REUSE OF HISTORIC CORE INDUSTRIAL PROPERTIES:

PROMOTING COMMUNITY EMPLOYMENT

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ABSTRACT

RESEARCH PAPER: Reuse of Historic Core Industrial Buildings: Promoting Community Employment

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This paper presents a feasibility study of historic urban industrial rehabilitation projects for job creation in urban core neighborhoods. The study demonstrates the important position these buildings have held in historic neighborhoods throughout history, for economic diversification and as employment centers. The evidence suggests that these buildings are important for small business generation, cultural and historic preservation, and sustained neighborhood revitalization. These factors combined create an environment conducive to job creation and retention.

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A sincere thanks to ***Vera Adams.***
Her guidance and organizing eye made it all possible.

INTRODUCTION

This paper explores the reuse of historic urban industrial properties. As neighborhood revitalization in Indianapolis continues, manufacturing jobs are moving out of Indianapolis's urban core. As the population shifts, historic industrial properties in the downtown are increasingly perceived as attractive opportunities for multi-family and office property developers. As a result, these properties are being overlooked as a means of sustained employment for under-served workers in these historic neighborhoods.

My first research question is: What are the barriers to reusing historic industrial properties for industrial purposes? Determining why these buildings are empty or being used for other purposes, such as offices or residential condominiums, is the first step in this process. While historically there has been some cause for this due to perceived physical barriers, there exists today a vast array of manufacturing, production and warehousing types and intensities that use space in an equally diverse way. Secondly, who are the targeted tenants in this type of project and what are their space needs? Concentrated leasing efforts would likely produce successful user-space matches for these properties.

And finally, what are the potential community impacts of rehabilitating these types of properties and how are those impacts measured? I will study how these buildings can serve as employment centers for Indianapolis's historic neighborhoods, first by examining demographic and economic shifts in Marion County, and then through a case study rehabilitation of a historic

industrial building in Indianapolis. This building will be viewed as an urban industrial park, which will allow for smaller and more varied tenant uses. By starting with small business, the scale of the development stays at the community level.

AIMS

AIM 1	I will assess the need for working class jobs within the Indianapolis urban core.
AIM 2	I will study how urban industrial rehabilitation for industrial purposes affects working class jobs.
AIM 3	I will measure the feasibility of core industrial rehabilitation using income and employment multipliers to determine the net impact this type of redevelopment could have on a community.

LITERATURE REVIEW

DEFINING THE PROBLEM

Throughout the last two centuries, the way that goods are produced and distributed has changed dramatically. In turn, the way that the buildings used to produce and store these goods has changed. Industrial real estate markets have become the most dynamic and changing real estate markets in the world; the vast array of products, employees and technology utilized in these markets are unparalleled in other real estate sectors. These dynamics are also at play in historic industrial asset reuse and vacancies; too large to demolish and overstructured for modern needs, these buildings are waiting for their next assignment.

The drivers behind industrial real estate shifts are listed below and are expolored in the remainder of this section.

1. Changes in industrial real estate – 1790s to present
2. Globalization and a shift in where manufacturing takes place
3. Industrial space demand
4. Reuse of historic industrial space

CHANGES IN INDUSTRIAL REAL ESTATE – 1790s to PRESENT

Beginning with why urban land is abandoned or underutilized allows us to examine how land and property are reused in urban cores. From deindustrialization, and capital and economic

flight (production moving from American cities to industrializing nations for cheaper labor) to demographic shifts and suburbanization, cities throughout the United States experienced declines and resurgences throughout the twentieth century (Greenstein and Sungu-Eryilmaz 2004).

The following sections outline America's industrial history between the 1790s and present day. Shifts in workforce characteristics, production needs and transportation, and building layouts form the framework for this section and are each explored through the evolution of the industrial real estate market.

Workforce Characteristics

The end of the American Revolution marked the beginning of an economic crisis in the new United States. Americans no longer had the priviledge of reduced duties on British goods, and American exports of sugar, tobacco and whale oil dramatically declined. Between 1784 and 1790, British imports to America totaled 17.4 million pounds, while exports from America totaled only 6.6 million pounds (Meyer 2003, 16). The Constitution of the United States of America was written in 1789, which granted a newly formed Congress trade and currency regulation, and the power to construct a national economy (Meyer 2003, 17). The leaders of America at this time – James Madison and Thomas Jefferson among them – recognized the need for manufacturing in America to lessen the dependence on foreign imports (Licht 1995, 14).

Prior to the existcnce of a difinitive manufacturing workforce, many factories employed women and children from farming communities or even entire families. Most American families owned small farms on which they subsisted, with minimal surplus production. These families bartered in local markets for necessities they could not harvest from their farms.

The emergence of central place systems immersed these farming families in marketplaces (Meyer 2003, 51). Central place systems were established market centers where commerce and trade took place. These nodes of commercial activity resulted from better transportation links,

rural farming families connecting to market centers through these transportation links, and merchants establishing stores in rural farming communities (Licht 1995, 4).

As these rural market centers became more numerous and influcntial, small family farms began to specialize in particular types of produce, such as cotton or corn. These families began to sell more of their produce in the marketplaces surrounding their farms. As they became more involved in the marketplace they bought more goods, which increased the cash necessity of families. In turn, national consumption patterns changed requiring more goods production, which influenced the roles of families, women and children in the marketplace. Out of these shifts arose a market for labor, whereby income earned by women and children in the familiy became essential for purchasing family necessities (Licht 1995, 4).

Sam Slater is a historic figure that can be credited with promoting manufacturing in America. He arrived in America in the 1780s with manufacturing knowledge from England, and was one of several British immigrants who initiated manufacturing in the United States (Licht 1995, 22). Slater was known for his mill villages. By the 1790s and early 1800s he was creating mill towns around his mills, with families' homes, town commons, schools, churches, and shops (Licht 1995, 22). When Slater couldn't find enough woman and child labor from surrounding farm families, he hired entire families to work in his mill towns. Fathers, as heads of households, acted as managers and supervisors in his mills, while women and children worked in production (Licht 1995, 22).

In mill towns, earnings per hour and hours works were determined by mill owners. Pay came in the form of housing within walking distance of the factory or credit at the mill town stores. Working conditions improved where laborers were scarce, and where laboreres were plentiful, working conditions would often worsen (Licht 1995, 24). The mill town trend didn't last much past the 1830s as manufacturing spread futher into American communities.

In the early years of the nineteenth century immigration and a growing population of native-born young people who could not find agricultural work contributed to a widening pool of daily-wage workers (Licht 1995, 24). Between 1800 and 1830 75,000 Americans worked in manufacturing, or 3.2 percent of the population (Meyer 2003, 3). The remaining 96.8 percent of the population worked in agriculture (72.3 percent) and other industries (24.5 percent). As cities grew, transient urban populations grew as well, contributing to the manufacturing labor force (Meyer 2003, 3).

By the 1840s 500,000 Americans were employed in manufacturing, by the 1850s 1.2 million Americans were employed in manufacturing, and by the 1860s 1.53 million Americans were employed in manufacturing (Meyer 2003, 3). Immigration continued to play a significant role in American industrialization in the late nineteenth and early twentieth centuries.

Labor reform and labor unions began to take root in the decades folllowing the Civil War, demanding cleaner air and ventiliation, clean restrooms, and safer working conditions (Nelson 1975, 25). By 1877 in Massachusetts, a statute was developed that covered fire escapes, ventiliation, dangers associated with machinery, and elevator regulations, and enforcers were hired to enforce these regulations (Nelson 1975, 123). Child labor laws were being enacted as children continued to be employed in factories and mills throughout the United States. A dramatic increase in child labor reform was organized through womens' and religious organizations between the 1880s and 1910s (Nelson 1975, 131).

By the 1890s, skilled workers, "earned between $700 and $900 per year, just $200-$300 less than highely paid clerks and professionals (Licht 1995, 183)." These wages allowed for a respectable lifestyle, with a nice family home, and afforded better education for the children of these families. Unskilled laborers however earned only $250 to $500 per year, which was enough to rent space in tenament buildings. Children earned a critical portion of these families' incomes and did not regularly attend school (Licht 1995, 184).

Labor unions initially were comprised of skilled craftsmen; unskilled and semi-skilled workers, "were not members of formal labor union organizations until World War I (Nelson 1975, 157)." This discrepency led to the development of the company union, whereby all of the workers in a factory were represented. The formation of this organization was to help achieve each groups' goals (Nelson 1975, 157).

The number of Americans employed in manufacturing rose almost 30 percent between 1914 and 1919 due to World War I, when more than 8,400,000 Americans earned wages in factories (Nelson 1975, 140). Wages also increased dramatically during this period, raising over 11 percent in 1916 alone, however were offset by skyrocketing costs of living (Nelson 1975, 140). Night shifts and 12-hour shifts became the norm for factory workers during this period as well.

The Great Depression in the 1930s left millions of Americans unemployed. Franklin Delano Roosevelt and the New Deal ushered in new opportunities for American workers, from liberal trade agreements to the Pubic Works Administration. Under Roosevelt and Harry Truman, the National Labor Relations Act – an Act signed by Roosevelt in 1935 that protected the rights of private sector laborors to organize – granted the labor movement a greater role in the economy (Roof 2011, 21).

The U.S. involvement in World War II further alleviated the need for new employment opportunities as greater wartime production demanded the creation of millions of jobs. Wages were controlled by governmental agencies during World War II. In exchange for government assistance negotiating worker wages and contractual terms, major labor unions pledged not to strike during the War. There was a desire to keep wages high during the war so that veterans returning from war could earn those wages when they came home (Mansfield 1951).

The percent of workers in labor unions peaked in 1954 when 35 percent of laborers in all sectors belonged to unions. Deindustrialization was taking place throughout American cities by

the 1960s. “The loss of well-paying manufacturing jobs led to high levels of unemployment and underempoyment in former industrial centers (Corey and Boehm 2011).” By 2010, only 11.4 percent of American workers belonged to labor unions, a 25 percent decrease since the 1950s (U.S. Census Bureau 2012).

By 1960, the hourly wage in manufacturing was $2.57, which meant yearly earnings were around $5,300, in line with the median household income of $5,600. This earnings amount was on par with average household yearly expenditures, which totalled approximately $5,300 (Bureau of Labor Statistics 2006). By 1972, the hourly manufacturing wage was $3.92, which equated to $8,100 annually. Average household expenditures were about $8,300 and 25 percent of the population worked in manufacturing (Bureau of Labor Statistics 2006). By 1996, the hourly wage was $12.78, or $26,600 in annual earnings, and the average annual famliy expenditures totalled $36,000. The average family income had risen to nearly $39,000 annually and 11.8 percent of the population worked in manufacturing. There was a noticeable decrease in the spending power of manufacturing wages between the 1960s and 1990s, particularly compared to the average annual family income (Bureau of Labor Statistics 2006).

In 2011 the United States Transportation and Warehousing industry experienced a 2.6 percent growth from 2010, and represented 6.1 percent of the total labor pool. The average weekly wage earned in this sector was $614. At 40 hours per week, this equated to approximately $15.35 per hour, or $31,000 annually. The Manufacturing industry represented 9.7% of the employment market in 2011 however experienced a 2.2 percent decrease in overall market share since 2010. The average weekly earnings for manufacturing jobs in 2011 was $605. At 40 hours per week, this equated to approximately $15 per hour, or $30,000 annually. These wages represent self-sufficiency wages in Indiana for a single parent with one child (precludes infancy-aged children), however that may change with the addition of a child or spouse, or a change in location. Self-sufficiency wages are wages needed for individuals to live without government

assistance, and don't necessarily provide for discretionary income for savings and future-planning.

Employment in the manufacturing sector has decreased dramatically since 1980 (Cushman & Wakefield, Inc. 2009). Manufacturing jobs epitomize the American bluc-collar worker and were once the path to the American Dream for many Americans. The outsourcing of U.S. jobs will not end with the working-class. As the world continues to shrink through technological advances and globalization, Americans will continue to compete with lower wages in developing nations, or with advancing technology.

From farming families to immigrants, American wage earners shifted from a passive labor force to an active labor force. As labor unions grew during the late nineteenth century and the first half of the twentieth century, laborors became increasingly influential in the American economy. There is a correlation between the strength of labor unions and the ability to acheive the American Dream for these working-class populations. As labor union involvement declined between the 1950s and present day, income and earning power declined. Technology and globalization have also played a role in diminishing opportunities for these workers, and will be discussed in a later section of this paper.

Production Needs

Goods production began to shift away from homes and into centralized locations between the 1750s and 1800. This shift was perhaps most noticeable in the textile industry and happened by way of "factors", or those who managed the production process of consumer goods. Factors collected each of the components necessary for manufacturing textiles, for example, from various homes throughout the community and assembled them in one space. Eventually, economic pressures forced all of the materials and processes under one roof, which required the need for factories (Parker 2012). At the same time in smaller merchant shops, production space was

separated from sales space. The skill with which early consumer goods – such as shoes, textiles, furniture, and tools – were being produced decreased, and production shifted to accomodate mass consumption (Chudacoff, Smith and Baldwin 2010, 36).

Francis Cabot Lowell was an American who travelled to England in 1810 to study mechanized textile manufacturing. “Lowell represented a grand leap in business financial practices, the organizing of production, the application of technology, and the employment of labor (Licht 1995, 27).”

> “Under the roofs of Lowell mills, cotton was cleaned, carded, spun, woven, and finished. The four-story factory buildings of the city encapsulated the revolution in integrated manufacturing. Cotton was often prepared for spinning on the top floor of these buildings and spun on the third; bobbins of thread were then taken to the second floor for weaving in power looms; finishing, printing, and packaging occurred on the main floor. The only part of the process not integrated was sales; Lowell mill owners relied on commission sales agents to distribute their bolts of cloth.
>
> The flow of production in the Lowell mills dazzled the visitor, but so did the use of water-powered machinery, particularly the looms. English investors had perfected power weaving machines in the first decades of the century, but it was Yankee manufacturers who adopted the machinery in a wholesale way that astounded the British. Only a few noted, however, that a surplus population of cheaply employed handloom weavers in Britain made innovation with machinery, the substitution of capital for labor, a less pressing matter there than for producers of cloth in labor-scarce England (Licht 1995, 28).”

These mills were the exception rather than the rule. Most manufacturers employed about 20 people and were family-owned and managed businesses, antithetical to the Lowell and Slater

mill towns (Licht 1995, 32). However these processes were standard for manufacturers who could afford to build these factories.

Walter Licht identifies four characteristics of metropolitan industrialization during the period between 1800 and 1850 in his book *Industrializing America*. These four components are product diversity, site diversity, specialization in both operations and products, and the, "small to medium-sized family-owned and –managed business (Licht 1995, 33-35)."

A vast array of goods were manufactured in workshops and factories throughout American cities. These products were produced in divergent sites – from workshops and sweatshops, to homes and factories – all of which were constantly changing space configurations to cater to a diversity of production needs. Product specialization was supported with operations that catered to that specialization. This allowed for product customization as well as flexibility for producing small-batch goods for clients who had differing needs. Most of these manufacturers employed about 20 people, and were family-owned and operated; large corporate ownership was the exception (Licht 1995, 34).

By the 1850s, production, on a national level, and consumption, both on a national and international level, had reached unprecedented heights. "This rapid centraliztion of what previously had been a domestic industry, carried on by farmers themselves on the farms, was a marked change in the industrial life of the country (Fite 1930, 79)."

By 1860 in the United States, the Northeast manfactured 91 percent of textiles, 43 percent of rubber, 90 percent of leather products, and 49 percent of instruments (Meyer 2003, 285). The Midwest remained at that time an economic center for agriculture, with fertile farmland that was unmatched anywhere else in the world (Meyer 2003, 284). Yet, Midwest factories accounted for 18 percent of "the nation's value added in manufacturing (Meyer 2003, 286)." The Midwest successfully produced food, tobacco, lumber, furniture, primary metals and machinery by 1860,

and would continue to be a competitive force with these products through 1900 (Meyer 2003, 285).

In the half century following the American Civil War the United States experienced an increase in urban industry growth. Railroads opened up markets across the nation, introducing a more efficient means for transporting goods, and were essential to industrial growth (Chudacoff, Smith and Baldwin 2010, 78).

Transporation methods moved from barges and boats on natural waterways in the mid to late 1700s, canals with steamboats and primitive roads in the late eighteenth and early nineteenth centuries, and eventually an efficient and interconnected system of canals, paved roadways and railroads in the mid-nineteenth century. Steam power became the primary and most efficient source of power for transportation and factories during the second half of the nineteenth century.

The pace of the industrial revolution created an environment of unending growth and opportunity for development (Chudacoff, Smith and Baldwin 2010, 78). The new technology developed with the Industrial Revolution changed the way Americans lived and worked, the way goods and services were produced, and how businesses were run (Chudacoff, Smith and Baldwin 2010, 46). Production needs, building layouts and laborer characteristics changed dramatically between the mid-nineteenth century and the mid-twentieth century.

> "Increased scales of production, use of more power machinery, and adoption of interchangeable parts as a means of standardizing prodoucts paved the way for assembly-line manufacturing. Industrial growth needed unskilled workers to run the machines, skilled repairmen to fix breakdowns, forecmen to oversee the workers, and clerks and managers to staff the offices. These developments created employment opportunities that attracted immigrants to America and prompted migration from one place to another inside the country's borders (Chudacoff, Smith and Baldwin 2010)."

Between 1890 and 1910, Henry Ford developed a product and method of production that forever altered manufacturing and American consumerism. He produced the Ford Model T, which was sturdy and affordable, thanks to its mass production. He paid his employees wages high enough to purchase the products they manufactured, which also helped him combat employee absenteeism and idleness (Rae 1969, 45).

Ford used specialised tools in an assembly line process to simplify an otherwise complicated production process; this allowed him to hire unskilled labor to oversee each phase on his revolutionary assembly line (Tolliday and Zeitlin 1987, 2). Ford's effectiveness at perfecting the assembly line, which had existed for decades in one form or another, minimized the labor needed to produce goods and diminished the skill needed by the labor force itself. This streamlining coupled with advances in electrical power, led to a horizontal shift in production space needs (Woods 1939, 34).

By the 1990s several production theories were applied to manufacturing processes, and aided in cutting costs for the consumer and reducing costs for the business owners. "Lean" manufacturing is centered on preserving value for the end consumer by requiring less labor during the prodcution process. Cutting labor costs in the production process cuts costs for the consumer (Ronderos 2010). "Just-in-time" production reduces in-process inventory, therefore improving return on investment by reducing in-process carrying costs. Fewer items require warehousing and storage, cutting costs for the business owner and finally the consumer (Ronderos 2010). The degree to which these production theories are used varies widely between industries.

The horizontal production space configuration remains the industrial space precedent today. Physical production needs have changed little since Ford's assembly lines; technology continues to streamline the assembly line process and alter workforce needs.

Building Layouts

The earliest factory buildings were mills powered with water from streams and rivers, where damns and mill races harnessed the power. Factories were built vertically to exploit gravity and accommodate a centralized power source; the vertical layout accomodated shorter distances between power sources and machinery. The machinery in the factory was run by a series of shafts and wired belts, which were most effective over shorter distances (Parker 2012). This form of production remained relevant until other power sources, such as electricity, became more readily avilable in the nineteenth century (Parker 2012).

Mills turned up where water could power them. By the end of the eighteenth century water power was essential to the textile industry in Massachusetts.

> "The physical landscape was irrevocably changed by the early factories, which rerouted waterways to power their machines, created dams, spilled industrial waste into the water, the soil and the skies, and drew thousands of workers to live near the factories, so they could show up for work, on time every day (Cumbler 2011)."

Even as communities became more technologically advanced in the mid- to late-nineteenth century, hand crafting and factory production continued to coexist in many communities. Demand for goods and servies that had yet to be produced en masse remained. Still, fewer craftsmen could afford the cost of harnessing early sources of power (Chudacoff, Smith and Baldwin 2010, 42).

Advances in iron and steel in the early portion of the nineteenth century began to impact construction methods and factories in the second half of the nineteenth century. Factories that had been run with water power and mills were retrofitted for steam power, and most kept the vertical layouts. Smokestacks were required to allow for steam release. Like water power, steam power

needed to be produced on site and could only travel a short distance to operations, once again incentivising a centralized, or vertical, production layout.

Electricity had established its usefulness by the late 1880s however steam power continued to be used in manufacturing until approximately 1910 (Woods 1939, 33). By the 1920s however electricity was on par with steam power in factories (Woods 1939, 34).

With the onslought of union membership and labor reform in the mid- to late-nineteenth century, attitudes regarding the size of the building shifted. “Because of the technological changes which transformed the factory after 1880, large plants were likely to be superior to small plants, new to old, and those in the Midwest and South to those in the East (Nelson 1975, 25).” It was the general thought of all involved in manufacturing during this time that larger buildings were, “cleaner, safer, and healthier places to work than small factories (Nelson 1975, 25).”

