

Repurposing Former Automotive Manufacturing Sites in the Midwest

A report on what communities have done to repurpose closed automotive manufacturing sites, and lessons for Midwestern communities for repurposing their own sites.

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Prepared for:

The Charles Stewart Mott Foundation



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ABOUT THE CENTER FOR AUTOMOTIVE RESEARCH

The Center for Automotive Research (CAR), a nonprofit organization, is focused on a wide variety of important trends and changes related to the automobile industry and society at the international, federal, state and local levels. CAR conducts industry research, develops new methodologies, forecasts industry trends, advises on public policy, and sponsors multi-stakeholder communication forums. For the last decade, CAR has managed the Automotive Communities Partnership, a program focused on sustaining automotive communities throughout the Great Lakes region.

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EXECUTIVE SUMMARY

This study examines redevelopment strategies for Mid-Michigan and other Midwestern communities that seek to repurpose former automotive manufacturing sites in a difficult economic environment. The automotive industry's recent restructuring and bankruptcies resulted in 112 automaker and captive parts plant closures in the period 2004-2010, leading to job loss and economic pain in communities across the country. For automotive communities, however, dealing with the aftermath of industry restructuring is nothing new. Since 1979, 267 manufacturing facilities have closed in 27 states. There is a bright side—communities have successfully repurposed nearly half of the closed plants, and the new business uses are once again supporting jobs and contributing taxes to the local economy, although generally at a lower level than the original automotive use (Brugeman, Hill and Cregger, 2011).

CAR's 2011 U.S. Department of Labor study, "Repurposing Former Automotive Manufacturing Sites" examined the factors that both support repurposing, as well as those that make reuse of former automotive sites more difficult (Brugeman, Hill and Cregger, 2011). Not surprisingly, CAR found that a strong economy is important to encourage redevelopment, but that alone was not enough. Several communities with vibrant economies have shuttered auto facilities that remain vacant despite efforts to redevelop them. CAR's research showed that communities also must work regionally, engage community residents, understand local politics, customize local and state policies, streamline regulatory and financial processes, and capitalize on their assets to successfully repurposed former automotive sites. For communities with declining populations, high unemployment rates, and a high density of former automotive manufacturing facilities in their region, repurposing is especially challenging. While some automotive communities have one or two of these factors, only seven counties of the 97 where automotive manufacturing plants have closed since 1979 have all three of these factors combined.¹ These counties are located in the heart of the Midwest: Michigan, Ohio, and Indiana

In addition to broad economic factors that make redevelopment tougher, many of these communities face additional hurdles. First, many of the former automotive sites in the Midwest have largely been demolished, leaving behind just the building foundations which are expensive to remove and may conceal environmental hazards. Slabs are disadvantaged vis-à-vis fairly modern industrial buildings that are left intact and are easier to repurpose, or outdated buildings where the scrap value of demolishing

¹ The seven counties include: Henry County (Anderson), Indiana; Genesee County (Flint), Michigan; Saginaw County (Saginaw), Michigan; Wayne County (Detroit), Michigan; Richland County (Mansfield), Ohio; Seneca County (Tiffin), Ohio; and Trumbull County (Warren), Ohio.

them can provide a source of funding for redevelopment. Slabs are also at a disadvantage because new construction is relatively more expensive, especially in areas that have a large stock of other existing vacant industrial space. Finally, many former automotive sites require some degree of environmental remediation, and various regulatory requirements at the federal, state, and local levels can complicate the cleanup process.

The environmental issues are less of a barrier for communities with former General Motors-owned properties, as those sites are now owned by The Revitalizing Auto Communities Environmental Response (RACER) Trust. RACER was established in 2011 to manage the remediation, redevelopment and restoration of former General Motors properties using assets set aside in GM's earlier bankruptcy. RACER backing can make former automotive sites more attractive prospects for redevelopment, as RACER not only pays the holding costs of the properties, but also funds the cleanup on the site, and protects new owners from any future environmental claims arising from contamination caused by the previous use on the site.

CASE STUDIES

To learn more about model redevelopment strategies that could be applicable Midwestern communities, CAR conducted case studies in four communities that have successfully redeveloped former automotive sites. These four communities—Livonia, Michigan; Kokomo, Indiana; and Warren and Euclid, Ohio—were selected based on their similar economic challenges to other communities in the region. The comparative case study sites closed between 1993 and 1998.

KEY FINDINGS

The case studies in these communities largely exemplified the findings in CAR's 2011 DOL study: communities should work regionally, engage the community members, customize policies, understand local politics, and work to streamline bureaucracy and paperwork.

In addition, several other recommendations arose from the case study work, including:

- Make sites more physically attractive. Having demolished sites that are free from significant overgrowth and debris can benefit the local community, as well as help potential buyers to envision future uses for the property. However, improving the aesthetics of former automotive sites presents a significant financial challenge to local communities.

- Auto communities user group. Midwestern automotive communities with closed facilities face similar redevelopment challenges and share unique opportunities with respect to property redevelopment. These communities could benefit from sharing best practices and having access to outside expertise on successful strategies to encourage redevelopment.
- Know your assets. The sheer size of the former automotive facilities means that, in most cases, more than one redevelopment will be required to fully realize the site's potential. Communities that can strategically subdivide the property based on its assets and attributes may find it easier to attract the best match for redevelopment.
- Remove a developer's uncertainty. Having detailed, readily-available information about the property—including building attributes, utility specifications, detailed environmental assessments, and geotechnical data—provides transparency to potential buyers, and minimizes the potential for additional unforeseen costs and project delays.
- Coalition-building and community visioning. Engaging key community leaders in a planning process can generate the necessary energy and ideas to transition a property, and may reveal critical business connections that lead to redevelopment.
- Create the market. An engaged community can develop ideas for reuse that capitalize on its assets and create new market opportunities for the region.
- Local government cooperation. Cooperation at all levels can create incentive packages, streamline bureaucracy, and foster the business climate necessary for potential buyers.
- Reduce developer carrying costs. Communities can incentivize reuse by offering a grace period on property taxes or fees while the property is in transition to a new use. This “breathing room” while the property is not producing revenue can help make reuse of former automotive sites more attractive to potential buyers.

INTRODUCTION

The Center for Automotive Research (CAR) received funding from the C.S. Mott Foundation to examine repurposed automotive facilities in Michigan, Ohio, and Indiana, and seek redevelopment strategies for communities in the Mid-Michigan and Midwest region. This research builds upon a previous study, “Repurposing Former Automotive Manufacturing Sites,” which CAR completed in 2011. In 2010, CAR received a grant from the U.S. Department of Labor, at the request of the Office of Recovery for Auto Communities and Workers, to research opportunities for communities to find productive, new uses for closed auto facilities.

The scope of this project includes conducting four case studies similar to those in the national study, and developing recommendations geared at Midwestern communities facing the challenging of repurposing a former automotive manufacturing site.

METHODOLOGY

This study contains four case studies of repurposed facilities that were selected from CAR’s database based on similarities to other Midwestern auto communities. In particular, CAR researchers considered sites that were located in communities which had suffered population loss, high unemployment, and multiple automotive facility closures. The selected sites for case studies are:

- Former GM Trim Plant in Livonia, Michigan
- Former Delco Plant #1 in Kokomo, Indiana
- Former Delphi Packard Plant #41 in Warren, Ohio
- Former Fisher Body Plant in Euclid, Ohio

Figure 1 outlines the selected sites along with the county economic conditions used to choose them. It also shows the economic conditions in the year the site was purchased for repurposing. Except for the Warren, Ohio site, current population change and unemployment rates are worse than they were when the site was repurposed.

