

Brownfield Redevelopment Success Stories

Report for EPA Region 5

Brownfield Redevelopment Program—Remediation and Redevelopment Division, Michigan DEQ

Creative Arts Center

2801 West Vernor Highway

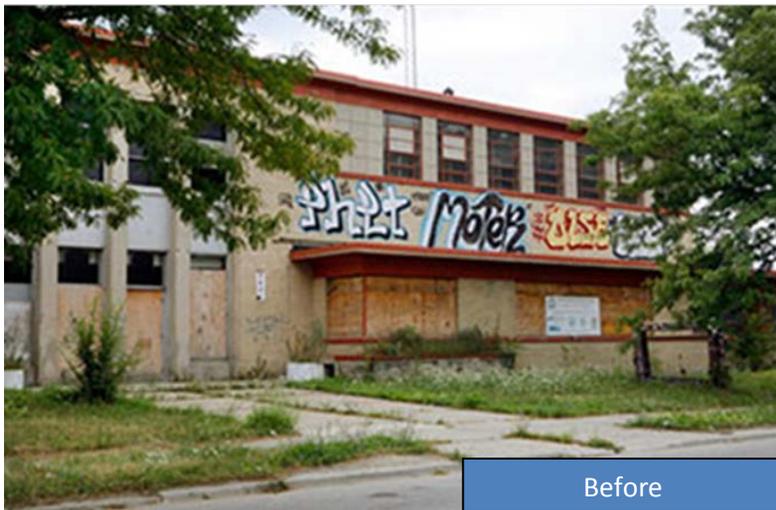
Detroit, MI 48209

www.555arts.org



After

Summary: The Detroit/Wayne County Port Authority utilized a DEQ brownfield grant in conjunction with a number of additional redevelopment incentives to repurpose an abandoned police precinct. The collaborative effort resulted in a public art studio that not only provides work spaces for emerging artists, but also art education programs for the community



Before

Site Characteristics and History:

The property was first developed in 1937, when a gasoline filling station was built on the site. The City of Detroit acquired the property in 1949, demolished the gas station and constructed a police precinct. The police precinct was in operation until 2006, at which time the property was abandoned by the city of Detroit. Southwest Housing Solutions Corporation (SHSC) bought the property from the city of Detroit on October 1, 2009.

Environmental Issues and Remediation:

Following removal of an underground storage tank (UST) in 1996, petroleum-related substances were found in the soil at concentrations that exceeded applicable soil and indoor-air criteria. To address the environmental risk, contaminated soils were removed and disposed of.

Creative Arts Center

Redevelopment:

The site was converted into a neighborhood arts center called 555 Center for Public Arts which provides classrooms, studio spaces, and performance venues for residents of the City of Detroit. The building design included sustainable features such as: Energy efficient windows with insulated glass; super insulated walls and ceiling assemblies; energy efficient lighting control systems; low volatile organic compound paints and products; high recycle content carpet; and installation of energy star appliances. In addition, the development also includes rain gardens, a green roof, and a grey water irrigation system installed to capture and reuse rain water runoff.

Funding and Incentives:

This project was truly a collaborative effort. In addition to the Michigan Department of Environmental Quality \$160,000 Brownfield Redevelopment Grant, other sources of funding (totaling \$1,276,173) included:

Neighbor Works Grant	\$74,000
Detroit Port Authority	\$8,500
Brownfield Tax Credits	\$75,000
Community Development Block Grant – City of Detroit	\$127,500
Wayne County – U.S. EPA Revolving Loan Fund	\$180,000
Wayne County – Community Development Block Grant	\$200,000
Detroit Investment Fund (Private)	\$300,000
Erb Family Foundation	\$75,000
Other Foundations & Developer Equity	\$246,703

Economic Impact:

The redevelopment resulted in an increase in the State Equalized Value (SEV) from \$0 prior to redevelopment to \$250,000 following redevelopment activities. In addition, the project leveraged approximately \$1.2 million in private investment and resulted in approximately 20 full-time equivalent jobs and 15 part-time jobs.