Fordism marked a change in building layouts. Assembly line production needed a larger floor area for horizontal production. Coupled with electricity, there was no longer a need for vertical manufacturing. World War I heightened industrial growth and production, and building layouts, between 1915 and 1920. Factories doubled and tripled in size to accommodate increased demand for goods (Nelson 1975, 140).

During WWI and WWII, there was a shift in manufacturing from domestic production to wartime production. Transitioning from manufacturing car parts to producing body armor and helmets for American soldiers, for example, was a duty many manufacturing companies fulfilled during wartime. This ability to shift from producing one product to producing another demonstrated the resiliency of manufacturing space.

Technical and physical shortcomings began to plague the reuse of core industrial properties by the 1970s and 1980s. Deferred updates meant power sources remained too minimal for technological advancements. Smaller urban industrial sites were, and are still, unable to accommodate major site expansion due to the physical density surrounding them. Potential

remediation costs became too risky for lenders or developers to carry. (Greenstein and Sungu-Eryilmaz 2004).

Today's production process closely echoes Ford's assembly line. High-tech machinery moves the manufacturing process along while skilled to unskilled workers supervise each step of the process. The introduction of computers and robots has further depleted the need for human labor.

Changes in Industrial Real Estate Conclusion

Much has changed since the 1790s. Power sources and production methods have become more effective and efficient. Fordism ushered in a horizontal production process that mass produced consumer goods affordably. Water and steam power led the way to electricity, which afforded industry opportunities for unabashed tecnhological advancement. Labor unions and workers rights gave even unskilled laborors a voice in their own futures.

While these changes provide some explanation for patterns of industrial space reuse, the historical variety found in industrial production and real estate is a testament to the unending opportunities found in these properties, particularly the ones that have withstood the tests of time. Manufacturing has always been a diverse and ever-changing industry; from family-owned shoemakers to corporate-owned car manufacturers, industrial real estate will always need to cater to producers, large and small.

GLOBALIZATION AND A SHIFT IN MANUFACTURING LOCATIONS

Globalization has had a dramatic impact on real estate in the past several decades. This economic shift has affected how people live and work all over the world.

Manufacturing jobs in the United States declined as globalization enabled cheap overseas labor. These well-paying manufacturing jobs in the United States have been moderately replaced

by goods distribution jobs, which offer higher working class wages and unionized benefits (Ronderos 2010). The goods distribution employment sector is projected to increase by 339,000 jobs between 2008 and 2018. Occupations associated with goods distribution include trucking, dock work and freight handling, usually do not require post secondary education. These facilities also employ white-collar workers in sales and management positions, which do not require more than a high school education (Ronderos 2010).

Fluctuations in oil prices have made trade with far-off markets, such as Pacific Rim countries, less attractive in some cases, particularly when oil prices exceed $100 per barrel as they did in 2008. Higher oil prices make transportation planning and management more challenging, and create risk for some industry sectors involved in foreign production.

A study conducted by Cushman & Wakefield lists five reasons for increased U.S. imports and exports since the 1990s, which have changed industrial real estate (Cushman & Wakefield, Inc. 2009). Those five reasons are 1) China emerging as a producer of goods, 2) the end of the Cold War, 3) NAFTA, 4) quicker and more convenient communication, and 5) the emergence of supply chain management.

China emerged as a major global economic force and one of the world's fastest growing economies in 1979, when the Chinese government opened the country to foreign trade. The government implemented market reform and China has since become the world's largest goods exporter and second largest goods importer, as well as the world's largest manufacturer (Morrison 2012, 1).

The end of the Cold War made trade relationships with emerging Eastern European economies possible, and also created an opening for labor outsourcing (Cushman & Wakefield, Inc. 2009).

The North American Free Trade Agreement (NAFTA) between the United States, Canada and Mexico was signed into agreement in 1994. The impacts of this have

been attributed with 1) rising unemployment rates, 2) further globalization of the United States economy, and 3) forcing workers to compete directly with each other for dwindling opportunities (Teslik 2009). Economist Donald T. Griswold explains that job losses are caused by U.S. economic shifts based on a reduction of heavy industrial manufacturing and an increase in light industry and high end services, not necessarily NAFTA (Teslik 2009). Nevertheless, NAFTA initiated more foreign trade opportunities as well as more employment outsourcing.

The internet emerged in the last several decades, enabling faster and more convenient communication on a global scale. "The emergence of the Internet and other technology enabled manufacturers to source supplies and operate in markets anywhere in the world (Cushman & Wakefield, Inc. 2009)." Quicker communication and worldwide markets make outsourcing, shipping, and importing and exporting advantageous.

"Supply chain management became a critical function in the manufacturing process as producers sought to reduce costs while maintaining timeliness to market (Cushman & Wakefield, Inc. 2009)." The manufacturing process itself has not only changed locations, shifting from the United States to countries with cheaper labor, but how things are manufactured has changed. Where mass production and mass warehousing was once the rule, it is now the exception with methods such as lean manufacturing and just-in-time (JIT) production, where goods are produced on demand and shipped immediately to where they need to go, cutting costs and increasing returns.

While these factors have all changed manufacturing in the United States, there is a common conception that the United States no longer produces anything. This is not necessarily true. U.S. manufacturing remains strong; American manufacturing accounted for $2.2 trillion in output in 2009, 45% more than China. In 1980, the U.S.'s global share of manufactruing was

22%, compared with the U.S.'s share in 2009, which was 20%, proving the U.S.'s continued share in manufacturing (Schuman 2011).

What is changing is the labor needed for manufacturing, which is moving away from low-skill and toward skills that can handle the high-tech nature of the machines and computers involved in modern manufacturing (Schuman 2011).

Working Class in the United States

The working class in the United States can be defined in several ways – depending on context, location, political angle, job description – the list goes on. According to investopedia.com, a website that educates the world about finance and collects written works from over 200 sources globally, defines and then explains the working class:

1. Definition of 'Working Class' – A socioeconomic term used to describe persons in a social class marked by jobs that provide low pay, require limited skill and/or physical labor, and have reduced education requirements. Unemployed persons or those supported by a social welfare program are often included in this group.
2. Investopedia explains 'Working Class' – While "working class" is typically associated with manual labor and limited education, blue collar workers are vital to every economy. Karl Marx described the working class as the "proletariat," and that it was the working class who ultimately created the goods and provided the services that created a society's wealth (Investopedia 2012).

Another definition comes from a website devoted to the study of the working class, Center for Working-Class Studies at Youngstown State University:

> "Americans like to believe that we're all middle class. But in a national survey, about 45% of Americans identified themselves as working class, and some economists say that as many as 62% of Americans are working class. Today's

> working class is diverse and changing. Working-class people make auto parts and tennis shoes, clean offices and hospital rooms, pack meat and pick vegetables, and provide hundreds of services that we all rely upon. Class is not simply about how much money you make. If you earn an hourly wage and a supervisor manages what you do at work every day, if you have a high school diploma but not a college degree, if you believe in hard work and plain talk, then you're probably working class (Center for Working-Class Studies 2012)."

"Blue-collar" and "working-class" are used interchangeably to describe the mass of Americans devoted to providing goods and services, such as home or auto repair services. As defined by Investopedia, the blue-collar definition is:

> "A working-class person is historically defined by hourly rates of pay and manual labor. A blue collar worker refers to the fact that most manual laborers at the turn of the century wore blue shirts, which could hold a little dirt around the collar without standing out (Investopedia 2012)."

The overarching definition of a blue-collar worker or the working class is someone who earns an hourly wage producing a good or service, whose work is supervised daily, and who does not have a college degree.

According to the website, *The Center for Working Class Studies at Youngstown State University,* current issues concerning all Americans is whether the 'American Dream' is still viable. Attaining the American Dream is becoming a difficult reality; many Americans who had previously identified themselves as working-class have begun identifying themselves as lower-class.

> "The greatest shifts occurred among adults under 30, especially whites and Hispanics and those without a college degree (whom pollsters often consider working-class), though many who have college degrees also identified as lower

> class. The pattern holds across political affiliations, among Democrats, Republicans, and independents. More important, those who identified as lower class also supported the idea that hard work doesn't guaurantee success, and they expressed little optimism for the future (Center for Working-Class Studies 2012)."

This population has lost hope for what was promised to all Americans a half century ago. This sentiment is a testament to the underserved working populations of today's U.S. economy. Over-outsourced industry and shrinking markets have made the American Dream less attainable than ever.

> "The poor are in fact part of the working class, and poverty, near-poverty, and the fear of poverty are an endemic part of working-class life (Sanders 2012)."

The New York Times reported in December 2011 that U.S. manufacturers are hiring again. Manufacturing is only one sector that employs working-class and blue-collar workers, however the manufacturing industry is synonymous with America and the American Dream. Blue-collar jobs were once able to provide living wages and support families. Wages for new generations of blue-collar manufacturing workers are much lower than for those who have been lucky enough to continue working through the economic shifts. This new generation makes $10 to $15 per hour less: wages for newcomers range from $12 to $19 per hour, or $24,000 to $40,000 annually, versus the $22 to $32 per hour, or $44,000 to $64,000 annually, earned by seasoned veterans (Uchitelle 2011). Workers are afraid to complain about wage decreases. The alternative is not having a job at all – or worse, closing a plant and increasing overall unemployment.

The former scenario is a far cry from the stance the United Auto Workers Local 23 took in 2010. General Motors was planning on closing down a plant in Indianapolis in 2011 until JD Norman emerged as a potential buyer, with a stipuliation that wages would decrease from $29 per

hour to $15.50 per hour. The union workers refused to open negotiations with JD Norman, and the GM plant is now closed (McLaughlin 2010). JD Norman built a facility in Monterrey, Mexico in 2011 and recently purchased an existing plant in Leslie, Michigan.

The phrase "competitive wage" is used to describe wages that keep manufacutring jobs in America competitive with labor prices overseas. Many view competitive wages as a neccessity when considering how to slow down U.S. manufacturing job loss (Uchitelle 2011). As Bernard Sanders explained it in a New York Times Letter to the Editor:

> "A union job in manufacturing used to be a blue-collar ticket to a middle-class life and the gold standard for working-class jobs throughout the country. All that is disappearing as American wages in manufacturing are becoming "competitive" with China and other low-wage countries (Sanders 2012)."

Henry Ford's ideals between 1890 and 1910 regarding mass production, mass consumption and paying his workers wages that could afford what they produced set the stage for the American Dream; he helped his employees achieve this reality 40 to 50 years before the phrase "American Dream" was coined in Post World War II America.

A study conducted by the Center for Working-Class Studies titled *The Social Costs of Deindustrialization* examines the social effects of job loss to globalization – and concludes that professional and white-collar jobs are not immune to these effects (Russo and Linkon 2009). Wage competition due to globalization and technological advances continue to diminish employment opportunities for manufacturing workers across the board (Russo and Linkon 2009). Despite these downturns, manufacturing continues to employ 9 percent of American workers, produces 12 percent of America's gross domestic product, and represents 60 percent of America's research and development (Russo and Linkon 2009).

Small Business Development in Indiana

Business and employment have to start somewhere. When almost a quarter of Indiana workers are employed by local small businesses, small business development must be studied in relation to employment generation.

According to the Small Business Administration, a small business is defined as a business, "that is privately owned and operated, is organized for profit, and is not dominant in its field (Small Business Administration 2012)." Size standards and sales volumes based on industry also play a role in defining small businesses (Small Business Administration 2012).

According to Pollina, a full-service brokerage and consulting firm specializing in economic development, Indiana is a pro-business state (Pollina Corporate Real Estate, Inc. 2012). Aside from decreased corporate tax rates and tax credit incentives, Indiana is also centrally located wtihin a 14-hour drive from 80% of America's population (Kavilanz 2012), and has a labor force with a long history of manufacturing diversity and skill.

Indiana's Business Ownership Initiative (BOI) is dedicated to helping Indiana residents realize their small business needs, from working capital to equipment (Grice 2012). "We are the only not-for-profit organization in central Indiana devoted to helping people start or grow their business (Business Ownership Initiative of Indiana 2012)." As of 2007, 24 percent of Indiana workers were empoyed by small businesses; businesses employing one to 20 people. That equals almost 632,000 people employed by Indiana's small businesses (Grice 2012); nearly a quarter of Indiana's workers depend on small businesses for employment, a figure that's hard to ignore when determining the importance of small business support, generation and retention.

Between 2002 and 2012, over $3.5 billion in small business loans were guaranteed by the Indiana Small Busines Administration. In 2012 alone, $419 million in loans were guaranteed, and in 2002 almost $200 million in loans were guaranteed. The survival rate for these small businesses at 10 years in operation is about 35 percent, and at year 15 is about 27 percent. Most of these small companies employ 15 to 20 people (M. R. Anderson 2012).

According to BOI there is currently no formula for projecting small business loan demand. Not just one employment sector benefits from these small businesses. Industries across the board are in need of these small business loans, from light manufacturing to daycare services, demonstrating the need for small business growth and funding through BOI and similar organizations (Grice 2012).

INDUSTRIAL SPACE DEMAND

Unlike retail and multi-family space demand, which have demographic predictors that can be picked out of trending data, industrial space projections are harder to identify. Several factors are attributable to this:

> "First, an extremely large share of the industrial space is held by owner-users. Second, there are many sub-property types with heterogeneous users within each of these groupings. Finally, the available data is relatively short and contains periods where the market is rarely found to be in a state of equilibrium (Anderson and Guirguis 2011)."

Industrial properties and users are widely varied, are ever changing, and co-use similar spaces in a variety of ways. One industrial space can cater to a variety uses, depending on its configuration, from a medical supplier to an elevator repair and manufacturing space. This variety of users, uses and property types makes determining measurement indicators difficult (Anderson and Guirguis 2011).

A National Association of Industrial and Office Properties (NAIOP) study of demand indicators revealed that total employment trends are more accurate predictors for industrial space demand when compared to other factors, such as GDP, exports and imports, and shipping data. Higher employment rates equate to higher spending, and therefore more goods produced and consumed. These factors in turn increase industrial space demand (Anderson and Guirguis 2011).

Specifically, the study found that the Federal Reserve Board's Index of Manufacturing Output (IMO) and the Institute of Supply Chain Management's Purchasing Managers' Index (ISMPMI) are both instrumental in predicting industrial space demand, as both directly affect total employment in the manufacturing sector. The IMO is a measurement of goods produced, while the ISMPMI is a forecast based on new orders, production, employment, deliveries, and inventories, which is established based on purchasing managers' expectations (Anderson and Guirguis 2011).

As discussed above, changing trends in production methods and transportation also affect industrial space demand. Supply chain management engages logistics, which refers to, "the overall management of the way resources are obtained, stored and moved to the locations where they are required (Investopedia 2012)." The majority of logistics facilities in the United States are located in the South (40 percent) and Midwest (30 percent). Together these regions represent almost 62 percent of the logistics and warehousing labor force in the United States (Ronderos 2010).

According to a Cushman & Wakefield third quarter industrial market report for Indianapolis, vacancy rates have been steadily declining since 2010, an indication of increased absorption for industrial space (Cushman & Wakefield 2012). The report also explains:

> "A key development to watch is the market's reaction to the new inventory of modern bulk buildings delivered over the next few quarters. These speculative projects may even soon face competition from older sites once forgotten. According to the Indianapolis Department of Metropolitan Development, an upcoming study will be conducted to help determine the future use of nearly 400 acres and 5.0 million square feet of automotive manufacturing buildings – much of which has been vacant for several years. The city's plan to evaluate these sites

and encourage redevelopment speaks to the area's growing industrial demand (Cushman & Wakefield 2012)."

Reiterating the statement above, Indianapolis is experiencing increasing industrial space demand – and older sites aren't out of the question when assessing development and rehabilitation opportunities. These older industrial buildings are feasible options for redevelopment, particularly in close-in markets where their physical market share is shrinking and the land on which they sit is most valuable.

INDUSTRIAL SPACE REUSE

The variety of industrial businesses is immense, so too are options for matching industrial space to tenants and users. Tenants generally have a list of desired characteristics that are important in their property search. Clear height, power, space configuration, location to markets, rents, concessions, tenant improvements and regional access – the right formula exists for each industrial user.

Buildings that housed manufacturing processes first shifted with the general population, from an urban environment to the suburbs. Older urban industrial properties became less favorable as production shifted away from vertical operations and moved toward horizontal production(Parker 2012). Vertical production allowed for a smaller footprint while horizontal production needed more floor area. These larger facilities were easier to build new in the suburbs where greenfield development was possible and where there was little concern over brownfield issues and remediation.

The American Dream, the construction of the interstate highway system and the results of three decades of redlining practices contributed to urban decline by the 1960s. Populations and businesses exited urban centers, leaving wastelands of under-used property.

The Quincy Market redevelopment in Boston in 1976 marked a resurgence in downtown revitalization. Quincy Market had been established as a produce and foodstuffs market around the time Boston was incorporated as a city in 1822. In 1976 it was rehabilitated as a marketplace for food and produce, and continues to be a popular lunch destination for many Bostonians. An urban renaissance had begun to overshadow the urban crisis that had plagued American cities since the 1930s (Teaford 2011). By the mid-1980s, urban revitalization rhetoric was mostly positive, and decades-long efforts began to take shape in the form of renewed American downtowns (Teaford 2011).

Redeveloping urban properties does not come without obstacles, many of which deter industrial redevelopment. Unforeseen environmental or contamincation issues could create legal issues for stakeholders; issues that can remain unknown until the physical development process has already begun (Greenstein and Sungu-Eryilmaz 2004, 78). Lending institutions may also be weary of liability issues that could result from remediation (Greenstein and Sungu-Eryilmaz 2004, 78).

When it comes to brownfield redevelopment, the roles of Community Development Corporations (CDC) has proven to be important. While private interest development relies on higher financial returns, CDCs have the communities' interests in mind; contributing to employment or cleaning up the neighborhood takes precedent over returns. CDCs are also eligible for funding sources that private developers may not be able to procure, such as remediation or infrastructure grants (Greenstein and Sungu-Eryilmaz 2004).

Today, many large, over-structured industrial buildings sit as underused masses in historic neighborhoods. Responsibly reusing these resources as tools for economic development will usher urban communities through the next decades as economies and urban populations shift, and job creation remains a national concern.

METHODOLOGY

This section addresses the methodologies used to collect data and study the feasibility of historic industrial reuse. Following are explanations describing stakeholder surveys, charrette participation, demographic and market analyses, financing options, a comprehensive plan review, a case study scenario, and an economic impact study. The methodologies collectively contribute to proving the feasibility of the case study scenario.

SURVEYS

I developed four separate sets of survey questions for each of the following groups: industrial brokers, urban planners, historic preservation professionals, and tenants. These questions were aimed at discovering potential barriers and solutions to industrial space reuse.

I conducted phone interviews or sent these surveys via email to targeted groups between August and October, 2012. I chose individuals within each group to talk to based on occupation type, in which market they worked, and liklihood of recieveing comprehensive responses. I first reached out to former career contacts; from there I asked for further contacts.

I chose to solicit responses from two brokers in Seattle and one in Indianapolis. Seattle has a long history of industrial use and remains the second largest port city on the West Coast of the United States today. The city is well-versed in reusing their industrial assets, and the industrial brokers who work in the city would likely provide creative insight for industrial reuse.

The historic preservationists and planners whom I spoke with were professionals in Indianapolis. I spoke with tenants from Muncie, Indiana; Seattle, Washington; and Indianapolis, Indiana that fit within a small business category, employing five to 25 people, with space needs between 5,000 and 25,000 square feet. The tenant findings will be discussed within the case study findings as profiles for potential tenants.

CHARRETTE

A charrette was held in Center Township in September of 2012 to explore the reuse of an industrial facility on Roosevelt Avenue, just east of Interstate 70, and within a half mile of the proposed case study site. The stakeholders identified during the charrette were developers, community members, employees, employers and tenants, brokers, and neighboring businesses. Community priorities were discussed prior to the charrette process and were incorporated into the solutions.