Figure 1: Plant Locations and Economic Conditions

Site			Year		Closed Plant Density		Population Change*		Local Unemployment Rate**			
Facility	City	State	Closed	Purchased	Purchase Year (County)	Current (County)	Purchase Year (County)	Current (County)	Purchase Year (County)	Purchase Year (National)	Current (County)	Current (National)
GM Livonia Trim Plant	Livonia	MI	1995 (GM) 1998 (Peregrine)	1999	30	37	-1.8%	-10.3%	4.8%	4.2%	12.6%	8.9%
Delco Plant #1	Kokomo	IN	1998	2003	2	2	0.3%	-1.3%	6.9%	6.0%	12.4%	8.9%
Delphi Packard Plant #41	Warren	OH	1998 (GM) 2006 (Wetzel)	2009	4	5	-4.1%	-2.5%	13.6%	9.3%	9.6%	8.9%
GM Fisher Body Plant	Euclid	OH	1993	2001	2	6	-2.6%	-2.7%	4.5%	4.7%	8.0%	8.9%

*For current population change statistics, the 2006 to 2011 range was used for counties. For purchase year statistics, population change is calculated measuring the difference in population between when it was repurposed and 5 years prior.

**Current county, and national unemployment rates are for 2011. Purchase year unemployment rates are for the year of purchase.

Source: CAR, 2012; Census, 2012; and BLS, 2012

Figure 2 compares the locations based on site characteristics. Repurposed sites were all 40 years or older when they closed, and all have standing buildings. Only the Kokomo manufacturing plant was demolished, but the administrative building was left standing and that is the portion of the site that is repurposed.

Figure 2: Site Characteristics

Site			Year		Employment		Plant and Site Size*			Current Conditions		
Facility	City	State	Closed	Purchased	Peak	Current	Original Building (sq ft)	Current Building (sq ft)	Site (acres)	Current Owner	Outcome	Demolished
GM Livonia Trim Plant	Livonia	MI	1995 (GM) 1998 (Peregrine)	1999	>1,000	-	1,200,000	1,440,000	76	Ashley Capital	Repurposed	No
Delco Plant #1	Kokomo	IN	1998	2003	-	150	775,000	100,000	< 35	Greater Kokomo Economic Development Alliance	Repurposed	Partially
Delphi Packard Plant #41	Warren	OH	1998 (GM) 2006 (Wetzel)	2009	-	62	200,000	200,000	< 15	Berk Enterprises Inc.	Repurposed	No
GM Fisher Body Plant	Euclid	OH	1993	2001	3,000	-	1,000,000	1,000,000	64	Handl-it	Repurposed	No

*Plant and site size are approximate

Source: CAR, 2012

Once CAR identified the case study communities, researchers reached out to local economic developers and current users of repurposed sites to arrange meetings and site visits. The primary method of

collecting case study information was through interviews of community representatives at each location. Using the same questions included in the national study, the goals were to visit each site, learn about the surrounding community, and speak with people familiar with the efforts made to redevelop the property. CAR arranged meetings with a variety of individuals including current building owners and occupants, economic developers, public officials, former automotive employees, and real-estate developers. Case studies also included a visit to the site of the former auto facility. Through these meetings, CAR researchers acquired information about each site individually and ascertained some broader themes that relate to the redevelopment of these sites in general. The information and opinions presented in the case studies belong to the interviewees at each location unless otherwise noted.

Drawing from these case studies, this report provides automotive communities with insight and direction as they move forward to redevelop their own closed manufacturing facilities. These redevelopment strategies are targeted toward facilities in the Mid-Michigan region, but are applicable to communities throughout the traditional core automotive manufacturing region in Michigan, Indiana, and Ohio.

GM LIVONIA TRIM PLANT IN LIVONIA, MICHIGAN

BACKGROUND

Located just 20 miles from downtown Detroit, the automotive industry has always had a strong presence in Livonia, Michigan's economy. Even today, several automotive facilities are currently in operation, such as Ford's transmission plant and parts distribution center, and General Motors' powertrain plant, spring and bumper plant, and warehousing distribution division. Livonia's industrial corridor is comprised of almost six square miles of property with a railroad line running through the middle, and much of the corridor's infill development is comprised of automotive suppliers.

The site of GM's Livonia Trim Plant was originally a General Motors Hydra-Matic transmission plant, which caught fire in 1953. What began as a small blaze quickly spread throughout the plant creating what was then the worst industrial fire in American history. Images of the Hydra-Matic fire can be seen in Figure 3. The \$50 million Hydra-Matic disaster was responsible for the development of more modern industrial fire codes.

Figure 3: 1957 Fire at the General Motors Hydra-Matic Facility



Source: GM Heritage Center, 2012 and City of Livonia, 2012

In the aftermath of the fire, a plant in nearby Willow Run was quickly transformed into a Hydro-Matic facility. After the wreckage was cleared, the Livonia site was rebuilt in 1954 as a Fisher Body facility that produced vehicle trim. The site continued to operate as a GM interior trim plant until it closed in 1995.

PURCHASER'S INTEREST

In late 1996, Peregrine Incorporated agreed to purchase the plant along with three Delphi plants. The company continued to use the facility to manufacture interior trim, though likely only used a fraction of the available space. In July 1998, Peregrine announced it would close the Livonia facility (Bradsher, 1998). By the time of closing, the plant, which at its peak employed thousands, employed only 725 workers.

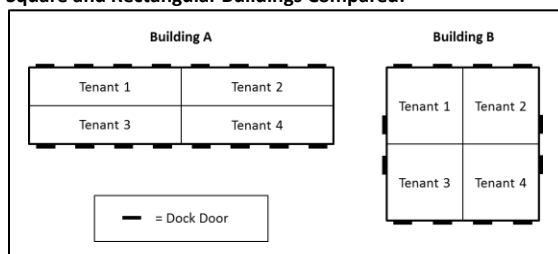
Peregrine was the last manufacturer at the site before it was purchased by Ashley Capital in 1999. In 1999, the economy was strong, and over 90 percent of available space for lease was occupied. In addition, Livonia's central location made investments in the city more attractive. Ashley Capital also owned the former Detroit Race Course property across the street and had redeveloped it into a mixed-use industrial and retail site known as the "Livonia Business Campus." Due to the strong economy, Ashley was able to purchase the building without any tenant contracts signed.

The 1.2 million square foot building had several desirable traits, including additional land available for development, if needed. Ashley Capital later used the extra land to build a 240,000 square foot refrigerated storage facility. Additionally, the building's long, rectangular shape meant that dock doors could be added and partitioning walls constructed to easily divide space between tenants, since a single-user tenant was unlikely to take over a building of this size.²

One drawback of the building was that portions of the roof were too low for the types of tenants Ashley Capital wanted to attract. To fix this, the company raised two 150-square-foot sections of the roof from

² Developers note that square buildings are more difficult to partition due to their lower ratio of exterior wall footage to square footage and greater distances between exterior walls and the building core. The image below demonstrates this concept by displaying two buildings of different shapes with identical square footage, the same number of tenants, and the same space per tenant. Compared to Building B, Building A has more room for dock doors and the back walls are closer to the dock doors. These attributes make it easier for tenants to move stored goods and for the building to meet fire code requirements.