Social Benefits:

The 555 Center for Public Arts aims to further enrich and diversify cultural life in Detroit by providing facilities and work spaces for emerging artists. The center includes: Affordable studios and workspace, gallery space, exhibition programs, arts education programming, an artist in residency program, and public art. This project converted a neighborhood eye sore into a lively and productive creative space.

Environmental Benefits:

The project resulted in the removal and disposal of contaminated soils, thus negating the need for an indoor-air treatment system. An energy-efficient heating and cooling system, green roof, and an eco-friendly rain water system was installed, to improve storm water discharges to the Detroit River.

Additional Background on the Web:

www.555arts.org

Grand Rapids Urban Market

435 Ionia SW and 109 Logan SW
Grand Rapids, MI 49503

www.downtownmarketgr.com

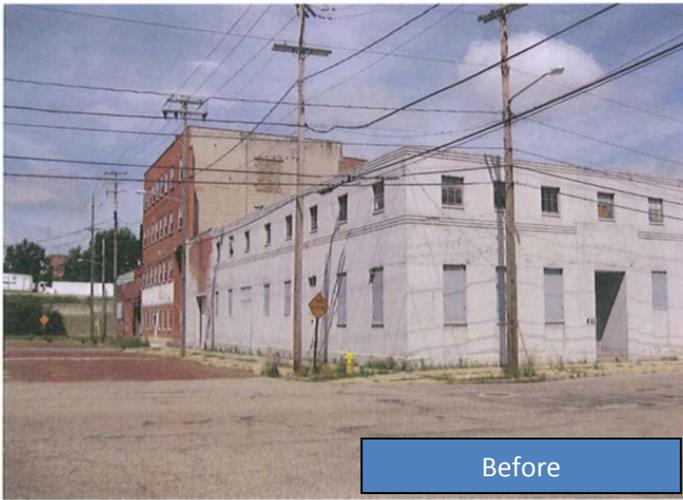


After



Summary:

The Grand Rapids Downtown Development Authority (DDA) utilized a Michigan Department of Environmental Quality (DEQ) brownfield grant in conjunction with DEQ tax increment financing, Environmental Protection Agency (EPA) Petroleum site assessment funds, and EPA RRL funds to redevelop a former industrial site. The resulting development was a year-round, indoor/outdoor farmer's market which is anticipated to spur further development in the area.



Before

Site Characteristics and History:

The 3.45-acre site consists of two large, former industrial properties which had a number of previous uses, including: warehousing and distribution businesses, an insulation company, and a foundry. A railroad spur also serviced the property. In 2007 the Grand Rapids (DDA) acquired the abandoned properties with the intent to foster redevelopment in the area.

Environmental Issues and Remediation:

The site contained surficial soil contamination from railroad and other historical industrial operations, as well as two underground storage tanks (USTs). In 1997, there was a reported leak in one of the two USTs and they were both eventually removed in 2008, along with contaminated soils associated with them. Six unsafe buildings located on the property were demolished in 2012 and approximately 52,000 tons of contaminated fill was removed from the site at that time.

Redevelopment:

The Grand Rapids Urban Market is a year-round, indoor/outdoor urban farmer's market which provides space for a number of vendors and has additional space designated for restaurants, educational facilities, food processing and production facilities, a rooftop greenhouse, as well as retail and office

Grand Rapids Urban Market

space. The Market has a number of sustainable features including a green roof and a geothermal heating and cooling system. In addition., the site increases walkability from the nearby residential areas and provides access via public transportation.

Funding and Incentives:

In addition to a \$1,000,000 DEQ Brownfield Redevelopment Grant, the project was approved for \$776,749 in DEQ Brownfield tax increment financing to reimburse the developer for eligible environmental costs. The city also utilized its United States Environmental Protection Agency (EPA) petroleum site assessment grant to conduct the initial site assessments and prepare a due care plan and provided the DDA with a sub grant from their EPA Revolving Loan Fund grant for another \$200,000.

Economic Impact:

The redevelopment resulted in an increase in the State Equalized Value (SEV) from \$17,846 prior to redevelopment to \$1,222,200 following partial completion of the redevelopment activities. After full build out, it is anticipated that the SEV will be in excess of \$4,500,000. In addition, the project leveraged approximately \$12 million in private investment and resulted in the creation of approximately 230 full-time jobs. The impact of this project is expected to reach beyond the boundaries of the property itself and encourage further economic growth in this area.