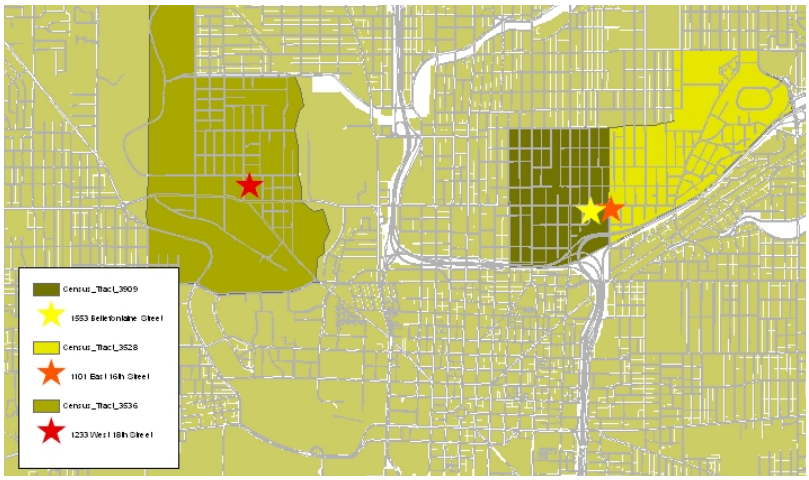
DEMOGRAPHIC and ECONOMIC ANALYSIS – THREE BUILDINGS

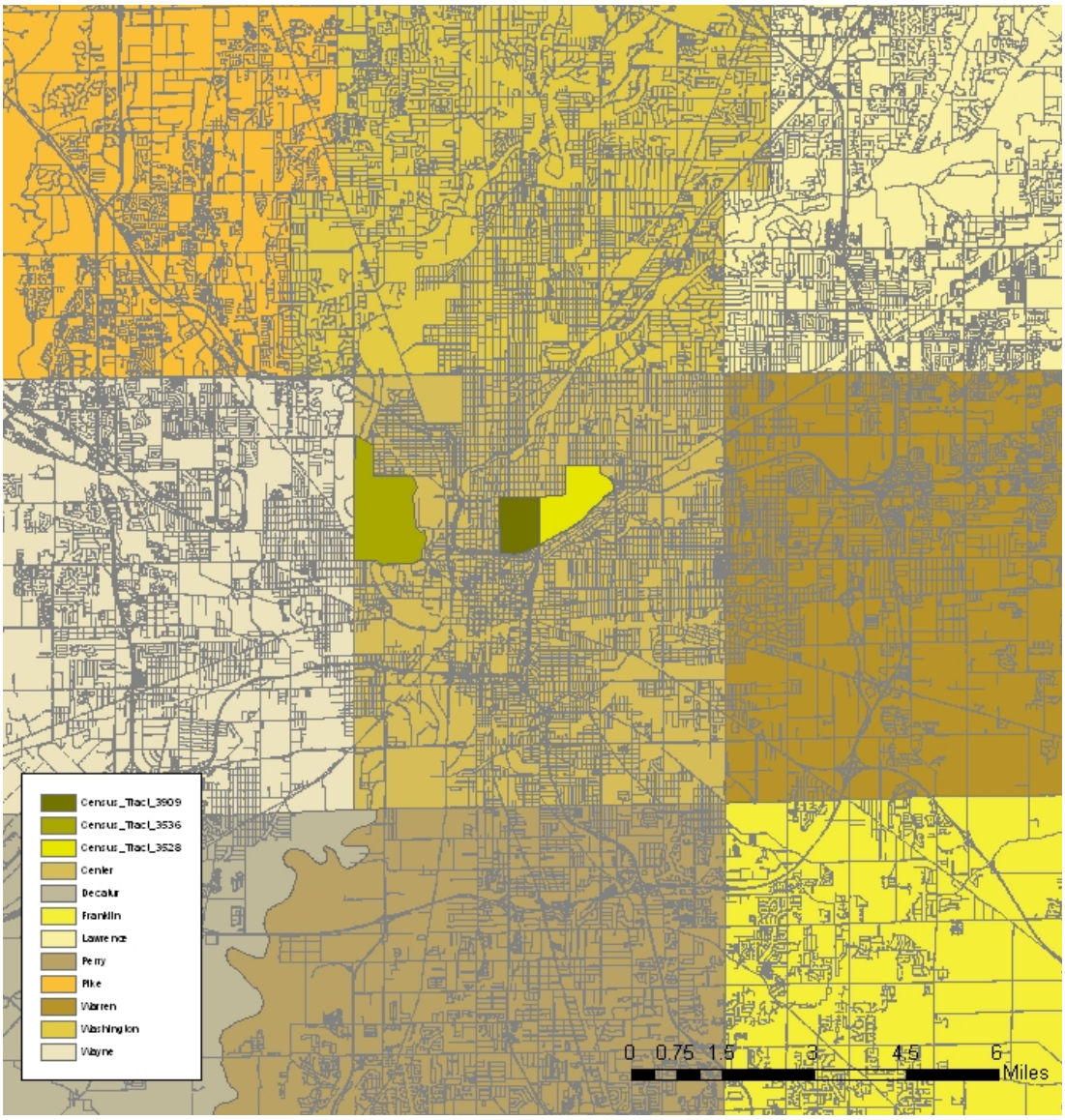
Three separate demographic and market analyses were conducted on three buildings within Indianapolis's Center Township based on census data for the period between 2000 and 2010. The buildings were chosen from a list of buildings with similar characteristics, including size, age, use, zoning, and location.

The purpose of this analysis was to determine which neighborhood could benefit from industrial employment opportunities, and contribute an employment pool within walking or public transportation distance from the building. Another goal of this study was to reveal how redevelopment of this type could benefit the neighborhood for several reasons, including to mitigate further job loss, to increase general employment, and to better serve the underserved

employee populations within Indianapolis. From this analysis, one building was chosen as a case study for further analysis. The table and maps below list each of the three properties.

Address	**Tract**
1233 West 18th Street	3536
1101 East 16th Street	3528
1553 Bellefontine Street	3909





CENTER TOWNSHIP AND MARION COUNTY MARKET ANALYSIS

An overall market analysis was completed based on census data trends between 2000 and 2010 for Center Township, and was compared to trending data for Marion County. Center Township was chosen because of its breadth of historic industrial properties, its diversity in demographics and its appropriate employment pool for the case study building.

FINANCIAL TOOLS

I conducted an analysis of available funding tools for industrial development in Indianapolis through the Indiana Economic Development Corporation. A financial analysis was conducted on the case study building to determine eligibility to receive these financial tools and rehabilitation feasibility for industrial use.

REVIEW of COMPREHENSIVE PLAN and ZONING ORDINANCE

The case study building and its proposed use was compared to Indianapolis's Comprehensive Plan as well as to the I-3-U zoning ordinance to determine whether or not the building, in its proposed use, would meet the guidelines within these two documents, as well as the goals of the comprehensive plan.

CASE STUDY

A building in Indianapolis was chosen as the study site based on information found in the preliminary economic and demographic analysis. The building will be rehabilitated as a vertical industrial park, where multiple small-business tenants will carry out various operations within the same building, and with shared docking services. The methodologies listed above were applied to a development feasibility study for the building and are discussed in the Case Study section.

ECONOMIC AND EARNINGS IMPACT

At the conclusion of the case study feasibility analysis an economic, earnings and employment impact analysis was conducted to determine the impact that this single industrial rehabilitation could have on Marion County.

To determine the total employment and earnings impact of this project, the employment effects of the rehabilitation process itself as well as the annual operations of the facility were

examined. The online Economic Impact Calculators developed by Ball State University's Center for Business and Economic Research based on the Bureau of Economic Analysis's (BEA) multipliers were used to determine overall impact.

As a secondary impact determination, a building inventory was taken of similar industrial buildings in Marion County and Center Township to determine the overall impact of these buildings on the Indianapolis Metro area.

FINDINGS

This section examines the information gathered from the methodology section, which establishes common perceptions and creative solutions for industrial property reuse.

SURVEYS AND RESPONSES

Questionnaires were developed to target industrial brokers, historic preservation professionals, and city planners. The responses from these questionnaires exposed commonly perceived barriers to historic industrial reuse, as well as some creative solutions to these barriers. Tenant responses are located within the case study proposal as tenant profiles. The full questionnaires and responses can be found in Appendices A through C.

Brokers

The brokers were asked a series of questions regarding industrial park characteristics, including location, access, space configurations, tenants, and barriers to historic industrial reuse.

The questionnaires revealed that industrial parks are percieved in a variety of ways, from urban to rural with a central need for goods accessibility, both locally and regionally. The businessses that locate within industrial parks range from plumbing supply companies to regional logistics companies, and they all need to be near suppliers, customers, employees and transporation.

Broker Question	Overarching Response
What is the definition of an industrial park?	• Can be urban, suburban or rural • Needs good accesibility • Designated for warehousing, distribution, manufacturing
What types of tenants are found in industrial parks?	• Plumbing supply to regional logistics companies
How long are their leases?	• Usually in five year terms • NNN
What location is best for them?	• Within easy access of their suppliers, customers and transportation

Planner

The planners were asked a series of questions regarding barriers to industrial reuse and the role industrial assets should play in communities. The responses revealed that the greatest perceived barriers to industrial reuse are brownfield remediation, high rehabilitation costs, poorer locations with limited highway access, limited options for expansion, and site and building configuration obselescence. The responses regarding the role industrial space should play in communities revealed that planners would like to see these buildings remain as job centers and tax revenue generators.

Planner Question	Overarching Response
What are the greatest barriers to industrial space reuse?	• Brownfield remediation • High costs vs. ROI • Expensive upgrades • Poor location means less rent, which equates to a less profitable project
What are the greatest barriers to industrial space reuse for industrial purposes?	• High taxes compared to suburbs • Old buildings lack dock/grade doors, highway access • Limited options for expansion • Obsolete building and site configurations
What role should industrial space play in your city?	• Job centers • Tax revenues

Historic Preservationists

Historic preservationists were asked a series of questions regarding the structural viability of historic industrial buildings, rehabiliation when historic tax credits are involved, and the most

commonly seen uses for historic industrial rehabilitation projects. The responses revealed that residential and office uses are the most commonly seen reuses of these buildings, and residential uses *appeared* to be the most successful.

Concerns regarding tax credit use with these buildings became apparent when addressing the Secretary of the Interior's Standards for Rehabiliation; when using tax credits, a majority of the historic fabric must be maintained through rehabilitation, making the re-design or re-configuration of a space difficult when attempting to accommodate new uses with the original structural interruptions.

When confronted with the structural viability of these buildings, the preservationists unanimously contended that most of these buildings are far overstructured for any contemporary activities and that demolition is cost prohibitive.

Historic Preservation Question	**Overarching Response**
What are the most commonly seen uses for the reuse of historic industrial buildings?	• Residential, office and retail – residential appears to be most successful
Are communities open to the reuse of industrial buildings for light industry?	• Yes. These communities are accustomed to mixed-uses near to housing.
What are the barriers to industrial reuse, with historic tax credit involvement or otherwise?	• Brownfield remediation • Structural interruptions for forklift use or in-line production, particularly when considering the Secrety of Interior's Standards for Rahabilitation • Clear height for warehousing • Location • Mechanical Updates
How structurally viable are these buildings?	• Far overstructured for contemporary activities. • Demolition is cost-prohibitive. • These older buildings can withstand years of deferred maintenance without being structurally compromised.

Conclusion

The most commonly perceived barrier to the reuse of historic core industrial properties, regardless of use, is brownfield remediation. Following that are concerns about minimal room for

expansion, poor location, and structural interruptions. Despite perceived barriers, there is a common desire to have these buildings serve as employment centers.

CHARRETTE

Several community stakeholder representatives were at the initial charrette meeting and identified the following four main motivations for their neighborhood: *jobs, walkable communities, community interaction, and sustainable communities.*

Stakeholders	**Motivations**
Developer	Community development, financial feasibility, timing
Community Members	Walkable community, jobs, business-community interaction, sustainability
Employees	Self-sufficiency wages, transportation to work, training
Employers/Tenants	Workers who fit skills
City	Fits with comprehensive plan
Brokers	Facility worth bringing tenants to
Neighboring Businesses	Business interaction; business/community connectivity

Stakeholder motivations, combined with survey responses, shows a genuine interest from communities for job growth at the neighborhood level. These buildings are ideal catalysts for small business generation and sustained community employment benefits. There is some concern associated with dirty industrial uses however community members are not averse to industrial uses locating in the neighborhood. Their main concern is bringing appropriate jobs to the community and using the resources they have to best benefit the neighborhood, including buildings, businesses, residents, and employees.

DEMOGRAPHIC and ECONOMIC ANALYSIS – THREE BUILDINGS

For each of the three census tracts, age, income, education, employment, and housing tenure were analyzed. The goal was to extract information about population and employment

shifts within each tract that could have reulted from a lack of employment opportunities. From this study, a case study building was chosen to demonstrate the feasibility of a historic industrial rehabilitation as a means of urban center employment creation.

Census Tract 3528

Age

The total population of the census tract fell 13.9% between 2000 and 2010. The median age of increased by 2 years, from 33.9 years to 35.9 years. Of the total popualtion, 638 people, or 56.6% of the population, are working age. The working age population incresed 4.6% between 2000 and 2010.

Income

The median household income in 2010 was $23,611, which represents a 33.7% increase from 2000. Three income bracket populations increased between 2000 and 2010: $10,000 to $14,999 (12.5%); $35,000 to $49,999 (9.6%); and $75,000 to $99,999 (7.9%). Those living in the lowest income bracket decreased 17.4% between 2000 and 2010.

Education

The population 25 years and over increased in Census Tract 3528 by 2.2% between 2000 and 2010. Those completing less than a 9th grade education level decreased by 10.3% and high school gradates (and equivalency) decreased by 3.4%. However those completing associate degrees, bachelor's degrees and graduate/professional degrees increased by 2.1%, 1.7%, and 2.1%, respectively. Of the total population 25 years and over, 7.7% has an associate degree or higher.

Employment

The civilian labor force increased by 42.7% between 2000 and 2010. Unemployment increased from 12.9% in 2000 to 26.2% in 2010. Residents commuting to work increased 9.6%

between 2000 and 2010. A majority of residents (81.5%) commute alone to work. Residents using public transportation account for 10.5% of the labor force, a 0.2% decrease from 2000. Walking accounted for 0.0% of commuters in 2010, a 2.5% decrease from 2000. The mean travel time to work decreased from 21.4 minutes in 2000 to 16.8 minutes in 2010.

Sales and office occupations experienced the largest growth in Census Tract 3528 between 2000 and 2010, increasing 23.5%. Production and transportation occupations experienced the greatest decrease during this period, decreasing by 12.7%.

The manufacturing industry experienced a 15.4% decrease between 2000 and 2010, which represents the greatest industry decrease. Construction, information, and educational and social services also decreased by 7.3%, 2.2% and 10.2%. The arts, entertainment and hospitality industry increased the most of all industries between 2000 and 2010, rising 11.6%. Wholesale trade, retail trade, transportation and warehousing, finance and insurance, professional and scientific, and public administration industries also increased between 2000 and 2010, by 6.2%, 3.9%, 0.8%, 6.2%, 6.6%, and 6.2%.

Housing Tenure

Total households declined by 6.1% between 2000 and 2010. Owner occupied households decreased by 13.0% while renter occupied households increased by 13.0%. Tract members who moved into their households prior to 1980 declined 26.6% between 2000 and 2010. More than half of the total households, or 57.5%, moved into census tract 3528 after 1999.

Age – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Under 5 years	102	7.8%	86	7.6%	-16	-0.2%
5 to 9 years	118	9.0%	91	8.1%	-27	-0.9%
10 to 14 years	119	9.1%	86	7.6%	-33	-1.5%
15 to 19 years	103	7.9%	71	6.3%	-32	-1.6%
20 to 24 years	78	6.0%	67	6.0%	-11	0.0%
25 to 34 years	145	11.1%	145	12.9%	0	+1.8%
35 to 44 years	176	13.5%	138	12.3%	-38	-1.2%

45 to 54 years	155	11.9%	163	14.5%	+8	+2.6%
55 to 59 years	68	5.2%	73	6.5%	+5	+1.3%
60 to 64 years	59	4.5%	52	4.6%	-7	+0.1%
65 to 74 years	101	7.7%	80	7.1%	-21	-0.6%
75 to 84 years	63	4.8%	56	5.0%	-7	+0.2%
85 years and over	20	1.5%	17	1.5%	-3	0.0%

(U.S. Census Bureau 2012)

Income – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Households	560	100.0%	506	100.0%	-54	-9.6%
Less than $10,000	188	33.6%	82	16.2%	-106	-17.4%
$10,000 to $14,999	73	13.0%	129	25.5%	+56	+12.5%
$15,000 to $24,999	97	17.3%	52	10.3%	-45	-7.0%
$25,000 to $34,999	85	15.2%	66	13.0%	-19	-2.2%
$35,000 to $49,999	68	12.1%	110	21.7%	+42	+9.6%
$50,000 to $74,999	42	7.5%	27	5.3%	-15	-2.2%
$75,000 to $99,999	0	0.0%	40	7.9%	+40	+7.9%
$100,000 to $149,999	0	0.0%	0	0.0%	0	0.0%
$150,000 to $199,999	0	0.0%	0	0.0%	0	0.0%
$200,000 or more	7	1.3%	0	0.0%	-7	-1.3%

(U.S. Census Bureau 2012)

Education – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Population 25 years and over	808	100%	826	100%	+18	+2.2%
Less than 9th Grade	153	18.9%	71	8.6%	-82	-10.3%
9th to 12th Grade, no diploma	228	28.2%	274	33.2%	+46	+5.0%
High School Graduate – includes equivalency	286	35.4%	264	32.0%	-22	-3.4%
Some College, no degree	127	15.7%	153	18.5%	+26	+2.8%
Associate Degree	3	0.4%	21	2.5%	+18	+2.1%
Bachelor's Degree	11	1.4%	26	3.1%	+15	+1.7%
Graduate or Professional Degree	0	0.0%	17	2.1%	+17	+2.1%

(U.S. Census Bureau 2012)

Labor Force Information – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**

Civilian Labor Force	426	100.0%	608	100.0%	+182	+42.7%
Employed	371	87.1%	449	73.8%	+78	-13.3%
Unemployed	55	12.9%	159	26.2%	+104	+13.3%
Total Commuting to Work	366	100.0%	401	100.0%	+35	+9.6%
Car, Truck or Van – Drove Alone	271	74.0%	327	81.5%	+56	+7.5%
Car, Truck or Van – Carpooled	47	12.8%	32	8.0%	-15	-4.8%
Public Transportation	39	10.7%	42	10.5%	+3	-0.2%
Walked	9	2.5%	0	0.0%	-9	-2.5%
Other Means	0	0.0%	0	0.0%	0	0.0%
Worked at Home	0	0.0%	0	0.0%	0	0.0%
Mean Travel Time to Work (minutes)	21.4	NA	16.8	NA	-4.6	-21.5%

(U.S. Census Bureau 2012)

Occupation – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Management, Professional, and Related Occupations	16	4.3%	12	2.7%	-4	-1.6%
Service Occupations	79	21.3%	98	21.8%	+19	+0.5%
Sales and Office Occupations	145	39.1%	281	62.6%	+136	+23.5%
Farming, Fishing, and Forestry Occupations + Construction, Extraction and Maintenance Occupations	36	9.7%	0	0.0%	0	0.0%
Production, Transportation, and Material Moving Occupations	95	25.6%	58	12.9%	-37	-12.7%

(U.S. Census Bureau 2012)

Industry – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Agriculture, Forestry, Fishing and Hunting, and Mining	0	0.0%	0	0.0%	0	0.0%
Construction	27	7.3%	0	0.0%	-27	-7.3%
Manufacturing	57	15.4%	0	0.0%	-57	-15.4%
Wholesale Trade	0	0.0%	28	6.2%	+28	+6.2%
Retail Trade	46	12.4%	73	16.3%	+27	+3.9%

Transportation and Warehousing, and Utilities	35	9.4%	46	10.2%	+11	+0.8%
Information	8	2.2%	0	0.0%	-8	-2.2%
Finance, Insurance, Real Estate, and Rental and Leasing	33	8.9%	68	15.1%	+35	+6.2%
Professional, Scientific, Management, Administrative, and Waste Management Services	11	3.0%	43	9.6%	+32	+6.6%
Educational, Health, and Social Services	93	25.1%	67	14.9%	-26	-10.2%
Arts, Entertainment, Recreation, Accommodation, and Food Services	25	6.7%	82	18.3%	+57	+11.6%
Other Services (Except Public Administration)	24	6.5%	0	0.0%	-24	-6.5%
Public Administration	12	3.2%	42	9.4%	+30	+6.2%

(U.S. Census Bureau 2012)

Household Information – CT 3528						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Total Population	1,307	100.0%	1,125	100.0%	-182	-13.9%
Median Age	33.9	NA	35.9	NA	+2	NA
Total Households	528	100.0%	496	100.0%	-32	-6.1%
Median Household Income	$17,656	NA	$23,611	NA	+$5,955	+33.7%
Owner Occupied	291	55.1%	209	42.1%	-82	-13.0%
Renter Occupied	237	44.9%	287	57.9%	+50	+13.0%
Year Householder Moved into Unit						
2005 or later	NA	NA	177	35.0%	NA	NA
2000 to 2004	NA	NA	114	22.5%	NA	NA
1999 to March 2000	71	13.2%	NA	NA	NA	NA
1995 to 1998	141	26.2%	68	13.4%	NA	NA
1990 to 1994	31	5.8%	*	*	NA	NA
1980 to 1989	56	10.4%	57	11.3%	+1	+0.9%
1970 to 1979	111	20.6%	50	9.9%	-61	-10.7%
1969 or earlier	128	23.8%	40	7.9%	-88	-15.9%

*Combined with above (U.S. Census Bureau 2012)

Census Tract 3536

Age

Between 2000 and 2010, the population within Census Tract 3536 dropped 33.4% from 3,169 to 2,112 people. The median age of Census Tract 3536 increased by 0.3 years, from 33.3 years to 33.6 years. Over half of the population, or 55%, are working age. The working age population decreased 2.7% between 2000 and 2010.

