Lessons learned in brownfield redevelopment: urban challenges in southwest Detroit

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Abstract

Redeveloping brownfields, abandoned or underused properties that are, or are perceived to be, contaminated, is a complex problem. Redeveloping brownfields requires solutions designed to attract new business, retain jobs, build a stronger tax base, and make communities attractive places to live and work. The challenge facing community members, developers, and government officials in urban and industrial areas is to design a process to facilitate brownfield redevelopment while ensuring that the interests of all key stakeholders, including local residents, are met.

Michigan State University worked with the Southwest Detroit Contaminated Sites Task Force and other stakeholders to document the Lessons Learned in Brownfield Redevelopment. The purpose was to capture the experiences and lessons learned from the successful collaborative approach used by the Task Force. This paper highlights both successes and continuing challenges in brownfield redevelopment.

Keywords: brownfields, environment, urban, lessons, task force, redevelopment, community outreach, financing, incentives.

1 Introduction

Redeveloping brownfields, abandoned or underused properties that are, or are perceived to be, contaminated, is a complex problem. Redeveloping brownfields requires solutions designed to attract new business, retain jobs, build a stronger
tax base, and make communities attractive places to live and work. The challenge facing community members, developers, and government officials in urban and industrial areas is to design a process to facilitate brownfield redevelopment while ensuring that the interests of all key stakeholders, including local residents, are met.

Every brownfield redevelopment project is a mix of economic and environmental issues. The economic process addresses the marketability of the site, land-use options, and available financial incentives at the local, state, and federal levels. The environmental process is driven by regulatory requirements designed to protect human health and the environment. The challenge is to understand the environmental risks and legal requirements in order to evaluate sites quickly and redevelop the land in ways that benefit communities and local economies [1].

Southwest Detroit, generally defined as an area that is bordered by Michigan Avenue, the Detroit River, and Dearborn Avenue, was developed for industrial uses. Residential, commercial, and other auxiliary uses were built to support the labor force to live within walking distance to the jobs. It is the gateway to Canada and major transportation facilities, including roads, marine, and rail terminals, in the City of Detroit and the State of Michigan.

1.1 Population

Southwest Detroit is home to 44,072 residents and 13,587 households according to the 2000 U.S. Census [2]. It has a diverse population base with the largest concentration of the Hispanic population in Detroit [2]. Southwest Detroit is multiracial, multicultural, and has a youthful population.

Table 1: Racial profile of southwest Detroit.

<table>
<thead>
<tr>
<th></th>
<th>City of Detroit</th>
<th>% Of City Population</th>
<th>Southwest Detroit</th>
<th>% Of Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL POPULATION</td>
<td>951,270</td>
<td></td>
<td>44,072</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>47,167</td>
<td>5.0%</td>
<td>25,429</td>
<td>57.7%</td>
</tr>
<tr>
<td>White</td>
<td>99,921</td>
<td>10.5%</td>
<td>12,932</td>
<td>29.3%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>771,966</td>
<td>81.2%</td>
<td>4,163</td>
<td>9.4%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>2,572</td>
<td>0.3%</td>
<td>342</td>
<td>0.8%</td>
</tr>
<tr>
<td>Asian</td>
<td>9,135</td>
<td>1.0%</td>
<td>198</td>
<td>0.4%</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>169</td>
<td>0.0%</td>
<td>13</td>
<td>0.0%</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>1,676</td>
<td>0.2%</td>
<td>64</td>
<td>0.1%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>18,664</td>
<td>2.0%</td>
<td>931</td>
<td>2.1%</td>
</tr>
<tr>
<td>Not Hispanic or Latino</td>
<td>904,103</td>
<td>95.0%</td>
<td>18,643</td>
<td>42.3%</td>
</tr>
</tbody>
</table>
Although the area’s population declined 10% to 44,072 since 1990, neighborhood populations north of the freeway were stabilized as new housing was constructed and existing housing was refurbished [4].