Social Benefits:

The site consists of a year-round indoor and outdoor downtown market with more than 80 stands. There is 25,000 square feet of market space, including a restaurant, a brewery, retail shops, a commercial kitchen, a rooftop greenhouse and a hands-on kitchen for kids. The market replaced two underutilized properties, will provide more healthy food options for area residents, and will allow food entrepreneurs a way to develop their businesses.

Environmental Benefits:

The project resulted in the removal and disposal of approximately 52,000 tons contaminated soil, thus allowing a vacant, contaminated area to be repurposed into be a thriving market. Sustainable practices were utilized wherever possible such as the use of sustainable and local building materials, installation of a green roof and geothermal heating and cooling, and providing increased walkability and access to public transportation.

Additional Background on the Web:

[Urban Market Background and Design Concept](#)

www.downtownmarketgr.com

Northville Garage

202 West Main Street
Northville, MI 48167

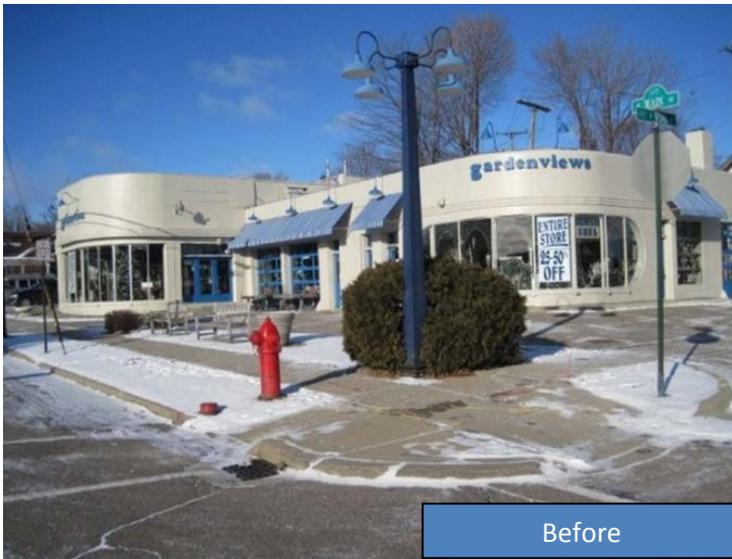
www.garagenorthville.com

After



Summary:

The city of Northville received Brownfield Redevelopment Grant Funding from the Department of Environmental Quality (DEQ) to facilitate the redevelopment of a former dry cleaner and gas station. The .45-acre site was heavily contaminated with dry cleaning solvents and petroleum products from historical operations. Grant funds were used to address the environmental impacts on the site and allow the building to be redeveloped into a popular grill restaurant called the Garage.



Site Characteristics and History:

The site was developed in 1941 as a gas station, and had also been used as a dry cleaning facility. The site was used as a car service garage called Cal's Car Care from 1986 until 1993. A release of fuel and oil was found on the site. Five underground storage tanks, which originally contained gasoline, diesel fuel, fuel oil, and waste oil, were removed. Eighty cubic yards of petroleum-impacted soil was removed.

Environmental Issues and Remediation:

Prior to the start of remediation, tetrachloroethene (PCE) in the soil exceeded the levels set out in the Generic Residential Cleanup Criteria from Part 201 of the Michigan Natural Resources and Environment Protection Act 1994 PA 451, as amended. A passive soil vapor ventilation system was installed. Highly impacted soils beneath the building were excavated, transported, and disposed of. An impermeable vapor barrier was installed on the floor of the entire 6,500 square foot building, as well as in the basement walls and floor. Grant funds were utilized to remove contaminated soils under the building and to design and install a passive vapor barrier under the building.

Northville Garage

Redevelopment:

The owner has rehabilitated the existing structure and renovated the property into a restaurant. The developer retained the historical architectural design of the building in the downtown area, as well as complementing local businesses. The developer added some trees around the property to minimize runoff and heat-island effects.