Square and Rectangular Buildings Compared:



a 15-foot clearance to a 30-foot clearance. Though portions of the roof were too low, the exterior walls were already 30 feet high which reduced the cost of increasing clearance.

FINANCING AND ENVIRONMENTAL DETAILS

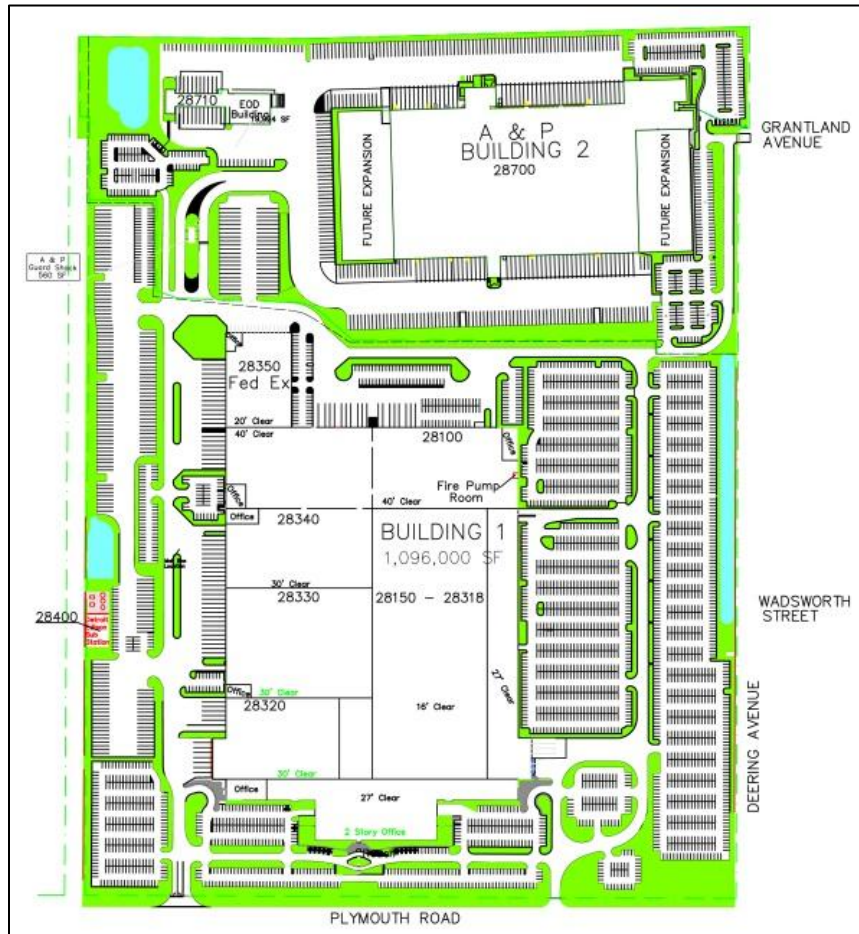
Given the strong economy at the time, Ashley Capital did not receive development incentives to purchase and improve the property. However, the City of Livonia had previously invested in roadscapeing along the industrial corridor through the Plymouth Development Authority, and adjusted a traffic light to ensure smooth traffic flow to the facility.

Some minor environmental cleanup was needed at the site, including removal of an underground storage tank, as well as asbestos which had been used in the building. In addition, Ashley Capital was required to put language into lessee contracts regarding the possibility of pollution existing at the site due to GM's former operations there.

Ashley Capital invested \$15 million in building renovations on the site. In addition to raising the roof, the company added more than 60 dock doors,³ divided the space to accommodate multiple tenants, and installed new heating, lighting, water, and fire protection systems. The renovation also included aesthetic improvements to the exterior of the building, such as improved siding, entryways, landscaping, and exterior lighting (Ashley Capital, 2012). Figure 4 displays the site plan for the facility.

³ The building originally had only 27 dock doors; now the building has around 90 dock doors.

Figure 4: Site Plan for Plymouth Road Technical Center



Source: Ashley Capital, 2012

OVERCOMING HURDLES IN THE REDEVELOPMENT PROCESS

Ashley Capital faced no major challenges to redevelop the Livonia site. Though roof clearance was too low in some portions of the building (PR Newswire, 2000) and minor environmental cleanup was required, the renovation of the site was relatively straightforward. Representatives at Ashley Capital, however, did identify several hurdles frequently encountered by developers.

Local Government Cooperation

If the local government is not cooperative, developers tend to shy away from the community. High real estate tax rates can sometimes preclude deals, as can lack of flexibility in permitting and financing projects. Sometimes unions or local government officials want a property to generate more jobs than is practical and can prevent redevelopment by blocking the approval process. Livonia has generally been supportive in partnering with businesses and has a streamlined permitting process. In addition, by

creating a dedicated industrial corridor, Livonia has helped prospective developers avoid many of the difficulties associated with locating industrial activities near residential areas.

Public Utility Cooperation

Public utility companies can also affect the viability of a site. Sometimes, these companies do not have the same sense of urgency that developers have, which can make investments difficult to plan. In many cases, a partnership between municipalities and utilities could assist development.

Building Specification Database

Property owners and communities frequently have poor documentation of building specifications. Information such as power, water pressure, column spacing, and clearance heights are vital metrics for developers. Currently, developers must invest a great deal of time and resources to research building specifications and capabilities. If communities kept thorough records of building specifications, they could make it easier for potential developers to purchase a property.

Existing vs. Demolished Buildings

Existing buildings are usually significantly less expensive per square foot than are newly constructed buildings. In addition, the concrete slabs that are often left behind following demolition often present issues. The slabs are rarely where a prospective new development would want them to be, and are often not allowed to be removed because they often help contain contaminants.

Environmental Liability

There are also issues with environmental liability. For properties owned by the Revitalizing Auto Communities Environmental Response (RACER) Trust, environmental liability is the Trust's responsibility. But there could still be timing problems if environmental issues are discovered and redevelopment is delayed while remediation takes place. For non-RACER properties, environmental remediation and liability is an even greater concern for interested developers as there is no fund set up to pay for it.

OUTCOME

The Livonia Trim Plant was renovated and turned into the Plymouth Road Technical Center (PRTC). The PRTC is used for light industrial, as well as warehousing and logistics purposes. Current tenants at the site include Roush (an automotive performance product division of Roush industries), Mastronardi (a

produce company), NYX (a Tier 1 automotive supplier), FedEx, and Virginia Tile. Figure 5 displays trucks parked at dock doors, the driveway entrance sign, and an improved entryway at the site.

Figure 5: The Plymouth Road Technical Center



Source: Center for Automotive Research, 2012

Livonia’s Present Economy

Today, Livonia’s economic development strategy is more diversified than it has been in the past, but manufacturing and industrial operations still play a critical role in Livonia’s economy. Some of the diversification efforts have resulted in logistics investments such as Advantage Logistics, UPS, and FedEx. Many of the businesses that originated as suppliers to the automotive industry have branched out to other industry sectors, such as medical and aerospace manufacturing. Delta Gears, for instance, now produces automotive parts as well as high precision gear components for the aerospace industry; the company has purchased the former Livonia Observer print building, and has invested around \$20 million into that site.