1.2 Land Use

Southwest Detroit was developed as the City’s job center. Its riverfront became the home of its marine trade, shipbuilding, excavation, and extractive industries that led to the City’s manufacturing legacy. Residential development occurred within walking distance to the variety of jobs created by the area’s natural geography and access to raw materials (sand, gravel, salt) and water transportation. Southwest Detroit was home to the Detroit’s steel, automotive, utility, construction, and transportation. It has the largest area devoted to M4 Intensive Industrial District. These uses have competed for land use and transportation facilities with its residential and community based uses [4].

2 Brownfield initiatives

Southwest Detroit served as the primary target area for coordinated brownfield redevelopment and environmental protection initiatives carried out by the U.S. Environmental Protection Agency, the Michigan Department of Environmental Quality, and the City of Detroit. Local community based organizations served as the catalyst for mobilizing resources. Southwest Detroit Environmental Vision (SDEV) serves as the lead community based environmental organization in Southwest Detroit and has provided oversight on brownfield redevelopment, environmental enforcement, and clean up activities for the area. SDEV serves as a partner and staff to the Southwest Detroit Contaminated Sites Task Force.

3 Contaminated sites task force

The Southwest Detroit Contaminated Sites Redevelopment Demonstration Project, an Empowerment Zone initiative, has effectively used a collaborative approach to facilitate brownfield redevelopment. The Task Force was formed with representatives from government departments, businesses, developers, financial institutions, and community-based non-profits. Operating since 1995, the Task Force continues to realize its goal of facilitating the cleanup and redevelopment of contaminated properties, increasing developer interest in contaminated sites in Southwest Detroit, and incorporating community involvement in the brownfield process. Meeting bi-monthly, Task Force members identify and prioritize sites, provide technical assistance, seek funding, leverage resources, and assist marketing efforts [5].

3.1 Task force projects

The lessoned learned from the Task Force are based on sites located in Southwest Detroit, Figure 1.
Initial site selection was based on property size and perceived readiness for redevelopment. Subsequent sites were selected based on property ownership, zoning, location, current use, site characteristics, and environmental issues. The Task Force assessed each site along various parameters using a matrix. The matrix scored each site on the 1) readiness of developer/potential reuse, 2) neighborhood impact of remediation and redevelopment, 3) redevelopment potential, 4) complexity in dealing with environmental issues, and 5) how the redevelopment will improve the land use situation in Detroit [6]. The community or Task Force members propose new sites.

3.2 Task force and the brownfield process

Over time, the Task Force has developed a general approach for addressing brownfield sites. The steps in the process are to:

1. Identify target sites and evaluate them using a matrix developed by the Task Force.
2. Perform a preliminary site investigation including a Phase I Environmental Assessment, if needed.
3. Perform a title search identifying the current owner of the property.
4. Identify potential funding, partnerships, and resources.
5. Conduct a Phase II and evaluate current data and decide additional sampling.
6. Estimate costs, which may include remediation and demolition.
7. Determine the appropriate end use and identify potential end users based on the property cleanup requirements, cost, and adjacent land uses.
8. Identify stakeholders and bring them to the table.
9. Facilitate clean up of the site.
10. Market the site.

4 Lessons learned

Using a case study approach and the brownfield process outlined above, the Task Force developed the following lessons learned. These lessons highlight both successes and continuing challenges in brownfield redevelopment and can be used as guidance to others embarking on the redevelopment of contaminated sites both in Michigan and other states. The lessons are grouped by topic (environment, community, financing, marketing). Many of the lessons and case studies are described in more detail in the following sections [7].

Environment
1. Known contamination should not be a deterrent to redevelopment.
2. Look to Federal and State agencies for remediation assistance.
3. Long-term oversight and monitoring may be necessary.
4. Clean-up levels can impact future end-use.

Community
5. Empowered communities can impact property end-use.
6. Early community involvement is necessary for a successful redevelopment.
7. Communicate, coordinate, and collaborate.

Financing
8. A long-term vision leverages dollars.
10. Perceived costs may inhibit redevelopment.
11. Partnerships uncover many in-kind contributions.
12. Partnering provides funding beyond brownfield dollars.