Funding and Incentives:

A Clean Michigan Initiative (CMI) Brownfield Redevelopment Grant (BRG) in the amount of \$249,600 was awarded, \$246,773.07 of which was spent. Additional private investment was estimated about \$1,350,000. State funded cleanup of the petroleum products amounted to \$803,421.46.

Economic Impact:

The redevelopment resulted in an increase in the State Equalized Value (SEV) from \$411,740 prior to redevelopment to \$552,890 following completion of the redevelopment activities. In addition, the project leveraged approximately \$1,365,000 in private investment and resulted in the creation of approximately 25 jobs.

Social Benefits:

The restaurant known as The Garage opened in 2012. It serves American food and has a seating capacity of 244. The Garage has a charming, historic feel, which adds character to the Northville downtown area. It preserves some of the town's history by redeveloping and renovating the existing building instead of demolishing it.

Environmental Benefits:

Soils with significant PCE concentrations were removed and properly disposed of in a landfill and a vapor barrier installed beneath the building to negate unacceptable exposures to hazardous vapors, resulting in the redevelopment of the property. Reuse of the existing structure not only preserved the character but also resulted in a more sustainable development.

Additional Background on the Web:

www.garagenorthville.com

Rylee's Ace Hardware/Former Clark Station

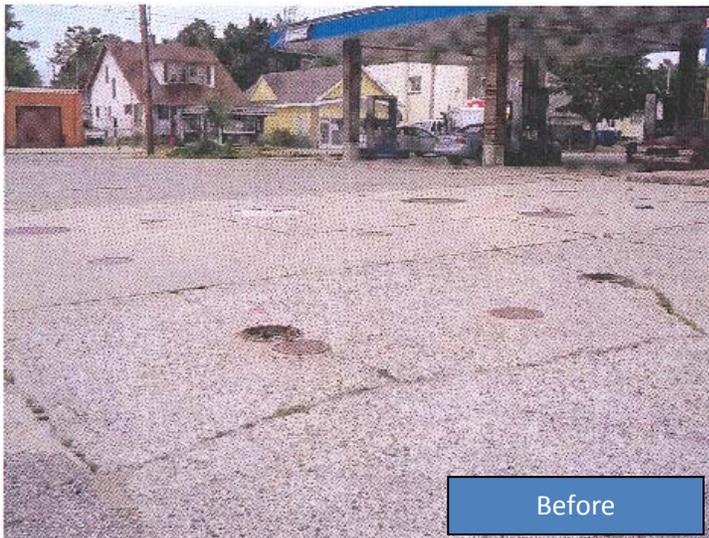
21 Garfield St NW and 1205 West Fulton
Grand Rapids, MI 49504

www.ryleesace.com/grand-rapids-west-fulton-ace-rylees



Summary:

The city of Grand Rapids Brownfield Redevelopment Authority (GRBRA) sought a variety of State and Federal Brownfield incentives to facilitate the redevelopment of a former Clark Gas Station. These incentives included Michigan Department of Environmental Quality (DEQ) brownfield tax increment financing, Environmental Protection Agency (EPA) Petroleum Assessment Funds, and EPA Revolving Loan Funds. The funds were used to perform environmental assessments and address the risks associated with gasoline related contamination for the soil, groundwater, and indoor air pathways. The project resulted in the 10,000 square foot Rylee's Ace Hardware Store



Site Characteristics and History:

The site consists of two parcels, one of which was formerly a gas station and car wash and the other which had been a residential property since the 1950s. The former gas station and car wash, located at 1205 West Fulton, operated from 1953 until 2008, when the Kent Country Treasurer foreclosed upon the property due to unpaid property taxes of the previous owner.

Environmental Issues and Remediation:

In 2010 the city of Grand Rapids conducted a phase 1 environmental site assessment using funds from their EPA Petroleum Assessment Grant. The site was identified as having four 10,000-gallon underground storage tanks (USTs) that were closed in place, severely limiting the redevelopment opportunities. After Kent County acquired the property through tax reversion, the city again turned to its EPA assessment grant to fund further phase 2 work at the property. Significant soil and groundwater contamination was identified and a resulting soil and groundwater cleanup was conducted using the city's EPA Revolving Loan Fund grant.