Income

The median household income increased by 9.5%, from $22,209 to $24,317 between 2000 and 2010. Three income bracket populations increased during this same period: $10,000 to $14,999 (4.2%); $75,000 to $99,999 (1.7%); and $200,000 or more (0.8%). Those living in the lowest income bracket decreased 1.5% between 2000 and 2010.

Education

The population 25 years and over decreased by 29.1% between 2000 and 2010. Those completing less than a 9th grade education level decreased by 4.6% and high school graduates (and equivalency) increased by 24.8%. Those completing associate degrees, bachelor's degrees and graduate/professional degrees increased by 2.5%, decreased by 6.2%, and increased by 0.5%. Of the total population 25 years and over, 11.4% has an associate degree or higher.

Employment

The civilian labor force in Census Tract 3536 decreased by 4.7% between 2000 and 2010. Unemployment increased from 11.5% in 2000 to 23.1% in 2010. Residents commuting to work decreased 19.3% between 2000 and 2010. Almost 60% of the labor force commuted alone to work as of 2010. Carpooling decreased 4.7% and as of 2010 accounted for16.3% of commuters. In 2010 12.7% of the working population walked to work, which represents an 8.1% increase in walking between 2000 and 2010. The use of public transportation for commuting decreased by

5.7%. The mean travel time to work decreased from 21.4 minutes in 2000 to 16.8 minutes in 2010.

Production and transportation occupations experienced the largest growth in Census Tract 3536 between 2000 and 2010, increasing 10.4%. Sales and office occupations experienced the greatest decrease during this period, decreasing by 10.0%.

The transportation and warehousing industry experienced a 7.8% increase between 2000 and 2010, which represents the greatest industry increase. Construction, information, and arts and entertainment industries also increased, by 1.2%, 1.2% and 4.1%. The educational and social services industry experienced the largest decrease, falling by 6.7%. Wholesale trade, retail trade, professional and scientific, finance and insurance, and public administration industries decreased by 0.9%, 2.8%, 1.5%, 4.5%, and 1.7%.

Housing Tenure

Total households declined by 37.1% between 2000 and 2010. Owner occupied households increased by 4.1% while renter occupied households decreased by 4.1%. Tract members who moved into their households prior to 1990 declined 21.9% between 2000 and 2010. As of 2010 63.7% of the total occupied households moved into the tract after 1999.

Age – CT 3536						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Under 5 years	217	6.8%	137	6.5%	-80	-0.3%
5 to 9 years	232	7.3%	116	5.5%	-116	-1.8%
10 to 14 years	248	7.8%	122	5.8%	-126	-2.0%
15 to 19 years	245	7.7%	261	12.4%	+16	+4.7%
20 to 24 years	271	8.6%	194	9.2%	-77	+0.6%
25 to 34 years	451	14.2%	125	12.4%	-326	-1.8%
35 to 44 years	463	14.6%	209	9.9%	-254	-4.7%
45 to 54 years	317	10.0%	297	14.0%	-20	+4.0%
55 to 59 years	103	3.3%	107	5.1%	+4	+1.8%
60 to 64 years	139	4.4%	92	4.4%	-47	0.0%
65 to 74 years	288	9.1%	137	6.5%	-151	-2.6%
75 to 84 years	165	5.2%	124	5.9%	-41	+0.7%
85 years and over	30	0.9%	53	2.5%	+23	+1.6%

(U.S. Census Bureau 2012)

Income – CT 3536						
	2000		2010		Change	
	Number	%	Number	%	Number	%
Households	1,262	100.0%	881	100.0%	-381	-30.2%
Less than $10,000	263	20.8%	170	19.3%	-93	-1.5%
$10,000 to $14,999	119	9.4%	120	13.6%	+1	+4.2%
$15,000 to $24,999	337	26.7%	174	19.8%	-163	-6.9%
$25,000 to $34,999	183	14.5%	117	13.3%	-66	-1.2%
$35,000 to $49,999	159	12.6%	107	12.1%	-52	-0.5%
$50,000 to $74,999	140	11.1%	139	15.8%	-1	+4.7%
$75,000 to $99,999	45	3.6%	47	5.3%	+2	+1.7%
$100,000 to $149,999	16	1.3%	0	0.0%	-16	-1.3%
$150,000 to $199,999	0	0.0%	0	0.0%	0	0.0%
$200,000 or more	0	0.0%	7	0.8%	+7	+0.8%

(U.S. Census Bureau 2012)

Education – CT 3536						
	2000		2010		Change	
	Number	%	Number	%	Number	%
Population 25 years and over	2,037	100.0%	1,445	100.0%	-592	-29.1%
Less than 9th Grade	153	7.5%	42	2.9%	-111	-4.6%
9th to 12th Grade, no diploma	728	35.7%	215	14.9%	-513	-20.8%
High School Graduate – includes equivalency	491	24.1%	707	48.9%	+216	+24.8%
Some College, no degree	368	18.1%	317	21.9%	-51	+3.8%
Associate Degree	71	3.5%	87	6.0%	+16	+2.5%
Bachelor's Degree	142	7.0%	11	0.8%	-131	-6.2%
Graduate or Professional Degree	84	4.1%	66	4.6%	-18	+0.5%

(U.S. Census Bureau 2012)

Labor Force Information – CT 3536						
	2000		2010		Change	
	Number	%	Number	%	Number	%
Civilian Labor Force	1,297	100.0%	1,236	100.0%	-61	-4.7%
Employed	1,148	88.5%	951	76.9%	-197	-11.6%
Unemployed	149	11.5%	285	23.1%	+136	+11.6%
Total Commuting to Work	1,142	100.0%	922	100.0%	-220	-19.3%
Car, Truck or Van – Drove Alone	686	60.1%	547	59.3%	-139	-0.8%
Car, Truck or Van –	240	21.0%	150	16.3%	-90	-4.7%

Carpooled						
Public Transportation	145	12.7%	65	7.0%	-80	-5.7%
Walked	53	4.6%	117	12.7%	+64	+8.1%
Other Means	10	0.9%	26	2.8%	+16	+1.9%
Worked at Home	8	0.7%	17	1.8%	+9	+1.1%
Mean Travel Time to Work (minutes)	21.1	NA	21.1	NA	0	0.0%

(U.S. Census Bureau 2012)

Occupation – CT 3536						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Management, Professional, and Related Occupations	305	26.6%	174	18.3%	-131	-8.3%
Service Occupations	326	28.4%	337	35.4%	+11	+7.0%
Sales and Office Occupations	258	22.5%	119	12.5%	-139	-10.0%
Farming, Fishing, and Forestry Occupations + Construction, Extraction and Maintenance Occupations	23	2.0%	26	2.7%	+26	+2.7%
Production, Transportation, and Material Moving Occupations	236	20.6%	295	31.0%	+59	+10.4%

(U.S. Census Bureau 2012)

Industry – CT 3536						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Agriculture, Forestry, Fishing and Hunting, and Mining	0	0.0%	0	0.0%	0	0.0%
Construction	17	1.5%	26	2.7%	+9	+1.2%
Manufacturing	128	11.1%	106	11.1%	-22	0.0%
Wholesale Trade	21	1.8%	9	0.9%	-12	-0.9%
Retail Trade	112	9.8%	67	7.0%	-45	-2.8%
Transportation and Warehousing, and Utilities	71	6.2%	133	14.0%	+62	+7.8%
Information	17	1.5%	26	2.7%	+9	+1.2%
Finance, Insurance, Real Estate, and Rental and Leasing	70	6.1%	15	1.6%	-55	-4.5%
Professional, Scientific,	87	7.6%	58	6.1%	-29	-1.5%

Management, Administrative, and Waste Management Services						
Educational, Health, and Social Services	411	35.8%	277	29.1%	-134	-6.7%
Arts, Entertainment, Recreation, Accommodation, and Food Services	114	9.9%	133	14.0%	+19	+4.1%
Other Services (Except Public Administration)	50	4.4%	75	7.9%	+25	+3.5%
Public Administration	50	4.4%	26	2.7%	-24	-1.7%

(U.S. Census Bureau 2012)

Household Information – CT 3536						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Total Population	3,169	100.0%	2,112	100.0%	-1,057	-33.4%
Median Age	33.3	NA	33.6	NA	+0.3	NA
Total Households	1,258	100.0%	791	100.0%	-467	-37.1%
Median Household Income	$22,209	NA	$24,317	NA	+$2,108	+9.5%
Owner Occupied	634	50.4%	431	54.5%	-203	+4.1%
Renter Occupied	624	49.6%	360	45.5%	-264	-4.1%
Year Householder Moved into Unit						
2005 or later	NA	NA	359	40.7%	NA	NA
2000 to 2004	NA	NA	203	23.0%	NA	NA
1999 to March 2000	275	22.7%	NA	NA	NA	NA
1995 to 1998	239	19.7%	81	9.2%	NA	NA
1990 to 1994	104	8.6%	*	*	NA	NA
1980 to 1989	142	11.7%	28	3.2%	-114	-8.5%
1970 to 1979	97	8.0%	19	2.2%	-78	-5.8%
1969 or earlier	355	29.3%	191	21.7%	-164	-7.6%

*Combined with above (U.S. Census Bureau 2012)

Census Tract 3909

Age

The total population within Census Tract 3909 fell 7.3% between 2000 and 2010. The median age decreased by 3.7 years, from 37.1 years to 33.4 years. The working age population of

the census tract is 1,664 people, or 70.7% of the population, and increased 5.9% despite the overall population of the census tract declining 7.3%.

Income

The median household income increased 61.8%, from $23,738 to $38,412 between 2000 and 2010. Five income bracket populations increased during this same period: $10,000 to $14,999 (2.9%); $50,000 to $74,999 (8.8%); $100,000 to $149,999 (2.1%); $150,000 to $199.999 (1.0%); and $200,000 or more (5.3%). Those living in the lowest income bracket decreased 9.7% between 2000 and 2010.

Education

The population 25 years and over decreased by 19.4% between 2000 and 2010. Those completing less than a 9th grade education level decreased by 5.1% and high school graduates (and equivalency) increased by 10.9%. Those completing associate degrees, bachelor's degrees and graduate/professional degrees decreased by 5.4%, decreased by 0.5%, and increased by 1.9%, respectively. Of the total population 25 years and over, 35.8% has an associate degree or higher.

Employment

The civilian labor force in Census Tract 3909 decreased by 8.6% between 2000 and 2010. Unemployment decreased from 17.6% to 16.3% during the same period and residents commuting to work decreased 5.6%. As of 2010, 78.2% of the labor force commuted alone to work. Carpooling decreased 7.0% between 2000 and 2010, and accounts for 5.7% of the commuting population. Walking commuters decreased 2.6% between 2000 and 2010 and represent 7.8% of the commuting population. The use of public transportation for commuting decreased by 6.8%. The mean travel time to work increased from 19.5 minutes in 2000 to 19.9 minutes in 2010.

Service occupations experienced the largest growth in Census Tract 3909 between 2000 and 2010, increasing 5.7%. Sales and office occupations, and production and transportation occupations also increased during this period, rising by 2.6% and 2.3%.

The retail trade industry increased 6.1% between 2000 and 2010, which represents the greatest industry increase. Construction, manufacturing, finance and insurance, professional and scientific, and public administration industries also increased by 0.8%, 2.9%, 4.2%, 0.6%, and 2.9%. Transportation and warehousing experienced the greatest industry decrease, falling by 8.0% between 2000 and 2010. Arts and entertainment, educational and social services, information, wholesale trade, and agriculture and forestry industries also decreased during this period by 1.7%, 6.3%, 1.5%, 0.2% and 1.4%.

Housing Tenure

Total households increased by 2.3% between 2000 and 2010. Owner occupied households increased by 3.8% while renter occupied households decreased by 3.8%. Tract members who moved into their households prior to 1980 declined by 16.0% between 2000 and 2010. As of 2010 63.2% of the total households moved into the tract after 1999.

Age – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Under 5 years	165	6.5%	167	7.1%	+2	+0.6%
5 to 9 years	182	7.2%	150	6.4%	-32	-0.8%
10 to 14 years	173	6.8%	102	4.3%	-71	-2.5%
15 to 19 years	132	5.2%	68	2.9%	-64	-2.3%
20 to 24 years	153	6.0%	219	9.3%	+66	+3.3%
25 to 34 years	453	17.8%	528	22.4%	+75	+4.6%
35 to 44 years	495	19.5%	301	12.8%	-194	-6.7%
45 to 54 years	341	13.4%	359	15.3%	+18	+1.9%
55 to 59 years	129	5.1%	153	6.5%	+24	+1.4%
60 to 64 years	77	3.0%	104	4.4%	+27	+1.4%
65 to 74 years	124	4.9%	128	5.4%	+4	+0.5%
75 to 84 years	92	3.6%	58	2.5%	-34	+0.9%
85 years and over	28	1.1%	11	0.5%	-17	-0.6%

(U.S. Census Bureau 2012)

Income – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Households	1,157	100.0%	1,010	100.0%	-147	-12.7%
Less than $10,000	262	22.6%	130	12.9%	-132	-9.7%

$10,000 to $14,999	127	11.0%	140	13.9%	+13	+2.9%
$15,000 to $24,999	161	13.9%	92	9.1%	-69	-4.8%
$25,000 to $34,999	138	11.9%	89	8.8%	-49	-3.1%
$35,000 to $49,999	138	11.9%	130	12.9%	-8	+1.0%
$50,000 to $74,999	90	7.8%	168	16.6%	+78	+8.8%
$75,000 to $99,999	80	6.9%	36	3.6%	-44	-3.3%
$100,000 to $149,999	110	9.5%	117	11.6%	+7	+2.1%
$150,000 to $199,999	30	2.6%	36	3.6%	+6	+1.0%
$200,000 or more	21	1.8%	72	7.1%	+51	+5.3%

(U.S. Census Bureau 2012)

Education – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Population 25 years and over	1,848	100.0%	1,490	100.0%	-358	-19.4%
Less than 9th Grade	191	10.3%	77	5.2%	-114	-5.1%
9th to 12th Grade, no diploma	404	21.9%	255	17.1%	-149	-4.8%
High School Graduate – includes equivalency	250	13.5%	363	24.4%	+113	+10.9%
Some College, no degree	267	14.4%	261	17.5%	-6	+3.1%
Associate Degree	112	6.1%	11	0.7%	-101	-5.4%
Bachelor's Degree	346	18.7%	271	18.2%	-75	-0.5%
Graduate or Professional Degree	278	15.0%	252	16.9%	-26	+1.9%

(U.S. Census Bureau 2012)

Labor Force Information – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Civilian Labor Force	1,365	100.0%	1,248	100.0%	-117	-8.6%
Employed	1,125	82.4%	1,044	83.7%	-81	-1.3%
Unemployed	240	17.6%	204	16.3%	-36	-1.3%
Total Commuting to Work	1,106	100.0%	1,044	100.0%	-62	-5.6%
Car, Truck or Van – Drove Alone	695	62.8%	816	78.2%	+121	+15.4%
Car, Truck or Van – Carpooled	141	12.7%	59	5.7%	-82	-7.0%
Public Transportation	133	12.0%	54	5.2%	-79	-6.8%
Walked	57	5.2%	81	7.8%	+24	+2.6%
Other Means	0	0.0%	15	1.4%	+15	+1.4%
Worked at Home	80	7.2%	19	1.8%	-61	-5.4%

Mean Travel Time to Work (minutes)	19.5	NA	19.9	NA	+0.4	NA

(U.S. Census Bureau 2012)

Occupation – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Management, Professional, and Related Occupations	570	51.5%	408	39.1%	-162	-12.4%
Service Occupations	182	16.5%	232	22.2%	+50	+5.7%
Sales and Office Occupations	261	23.6%	274	26.2%	+13	+2.6%
Farming, Fishing, and Forestry Occupations + Construction, Extraction and Maintenance Occupations	65	5.9%	62	5.9%	-3	0.0%
Production, Transportation, and Material Moving Occupations	47	4.2%	68	6.5%	+21	+2.3%

(U.S. Census Bureau 2012)

Industry – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Agriculture, Forestry, Fishing and Hunting, and Mining	16	1.4%	0	0.0%	-16	-1.4%
Construction	50	4.5%	55	5.3%	+5	+0.8%
Manufacturing	69	6.2%	95	9.1%	+26	+2.9%
Wholesale Trade	8	0.7%	5	0.5%	-3	-0.2%
Retail Trade	83	7.5%	142	13.6%	+59	+6.1%
Transportation and Warehousing, and Utilities	88	8.0%	0	0.0%	-88	-8.0%
Information	27	2.4%	9	0.9%	-18	-1.5%
Finance, Insurance, Real Estate, and Rental and Leasing	81	7.3%	120	11.5%	+39	+4.2%
Professional, Scientific, Management, Administrative, and Waste Management Services	176	15.9%	172	16.5%	-4	+0.6%
Educational, Health,	282	25.5%	200	19.2%	-82	-6.3%

and Social Services						
Arts, Entertainment, Recreation, Accommodation, and Food Services	156	14.1%	129	12.4%	-27	-1.7%
Other Services (Except Public Administration)	40	3.6%	41	3.9%	+1	+0.3%
Public Administration	49	4.4%	76	7.3%	+27	+2.9%

(U.S. Census Bureau 2012)

Household Information – CT 3909						
	2000		**2010**		**Change**	
	Number	**%**	**Number**	**%**	**Number**	**%**
Total Population	2,544	100.0%	2,358	100.0%	-186	-7.3%
Median Age	37.1	NA	33.4	NA	-3.7	NA
Total Households	1,116	100.0%	1,142	100.0%	+26	+2.3%
Median Household Income	$23,738	NA	$38,412	NA	$14,674	+61.8%
Owner Occupied	426	38.2%	480	42.0%	+54	+3.8%
Renter Occupied	690	61.8%	662	58.0%	-28	-3.8%
Year Householder Moved into Unit						
2005 or later	NA	NA	513	50.8%	NA	NA
2000 to 2004	NA	NA	209	20.7%	NA	NA
1999 to March 2000	453	35.2%	NA	NA	NA	NA
1995 to 1998	303	24.8%	148	14.7%	NA	NA
1990 to 1994	118	8.6%	*	*	NA	NA
1980 to 1989	99	9.3%	78	7.7%	-21	-1.6%
1970 to 1979	31	4.2%	7	0.7%	-24	-3.5%
1969 or earlier	113	17.9%	55	5.4%	-58	-12.5%

*Combined with above (U.S. Census Bureau 2012)

Preliminary Study Conclusion

Census tract 3528 demonstrated a significant population decline between 2000 and 2010 – 13.9% - however over half of the tract's population remained working age. Over 57% of the population living in the tract as of 2010 moved into the tract after 1999 and the population that moved into the tract prior to 1980 decreased over 25% between 2000 and 2010. According to the 2010 census, 12.9% of the population worked in a production or transportation occupation, a 12.7% decrease since 2000. The median household income increased 33.7% between 2000 and 2010, and higher income bracket populations are increasing. This tract is demonstrating a

comprehensive population shift; major occupation sectors, such as production and transportation, declined by 50% between 2000 and 2010. This tract also lost all of its manufacturing industry and had significant increases in finance (6.2%) and professional (6.6%) industries, demonstrating a shift from working class jobs to white collar jobs.

The population in Census tract 3536 shrank over a third – 33.4% - between 2000 and 2010, while its labor force only declined 4.7%. As of 2010, over 63% of the tract households moved into the tract after 1999. Almost 31.0% of the population worked in a production or transportation occupation in 2010, a 10.4% increase since 2000. The transportation and warehousing industry grew approximately 8.0% between 2000 and 2010. The median household income increased 9.5% between 2000 and 2010 and as of 2010 was $24,317. These trends show that this neighborhood has a difinitive tolerance for industrial uses, given the high percentage of residents working in production and transportation, and the increase in the transportation and warehousing industries. Standards of living are likely improving given the increase in median household income.