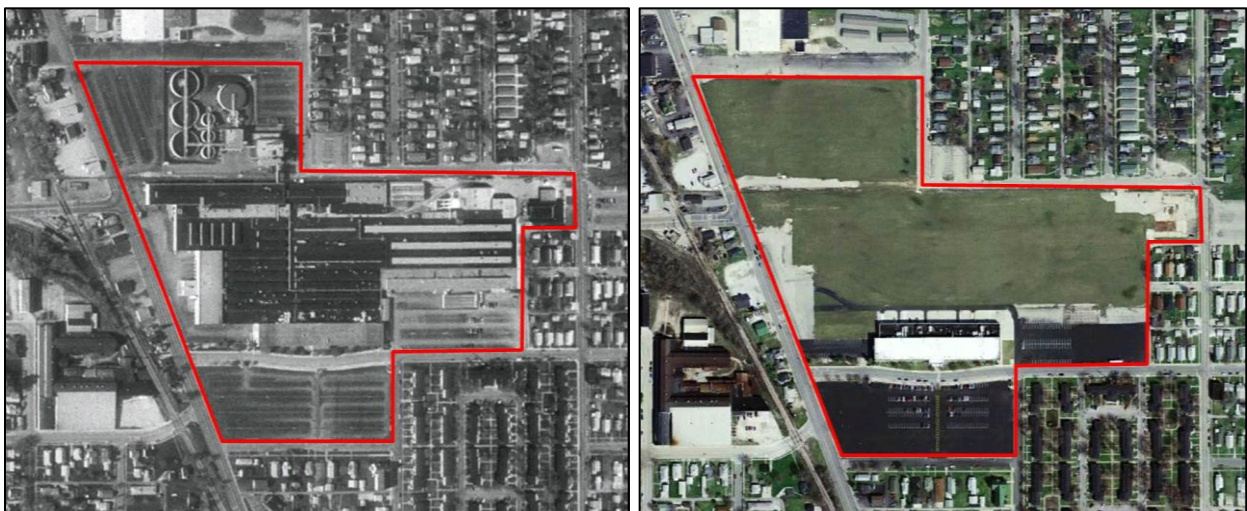
DELCO PLANT #1 IN KOKOMO, INDIANA

BACKGROUND

Located about 50 miles north of Indianapolis, Kokomo, Indiana established itself as an important automotive city in the first few decades of the auto industry. In 1894, Elwood Haynes and Elmer and Edgar Apperson built their first gasoline-engine vehicle, and went through several automotive business iterations until the company closed in the mid-1920s. Despite the closure, Kokomo retained its reputation as an automotive town. The city had a thriving parts industry which was originally based on sales to Haynes and Apperson, but then diversified to serve other automakers. A decade later, General Motors and Chrysler each opened a facility in Kokomo using sites that had previously been used for automotive assembly, continuing the city's automotive tradition (Griffey, 2012). The former Haynes site was purchased by General Motors, and once renovated, became Delco Plant #1.

Over the years, Delco, a division of General Motors, became a major manufacturer in the community, at one point employing over 12,000 people in the city. Delco Plant #1 was originally built in 1922 by Haynes and later became the manufacturing site of the first transistor radio. In 1954, a new administration building for Plant #1 was erected. Delco Electronics became part of Delphi Automotive Systems in 1997, when Delphi was still a subsidiary of General Motors. But soon after in 1998, the plant closed and Delphi demolished the 675,000 square foot manufacturing portion of the site, leaving only the 100,000 square foot administrative offices standing. These changes can be seen in Figure 6.

Figure 6: Delco Plant #1 Before Demolition and After Partial Redevelopment



Source: Center for Automotive Research, 2012 and Google Earth, 2012

COMMUNITY STRATEGY

In the early 2000s, Greg Aaron, the Director of the Kokomo/Howard County Development Association (KHEDA), and Mike O'Hare, a professor at Purdue University's Kokomo campus, brainstormed a general strategy to help the region by developing an incubator for high-tech startups. In order to gain support for the incubator, they brought together key community leaders to discuss ideas, took a group of elected officials and bankers to visit Purdue's business incubator, and developed a feasibility assessment for the project. All this was achieved without a designated budget for the project.

Business incubators support the development of startup companies by providing shared resources and services. Most incubators offer office space, and administrative and business amenities to client companies. Common incubator services focus on business basics such as assistance with training, networking, marketing, and accounting. After a successful company develops, it may "graduate" from the incubator and relocate to another site.

The assessment found that the community was host to several high-tech companies, including the largest high-tech company in Indiana, Delphi Delco Electronics Systems (Kokomo Technology Center Task Force, 2001). Further, the assessment noted that as a result of its dominant high-tech industries, the community has a high per-capita patent rate and a workforce knowledgeable in electronics, advanced manufacturing, and advanced materials. It also highlighted the community's proximity to Indianapolis' high-tech corridor, international airport, and higher education institutions such as Indiana University, Purdue University, and Ivy Tech Community College. Also noted in the assessment were challenges Kokomo faced, including job creation, economic diversification, lack of "start-up mentality," high levels of risk adversity, lack of small business financing options, and trouble attracting technically-skilled employees. Given both the strengths and weaknesses of the community, leaders felt it was apparent from the feasibility assessment that a high-tech incubator could be supported, and that it could assist the community in overcoming some of its challenges.

Armed with the assessment findings and with credible players on-board with the project, the group received political and financial support for a professional feasibility study. This second study, conducted by the firm Pittsburgh Gateways, validated the findings in the community's own assessment and came to similar conclusions (Pittsburgh Gateways Corporation, 2002a). Pittsburgh Gateways also developed a preliminary financial and business plan, suggesting that the community begin a series of demonstration projects to prove out the technology incubator concept. These demonstration projects incorporated

many of the business services that would become integral components of the incubator, allowing the group to operate “an incubator without walls” before making more serious financial commitments (Pittsburgh Gateways Corporation, 2002b).

With the feasibility studies completed, the community began to pursue a \$4 million appropriation request which would be used to build space to house the technology incubator now dubbed Inventrek. A local businessman also offered to donate five acres of land to the project to build a facility, but Kokomo soon learned they had another option: a former Delphi facility.

DELPHI’S ROLE

When the plant initially closed, Delphi tried to sell it, but company officials soon recognized that the plant itself was unlikely to sell given its size, age of 78 years, and condition. These factors, combined with a desire to eliminate maintenance costs and building property taxes, induced Delphi to demolish the manufacturing portion of the building, though they kept the original 100,000 square foot administrative offices.

The demolition of manufacturing facilities is often self-funding, since the revenues from selling scrap metal often significantly offset demolition costs. Removal of a building foundation, however, is expensive, offers little to no revenues, and can reveal costly environmental issues. Because of these factors, building foundations are often left in place despite being eyesores, and presenting challenges for future site redevelopment. In this case, Delphi removed the foundation and also assumed environmental liability and monitoring responsibility.

A community leader and former Delco Electronics executive (who retired just before Delphi took over) was aware of the technology incubator concept, and knew the community was looking for a place to house it. He approached Delphi management with the idea to donate the administrative building and the rest of the property to the community. Delphi agreed, and the process of gifting the building to KHCD began. The due diligence process that was required to obtain the Delphi building took eight months. During this process, KHCD discovered the building had roof problems as well as a sophisticated infrastructure that would be expensive to maintain; these issues would add to the cost of owning and maintaining the building (Munsey, 2005). Despite these challenges, the building was still a good fit for the new incubator, and both KHCD and Delphi agreed to the ownership transfer, completing the year-long gifting process in 2003.