Rylee's Ace Hardware/Former Clark Station

The cleanup included the removal of the four 10,000 gallon USTs and two smaller USTs, followed by the removal of approximately 1,300 tons of impacted soil and about 5,350 gallons of contaminated groundwater from the area. A Liquid Boot vapor barrier was installed under the building floor as an engineering control to protect against potential vapor intrusion and asbestos was abated in the residential structure.

Redevelopment:

The former gas station and residential property were converted into what is now the 10,000 square foot Rylee's Ace Hardware Store. In addition to the new store and parking facilities, a number of public infrastructure improvements, including new sidewalks and curb and gutters, were included as part of the redevelopment project. The new store improves the neighborhood commercial business district and enhances the neighborhood's overall appearance.

Funding and Incentives:

The project was approved for \$279,500 in DEQ Brownfield tax increment financing (TIF) to reimburse the developer for eligible environmental costs. In addition, the city utilized approximately \$40,000 of its United States Environmental Protection Agency (EPA) petroleum site assessment grant to conduct the initial site assessments and another \$250,000 from their EPA Revolving Loan Fund (RLF) grant to fund the project. Repayment of the RLF will be done utilizing DEQ Brownfield TIF.

To round out the funding, the Michigan Economic Development Corporation approved brownfield TIF totaling around \$397,000 for non-environmental activities and a \$211,000 Community Revitalization Program grant.

Economic Impact:

The redevelopment resulted in an increase in the State Equalized Value (SEV) from \$178,500 prior to redevelopment to \$341,300 following completion of the redevelopment activities. In addition, the project leveraged approximately \$1.12 million in private investment and resulted in the creation of approximately 11 full-time jobs.

Social Benefit:

This project removed an aesthetic blight from the neighborhood and put a functional business in its place. The store brings necessary business to the area, and improves the business district of this neighborhood overall.

Environmental Benefit:

Removing the USTs and impacted soil from the site improves groundwater quality. The site was previously impacted due to historical releases at the site.

Additional Background on the Web:

www.ryleesace.com/grand-rapids-west-fulton-ace-rylees

F.C. Mason Co. Expansion

511 N Mead Street
St. Johns, MI 48879
www.fcmaison.com



Summary:

Clinton County, the City of St. Johns, F.C. Mason, Federal Mogul and the Michigan Department of Environmental Quality (DEQ) partnered to revitalize a former manufacturing plant in downtown St. Johns, Michigan.

Federal-Mogul is the party responsible for trichloroethylene (TCE) contamination beneath the building. They addressed their environmental obligations by placing a restrictive covenant on the deed and prohibiting use or occupancy of the building unless engineering controls were installed to eliminate potential subsurface vapor intrusion. Grant funds from the DEQ were provided to assist F.C. Mason (the developer) install a passive vapor mitigation system to address their due care obligations.



Site Characteristics and History:

The site, located at 511 North Mead Street in St. Johns, had been owned by Federal-Mogul since 1947, when it became a manufacturing plant for automotive bearings and bushing. As part of the manufacturing process, TCE was used to degrease manufactured parts prior to plating operations. In 2007, Federal-Mogul identified major amounts of TCE contamination in the soil beneath the building. The plant closed in 2008, leaving behind a vacant 265,000 square foot industrial building on 10.88 acres adjacent to the downtown area.

Environmental Issues and Remediation:

A response action was undertaken by the liable party to address lead deposition over a large portion of the community. In addition, Federal Mogul is addressing its obligations associated with impacted groundwater with an ongoing groundwater remediation system. The significant levels of TCE in the soils

F.C. Mason Co. Expansion

beneath most of the building posed a vapor intrusion (VI) risk and therefore needed to be addressed if the building was to be reused. As a result, a vapor barrier was designed and installed to prevent vapors from rising through the floor and harming employees in the building.

Redevelopment:

The F.C. Mason Company is a Tier I supplier of steel components for commercial grade agricultural equipment. They were looking to expand and consolidate their operations and as a result acquired the Federal Mogul property. The redevelopment of this formerly vacant and contaminated building has resulted in bringing an active manufacturing facility back to the city of St. Johns.

Funding and Incentives:

A Clean Michigan Initiative (CMI) Brownfield Redevelopment Grant (BRG) in the amount of \$1,000,000 was awarded to the project to address VI related issues within the structure. In addition, an EPA Brownfields **Petroleum** Assessment grant was utilized to conduct assessment activities at the site.