Census tract 3909 demonstrated a 7.3% population decrease between 2000 and 2010. The working age population made up over 70% of the population in 2010 and unemployment continues to decrase. As of 2010 over 60% of the households within the tract had moved in after 1999. The population working in a production or transportation occupation increased 2.3% between 2000 and 2010. The transportation and warehousing industry decreased 8.0% and the manufacturing industry increased 2.9%. The median household income increased 61.8% between 2000 and 2010, and the population earning over $100,000 annually increased 8.3%. The trending data demonstrates some population shifts however the tract remains a dynamic neighborhood, with a variety of occupations and incomes. These data points are discussed further in the following paragraphs.

Site Selection

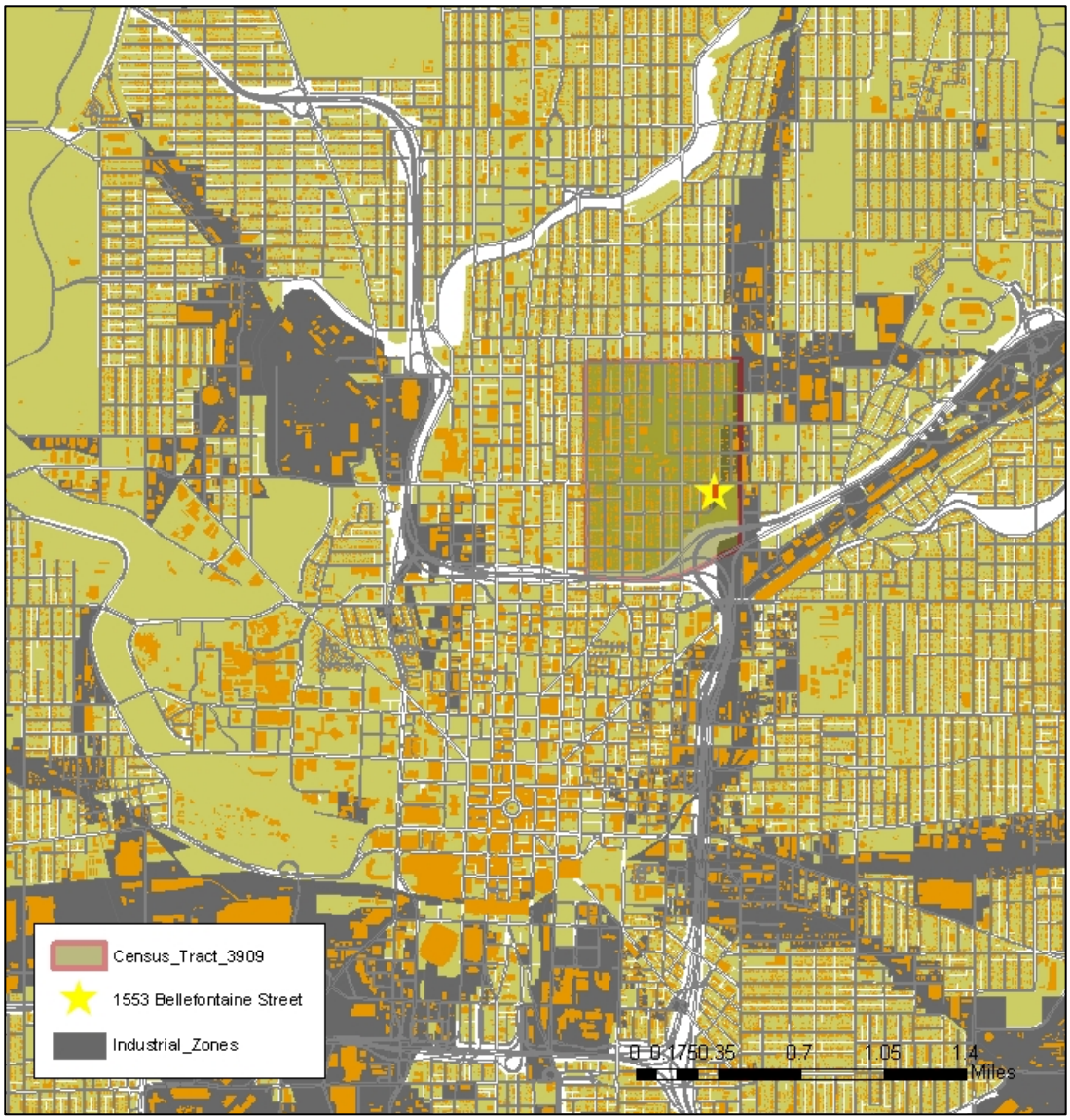
The site located in census tract 3909 demonstrated favorable demographic and industry trends for the case study analysis. The trending data shows that the area's unemployment rate decreased between 2000 and 2010, and the manufacturing industry increased 2.9% during the same period, demonstrating tolerance at the neighborhood level for such uses and employment opportunities.

The working age population accounts for over two-thirds of the population in census tract 3909. Even as median household income increased over 60%, manufacturing occupations, as well as the tract's manufacturing industry, increased, implying that these manufacturing jobs are well-paying jobs. However, the skyrocketing median household income coupled with the increase in finance and insurance industries suggests that populations are entering the neighborhood that hold white-collar jobs with higher earning power.

The building's physical characteristics also make it an ideal rehabilitation building. It is structurally sound and has recently received a new roof, which cuts down rehabilitation expenses. The building also exhibits features that are ideal for the vertical industrial park including a centralized main loading dock at the rear of the facility that would be a shared service for the building, and would likely help to attract small businesses. This shared loading dock cost would be offset by padding maintenance and utility expenses, and passing those expenses on to each suite.

Other attractive features include original saw-tooth windows on each floor, ideal for positive aesthetics or functional ventilation, an existing freight elevator that is in working order, and two walk-in refrigerators on the second floor – a 1,100 square foot refrigerator on the north side of the building and a 1,900 square foot refrigerator on the south side of the building.

The building is currently for sale and is ideal for maintaining as a historic neighborhood resource for employment. The building's proximity to downtown amenities and transportation routes also makes it an attractive choice for study.



CENTER TOWNSHIP AND MARION COUNTY MARKET ANALYSIS

Introduction

A comparitive analysis of Center Township and Marion County population and economic characteristics was completed and is examined below. Also provided is a synopsis of the Indianapolis market's need for employment and national statistics on the manufacturing and warehousing industries.

Age

The total population of Center Township is 142,787, with a working-age population of 90,639, or 63.5%. The median age is 33.8, which increased slightly, from 32.9 years, since 2000. Center Township experienced a 14.5% decrease in population between 2000 and 2010, while Marion County experienced a 5.0% increase.

The total population of Marion County is 903,393. Center Township makes up approximately 16.0% of the County. The median age in Marion County is comparable to the Township at 33.9 years. The working age population of Marion County is 554,779, which equates to 61.4% of the total population.

Income

According to the 2010 census information for Center Township, the four most common annual income bracket populations are less than $10,000, $15,000 to $24,999, $25,000 to $34,999, and $35,000 to $49,999, at 15.8%, 16.7%, 15.8%, and 15.1%. The median household income was $29,005 as of 2010, which represents a 9.7% increase from 2000.

Marion County experienced a 3.6% decrease in median household income between 2000 and 2010, decreasing from $40,421 to $38,959. The population earning $100,000 to $199,999 increaseed almost 3.0% during the same period, while those earning $35,000 to $74,999 decreased almost 6.0%. As of 2010 the four most common annual income bracket populations

were $15,000 to $24,999, $25,000 to $34,999, $35,000 to $49,999, and $50,000 to $74,999, at 15.4%, 14.1%, 15.5% and 16.4% of the total working population.

Education

As of 2010 34.5% of Center Township's total population had a high school diploma or equivalency, which represents a 1.7% decrease since 2000. Median household income was $29,005, as opposed to the national average for 2010 of $51,914. Those living in Center Township who had achieved a high school diploma or higher increased over 7.0% between 2000 and 2010.

As of 2010, over 84.0% of Marion County's school age population had achieved at least a high school diploma, a 2.5% increase since 2000. Over 26.0% of the population had achieved a bachelor's degree as of 2010, over 10% more than the Center Township population. Of the total population over 25 years, 43.6% had achieved an associate degree or higher as of 2010.

Employment

In 2010, Center Township had a labor force population of 71,034, a 3.1% increase from 2000. The unemployment rate was 16.7% in 2010, compared to Indianapolis Metro Area's unemployment rate of 7.6% (as of August 2012).

Of Center Township's working population, 72.9% commuted alone to work in 2010, compared to 66.0% in 2000, which represents a 6.9% increase. Carpooling decreased by 6.9% between 2000 and 2010. Workers using public transportation decreased by 2.4%, while those who walked to work increased by 0.6% between 2000 and 2010. The mean travel time to work decreased by 2.2 minutes to 21.1 minutes between 2000 and 2010.

Production and transportation occupations accounted for 16.0% of the total employed civilian population in 2010 in Center Township, a 4.0% decrease since 2000. The management occupation sector grew 5.5% between 2000 and 2010. Service occupations also grew between 2000 and 2010 by 1.2%.

Four industry sectors grew between 2000 and 2010: Professional and scientific, educational and social servies, arts and entertainment, and public administration. The manufacturing sector decreased the most between 2000 and 2010, decreasing by 2.9%. Finance and insurance also decreased by 1.1% between 2000 and 2010.

Educational services, and arts and entertainment are the two largest industry sectors in Indianapolis's Center Township, representing 19.1% and 12.5% of the total population. Following are the retail trade, and professional and sceintific industries at 12.4% and 12.1%. Manufacturing accounts for 10.2%, and transportation and warehousing accounts for 6.0% of industry in Center Township.

Marion County's labor force decreased 1.2 % between 2000 and 2010. The unemployment rate was 13.3% in 2010. Of Marion County's total working population 83.0% commuted alone to work in 2010, which represents a 2.6% increase since 2000. Carpooling decreased 2.9%, public tranportation decreased by 0.7% and walking decreased by 0.1% betweeen 2000 and 2010.

Service occupations in Marion County increased the most of all occupations between 2000 and 2010, increasing 4.1%, while natural resources and contruction occupations decreased 2.6% during the same period.

Educational and health services represents the largest industry sector in Marion County, representing nearly 22.0% of all industry. Manufacturing represents the next largest industry sector in Marion County at 12.3%, however experienced a 1.3% decrease between 2000 and 2010. The arts and entertainment industry grew the most between 2000 and 2010 at 3.0% and represents 11.5% of Marion County industry.

Housing Tenure

Center Township had 58,339 occupied housing units as of 2010, which represents an 11.8% decrease since 2000. Owner-occupied housing units decreased by 4.5% between 2000 and 2010 as opposed to a 4.5% increase in renter-occupied housing units during the same period.

Of Center Townships's occupied households over 65.0% moved into the Township after 1999. The population who moved into the Township prior to 1990 decreased 13.5% between 2000 and 2010.

Center Township occupied housing units represent 15.9% of Marion County's total occupied housing units. Owner-occupied housing units in Marion County account for 56.5% of the occupied housing units while renter-occupied housing units account for 43.5%.

Of Marion County's occupied housing units, 68.7% of the householders moved in after 2000. Householders who moved into the neighborhood prior to 1980 decreased 12.8% between 2000 and 2010.

Center Township						
Gender	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Total Population	167,055	100.0%	142,787	100.0%	-24,268	-14.5%
Median Age	32.9	NA	33.8	NA	+0.9	NA
Male	83,837	50.2%	72,302	50.6%	-11,535	+0.4%
Female	83,218	49.8%	70,485	49.4%	-12,733	-0.4%

Marion County						
Gender	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Total Population	860,454	100.0%	903,393	100.0%	+42,939	+5.0%
Median Age	33.6	NA	33.9	NA	+0.3	NA
Male	415,998	48.3%	435,687	48.2%	+19,689	-0.1%
Female	444,456	51.7%	467,706	51.8%	+23,250	+0.1%

(U.S. Census Bureau 2012)

Center Township						
Age	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Under 5 years	12,327	7.4%	10,469	7.3%	-1,858	-0.1%
5 to 9 years	12,638	7.6%	9,018	6.3%	-3,620	-1.3%
10 to 14 years	11,954	7.2%	8,302	5.8%	-3,652	-1.4%
15 to 19 years	11,496	6.9%	9,651	6.8%	-1,845	-0.1%

20 to 24 years	13,167	7.9%	12,335	8.6%	-832	+0.7%
25 to 34 years	27,099	16.2%	23,899	16.7%	-3,200	-0.5%
35 to 44 years	27,099	16.2%	18,497	13.0%	-8,602	-3.2%
45 to 54 years	19,431	11.6%	21,271	14.9%	+1,840	+3.3%
55 to 59 years	6,776	4.1%	8,501	6.0%	+1,725	+1.9%
60 to 64 years	6,022	3.6%	6,136	4.3%	+114	+0.7%
65 to 74 years	10,479	6.3%	8,100	5.7%	-2,379	-0.6%
75 to 84 years	6,445	3.9%	4,808	3.3%	-1,637	-0.6%
85 years and over	2,122	1.3%	1,800	1.3%	-322	0.0%
Median age (years)	32.9	NA	33.8	NA	+0.9	NA

Marion County						
Age	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Under 5 years	63,640	7.4%	68,160	7.5%	+4,520	+0.1%
5 to 9 years	63,107	7.3%	62,286	6.9%	-821	-0.4%
10 to 14 years	60,397	7.0%	59,490	6.6%	-907	-0.4%
15 to 19 years	57,565	6.7%	62,576	6.9%	+5,011	+0.2%
20 to 24 years	62,811	7.3%	68,582	7.6%	+5,771	+0.3%
25 to 34 years	141,612	16.5%	144,481	16.0%	+2,869	-0.5%
35 to 44 years	141,604	16.5%	118,971	13.0%	-22,633	-3.5%
45 to 54 years	108,992	12.7%	127,404	14.0%	+18,412	+1.3%
55 to 59 years	35,766	4.2%	53,516	5.9%	+17,750	+1.7%
60 to 64 years	29,426	3.4%	41,825	4.6%	+12,399	+1.2%
65 to 74 years	50,148	5.8%	50,572	6.0%	+424	+0.2%
75 to 84 years	33,873	3.9%	31,614	4.0%	-2,259	+0.1%
85 years and over	11,513	1.3%	13,916	1.5%	+2,403	+0.2%
Median age (years)	33.6	NA	33.9	NA	+0.3	NA

(U.S. Census Bureau 2012)

Center Township						
Income	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Total households	66,148	100.0%	59,108	100.0%	-7,040	-10.6%
Less than $10,000	11,954	18.1%	9,314	15.8%	-2,640	-2.3%
$10,000 to $14,999	6,777	10.2%	6,351	10.7%	-462	+0.5%
$15,000 to $24,999	12,517	18.9%	9,845	16.7%	-2,672	-2.2%
$25,000 to $34,999	10,252	15.5%	9,327	15.8%	-925	+0.3%
$35,000 to $49,999	10,524	15.9%	8,940	15.1%	-1,584	-0.8%
$50,000 to $74,999	8,971	13.6%	8,001	13.5%	-970	-0.1%
$75,000 to $99,999	2,794	4.2%	3,455	5.8%	+661	+1.6%
$100,000 to $149,999	1,641	2.5%	2,771	4.7%	+1,130	+2.2%
$150,000 to $199,999	297	0.4%	638	1.1%	+341	+0.7%
$200,000 or more	421	0.6%	466	0.8%	+45	+0.2%
Median household income (dollars)	$26,435	NA	$29,005	NA	+$2,570	+9.7%

Marion County						
Income	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Total households	352,261	100.0%	355,438	100.0%	+3,177	+0.1%
Less than $10,000	30,072	8.5%	32,462	9.1%	+2,390	+0.6%
$10,000 to $14,999	21,695	6.2%	23,696	6.7%	+2,001	+0.5%
$15,000 to $24,999	48,841	13.9%	54,572	15.4%	+5,731	+1.5%
$25,000 to $34,999	50,086	14.2%	50,091	14.1%	+5	-0.1%
$35,000 to $49,999	62,520	17.7%	54,999	15.5%	-7,521	-2.2%
$50,000 to $74,999	70,353	20.0%	58,375	16.4%	-11,978	-3.6%
$75,000 to $99,999	33,978	9.6%	35,799	10.1%	+1,821	+0.5%
$100,000 to $149,999	23,108	6.6%	30,550	8.6%	+7,442	+2.0%
$150,000 to $199,999	5,595	1.6%	8,849	2.5%	+3,254	+0.9%
$200,000 or more	6,013	1.7%	6,045	1.7%	+32	0.0%
Median household income (dollars)	$40,421	NA	$38,959	NA	-$1,462	-3.6%

(U.S. Census Bureau 2012)

Center Township						
Educational Attainment	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Population 25 years and over	105,136	100.0%	96,152	100.0%	-8,984	-8.5%
Less than 9th grade	9,498	9.0%	7,287	7.6%	-2,211	-1.4%
9th to 12th grade, no diploma	27,720	26.4%	19,564	20.3%	-8,156	-6.1%
High school graduate (includes equivalency)	34,522	32.8%	33,128	34.5%	-1,394	-1.7%
Some college, no degree	18,242	17.4%	16,650	17.3%	-1,592	-0.1%
Associate's degree	3,727	3.5%	4,139	4.3%	+412	+0.8%
Bachelor's degree	7,264	6.9%	9,794	10.2%	+2,530	+0.3%
Graduate or professional degree	4,163	4.0%	5,590	5.8%	+1,427	+1.8%
Percent high school graduate or higher	NA	64.6%	NA	72.1%	NA	+7.5%
Percent bachelor's degree or higher	NA	10.9%	NA	16.0%	NA	+5.1%

Marion County						
Educational Attainment	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Population 25 years and over	553,459	100.0%	584,495	100.0%	+31,036	+5.6%
Less than 9th grade	25,594	4.6%	30,679	5.2%	+5,085	+0.6%
9th to 12th grade, no diploma	76,002	13.7%	62,016	10.6%	-13,986	-3.1%
High school graduate (includes equivalency)	163,991	29.6%	174,148	29.8%	+10,157	+0.2%

Some college, no degree	116,462	21.0%	121,251	20.7%	+4,789	-0.3%
Associate's degree	30,860	5.6%	40,998	7.0%	+10,138	+1.4%
Bachelor's degree	92,419	16.7%	103,292	17.7%	+10,873	+1.0%
Graduate or professional degree	48,131	8.7%	52,111	8.9%	+3,980	+0.2%
Percent high school graduate or higher	NA	81.6%	NA	84.1%	NA	+2.5%
Percent bachelor's degree or higher	NA	25.4%	NA	26.6%	NA	+1.2%

(U.S. Census Bureau 2012)

Center Township						
Employment Status	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Population 16 years and over	128,007	100.0%	115,108	100.0%	-12,899	-10.1%
In labor force	75,053	58.6%	71,034	61.7%	-4,019	+3.1%
Civilian labor force	75,015	58.6%	70,970	61.7%	-4,045	+3.1%
Employed	66,942	52.3%	59,107	51.3%	-7,835	-1.0%
Unemployed	8,073	6.3%	11,863	10.3%	+3,790	+4.0%
Armed Forces	38	0.0%	64	0.1%	+26	+0.1%
Not in labor force	52,954	41.4%	44,074	38.3%	-8,880	-3.1%
Percent Unemployed			NA	16.7%		

Marion County						
Employment Status	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Population 16 years and over	661,929	100.0%	703,296	100.0%	+41,367	+6.2%
In labor force	457,567	69.1%	477,503	67.9%	+19,936	-1.2%
Civilian labor force	456,871	69.0%	477,297	67.9%	+20,426	-1.1%
Employed	432,302	65.3%	413,741	58.8%	-18,561	-6.5%
Unemployed	24,569	3.7%	63,556	9.0%	+38,987	+5.3%
Armed Forces	696	0.1%	206	0.0%	-490	-0.1%
Not in labor force	204,362	30.9%	225,793	32.1%	+21,431	+1.2%
Percent Unemployed			NA	13.3%		

(U.S. Census Bureau 2012)

Center Township						
Commuting to Work	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Workers 16 years and over	65,239	100.0%	57,445	100.0%	-7,794	-11.9%
Car, truck, or van -- drove alone	43,048	66.0%	41,889	72.9%	-1,159	+6.9%
Car, truck, or van --	12,283	18.8%	6,836	11.9%	-5,447	-6.9%

carpooled						
Public transportation (excluding taxicab)	5,041	7.7%	3,050	5.3%	-1,991	-2.4%
Walked	2,735	4.2%	2,751	4.8%	+16	+0.6%
Other means	933	1.4%	1,409	2.5%	+476	+1.1%
Worked at home	1,199	1.8%	1,510	2.6%	+311	+0.8%
Mean travel time to work (minutes)	23.3	NA	21.1	NA	-2.2	NA