Marketing
13. Brownfield properties provide marketing challenges and opportunities.
14. Title and ownership issues can impede redevelopment

4.1 Environmental issues

Known contamination should not be a deterrent to redevelopment. By first looking to Federal and State environmental agencies for remediation assistance, highly contaminated properties can be addressed. An 11-acre site in Southwest Detroit known as the former Anaconda Brass site had approximately 100,000 tires deposited in one of the buildings when the site caught fire in April 1993.
An EPA inspection revealed drums containing unknown substances, transformers containing PCB oils, sub floor vaults containing sludges, oils, and runoff water from leaking roofs. Only with substantial funding and assistance from the EPA, Michigan Department of Environmental Quality (MDEQ), and City of Detroit, the site was remediated [8, 9].

The level of cleanup may impact the future land use. A 28-acre industrial site on the riverfront was remediated to industrial/commercial cleanup standards [10]. Currently the site has not been redeveloped. The potential natural advantages that this unique location can provide competes with the traditional industrial land use of the surrounding community.

Long term monitoring may be needed especially when engineered solutions such as clay, asphalt, or concrete caps over contaminated soil are used. In the case of the new Beard School, appropriate monitoring techniques were necessary for a large area of capped soil surrounding an elementary school [10].

4.2 Community involvement

The ideal brownfield project, or program, is one in which both the community’s and the developers’ objectives are met – a win/win scenario. This is most likely accomplished when good communication occurs between community stakeholders and those directly involved in redevelopment. Frequent meetings with stakeholders, listening and working together in a co-learning model will help expedite redevelopment and be able to address unexpected events more effectively. Successful community involvement must be early in the redevelopment so that stakeholders are a part of the decision making process.

The siting, design, and construction of the New Beard Elementary School highlights the importance of early community participation in redevelopment of a contaminated site. In 2000, the Detroit Public Schools remediated a former industrial site for the development of a new elementary school. Environmental investigations showed evidence of lead, arsenic, PCBs, and volatile organic chemicals present in the soil. In addition to soil removal, engineered barriers of crushed concrete and plastic liners were put in place between the contaminated soil and the clean soil at various depths [8].

The community resisted the redevelopment of the brownfield site for an elementary school. There was poor communication during the site planning and remediation process. Information on risk assessment and the long-term site monitoring was not presented to the community. In addition, the majority of area parents were Spanish-speaking, and DPS failed to make most materials available in Spanish or provide translators at public meetings. Although the school is built and in use today, local citizens did file an environmental justice lawsuit that further polarized the community.

In some cases, however, empowered communities can impact property end-use. Community residents, environmentalists and local officials were successful at stopping a proposal for deep injection wells for storage of hazardous wastes on a brownfield property. In addition, alliances that developed during the campaign against the injection well proposal helped bring stakeholders to the table to evaluate additional development proposals [10].
4.3 Financing and incentives

There are many different methods to leverage and secure funds to support brownfield redevelopment including loans, grants, tax credits, tax increment financing, and training funds [11]. Incentives attempt to address the uncertainties associated with the costs of environmental liabilities.

Regardless of the method of financing, a long-term vision can help leverage dollars. The vision for housing transformed a 12-acre site in the Southwest Detroit. This site was first developed for residential and industrial use in the late 1800’s but by the 1970’s, the properties became abandoned, vacant, and finally tax-reverted to the City of Detroit. Investigation of the properties revealed they were contaminated with lead, PCBs, and petroleum products. Because the desired future end use of the property was housing, the choice to remediate completely to residential levels allowed the greatest flexibility [8]. Bagley Housing Association, non-profit organization, leveraged its resources and received funding from a diverse contingent including the City of Detroit, MSHDA, banks, Local Initiative Support Corporation (LISC), and HUD block grant funds. Having developed a Neighborhood Preservation plan, Bagley Housing Association focused first on building new, affordable homes consistent with neighborhood design. With this initial success, Bagley Housing Association focused on rehabilitation of older neighborhood homes and has completed a new Senior Center on part of the former brownfield properties. The next goal is to build market-rate housing across from the Senior Center on another portion of the former brownfield site [12].