Economic Impact:

Following redevelopment, there are now 95 full-time equivalent positions at this location, and there has been approximately \$2.5 million in private investment. The State Equalized Value (SEV) of the property prior to redevelopment was \$650,000. Because of the recent completion of the project The increase in the SEV is not yet know but is anticipated to be determined at the end of 2013.

Social Benefit:

Prior to remediation, this property had a vacant, 265,000 square foot building. Now the site is back in productive use with expansion of a local company on the property that has provided new job opportunities.

Environmental Benefit:

The building was able to be re-used instead of demolished. The TCE still exists under the floor, but the floor of the building has been sealed as to allow for workers to be able to safely use the building.

Additional Background on the Web:

www.fcmaison.com

Brownfield Premier Improvements

101 Poplar Street

Dowagiac, MI 49047

www.premierdiecast.com



Summary:

The Dowagiac Brownfield Redevelopment Authority sought Michigan Department of Environmental Quality (DEQ) brownfield redevelopment grants totaling approximately \$661,000 to address environmental conditions at a vacant manufacturing facility. The funds were used to perform an environmental assessment, address oil-saturated debris and surfaces, and provide engineering controls to address the environmental risks associated with site. This funding paved the way for the redevelopment of the property, allowing Premier Tool and Die Cast Corporation (Premier) to reuse the site and create a number of new manufacturing jobs for the area.



Site Characteristics and History:

This approximately five acre property is the site of the former Du-Wel Corporation whose operations included machining, plating, and aluminum casting. In 1989, Inverness Casting Group purchased the site and their operations focused primarily on aluminum casting. When this group filed for bankruptcy, the company's assets were purchased by ICG Castings, Inc., which was then in operation from 2003-2008. In 2008, ICG Castings closed and the property was left vacant.

Environmental Issues and Remediation:

When the ICG Castings, Inc. property was vacated, several environmental risks were left behind. Specifically, the site was left with a number of abandoned containers of petroleum distillates/solvents and lubricants, residual chemicals, metal smelting, die casting, widespread oil/chemical spillage, and residual oil sludge. Since there were concerns over these environmental hazards, the EPA utilized emergency cleanup funds and removed waste from the site in a 2010 emergency response action.

Brownfield Premier Improvements

Following the removal action, investigations showed that there were concentrations of aluminum in the soil and groundwater above the criteria laid out in Part 201 of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451 as amended. In addition, levels of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) were present in the groundwater and that exceeded the generic Part 201 criteria.

Redevelopment:

Premier, a die casting company, renovated the abandoned manufacturing facility, putting the formerly vacant building back into productive use. This company casts aluminum parts for various types of industries. This new facility allows the company to machine parts for a variety of manufacturing uses and will employ 100-200 workers in which some employees will be transferred from a Premier facility in New York.

Funding and Incentives:

The Dowagiac Brownfield Redevelopment Authority received a \$594,333 and a \$67,193 Site Reclamation Grant to address brownfield conditions at the site. Funding was used to complete a baseline environmental assessment (BEA) for the developer, remove oil-saturated debris, clean oil-saturated floors and walls, clean out sumps, perform an asbestos survey, provide engineering controls, and demolish an office addition which was deteriorated and falling down. Industrial facilities abatement tax incentives from PA 198 of 1974 were also utilized.

Economic Impact:

The redevelopment resulted in an increase in the State Equalized Value (SEV) from \$441,000 prior to redevelopment to \$200,000 following partial completion of the redevelopment activities. In addition, the project leveraged approximately \$2 million in private investment and resulted in the creation of approximately 20 full-time jobs. After full build out, it is anticipated that up to 80 additional jobs may be created and an additional \$7 million in private investment will occur.

Social Benefit:

Some of the social impacts of this project include increasing the tax base, creating a safer environment for workers and nearby residents, creating jobs, and eliminating an eyesore from this community.

Environmental Benefit:

Environmental risks associated with the property have been addressed, allowing for the safe redevelopment and reuse of the site.

Additional Background on the Web:

www.premierdiecast.com