Marion County						
Commuting to Work	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Workers 16 years and over	424,598	100.0%	404,909	100.0%	-19,689	-4.6%
Car, truck, or van -- drove alone	341,184	80.4%	336,088	83.0%	-5,096	+2.6%
Car, truck, or van -- carpooled	51,674	12.2%	37,563	9.3%	-14,111	-2.9%
Public transportation (excluding taxicab)	9,647	2.3%	6,592	1.6%	-3,055	-0.7%
Walked	8,267	1.9%	7,481	1.8%	-786	-0.1%
Other means	3,202	0.8%	4,111	1.0%	+909	+0.2%
Worked at home	10,624	2.5%	13,074	3.2%	+2,450	+0.7%
Mean travel time to work (minutes)	23.0	NA	22.2	NA	-0.8	NA

(U.S. Census Bureau 2012)

Center Township						
Occupation	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Civilian employed population 16 years and over	66,942	100.0%	59,107	100.0%	-7,835	-11.7%
Management, business, science, and arts occupations	13,925	20.8%	15,526	26.3%	+1,601	+5.5%
Service occupations	14,397	21.5%	13,436	22.7%	-961	+1.2%
Sales and office occupations	17,734	26.5%	15,015	25.4%	-2,719	-1.1%
Natural resources, construction, and maintenance occupations	7,505	11.2%	5,659	9.6%	-1,846	-1.6%
Production, transportation, and material moving occupations	13,381	20.0%	9,471	16.0%	-3,910	-4.0%

Marion County						
Occupation	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Civilian employed population 16 years and over	661,929	100.0%	413,741	100.0%	-248,188	-37.5%
Management, business, science, and arts occupations	142,054	32.9%	137,439	33.2%	4,615	+0.3%
Service occupations	63,704	14.7%	78,295	18.9%	14,591	+4.1%
Sales and office occupations	123,162	28.5%	114,884	27.8%	8,278	-0.7%
Natural resources, construction, and maintenance occupations	37,897	8.8%	25,570	6.2%	12,327	-2.6%
Production, transportation, and material moving occupations	65,485	15.1%	57,553	13.9%	-7,932	-1.2%

Center Township						
Industry	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Civilian employed population 16 years and over	66,942	100.0%	59,107	100.0%	-7,835	-11.7%
Agriculture, forestry, fishing and hunting, and mining	201	0.3%	166	0.3%	-35	0.0%
Construction	5,662	8.5%	4,448	7.5%	-1,214	-1.0%
Manufacturing	8,744	13.1%	6,057	10.2%	-2,687	-2.9%
Wholesale trade	2,565	3.8%	1,495	2.5%	-1,070	-1.3%
Retail trade	8,898	13.3%	7,342	12.4%	-1,556	-0.9%
Transportation and warehousing, and utilities	4,014	6.0%	3,552	6.0%	-462	0.0%
Information	1,735	2.6%	1,461	2.5%	-274	-0.1%
Finance and insurance, and real estate and rental and leasing	4,506	6.7%	3,333	5.6%	-1,173	-1.1%
Professional, scientific, and management, and administrative and waste management services	6,002	9.0%	7,144	12.1%	+1,142	+3.1%
Educational services, and health care and social assistance	10,600	15.8%	11,280	19.1%	+680	+3.3%

Arts, entertainment, and recreation, and accommodation and food services	7,572	11.3%	7,375	12.5%	-197	+1.2%
Other services, except public administration	3,904	5.8%	3,034	5.1%	-870	-0.7%
Public administration	2,539	3.8%	2,420	4.1%	-119	+0.3%

Marion County						
Industry	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Civilian employed population 16 years and over	661,929	100.0%	413,741	100.0%	-248,188	-37.5%
Agriculture, forestry, fishing and hunting, and mining	845	0.2%	935	0.2%	+90	0.0%
Construction	27,316	6.3%	17,823	4.3%	-9,493	+2.0%
Manufacturing	58,718	13.6%	50,828	12.3%	-7,890	-1.3%
Wholesale trade	19,061	4.4%	12,573	3.0%	-6,488	-1.4%
Retail trade	51,994	12.0%	53,163	12.8%	+1,169	+0.8%
Transportation and warehousing, and utilities	27,183	6.3%	24,818	6.0%	-2,365	-0.3%
Information	12,205	2.8%	7,224	1.7%	-4,981	-1.1%
Finance and insurance, and real estate and rental and leasing	37,411	8.7%	28,445	6.9%	-8,966	-1.8%
Professional, scientific, and management, and administrative and waste management services	40,765	9.4%	44,070	10.7%	+3,305	+1.3%
Educational services, and health care and social assistance	79,715	18.4%	89,374	21.6%	9,659	+2.8%
Arts, entertainment, and recreation, and accommodation and food services	36,669	8.5%	47,405	11.5%	+10,736	+3.0%
Other services, except public administration	21,642	5.0%	18,766	4.5%	-2,876	-0.5%
Public administration	18,778	4.3%	18,317	4.4%	-461	+0.1%

(U.S. Census Bureau 2012)

Center Township						
Housing Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Occupied housing	66,176	100.0%	58,339	100.0%	-7,837	-11.8%

units						
Owner-occupied housing units	32,122	48.5%	25,653	44.0%	-6,469	-4.5%
Average household size of owner-occupied units	2.45	NA	2.35	NA	-0.1	NA
Renter-occupied housing units	34,054	51.5%	32,686	56.0%	-1,368	+4.5%
Average household size of renter-occupied units	2.36	NA	2.34	NA	-0.02	NA

Marion County						
Housing Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Occupied housing units	352,164	100.0%	366,176	100.0%	+14,012	+4.0%
Owner-occupied housing units	208,957	59.3%	206,981	56.5%	-1,976	-2.8%
Average household size of owner-occupied units	2.54	NA	2.50	NA	-0.04	NA
Renter-occupied housing units	143,207	40.7%	159,195	43.5%	+15,988	+2.8%
Average household size of renter-occupied units	2.18	NA	2.32	NA	+0.14	NA

(U.S. Census Bureau 2012)

Center Township						
Year Householder Moved into Unit	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Occupied housing units	66,176	100.0%	58,339	100.0%	-7,837	-11.8%
Moved in 2005 or later	0	0.0%	27,014	45.7%	+27,014	+45.7%
Moved in 2000 to 2004	0	0.0%	11,418	19.3%	+11,418	+19.3%
Moved in 1990 to 1999	43,368	65.5%	8,281	14.0%	-35,087	-48.5%
Moved in 1980 to 1989	7,893	11.9%	4,706	8.0%	-3,187	-3.9%
Moved in 1970 to 1979	5,993	9.1%	3,253	5.5%	-2,740	-3.6%
Moved in 1969 or earlier	8,922	13.5%	4,436	7.5%	-4,486	-6.0%

Marion County						
Year Householder Moved into Unit	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
	2000		**2010**		**Change**	
Occupied housing units	352,164	100.0%	355,438	100.0%	+3,274	+0.1%
Moved in 2005 or later	0	0.0%	187,602	52.8%	+187,602	+52.8%
Moved in 2000 to 2004	0	0.0%	56,364	15.9%	+56,364	+15.9%
Moved in 1990 to 1999	250,454	71.0%	54,141	15.2%	-196,313	-55.8%
Moved in 1980 to 1989	44,472	12.6%	24,574	6.9%	-19,898	-5.7%
Moved in 1970 to 1979	26,673	7.6%	16,671	4.7%	-10,002	-2.9%
Moved in 1969 or earlier	30,565	8.7%	16,086	4.5%	-14,479	-4.2%

(U.S. Census Bureau 2012)

Indianapolis Market Analysis

According to the Local Initiative Support Corporation (LISC) there is a need for low-skill and manufacturing industry job retention within Indianapolis's core. Logistics, warehousing, and manufacturing continue to move to the periphery of Indianapolis, leaving fewer employment opprtunities for urban working-class populations (Orr 2012).

LISC places 300 to 400 people per year from low-income neighborhoods in jobs that pay an hourly rate of $10 to $12 (Orr 2012). This hourly rate is within the range of the self-sufficiency standards for Indianapolis for a single person or a single parent with a teenage child. However, a single parent with one younger child needs an hourly wage of almost $15 per hour, while two or more children with a single parent raises the self-sufficiency wage closer to $19 or $20 per hour (Indiana Institute for Working Families 2009).

According to a Colliers International industrial market report for the second quarter of 2012, the Indiana region has begun to experience speculative development in the warehousing and distribution sectors. The vacancy rate fell 1.5% over the last year and is expected to stay

stable. The vacancy rate for the second quarter of 2012 7.04%, down from the previous quarter vacancy rate of 7.12%.

The Indianapolis downtown market represents 12.0% of the Indianapolis region's total industrial inventory. This downtown market has been experiencing some of the lower acheiveable rents in the region, averaging $3.33 per square foot, NNN between warehousing/distribution and flex space. The average rent for warehousing/distribution space is $3.15 per square foot, NNN, while the average rent for flex space is $6.99 per square foot, NNN.

Center Township and Marion County Conclusion

While Marion County's population increased between 2000 and 2010, Center Township's population decreased by almost one-sixth. Production and transportation occupations decreased almost 5% between 2000 and 2010 in Center Township, while they decreased just over 1.0% for Marion County. Manufacturing jobs are exiting Marion County, and exiting Center Township more quickly than the County.

Manufacturing accounts for 12.3% of industry in Marion County, while it accounts for just over 10% of Center Township's industry, another indication of declining employment opportunities for manufacturing laborers in Indianapolis's core. Center Township and Marion County's populations are shifting, and are discussed in further detail in the case study portion of this paper.

AVAILABLE FINANCIAL TOOLS

The Indianapolis Economic Development Corporation (IEDC) offers several incentives for business and real estate development in Indiana. Below is a summary of available financial tools that are applicable to the building case study portion of this paper, however not all of these

subsidies will be applied to the case study rehabilitation (Indiana Economic Development Corporation 2012).

Incentive	**Federal, State, Local Incentive**	**Description and Application**	**Eligibility**
Hoosier Business Tax Credit	State	• Tax credit program • Provides incentives to businesses to make capital investments • Incentivises job creation • 10% of qualified capital investment	• Average wage paid to employees after tax credit granted is at least 150% of hourly minimum wage • Taxpaying recipient of credits will maintain operations at premises for at least 10 years • Project will raise total earnings of employees
Venture Capital Investment Tax Credit	State	• Tax credit program • Incentivises investors to provide qualified debt/equity to Indiana companies	• Individual or entity taxpayer who has a tax liability • Max credits is equal to the lesser of the total qualified investment capital multiplied by 20% or $1,000,000 • Must have certified investment plan
Industrial Development Grant Fund (IDGF) and Local Infrastructure Grants	State and Local	• Grant funding • Helps meet infrasture needs of new/expanding industrial facilities	• Must co-apply with City of Indianapolis • Up to 50% of off-site infrastructure costs may be awarded • Credits awarded to 501c's – allocated from there
Historic Tax Credit	Federal	• Tax credit program • Incentivises the reuse of historic properties for redevelopment	• Property must be eligible for the National Register of Historic Places • Property must be income producing • Eligible for 20% credit on qualified expenditures
CRED	Local	• Tax credit program • Incentivises reinvestment in indutstrial neighborhoods	• Must be able to show ability to attract new commerce to area • Credit amount equal to 25% of qualified investment in existing properties • Annual tax revenue capture limit of $1,000,000
Neighborhood Assistance Credit		• Tax credit program • Incentivises investment in economically disadvantaged	• Building contains 300,000 sf of space • Building was placed in service

		areas • Applied against Indiana income tax liability	over 20 years ago • Must get neighborhood and plan approved by IEDC • Credit is 50% of contributions

REVIEW of COMPREHENSIVE PLAN

Overarching ideals

Indianapolis's Comprehensive Plan outlines goals to preserve community by improving the quality of the built environment, and responding responsibly to social, economic and physical factors in order to catalyze citizen participation in the community development and planning processes (City of Indianapolis 2002).

Indianapolis has a long history as a successful logistics and warehousing market; its proximity to other regional centers and highway access has made it an attractive location for companies looking to regionalize growth. The comprehensive plan describes Indianapolis's industrial space history as:

> "…While many older firms, such as Eli Lilly, Allison and Western Electric, expanded at their central locations, most light industry and some heavy industry reflected the drawing power of the suburbs, opening new branches in traditionally distant locations. The first industrial parks, as well as many that have developed since 1960, took advantage of the interstate highway system. This system of urban highways was developed in 1957. The first links of Interstate 465, the belt roadway, opened in 1961, and, by 1970, I-465 was completed. Food processing went into decline. Stockyards and packinghouses in other cities began to draw away local business from older, outmoded facilities. Kingan and Company, now named Hygrade, closed in the early 1960's

> and the stockyards soon followed. As a result of these changes, the industrial base became highly diversified. The central location to many regional markets and excellent transportation facilities made Indianapolis attractive to distribution and warehousing operations (City of Indianapolis 2002)."

The following sections outline the chapters of the comprehensive plan that address measures for successful development in Indianapolis. Each section is concluded with how these measures are accomplished by the case study redevelopment proposal

Application to the Site

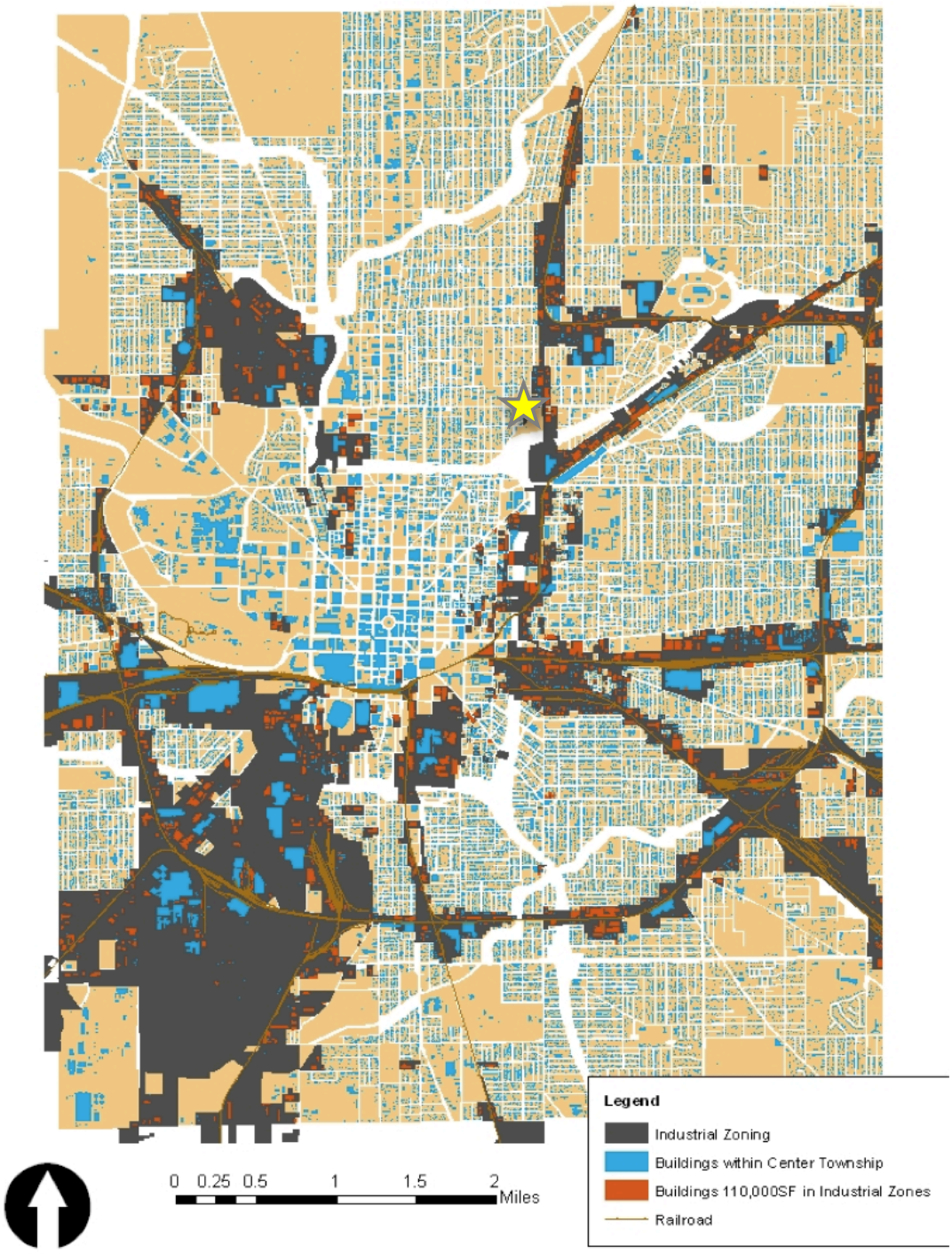
Chapter 5 – Values, Principles and Elements

Chapter 5 includes several overarching values and principles that can be achieved through the case study building. These values include achieving a balance of land uses for tax base equity and mixed-use neighborhoods, developing a diverse economy that retains skilled and educated workers, and respecting historic structures and neighborhoods to tangibly identify with Indianapolis's cultural history (City of Indianapolis 2002).

The proposed rehabilitation involves restoring a historic use to a neighborhood that traditionally had a mix of land uses. Historically, these uses served to diversify employment opportunities for the neighborhood's residents. This proposed vertical industrial park would serve as an employment center by offering much needed manufacturing jobs for varied skill levels for the neighborhood, while balancing the neighborhood's land uses for tax base equity by re-incorporating industrial uses into the landscape (City of Indianapolis 2002).

Chapter 6 – Land Use

Chapter 6 iterates a key recommendation for land use, explaining that uses should be grouped to create nodes (City of Indianapolis 2002). Specifications that define a ‘node’ aren’t provided however the 1553 Bellefontaine property sits wtihin a ½ mile of several other historic industrial properties that have been intermingled with residential uses for decades. An industrial zoning distribution map is shown below for Center Township as well as a map of the uses and businesses that are listed in the table below. Note the pattern of industrial zoning surrounding the case study site. The businesses outlined in the table below are only a handful of industrial businesses in the neighborhood.


Legend
Industrial Zoning
Buildings within Center Township
Buildings 110,000SF in Industrial Zones
Railroad
0 0.25 0.5 1 1.5 2
Miles

Address	Business Name	Produced	CDC	Zoning
1502 North College Avenue	Morris Printing Company	Full-service commercial printer	King Park	D8
912 East 21st Street	Morris Mold & Machine, Co.	Injection molding, milling, grinding	King Park	D8
1717 Cornell Avenue	G&G Metal Spinners	Heavy gauge metals. Welding, fabrication, grinding, polishing, punching, heat treating, milling.	King Park	I3U
1747 Massachusetts Avenue	Litho Press, Inc.	Full-service commercial printer	Martindale-Brightwood	I3U
1450 East 20th Street	Zimmer Custom-Made Packaging	Flexible packaging supplier	Martindale-Brightwood	I4U

Incentivizing brownfield redevelopment through financing options and providing for a mix of uses within each taxing district (including industrial) are emphasized in Chapter 6. The section below outlines how the proposed case study development fulfills several of the Chapter 6 goals (City of Indianapolis 2002).

Applicable Goal 1

"Promote an appropriate level of land use regulation to encourage the expansion of business and industry while ensuring compatibility with existing or proposed neighborhoods."

While the proposed site abutts single-family dwellings, the two uses have co-existed since the facility was built in the 1920s. Incorporating light industrial uses into this neighborhood while mitigating negative impacts through landscaping and traffic routing will align this neighborhood with the comprehensive plan's goals of promoting industry and business, and diversifying the existing neighborhood's employment opportunities.

Applicable Goal 2

"Designate land sites and provide infrastructure to encourage growth in the industry clusters that can be demonstrated as current or probable future strengths of the city."

While this property exists in the outer ring of an industrial node to its east, it is a viable option for industrial use as it is still zoned I-3-U. It is also located within existing city infrastructure and would require no additional infrastructure resources.

Applicable Goal 3

"Incorporate a mix of uses where applicable, in the planning, design, development, and/or redevelopment of neighborhoods, support multi-accessible amenities such as neighborhood shopping, schools, libraries, parks and quality employment."

Unskilled and semi-skilled labor is moving out of the core of indianapolis as distribution, logistics and warehousing centers move locations. Despite the smaller scale of this industrial development, it will likely employ local residents who are in need of low- to semi-skilled employment opportunities.

Chapter 7 – Development Methods

Chapter 7 of the Comprehensive Plan covers Development Methods. Those methods are recommended on several levels – Environmental/Infrastructure/Transportation, County, and Neighborhood levels. The proposed redevelopment accomplishes several of the recommendations within Chapter 7, including redeveloping in established centers, extending neighborhoods' cultural legacies, and improving the physical image of the neighborhood in which it sits. These recommendations and others are discussed below and demonstrate the positive impact this rehabilitation could have on the neighborhood.

Applicable Recommendation 1

"Environmental/Infrastructure/Transportation - Encourage the redevelopment of existing cities and towns in the region. This will reduce development pressures on rural areas."