Policies and programs have been developed and implemented to defray the cost of environmental assessments, remove contamination, limit liability from past uses, and change cleanup standards. Many properties in Southwest Detroit can take advantage of both Empowerment Zone and Renaissance Zone designations. The Empowerment Zone in the City of Detroit covers 18.35 square miles. Through this process, the City receives federal grant monies to improve the quality of life for residents and tax breaks and other incentives to attract businesses to relocate or expand within this specified geographic region. Multiple sites in Southwest Detroit are also located in Renaissance Zones. The Michigan Renaissance Zone Act gives selected localities the authority to provide almost total state and local tax relief to both residents and businesses located in the Renaissance Zone.

However, Task Force experience has shown that brownfield incentives (even when combined with the tax advantages of a Renaissance Zone or Empowerment Zone) are often not enough to overcome the location disadvantages of parcels in older urban areas. Efforts of a multiparty stakeholder group like the Task Force can overcome negative perceptions and can assist a developer or real estate broker through the process of brownfield redevelopment.

Partnerships uncover many in-kind contributions and provide funding beyond brownfield dollars. The Mexicantown International Welcome Center and Mercado leveraged the resources of many partners. Located one block north of the Ambassador Bridge, the site was comprised of 180 parcels with diverse histories, including manufacturing, dry cleaning, gas stations, coal storage...
facility, motor freight, and auto maintenance. Many parcels had environmental issues and some were vacant. The Michigan Department of Environmental Quality provided $1 million in state clean-up funds to complete the remedial investigation and conduct response activities [8]. While the initial phase of the project benefited from financing specific to brownfield development, the Mercado will be completed through the contributions of many different sources including foundations, corporations and private donors [13].

Successful partnering and leveraging resources can make an impossible redevelopment project doable, or a difficult project move smoothly. A Task Force or stakeholder meeting that brings diverse groups together to focus on specific issues and share resources may uncover many in-kind contributions. The Task Force partnered with Southwest Detroit Environmental Vision (SDEV), a local environmental advocacy group, to bring grant dollars to the community and help community groups identify the right funding sources for their needs. Working with development professionals on the Task Force allowed SDEV to understand the broader development forces at work in the city and evaluate the specific type of industry they wanted to attract to remediated sites.

Partnerships with colleges and universities resulted in Phase I environmental evaluations, site selection guidelines, and concept plans for vacant land. Private consultants on the Task Force have also been extremely generous with in-kind donations.

4.4 Brownfield properties provide marketing challenges and opportunities

Marketing brownfield sites can be challenging. Brownfield redevelopment projects, regardless of their value, are still often perceived as high-risk ventures. Although the market is changing rapidly and many have recognized the potential opportunity, impediments to property transfer still exist and can include a poor location; the presence of functionally obsolete structures; lack of capital available for environmental assessment and initial market studies; misinformation about the brownfield redevelopment process and available incentives; sellers unwilling to recognize the costs associated with environmental contamination; lack of qualified purchasers /developers or inflated perception of risk by purchasers.

Venues for marketing brownfield sites include the annual National Brownfield Conference and regional deal flow conferences that target developers and real estate agents. Websites such as the misites.com lists brownfield properties for redevelopment. Local tours can provide developers a first hand look at available sites. Education and training targeted at developers, real estate agents, bankers, and lawyers can help expedite properties for redevelopment.

5 Conclusions

Urban communities such as Southwest Detroit can benefit from a Task Force that is comprised of a variety of experts and where community input is a priority. The Southwest Contaminated Sites Task Force has been successful in providing a forum for redevelopment efforts in Southwest Detroit. They focused on a
defined and manageable geographic area of diverse brownfield sites. Although in a limited geographic area, the brownfield sites have been proposed for a variety of redevelopment options including residential and industrial. The diversity of site end-uses has allowed the Task Force to test and track successful strategies while improving the overall economics of the community. Each site has given the Task Force opportunities to explore a variety of methods for successful partnering that can be replicated in other urban areas. Through these opportunities, the Task Force developed lessons learned that could be applied to other communities addressing contaminated properties.

References

[7] This document highlights many of the lessons learned. A full report with the complete case studies and photographs can be obtained through any author or at www.msue.msu.edu/victorinstitute.