INVENTREK OFFICIALLY OPENS

Coincidentally, when Inventrek opened in 2004, Indiana's Ivy Tech Community College was in need of space to expand its Health Sciences division. The college became an anchor tenant for the property, occupying about 50,000 square feet on the east wing of the building, and funded its own building renovations. The revenues from Ivy Tech covered the fixed costs of running the building, thus making it easier for Inventrek to have the facility ready for startups to move in to new space.

FINANCING DETAILS

One major source of funding for Inventrek has been tax dollars collected through the State of Indiana's Certified Technology Park program. The program was created to encourage entrepreneurship, high-tech activity, academic-industry partnerships, and technology transfer opportunities. Because Inventrek is one of the 20 sites statewide that has been designated as a Certified Technology Park, it can recapture certain state and local tax revenues (including sales, income, and property taxes) from the park—up to \$5 million over the life of the park (IEDC, 2012). In addition, Certified Technology Parks are eligible for state grants to cover construction and operating expenses. The amount of money Inventrek has received from taxes started at \$50,000 in 2004, then increased to \$90,000, \$180,000, and \$265,000 in subsequent years. In recent years, the amount collected has declined slightly due to companies graduating from the incubator and moving to new properties.

Inventrek used funding from several sources to renovate the west side of the building, which was set aside for housing high-tech startups. The original request for a \$4 million federal appropriation to build a new building for the incubator resulted in a \$1 million appropriation from the Small Business Administration (SBA) to renovate the west wing and divide the space into differently-sized offices. The proposal was submitted through the Indiana University government relations department, and was championed by then-Indiana Senators Evan Bayh and Dick Lugar. The appropriation was also used to build a few labs to better meet the needs of potential tenants. Some of the improvements that Inventrek made to the building can be seen in Figure 7 showing the entryway and renovated office space.

Figure 7: Inventrek Front Entrance and Incubator Space



Source: Center for Automotive Research, 2012

The incubator also received a rural enterprise development grant from the U.S. Department of Agriculture to refurbish the front entrance of the building, bring restrooms into compliance with Americans with Disabilities Act requirements, and install a security system. Other financial support included \$60,000 in seed funding from the Central Indiana Corporate Partnership and \$300,000 in funding from City of Kokomo.

OVERCOMING HURDLES IN THE REDEVELOPMENT PROCESS

Coalition Building

One of the biggest hurdles for any big idea is finding a revenue stream for it. Several people cite the ability to successfully bring community leaders together around the idea of moving Kokomo forward as the key catalyst that brought Inventrek to life. Without the initial assessment study that was completed with assistance from a key group of community leaders, there likely would not have been political capital to find funding for the professional feasibility study. Without that professional study, the project would have been less likely to receive larger seed funding to get it off the ground.

Anchor Tenant

By landing Indiana's Ivy Tech Community College as an anchor tenant, Inventrek opened up a regular stream of income that allowed the business incubator to cover the fixed costs of operating and maintaining the building. In a newspaper interview, Greg Aaron noted that having Ivy Tech as an anchor tenant was key and that without them, Inventrek would not be at its current location (Munsey, 2005). Some of Ivy Tech's renovated space at Inventrek can be seen in Figure 8.

Figure 8: Ivy Tech Health Sciences Division Facilities in Inventrek



Source: Center for Automotive Research, 2012

OUTCOME

In 2009, the community decided to merge the KHCD and Inventrek with the region's Chamber of Commerce and Urban Enterprise Association. Thus, the KHCD became part of the Greater Kokomo Economic Development Alliance (Alliance). At present, the incubator is operating at about 70 percent of its total capacity. The building itself contains about 150 employees who have an average salary of \$61,000. Inventrek monitors its effect on the community, and used an economic model to estimate that over the past eight years, its economic contribution has been close to \$100 million.

Recently, an issue has arisen over who is responsible for the site's environmental monitoring. Under the original property-gifting agreement, Delphi agreed to take liability of the environmental aspects of the site, including paying for the groundwater pump-down process that has been on-going for the past twelve years. After Delphi's bankruptcy, the company was released from environmental monitoring obligations for the property. Alliance representatives received a letter from DPH Holdings Corporation⁴ notifying them that DPH would no longer be responsible for environmental monitoring on the site. This news came as a shock to organization officials, and since that point, they have hired environmental legal counsel and are working with the U.S. Environmental Protection Agency (EPA) to determine the best course of action.

⁴ DPH Holdings Corporation is what became of the old Delphi Corporation post-2009 bankruptcy.

AndyMark: An Inventrek Success Story

The incubator has had several success stories, including AndyMark, a robotics components startup. The company's two founders initially started as mentors to students on the Kokomo High School robotics team. As the Kokomo team became more competitive, other high school teams began soliciting assistance from the two mentors. The mentorship position evolved into a company that produces hardware for robot competitions. Since its founding, AndyMark has expanded into supplying robotics components to companies as well. After years of working out of their garages, the owners of AndyMark moved their operations to Inventrek in 2007, and in late 2011, graduated from the incubator and moved into a new space. Over the next two years AndyMark is projected to employ six full-time and eight part-time positions. To aid its move, the company received \$155,000 in financing through the City of Kokomo Technology & Industry Revolving Loan Fund (Kokomo, 2011).

DELPHI PACKARD PLANT #41 IN WARREN, OHIO

BACKGROUND

Warren, Ohio is located 16 miles northwest of Youngstown, Ohio. Historically, Warren's economy was strongly tied to the Packard Electric Company. The company was founded in Warren in 1890, and acquired by General Motors in 1932. In 1995, the Packard Electric division of GM became part of Delphi, which was ultimately spun off from GM in 1999. At the peak of manufacturing in the community, Packard Electric employed around 16,000 workers in the area. In addition to Packard Electric, the community was host to General Electric facilities and steel industry operations.

The plant, Delphi Packard Plant #41, opened in 1947 and manufactured automotive electronic components until its closing. In 1998, when Delphi was still a division of General Motors, it closed several of its facilities, including the 200,000-square-foot plant on Thomas Road in Warren.

COMMUNITY STRATEGY

The community did not have a specific strategy for the Delphi property aside from marketing it as it would any other. Plant closings across the country highlighted the need for economic diversification, and the community knew it was unlikely to bring back the multitude of jobs that Delphi and other manufacturers once offered the region. Instead, community officials looked to bring jobs back in smaller increments.

PURCHASER'S INTEREST

In 2004, Wetzel Inc., an established injection-molding company which also had major contracts to do parts sequencing for Delphi, purchased the property from Delphi for \$450,000. While Wetzel relied heavily on its contracts with Delphi, it also attempted to diversify its client base with contracts from Ford and other automotive customers. Unfortunately, this diversification was not realized quickly enough, and shortly after losing the majority of its Delphi work when the company declared bankruptcy in 2005, Wetzel ran into financial problems, and in 2006, also filed for bankruptcy. The site was once again on the market.

Berk Enterprise, Inc. (Berk) is a family-owned business that also has its roots in Warren. Beginning as an extermination products company, the business has expanded over the decades, evolving into a distributor of concession, janitorial, and paper supplies. Some of Berk's products can be seen in Figure 9.

As the company grew, Berk began to import plastic goods from overseas, thus generating the need for more warehousing space. Prior to considering a move, Berk stored products all over the city, making it difficult to control inventory and personnel. Berk searched for a location that could consolidate all of its warehousing and administrative operations under one roof.