The building is an appropriate option for reuse given its location within Center Township. By placing targeted tenants in the building, this project could serve as an employment center in an existing historic urban neighborhood, reducing development pressures in more rural areas of Marion County.

Applicable Recommendation 2

"County Level - Preserve the character of our community and the city's cultural legacy ranging from its ordinary neighborhoods to its well-known landmarks. Strive to reduce barriers

to preservation. As appropriate, offer incentives for rehabilitating and adapting historic buildings for new uses."

While this site would be redeveloped as an industrial facility, promoting the conservation of the neighborhood's mixed-use character through small-scale industrial rehabilitation is appropriate and valuable to achieving community success, not only on a cultural level but also on an economic level. Historically, neighborhood residents could have walked to this building for work; preserving the building's service in the manufacturing industry node will contribute to the conservation of the neighborhood's cultural integrity.

Applicable Recommendations 3

"Neighborhood Level - Enhance unique characteristics that identify neighborhoods and create a sense of place."

This neighborhood historically has been mixed-use industrial. Studying Sanborn Insurance maps and Baist Atlases reveals that this neighborhood has had a long tradition of working-class families who were employed by surrounding manufacturing businesses, including coal and cement companies, furniture manfacturers, and a milk processing plant.

Applicable Recommendation 4

"Neighborhood Level - Use the best of "New Urbanism" concepts to keep housing conveniently located to retail, offices, personal services and employment opportunities."

This development delivers diversified employment opportunities that are located within a mixed-income neighborhood. This type of redevelopment would contribute to economic diversification and provide employment opportunities that are being pulled out of Indianapolis's core.

Applicable Recommendation 5

"Neighborhood Level - Reduce disinvestment and the perception of crime by improving the visual image of the area."

The building is structurally sound however in need of some cosmetic upgrades. This redevelopment plan would clean up the building's exterior, including façade and sidewalk clean-up, window rehabilitation, and front entryway replacement. The site would also be renewed; Bundy Place, which is currently a closed-off private drive to the east of the building, would be reopened, allowing for easier access for trucks and employee parking to the east of the building. Trees and shrubs would be planted as buffers on the east side of the building and the back truck court would be repaved.

Applicable Recommendation 6

"Neighborhood Level - Make maximum use of public transit and alternative modes of transportation in redevelopment plans. Coordinate site planning to increase the convenience of transit riders, bicyclists and pedestrians."

The existing building sits along 16th Street, which abuts an IndyGo busline. Several IndyGo lines run within several blocks of the building. The monon trail is located adjacent to the building. Sidewalks exist along all of the major roadways surrounding the building. The area is in need of bike lanes, however 16th Street is four lanes – two in each direction – and does not allow on-street parking, affording more room for cyclists.

Comprehensive Plan Comparison Conclusion

The development site serves the goals of the city well, from development methods and values, to land use. The plan supports this type of project based on the development's ability to help the neighborhood maintain cultural and historic integrity, promote a more diverse economy

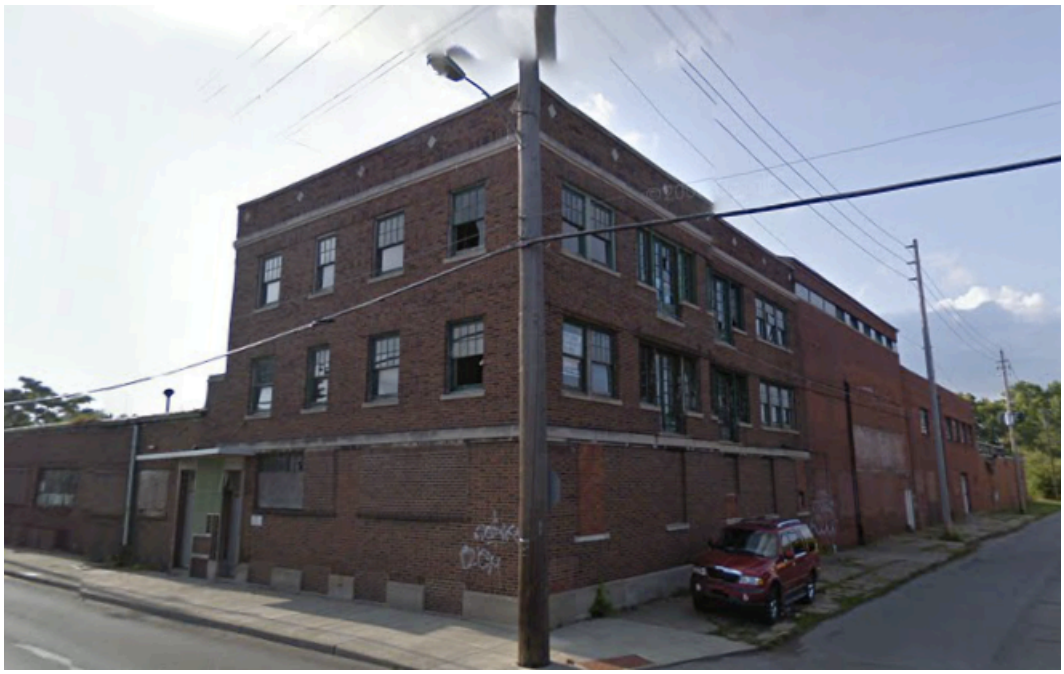
for the neighborhood, serve as a neighborhood employment center that caters to the neighborhood's shrinking manufacturing industry, and improving the use and aesthetics of an established portion of the City.

CASE STUDY OF PROPOSED DEVELOPMENT PROJECT

This section will assess the feasilibility of rehabiltating one case study industrial building in Indianapolis. The following sub-studies were completed to determine feasibility for this type of redevelopment:

1. Building and Site Description
2. Zoning Analysis
3. Market Analysis
4. Tenant/user profiles
5. Site Accesibility
6. Cost Assessment and Assumptions
7. Project Funding
8. Economic and Earnings Impact

The following sections look at each of these and compares them to perceived barriers and opportunities, as stated by industry professionals through questionnaires discussed above, and proforma analyses.



(Google 2009)

BUILDING AND SITE DESCRIPTION

The site is located at 1553 Bellefontaine Avenue in Indianapolis, Indiana within the Old Northside Historic District. The district has a rich history of social, political, commercial and industrial power. The building is not listed as contributing to the district in the national register nomination, however given its historic integrity and lasting presence throughout the last century, it would be eligible for historic tax credits. According to 1927 and 1929 Sanborn Maps, the building was constructed as the Omar Baking Company building around 1928. The Omar Baking Company remained in business through the 1950s and served the greater Indianapolis area with breads, pies and an assortment of baked goods.

The original portion of the building, which sits to the north of the site, was built c. 1928. It was originally three stories, with production and warehouse space on the first and second floors

and offices and locker rooms on the third floor. The building is brick-masonry construction with a steel beam and concrete roofing system. The second, and third floors are steel beam with wood subfloor, and the first floor is steel beam and concrete. The basement sits on a concrete pad and is usable tenant space; it features multiple windows that would allow for natural light and ventilation. The basement consists of approximately 22,000 square feet, the first floor consists of approximately 47,000 square feet, the second floor consists of approximately 27,000 square feet, and the third floor consists of approximately 5,000 square feet.

The rear portion of the building was built in the 1960s and includes approximately 15,000 square feet of warehouse space with a loading dock at the rear that includes 11 dock high loading doors. The rear warehouse has a 16-foot clear height and includes minimal space division from structural columns.

The table below outlines the building as it currently exists and its proposed rehabilitation improvements.

	Current Condition	**Proposed Rehabilitation**
Address	1553 Bellefontaine Indianapolis, IN	1553 Bellefontaine Indianapolis, IN
Construciton Material/Method	Steel frame with brick	Steel frame with brick
Roof Construction/Material	Steel truss	Steel truss
SF	101,000	101,000
SF Breakdown	14 Spaces A – 756 sf B – 3720 sf C – 2900 sf D – 3306 sf E – 3620 sf F – 4160 sf G – 2765 sf H – 1875 sf I - 4795 sf J – 2100 sf K – 1120 sf L – 2080 sf M – 1120 sf N – 3000 sf	Initially 8 suites, ranging from 5,000 sf to 20,000 sf will be proposed. The spaces will remain flexible to accommodate expansion for existing tenants should adjacent space become available.

Stories	3 1st – 46,972 sf 2nd – 26,800 sf 3rd – 5,000 sf	3 1st – 46,972 sf 2nd – 26,800 sf 3rd – 5,000 sf
Clear Height	16’ to 20’	16’ to 20’
Dock-High Doors	14	14
Grade-Level Doors	2	4
Truck Turning Court	120’ x 140’	120’ x 140’
Parking Spaces	Unidentifiable	Approximately 44 people will be working in this building based on industry averages of employees per square foot. The east side of the existing building would afford 33 parking spaces, which would accommodate up to 66 employees.
Disabled Parking Spaces	Unidentifiable	At most, 2 will be needed
Electrical	3-phase	3-phase
Freight Elevator	Yes	Yes – will keep existing elevator
Site Size	2.03 acres	2.03 acres

ZONING ANALYSIS

The Indianapolis Comprehensive Plan and the Township’s zoning ordinance have designated the targeted parcel for this project I-3-U, which is medium industrial urban. This zoning allows for the redevelopment of the existing warehouse and factory. The building’s proposed use fits well within the zoning ordinance’s stipulations, with the only forseeable variences needed for the front setback and the loading stall width. The table below evaluates the project’s feasibility based on zoning.

Evaluation Point	**Description**	**Proposed Site**	**Variance Needed?**
Intensity of Uses	Medium Industrial	Targeted tenants for this property include furniture fabrication, specialty food-item manufacturing, and neighborhood applicance repair facilities.	No
Height Restrictions	Not to exceed 35’	Existing building remains. Current height of building is just under 35’	No
Front Setback	Not less than 20’ from ROW	Approximately 10’ setback	Yes
Side Setback	Not less than 10’ in depth	Current layout has a 10’ setback	No

Rear Setback	Not less than 10’ in depth	Current layout has a 15’ setback	No
Parking	1 parking space for each 2 persons on the premises	20 spaces needed based on expected employment. See above table.	No
Parking – Disabled	1 space for 0 to 25 employees. 2 spaces for 26 to 50 employees.	2 spaces needed.	No
Parking Space Size	Not less than 9’ wide 18’ long	9’ wide by 18’ long at 30 degree angles running northeast on the east side of the building	No
Parking Space Size – Disabled	Not less than 13’ wide 20’ long	The site will likely need 2 handicapped parking spaces.	No
Street Frontage	Required minimum street frontage of 35’	Current layout affords over 200’ of frontage	No
Turning Radius	For a 90 degree turning angle, the road width must be at least 27’ wide	16th Street is over 35’ wide Bellefontaine is 27’ wide	No
Loading Space Dimensions	Each loading space not less than 12’ wide by 55’ long	Each space is 10’, however can accommodate the 55’ length. Despite this shortcoming, the building is only required to have 3 loading spaces per its square footage	Yes

MARKET ANALYSIS

The following section addresses market shifts within Marion County and Center Township regarding age, income, education, employment, and housing tenure. Based on these trends, an Indiana small business and targeted employee review was conducted, and compared against trends found in the demographic and economic analyses. An Indianapolis industrial market review concludes this section and examines demand for space, and manufacturing and warehousing trends.

Center Township and Marion County Demographics

Age

Center Township's population (142,787) equates to approximately 16 percent of Marion County's population (903,393). Center Township carries a higher concentration of working age population than the County – 63 percent versus Marion County's 61 percent.

Income

The median household income in Center Township was $29,005 as of 2010, compared to $26,435 in 2000. Marion County's median household income was $38,959 in 2010, which represented a 3.6 percent decrease from 2000. Households with an annual income greather than $75,000 increased by almost 5.0 percent, while households earning less than $75,000 annually shrank by almost 5.0 percent during the same period. Overall, Marion County's annual earnings are significantly higher than Center Township's annual earnings, reflecting a demographic difference between Marion County and Center Township.

Education

Over 72 percent of Center Township's poplulation holds a high school diploma or higher, while over 84 percent of Marion County's population holds a high school diploma or higher. Overall, Center township's educational attainment is less than Marion County's.

Educational attainment increased across the board in Center Township between 2000 and 2010. The percent of the population earning a high school diploma or greater has increased 7.5 percent. While this could be attributed to the existing population becoming more educated, based on the combined information of trending data, it is more likely that more highly educated populations are moving into Center Township while less educated populations are moving out.

Employment

Production, transportation and material moving occupations accounted for 16.0 percent of the employed population in 2010. Center Township's manufacturing industry decreased by 2.9 percent between 2000 and 2010, however still employed 10.2 percent of the population. The

average commute time to work is 21.1 minutes and most workers, or 72.9 percent, drove alone to work, compared to the 5.3 percent who used public transportation or the 4.8 percent who walked.

The Center Township analysis between 2000 and 2010 reveals that populations and employment opportunities are shifting. While the overall employable population within Center Township decreased by 11.7 percent between 2000 and 2010, a single occupation sector, management and business, increased by 5.5 percent, reflecting an increase in Center Township populations working in professional, or white-collar, occupations.

Housing Tenure

Total households within Center Township decreased 10.6 percent between 2000 and 2010, another indicator that the population is shifting in the core of Indianapolis. Almost 69 percent of Marion County's population moved into the County after 1999, while 65 percent of Center Township's population moved in after 1999, reflecting an increase in newer populations in the County and the Township, as well as an increase in established populations exiting the County and the Township.

Conclusion

These shifts indicate a trend toward a population with higher earning power, more education and differing employment needs and occupation skills. However this does not exclude the need for opportunities that cater to differing populations. The populations leaving Center Township are likely leaving to find more employment opportunities in other communities. This means the need to retain jobs that cater to these populations within Center Township is all the more crucial, corroborated by the information obtained from LISC personnel.

Targeted Employment Base

The targeted employment base in this light industrial center is those ages 18 to 64 who hold associate's degrees, high school diplomas or equivalencies, or less education, and earn

between $10 and $30 per hour. This base may also have some former experience in the production and manufacturing industries. This population has been exiting Center Township since 2000, as production and manufacturing jobs move to the peripheries of the City.

Small Business Generation

As of 2007, 24 percent of Indiana workers were employed by small businesses; businesses employing one to 20 people. That equals almost 632,000 people employed by Indiana's small businesses (Grice 2012). The scale of this project caters well to small business generation, growth and retention.

Between 2002 and 2012 in Indiana, over 1,700 small business manufacturing loans were guaranteed by the Small Business Administration, totalling over $600 million. During the same period, almost 650 small business warehousing and transportation loans were guaranteed, totalling over $86 million. Over all industries, almost 2,500 loans were made worth over $686 million in a 10-year period, or 250 loans per year and almost $30,000 per loan. These figures demonstrate the demand for small-business support, as well as the impact these businesses make on a community.

TENANT PROFILES

The ideal tenant would be a small business based in Indianapolis that is able to employ workers from Center Township and the rest of the Indianapolis Metro area, and would have a small to moderate space needs, ranging from 5,000 to 25,000 square feet. A combination of these tenant types would well-suited to co-operate within the case study building. The target tenant will have trades that cater to the nearby neighborhood workers or residents, including speacialty food items for business to business commerce, specialty household items produced through digital fabrication such as lamps and or signs, home improvement goods space such as warehousing and

showroom space for bath and kitchen remodeling hardware, and other businesses with similar profiles. The table below outlines these tenant profiles.

Tenant Type	SF Requirement	# of Employees	Employee Profile	Pay Rate/Hour	Product Examples
Specialty Food Items	5,000 – 10,000 sf 1,000 sf office included in above	10-20	Education level not so important. Need honesty, reliability and high attention to detail.	$12-$15	• Flavored mayonnaise • Specialty baked goods
Digital Fabrication /Design Specialists	5,000 – 10,000 sf 500 sf office included in above	5-10	Semi-skilled labor. Education not necessarily important but may need to know how to use machinery, tools. May need to know how to navigate computer software for production trouble shooting.	$10-$12	• Design and manufacturing lamps, signs • Design and manufacture furniture
Home improvement/repair shop	10,000 – 25,000 sf	10-25	Vocational skills in carpentry, furniture repair, home improvement skills (cabinet setting, plumbing, electrical, etc.) necessary.	$12-$17	• Architectural Salvage • Furnture Design Build • Antique shop/repair

According to the United States Energy Information Administration, the total inventory of industrial space in the United States is approximately 10 billion square feet. The number of people working in this building inventory is approximately 4.4 million people. That equates to approximately 2,300 square feet per worker in industrial space. Based on these assumptions, this building will likely employ approximately 44 people.

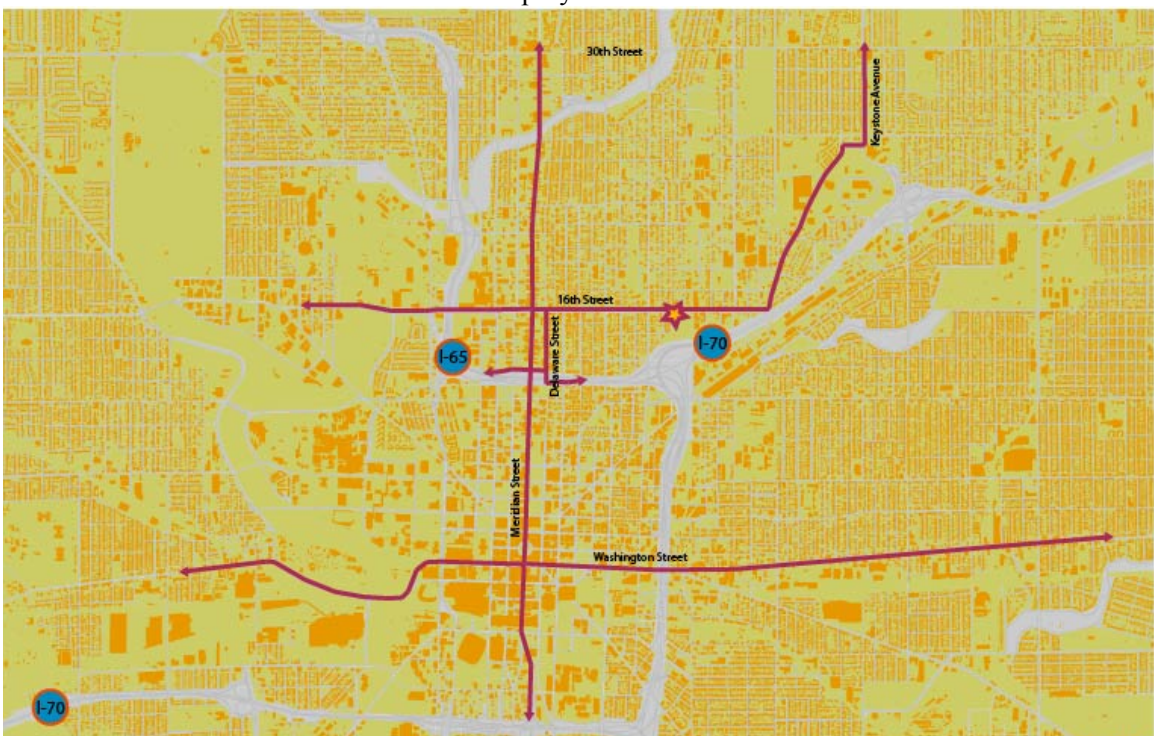
Public support to bridge the financing gap would be linked to first-source hiring, that is priority to hiring employees that live in Center Township first before extending the potential employment pool. An agreement between the property management company and LISC would be

one way to manage this process. This agreement could be a part of the lease agreement between the owner and the lessee, and specify methods and time periods by which to hire from within the community first. LISC would likely be a good source for employee sourcing as would other not-for-profit employment agencies.

SITE ACCESSIBILITY

Introduction

The site located within Marion County's Center Township affords immediate access to interstate highways, local and regional arterials, parking, walking and bike trails, and public transportation routes. Discussed below are how these access points will benefit the site and contribute to the success of the site as an employment center.



Regional Access

The site is located less than one mile from the I-65 southbound on ramp and 1.4 miles from the northbound ramp at Delaware and 12th Streets. From there, regional access can be gained through I-65 and I-70.

Local and Regional Arterials

The building sits on 16th Street less than one mile east of Meridian Street, a main north-south thoroughfare through Indianapolis, and approximately ½ mile west of Roosevelt Avenue, which grants access to Keystone Avenue, another major north-south arterial through Indianapolis.

