urban planning. These include architects, engineers, contractors, etc. But the most important community that should take steps for renewal of Detroit is CDC. CDC should work closely with financial institutions and intermediaries to restore economy. |
| Expected results        | If the institutions work together in correct direction, they can bring again on the peak of economy, more jobs shall be created and population will be restored. |

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 resurgence in the housing market, the central economy in the downtown area needs to continue to grow. Such development will bring more money, jobs, and people to Detroit. As the city grows, people will move back to the city. With that, construction industry will improve. Through the construction industry growth, construction work will increase in Detroit area.
References

[1] Bai B, Goodman L, Kaul K, Woluchem M, and Webb A. (2016) Detroit Housing Tracker, Housing Finance Center.

[2] Deng, L. (2011) Building Affordable Housing in Cities after Abandonment: The Case of Low-Income Housing Tax Credit Developments in Detroit. University of Michigan, http://closup.umich.edu

[3] Cockrel, K., Diggs, D., Winters, M. (2009) “Planning and Development Department: Neighborhood Stabilization Program Plan” City of Detroit

[4] Wikipedia: Decline of Detroit. (2017) https://en.wikipedia.org/wiki/Decline_of_Detroit

[5] Detroit News (2015). Volume of abandoned homes ‘absolutely terrifying’, The Detroit News. Retrieved from: http://www.detroitnews.com/story/news/special-reports/2015/05/14/detroit-abandoned-homes-volume-terrifying/27237787/ 

[6] Ash, C. (2009) “Growing Stronger: A Plan for the Future of Detroit’s Community

[7] Development Corporation System” University of Michigan Taubman College of Architecture & Urban Planning

[8] Detroit Brownfield Redevelopment Authority: Revitalizing Detroit Through Brownfield Redevelopment (2017) http://www.degc.org

[9] Curbed Detroit (2017) http://detroit.curbed.com/2016/3/30/11327192/detroit-downtown-development-dan-gilbert

[10] Building Detroit, http://www.buildingdetroit.org/who-we-are/overview/

[11] Dougherty, H., Huddleston, R., Yoyakey, N. (2006) “A Brief 20th Century History of Detroit” http://www.umich.edu/~ac213/student_projects06/neerhdo/postwar.html

[12] Dutta, U. (2014) “Transit-Oriented Development (TOD) in Metro Detroit”, MNTRC Report 12-22, Mineta National Transit Research Consortium

[13] Humphries, S. (2015), “Detroit's revival template for struggling U.S. cities: Column” USA Today

[14] Godspeed, R. (2004) “Urban Renewal in Postwar Detroit: The Gratiot Area Redevelopment Project: A Case Study” University of Michigan

[15] Invest Detroit Annual Report (2015) www.investdetroit.com, online access: 05/2017