Figure 9: Selected Products offered by Berk Enterprises



Source: Center for Automotive Research, 2012

The former Delphi plant was appealing to Berk for a few reasons: It offered a thick, re-laid cement floor and high ceilings. A Berk representative commented that “GM built facilities right,” and as such, the building itself was quite sturdy. Due to easy highway access, and five dock doors where trucks could easily load and unload materials, the facility promised great distributional capacity. The property also offered a large parking area, and open space to accommodate future expansion if necessary.

As a businessman in a relatively small town, Berk’s president was friends with the owner of Wetzel, and therefore knew the property was available. They agreed upon a purchase price of \$1.4 million for the property, and, in February 2009, Berk assumed ownership of the property. The company moved its warehousing operations immediately and the administrative offices moved soon after in 2010.

FINANCING DETAILS

Wetzel Incorporated

In 2004, Wetzel purchased the property from Delphi for \$450,000. National City Bank, and the Mahoning Valley Economic Development Corporation (MVEDC), a non-profit organization that also administers Warren’s revolving loan fund, provided the financing assistance used to purchase and renovate the plant (MVEDC, 2006). MVEDC administers both the Regional 166 loan program, a state-funded loan used for land and building acquisition, expansion or renovation, and equipment purchase,

as well as the SBA 504 loan fund, a small businesses loan program used to provide second mortgages for fixed asset projects. Both the Regional 166 and SBA 504 programs were used to finance the Wetzel investment.

In addition, Wetzel had received a Mini-Loan grant of \$450,000 for capital improvements that was administered by MVEDC. The fund received half of its funding from the local government, and half from seven banks involved in the program. The Mini-Loan fund used Housing and Urban Development Section 108 funding, but because the fund did not loan out money quickly enough, it had to pay interest on borrowed money, which eventually led to closure of the program.

Because of the Mini-Loan, Wetzel was able to make necessary improvements to the building; Wetzel would not have purchased the plant if it had not been able to secure funds for plant renovations. The cost of the expansion and capital investment totaled \$526,000 (Good, 2008).

Berk Enterprises

When Berk purchased the site for \$1.4 million, the company worked with the MVEDC to finance the purchase. Berk's purchase of the new facility was made possible by Cortland Bank, and several loan programs (MVEDC, 2009). The MVEDC offered Berk funding from the Mahoning Valley Industrial Loan Fund for capital improvements. Berk also received funding from SBA and from Regional 166, and a block grant for remodeling. Through a FirstEnergy (a local utility) program funded by the U.S. Department of Energy, Berk received financial assistance to make the building's electric lighting more efficient, which has reduced electric costs dramatically. After purchasing the building, Berk renovated it, the front of which can be seen in Figure 10.

Figure 10: Delphi Packard Plant #41 Redeveloped as Berk Enterprises



Source: Center for Automotive Research, 2012

OVERCOMING HURDLES IN REDEVELOPMENT PROCESS

Local Politics

The biggest hurdle came after Berk purchased the property from Wetzel. Berk assumed it would not need a change-of-use building permit, since Wetzel also stored materials at the site. The Howland Township zoning board agreed, but the fire department challenged this decision due to concerns over fire hazards with how high Berk could store materials. Fire officials wanted Berk to make significant improvements to the building's fire and safety systems, but the improvements were so expensive and height constraints so restrictive that Berk considered selling the property and moving again. The issue was taken to a hearing at the State Building Department. The process took about a year, and the building department eventually sided with Berk.

Financing

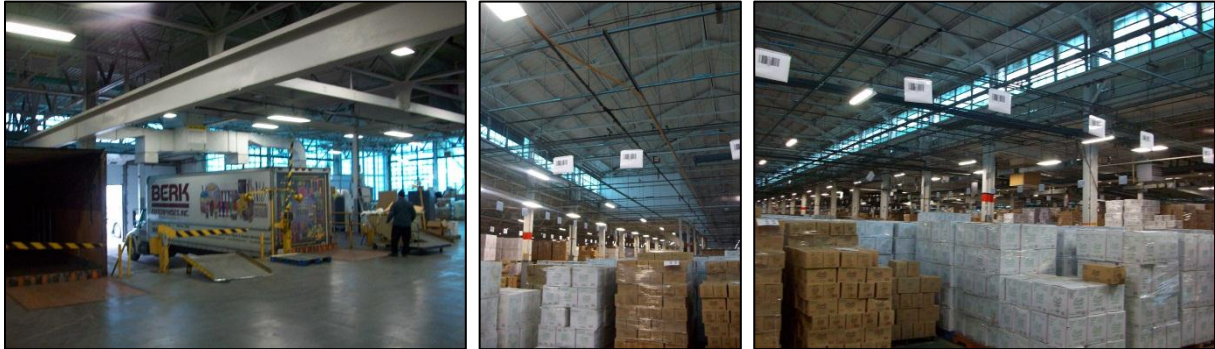
Berk representatives cite the MVEDC as instrumental to the process, calling them “phenomenal.” The MVEDC guided the company through the process, coordinating with all the necessary outside parties, such as local banks and attorneys. The MVEDC's comprehensive assistance—a one-stop-shop—made the purchase process seamless for Berk.

OUTCOME

The property has been given a third life as the consolidated headquarters for Berk Enterprise, Inc. It houses both administration offices, as well as all of the products Berk distributes. Berk's warehousing operations can be seen in Figure 11. The company currently has 62 employees, and though that number

is significantly less than what the original building once supported, it follows the community's recognition that jobs are jobs, even if they come in smaller numbers.

Figure 11: Berk Enterprises' Warehousing Operations in Plant #41



Source: Center for Automotive Research, 2012

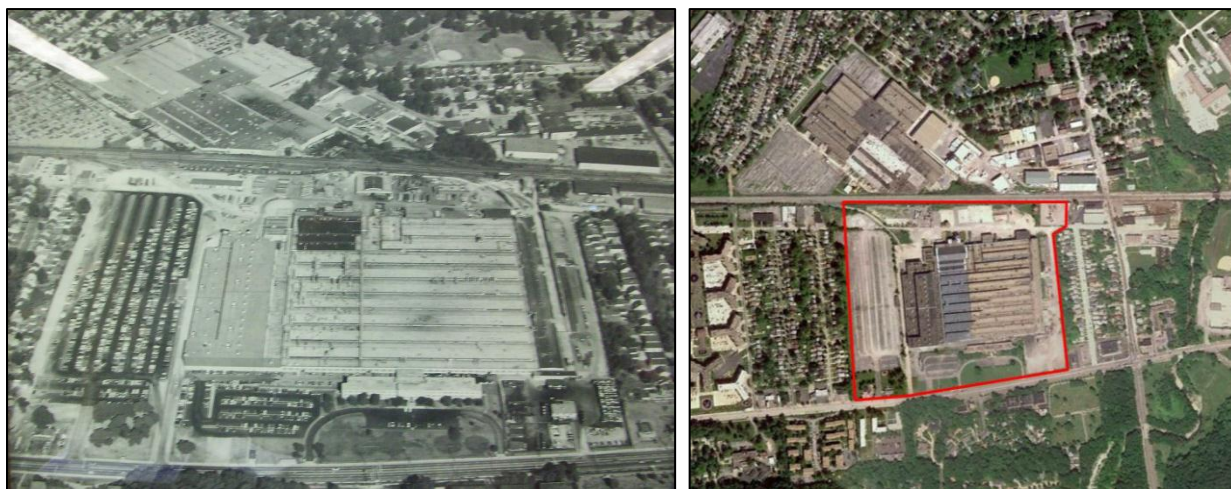
FISHER BODY PLANT IN EUCLID, OHIO

BACKGROUND

Euclid, Ohio, a traditional, blue-collar town, is located just northeast of Cleveland along the banks of Lake Erie. In 1970, the city's population peaked at 72,000 residents, though now it has declined to around 48,600. Despite this decline, Euclid maintains a daytime industrial population of 6,000 workers. Much of Euclid's current industry involves defense manufacturing, and the city also has operations in steel processing, cutting, welding, and slitting.

In 1943, Cleveland Pneumatic Aerial Co. built a 1,000,000 square foot plant to produce components for aircraft landing gear. The plant closed after World War II ended, and in 1947, GM purchased the plant for its Fisher Body division to produce vehicle bodies for several GM brands. The plant can be seen in Figure 12, which shows the site when it was used by GM's Fisher Body division (left), and in its current condition (right).

Figure 12: Former Euclid Fisher Body and Current Euclid Business Park



Source: Center for Automotive Research, 2012 and Google Earth, 2012

In 1970, the plant transitioned from body assembly to manufacturing interior trim. In 1955, eight years after GM took over the plant, employment at the building peaked at nearly 3,000 workers (Case Western Reserve University and Western Reserve Historical Society, 2012). By the early 1980s when GM announced it would close the facility, the plant's employment had declined to less than 2,000 workers. Employee concessions, however, made it possible for GM to keep the plant running for another decade.

In the early 1990s, when the plant employed less than 600 workers, GM again announced that the plant would be closing, and despite additional concessions, the plant closed in 1993.

COMMUNITY STRATEGY

The community remained relatively uninvolved in repurposing the closed plant. After closing, plant ownership transferred a few times. The first owner purchased the building, stripped out its copper wiring to sell, and then filed for bankruptcy. The second owner, Stuart Lichter of Industrial Realty Group, used the property for warehousing, but did not invest much in building maintenance, which left the facility in poor condition. Handl-It, the third post-GM owner, purchased the property in 2001.

HANDL-IT'S INTEREST

Handl-It provides warehousing and distribution, packaging and manufacturing, and temporary contract labor services to a variety of operations in Northeast Ohio. The company emphasizes flexibility and versatility for its clients as a major part of its value proposition. According to a company representative, Handl-It's workforce retention rate is high: 65 percent of employees have worked there for more than 10 years.

The company has been purchasing and using old buildings since 1992, and only stopped this practice when the 2008 recession hit. The strategy of using older buildings has worked well for Handl-It. Large companies will not pay more than they are currently paying for in-house warehousing services, but if another company can offer those same services at a lower cost, many companies will consider outsourcing their operations. In-house operations have drawbacks because they are inflexible, and temporary leases on excess space can result in inefficiencies. For example, dividing a building for multiple-tenant use increases the cost per square foot, as tenants must be separated by firewalls, have their own bathrooms, and their own heating and cooling systems. If a single warehousing company like Handl-It runs a warehouse, it can be significantly cheaper per square foot to store goods. In addition, if the client needs change, they can quickly reduce or expand their storage footprint and only pay for the space they actually use.

Given market demand for its services, Handl-It saw value in purchasing the former GM site in Euclid for its warehousing operations.

FINANCING DETAILS

No incentives were used when the Euclid facility was purchased. The building was purchased for \$9.5 million, and Handl-It currently still owes \$7.8 million on its mortgage. The company is currently working with the bank to lower its mortgage payments, which were set before the recession when the market rate for warehousing space was higher. If the payments are lowered, Handl-It will be more competitive and can begin making improvements to the building.

OVERCOMING REDEVELOPMENT HURDLES AND CURRENT ISSUES

Environmental

Handl-It has been involved in community redevelopment projects, and has already cleaned up three different properties, including the Euclid site. Site-specific issues included some tank removal, cleanup associated with the railroad spur, and removal of the asbestos that was in some of the offices. The purchase agreement included a guarantee that IRG would clean up and remediate environmental issues, and in 2008, the company financed the environmental cleanup that was needed at the site.

Economic Development

Euclid Business Park is located between two fairly dense neighborhoods, which makes improvement work at the old plant challenging. There have already been complaints from neighbors about unsightly conditions at the plant as a result of outside storage. Such a location can also make it difficult to obtain permits, can cause traffic issues, and create a challenging environment for industrial operations due to neighbor complaints.

Financing

The biggest current hurdle for Handl-It is working with the banks to adjust the loan payments. According to company representatives, there is no way of alleviating the financial issues that have accompanied the recession without cooperation between the banks and building owners. The company is presently paying more per-month than the market value of the building, and the bank may not be able to get better revenues if they foreclose. Handl-It is hopeful that it and the bank will arrive at a mutually beneficial solution.

Building Construction

Another hurdle for the plant is that 600,000 square feet of the building were constructed using wood timbers and supports, thus presenting structural issues as they age, which adds to the cost of maintaining the building. In many cases, these beams are in poor condition and there has already been a collapse in one room which is no longer used for storage. If Handl-It and the bank arrive at a solution to the loan issue, then Handl-It can slowly upgrade the building over time, and begin fixing some of the issues with the old wooden beams.

OUTCOME

The Fisher Body division plant has been redeveloped into the Euclid Business Park. The building has 160,000 square feet of high bay and rail access, and this area is the primary area Handl-It uses for temporary storage. Currently, the company uses part of the Euclid facility as a steel reload center. The site has a rail spur and an overhead crane, which are largely used for moving building materials and industrial products. The rail spur actually goes into the building so loading and unloading can be done indoors. When Handl-It received a large contract from the State of Ohio to store alcohol in the Euclid warehouse, as many as 200 employees worked at the site. Employment at the facility has declined since that contract expired. The facility's warehousing space and interior rail unloading area can be seen in Figure 13.

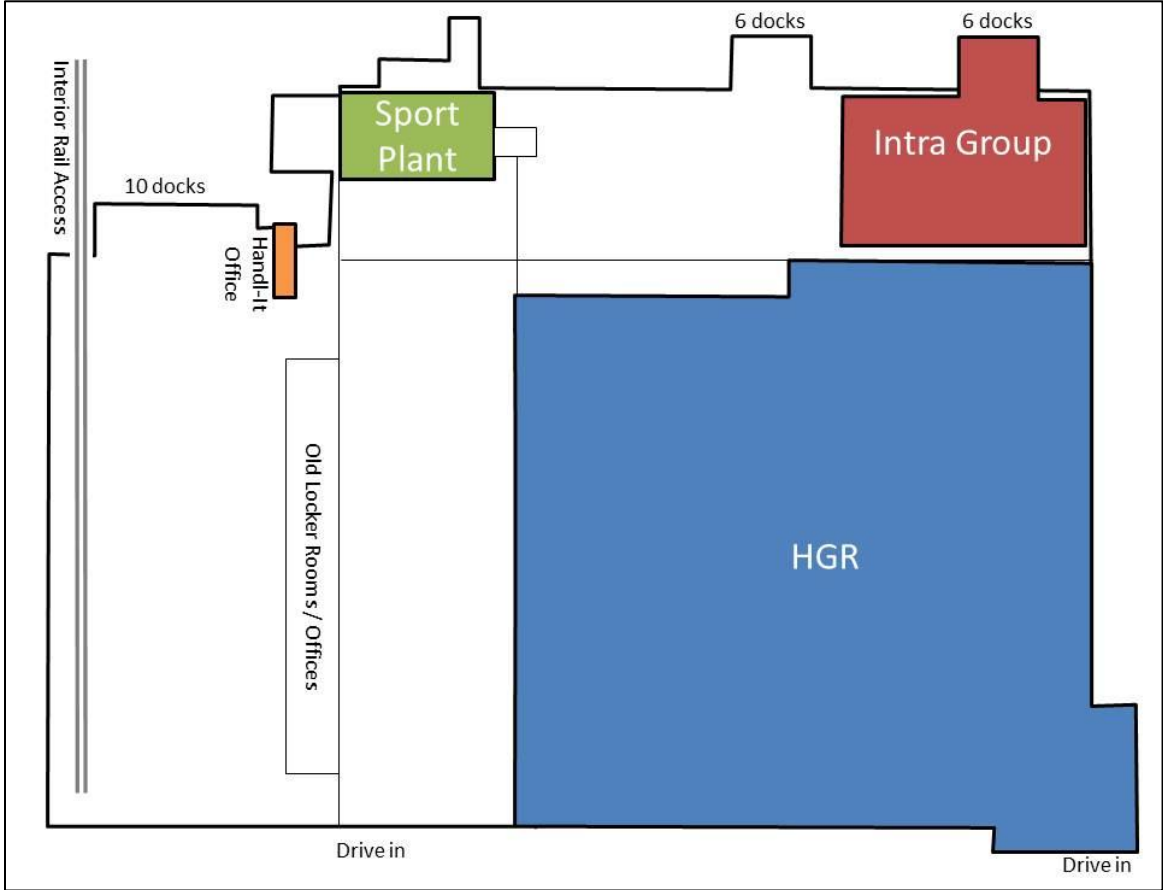
Figure 13: Storage at the Euclid Facility and Interior Rail Unloading Area



Source: Center for Automotive Research, 2012

The former plant building is unique among Handl-It's other properties in that it is the only one with tenants. Figure 14 shows that a significant portion of the building space has been leased out to other businesses.

Figure 14: Euclid Warehouse Layout



Source: Center for Automotive Research, 2012 and Handl-It, 2012

The largest tenant, HGR, which takes up more than a third of the building's total square footage, is involved in the business of acquiring and selling commercial and industrial equipment. Smaller portions have been leased out to Intra Group and The Sports Plant. Intra Group conducts industrial recycling, and uses its space at the Euclid Business Park to store materials to be recycled. The Sports Plant is a 60,000 square foot sports facility with indoor space for basketball, baseball, and volleyball. The exterior of the Sports Plant as well as its sports facilities can be seen in Figure 15 below.

Figure 15: The Sports Plant, a Tenant at the Euclid Business Park



Source: Center for Automotive Research, 2012

RECOMMENDATIONS

The following are recommendations that specifically arose from discussions and other research during the course of this project.

MAKE SITES MORE PHYSICALLY ATTRACTIVE

Having presentable sites, free from significant overgrowth and debris, can both benefit the surrounding community and help developers see the property's potential. Achieving this, however, is especially challenging for sites that have been closed for many years. Additional funding sources to help offset costs of removing overgrowth and general maintenance would be beneficial.

AUTO COMMUNITIES USER GROUP

In speaking with community representatives, it was apparent they could benefit by hearing from one another and other experts on successful tactics and strategies to encourage redevelopment. Communities with former automotive properties share unique opportunities and face similar challenges when it comes to working with state governments, especially on environmental regulations and economic incentive programs. Creating a group of state-specific communities would broaden dialogue and the sharing of helpful ideas among them.

KNOW YOUR ASSETS

Recognizing the property's advantages and limitations is a good first step to understanding it. Many times, communities have only a partial understanding of what exists on a site, which prevents them from knowing how best to market it and to whom. Knowledge of both positive site aspects such as already-built infrastructure and utilities capabilities as well as negative aspects such as environmental or legal issues is an important tool for communities leaders to have when promoting their site.

REMOVE A DEVELOPER'S UNCERTAINTY

It is imperative for cities to understand the challenges their sites present, especially from an environmental perspective. Unfortunately, there is often lack of available data on the environmental, utility, and geotechnical characteristics of a site. If a developer cannot get this information, he or she will

be less likely to want to purchase a property given the large potential costs and time delays of remediation.

Also, developers cite a thorough property database as one of the most helpful tools a community can offer. This database goes beyond square footage and acreage, and includes items such as water pressure, utility capacity, clearance heights and column spacing, to name a few.

COALITION-BUILDING AND COMMUNITY VISIONING

Bringing together key community leaders from both the private- and public-sectors who genuinely care about the community can generate the necessary energy and ideas needed to transition a property. In the Kokomo, Indiana example, it was this coalescing of individuals that led to a visioning exercise of what the community wanted to become. The visioning process then led to the concept of Inventrek, and because a leader had connections with Delphi, reuse of the former Delphi plant administrative facilities became a reality.

A subset of a visioning exercise is having a community plan, and knowing what types of activities, business or otherwise, make the most sense for a site. When faced with multiple closed auto sites as in many Midwestern communities, it is hard to determine uses for all of them right away, and also hard to narrow in on specific business activities that make sense. But if a community can prioritize a subset of sites and target specific activities for them, it is in the community's best long-term interest.

CREATE THE MARKET

This task is easier said than done, but as an outcome from the visioning exercise, community leaders can capitalize on assets currently there and create a market that utilizes them. Again, the Kokomo, Indiana leaders recognized the engineering strength in their community, and Inventrek is meant to build upon that strength and bring an entrepreneurial atmosphere to the city and surrounding region.

LOCAL GOVERNMENT COOPERATION

This follows the national recommendation that communities should work regionally to attract investment, but they should also coordinate activities like upgrading infrastructure, offering incentives, and workforce development to assist in the redevelopment process. This cooperation can create a good business climate, thus helping pave the way for interested businesses and developers.

REDUCE DEVELOPER CARRYING COSTS

When debating whether to undertake a development, carrying costs, or expenses borne by developers between purchasing a property and receiving an income stream from it, play a big role. Some communities have offered grace periods for interested developers where the developer pays no property taxes while he or she actively prepares for tenants. A real-life example of this is the sale of the former stamping plant in Wyoming, Michigan. Lormax Stern development company purchased the property and immediately sold it to the City of Wyoming, Michigan (just outside Grand Rapids, Michigan) for \$1, though the company retained development rights. This arrangement allows the City and Lormax Stern to actively look for a buyer, while Lormax Stern is exempt from paying taxes on a property that is currently not producing revenue. The City also maintains a stake in what happens to the property.

CONCLUSIONS

Communities with declining population, high unemployment, and a high density of closed auto manufacturing facilities merit focused attention due to the challenges they face in repurposing sites to productive uses. Federal agencies as well as private and philanthropic organizations could direct this attention to helping communities apply some of the recommendations from this and the national report. In particular, recommendations such as offering financial support to make the sites more physically attractive, helping a community reduce developer carrying costs, and setting aside existing planning funding to assist communities with visioning activities would be beneficial. In addition to financial support, federal representatives could also review existing policies and determine if there are ways to streamline them, especially when working with state-level agencies with similar goals.

Providing assistance with the above activities would offer a larger impact in industrial, Midwestern communities than in those whose economies are stronger and more diversified. Because so much of the available industrial land in these communities includes these former automotive sites, redeveloping them would offer a big potential upside to the community. Converting even one of the large sites to a productive use would go a long way toward transitioning the cities' economies in a positive manner.

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