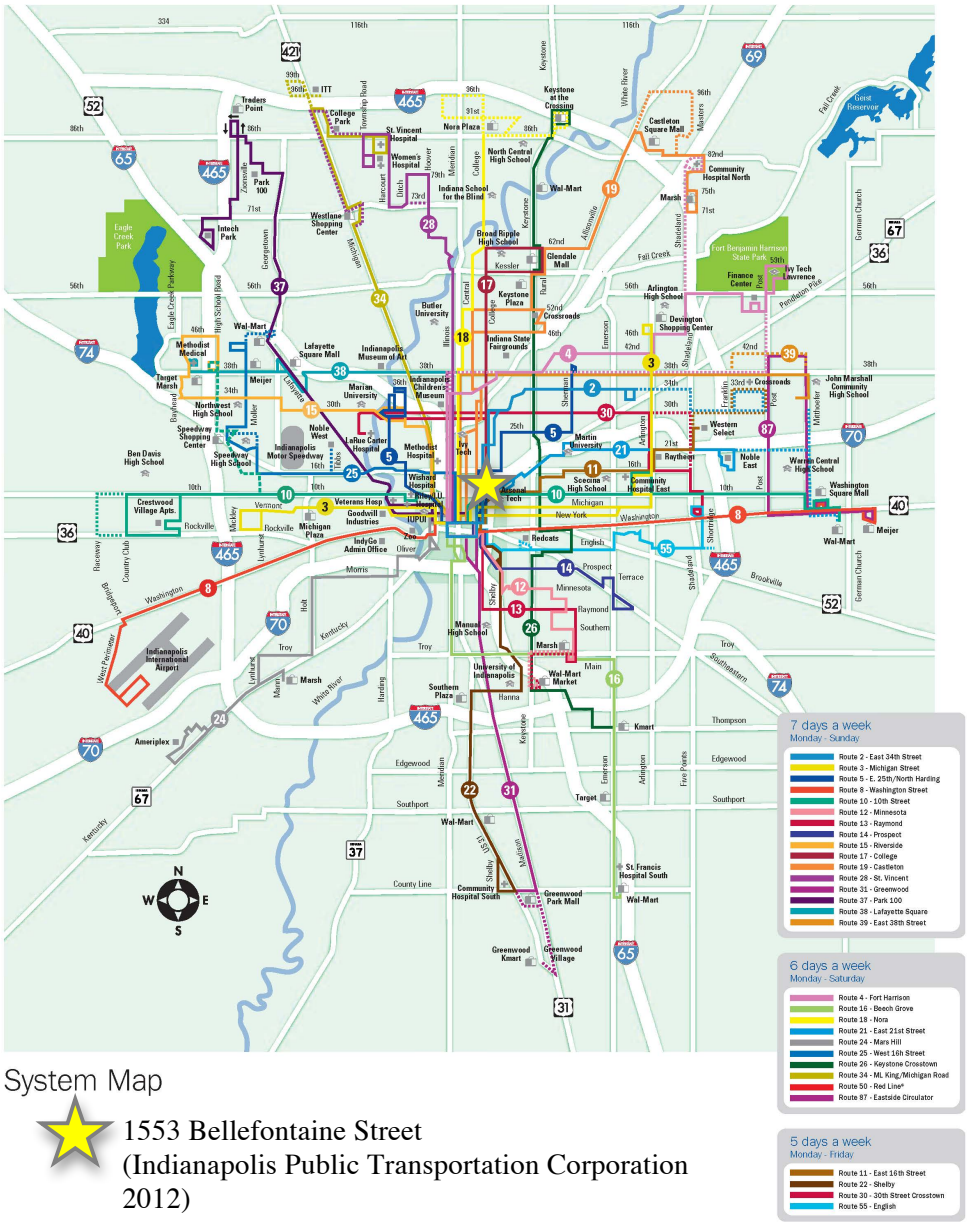
Heading west, 16th Street grants access to Indianapolis's west side and Crawfordsville Road, which extends to I-465 and I-74. Going east, 38th Street is accessible via Roosevelt Avenue and Keystone Avenue, and grants access to Indianapolis's east side. Massachusetts Avenue interesects 38th Street and affords access to I-465 and the northeast corner of Center Township.

The streets mentioned in the Arterials section as well as the Regional Access section are legal semi truck routes, and allow the largest trucks – 53-foot trucks – to travel on them (Truck Down 2012).

Transit

Three bus routes run within a 6-block radius of the proposed site. The #5 route runs directly in front of the building and runs both east and west. The #17 bus runs north and south along College Avenue, and is within a three-block walk of the building. The #17 also connects with the #5 bus at 16th Street and College Avenue. The #11 bus runs along 10th Street at Bellefontaine and is within a six-block walk of the building. The #11 bus also connects with the #5 and #17 routes. Overall, employees of the project site will have several public transporation

options throughout the morning, day and evening hours. The map below shows the site in relation to the IndyGo transit system lines and the following table outlines information for each bus route that is most acessible to the project site (Indianapolis Public Transportation Corporation 2012).



System Map

1553 Bellefontaine Street
(Indianapolis Public Transportation Corporation 2012)

Route	Days Open	Hours of Operation	Frequency/Hour
5	Every day	Mon.-Fri.: 4:47 am – 12:10 am Saturday: 6:10 am – 10:25 pm Sunday & Holidays: 7:10 am – 9:10 pm	2 times/hour – M-F 1 time/hour – S-S
11	Mon. – Fri. No weekend or holiday service	Mon. – Fri.: 5:54 am – 7:38 pm	1 time/hour
17	Every day	Mon.-Fri.: 4:48 am – 10:30 pm Saturday: 6:05 am – 10:30 pm Sunday & Holidays: 7:04 am – 9:20 pm	2 times/hour

Based on the tenant profiles examined above, it is assumed that employee shifts within this building will run during normal business hours. Public transporation will therefore be a viable transportation option for all employees.

Parking

The site currently has a 17,000 square foot concrete paved truck turning court at the south end. In order to maintain access for large semi trucks, few, if any, parking spaces could be created in this section of the site.

One scenario to create parking spots would be to create diagonal spaces on the east side of the building, which is approximately 300 feet long. According to the zoning ordinacne, parking within side and rear yards is permitted. Each parking space is required to be at least nine feet wide and 18 feet long; given these requirements, 33 parking spaces would fit on the east side of the building. Parking is also allowed on several of the local streets surrounding the building, including North Cornell Avenue to the east and Bellefontaine Street to the west.

Walking and Biking

The building is situated less than 450 feet from the Monon Trail, a major north-south recreational trail that extends north from 16th Street over 18 miles. The trail extends just ½ mile south of the site to 10th Street, however also grants access to the Canal towpath in Broad Ripple at

62nd Street (five miles north of the site) and to the Fall Creek Greenway where the Monon intersects with Fall Creek Parkway just two miles north of the site.

Accessibility Conclusion

As it sits in the central portion of Indianapolis, the site is well situated for myriad accessibility points with a variety of transportation options. These options allow for easy access for employees, customers, and product distribution, and utilize the existing infrastructure.

COST ASSESSMENT AND ASSUMPTIONS

Overall, the 1553 Bellefontaine Street building is in sound structural condition and retains much of its historic character. The owner consulted a structural engineer in March 2012 and the engineer confirmed the building's structural integrity. The roof was also completely replaced in March 2012. The rear dock-high doors were also rehabilitated and are now in working order.

The building is in need of some major cosmetic rehabilitation as well as some interior remediation and reconstruction. These repairs include lead paint abatement, replacing portions of the second and third floor wood subfloors, and rehabilitating a few of the windows on the first and second floors. There have been no known uses associated with the site that would require site remediation.

Lead Paint Abatement

The entire interior front portion of the building is in need of lead paint abatement. For the purposes of this study, a $15 per square foot of wall space was assumed, for a total cost of $225,000.

Floor Repair

The second and third floor decks in the original portion of the building have had some water damage from before the roof was replaced. The wood plank flooring system has rotted through in some areas. It is recommended that the decking be completely replaced in the rooms where the water damage is extensive. The estimated cost per square foot of this is $15, with a total estimated cost of $276,000.

In the case where historic tax credits are involved, this replacement would have to follow the Secretary of the Interior's Standards for Rehabiliation. Those standards state that deteriorated features in the building shall be repaired rather than replaced however in the case where the deteroration requires replacement, the replacement should match, "the old in design, color, texture, and other visual qualities and, where possible, materials," and must be documented (National Park Service 2012).

Window Repair

The windows that remain in the building are the original steel-frame windows and need minor rehabilitation; these would be reused during the redevelopment process. This cost is included in the per square foot hard costs. Should a window be missing or pieces of a window be missing, the standards outlined above apply to the repair of the window. This is only true where historic tax credits would be used.

Cost Assumptions

Industry averages suggest that the figures in the table below are reasonable assumptions for the project's rehabilitation costs.

Description	**Assumption**
Acquisition Cost	$650,000 – list price
Hard costs/sf - warehouse	$6.00

Hard costs/sf - office	$10.00
Floor Replacement	$15.00
Lead paint remediation costs/sf	$15.00
Soft costs/sf	18% of hard costs
Contingency	12% of hard costs
Developer Fee	10% of hard costs
Lease rate/sf	$3.00 to $3.25
Structural reserve/sf	$0.05
Operating costs/sf	$0.55
Utilities/sf	$0.75
Interest Rate	5.0%
Loan Period	15 years
Cap rate	7.5%

The hard costs were based on industry figures obtained from Duke Realty, an industrial development specialist. The estimated hard costs are $2.00 to $3.00 per square foot, however due to the age of this building, the per square foot cost has been padded. The estimated $6.00 per square foot affords a $3 to $4 pad to cover the added costs that can be associated with historic rehabilitations.

The floor replacement cost per square foot was obtained from The Boyce Corporation in Muncie, Indiana. Boyce is well versed in historic rehabilitations and quoted a price of $10 to $25 per square foot. A cost of $15 per square was assumed because the structural integrity of the flooring system has not been compromised, and the wood subfloor is the only portion of the flooring system that needs to be replaced. There will also be minimal cost on the finish floor material due to the nature of industrial space.

Lead paint remediation costs are based on an estimated $15.00 per square foot, a figure obtained from a lead paint remediation and abatement expert in Indianapolis, Kemna Restoration and Construction, Inc.

The lease rate, structural reserve, operating costs, utility, and cap rate figures were obtained from an industry professional. While operating costs were estimated at $0.35 to $0.40

per square foot with 2% to 3% bumps each year, due to the age of the building, a $0.15 to $0.20 pad was placed on those costs.

The loan period and interest rate were calculated based on information from First Merchants Bank – Commercial Lending Services. Many factors affect commercial laon rates and periods, including the relationship the borrowing entity has with the bank, historic rent rolls, and construction documents. Interest rates range from 4.0% to 8.0% and depend on a good credit standing as well as the factors mentioned above. Loan periods usually range from five to 10 years, however are seen to extend 20 years when perceived risk is minimal; for instance, when there is a good relationship between the bank and the lendee. For the purposes of this study, an assumption was made that the entity has a good standing relationship with a lender and has good credit established. Given the small business and industrial demand foreasts in the Indianapolis area, there is good reason to assume that this project will be able to achieve optimal rents for its market and execute legitimate leases. Therefore, an interest rate of 5% was assumed, for a loan period of 15 years.

PROJECT FUNDING

Three scenarios were examined. The three financial approaches are, 1) owner operator financing, 2) owner operator or developer financing with GAP funding, and 3) a REIT structure. For the purposes of this redevelopment project the following tools will be used for financing in one or more of the following scenarios: Historic Tax Credits, the IDGF (Industrial Development Grant Fund) and the Venture Capital Tax Credit. Owner equity and permanent debt will also be placed on the building.

Based on the asusmptions above, a total project cost of $2,474,355 was projected. This total cost, as well as the assumptions above, will remain constant through each scenario below.

Scenario 1 – Owner Operator Financing

The scanario presented below outlines the project if it were to be undertaken by an owner or owner-operator with personal equity and traditional debt, with no GAP funding or subsidies to make development possible. According to an industry professional, 10% or higher rates of return are desireable due to the higher costs and risks associated with older building reuse.

Sources	
Debt	$1,454,400
Equity	$1,019,955
Uses	
Total Rehabilitation Cost	$2,474,355
Total Cost per Square Foot	$24.50
DSC – Year 1	1.04
DSC – Year 15	1.54
IRR – 10-year	8.22%
IRR – 15-year	9.18%
Return on Equity – 15-year	7.40%
First-year NOI	$145,440
First-year Cash Flow	$5,320
10-year sales proceeds	$1,956,392
15-year sales proceeds	$2,957,392
Estimated Value	$1,939,200

Scenario 1 Conclusion

The total project costs are $2,474,355. Based on a 7.5% cap rate, the value of the property at $3.00 per square foot rent and a first year NOI of $145,440 would be $1,939,200. To keep the loan-to-value at 75%, the ower of the building would need to secure $1,454,400 on a 15-year loan with a 5% interest rate. The owner equity needed is $1,019,955. Most of these smaller owner-operators will not have $1,000,000 in equity available for this type of project. The rates of return are less than the desired 10% and are therefore not high enough to justify the investment.

Scenario 2 – Owner Operator or Developer Financing with GAP Funding

The scanario presented below outlines the project if it were to be undertaken by an owner-operator or developer with debt and equity in combination with GAP funding through tax

credits and grants. This funding scenario requires 1) a partnership with a CDC or other not-for-profit entity as stipulated by eligibility restrictions for grants and tax credits, 2) an investor eligible for the venture capital investment tax credits, and 3) the case study building's achievement of a national register designation in order to be eligible for the historic tax credits.

The venture capital investment tax credit would allow an investor to contribute capital to a designated company, in this instance the owner of the building, an owner-operator or an independent entity whose business plan is property managemnet and redevelopment rather than manufacturing or warehousing. To receive this tax credit, a designated return would have to be established through an approved business plan (approved by IEDC) between the investor and the investee. The investor is then eligible to take the lesser of 20% of the total qualified investment capital or $1,000,000 in tax credits, as well as the negotiated returns from the building operations.

The same return assumptions are made as above; a 10% or greater return is desireable to offset the risk associated with historic rehabilittion.

Sources	
Historic Tax Credits	$225,400
Venture Capital Investment Tax Credit	$730,000
Equity	$64,555
Debt	$1,454,400
Uses	
Total Rehabilitation Cost	$2,474,355
Total Cost per Square Foot	$24.50
DSC – Year 1	1.04
DSC – Year 15	1.54
IRR – 10-year	48.51%
IRR – 15-year	38.64%
Return on Equity – 15-year	117.7%
First-year NOI	$145,440
First-year Cash Flow	$5,320
10-year sales proceeds	$1,956,392
15-year sales proceeds	$2,957,392
Estimated Value	$1,939,200

Scenario 2 Conclusion

Scenario 2 produces higher returns. At $3.00 per square foot rents, and based on a 7.5% cap rate with a first-year NOI of $145,440, the value of the building is estimated at $1,939,200. It is assumed that the owner or developer would apply for a loan at 75% of the value of the property, which is $1,454,400. The building would be eligible for the historic tax credits, which are 20% of hard costs excluding land costs. This amount is $225,400. Assuming an investor would be interested in contirbuting to the project with Venture Captial Investment Tax Credits, the total invested by an investor is assumed to be $730,000. The returns would have to be worked out between the investor and the investee, however with a 10-year IRR of over 48% and a 15-year return-on-equity of over 117%, it is assumed there would be plenty return potential for an investor as well as the business owner.

This scenario is more feasible than Scenario 1 given the lower amount of equity required by the owner. This scenario is contingent upon securing an investor eligible for the venture capital investment tax credit. The $730,000 investment would secure $146,000 in tax credits for the investor. These credits coupled with potential returns could be strong enough to entice interest.

Scenario 3 – REIT Developer

The scanario presented below outlines the project if it were to be undertaken by a real estate investment trust. REITs have ready capital that must be invested at certain intervals, making equity readily available to invest in new projects.

According to an industry professional with REIT experience, a 9% cash-on-cash return is desireable, with 40% permanent debt amortized over 15 years at a rate of 5%.

Sources	
Equity	$1,484,613
Permanent Debt	$989,742
Uses	
Total Rehabilitation Cost	$2,474,355

Total Cost per Square Foot	$24.50
DSC – Year 1	1.53
DSC – Year 15	2.27
IRR – 10-year	7.53%
IRR – 15-year	8.49%
Return on Equity 10-year	6.30%
Return on Equity – 15-year	8.10%
First-year NOI	$145,440
First-year Cash Flow	$50,086
10-year sales proceeds	$2,194,973
15-year sales proceeds	$3,002,158
Estimated Value	$1,939,200

Scenario 3 Conclusion

This scenario does not achieve the desired cash-on-cash return in year 15; it falls short by just under 1% at 8.1%. The internal rates of return at years 10 and 15 are 7.53% and 8.49%. Despite positive cash flows and just over $3 million in sales proceeds at year 15, this scenario would likely not work due to inadequate returns.

Case Study Feasibilty Conclusion

The scenario explored above could have several outcomes depending on who is involved, and what funding sources are available. The project is likely not a feasible undertaking for an owner-operator without GAP financing; the costs are too great and the returns too low for it to be a safe investment of just debt and equity. The REIT scenario is also not a likely case given the inadequate returns. All of the scenarios addressed above could be more feasible if higher rents could be achieved however a conservative approach was taken.

ECONOMIC AND EARNINGS IMPACT

The following section examines the economic impact that this building would have on its community, based on the economic impact on the community, the earnings impact on employees,

and direct and indirect jobs creation as a result of this rehabilitation. This impact analysis justifies the GAP financing discussed above and other public support.

Case Study Scenario Impact

Economic Impact from Physical Building Rehabiliation

Direct Impact	
Direct Output – Cost of Project	$2,474,355
Direct Jobs	22
Average Annual Earnings per Job	$36,805
Annual Production per Worker	$111,227
Direct Payroll, including Benefits	$818,769
Total Impact	
Output – Sales Impact in the County	$3,727,418
Total Jobs in the County	34
Payroll in the County	$1,244,054
Indirect Business Tax Impact	
Federal Governments	$14,557
State and Local Governments	$74,724

With a total cost of $2,474,355, the rehabilitation construction will create 22 direct jobs in construction, as well as 12 additional jobs within Marion County. The average annual earnings for those construction jobs would be $36,805. Marion County would also experience an additional sales impact of over $1.3 million. The state and local government would experience an additional tax income of almost $75,000.

Economic Impact from Proposed Building Operations - Manufacturing

Direct Impact	
Direct Output – Annual Production	$10,508,366
Direct Jobs	44
Average Annual Earnings per Job	$52,500
Annual Production per Worker	$238,827
Direct Payroll, including Benefits	$2,309,991
Total Impact	
Output – Sales Impact in the County	$15,086,021
Total Jobs in the County	92
Payroll in the County	$4,335,437
Indirect Business Tax Impact	
Federal Governments	$50,092
State and Local Governments	$257,144

Assuming the project attracts manufacturing tenants, the annual direct output of the project would be $10.5 million, where direct output equals goods or services produced. The average annual earnings of those employed within the building would be $52,500. The project would create an additional 48 jobs and would produce an additional $4.6 million in sales impact for Marion County. The state and local government would achieve an additional $257,144 in tax revenue.

Economic Impact from Proposed Building Operations - Warehousing

Direct Impact	
Direct Output – Annual Production	$4,514,071
Direct Jobs	44
Average Annual Earnings per Job	$41,868

Annual Production per Worker	$102,593
Direct Payroll, including Benefits	$1,842,197
Total Impact	
Output – Sales Impact in the County	$6,597,134
Total Jobs in the County	90
Payroll in the County	$3,058,691
Indirect Business Tax Impact	
Federal Governments	$43,800
State and Local Governments	$224,840

Assuming the project attracts warehousing tenants, the annual direct output of the project would be $4.5 million, where direct output equals goods or services produced. The average annual earnings of those employed within the building would be $41,868. The project would create an additional 46 jobs and would produce an additional $2.1 million in sales impact for Marion County. The state and local government would achieve an additional $224,840 in tax revenue.

Case Study Impact Conclusion

The figures projected above demonstrate the significance this type of project could have on Marion County. This project alone would contribute almost $19 million in additional sales volume to Marion County and provide 90 jobs. The indirect jobs could be attributed to small business enterprises, further contributing to the employment diversity in the County.

Township and County-wide Impacts – Similar Property Types

Considering the total impact these types of properties have on a community will reveal their rehabilitation value. Using GIS data, an inventory of industrial properties 3,000 square feet

to 110,000 square feet in Center Township was compiled. For the purposes of this study, it is assumed that these properties are historic – at least 50 years old, or built in 1962 or earlier – due to the age of the portion of Indianapolis that is situated within Center Township. While this is not an exact assumption, it demonstrates the possible impacts this type of property could have on Marion County.

There is approximately 14.9 million square feet of this type fo space in the Center Township market. Given this figure, combined with the case study rehabilitation per square foot cost, and the square feet per worker projection used above, the total economic, earnings and employment impacts of these property types are calculated below.

Economic Impact from Physical Building Rehabiliation

Direct Impact	
Direct Output – Cost of Project	$365,050,000
Direct Jobs	3,282
Average Annual Earnings per Job	$36,805
Annual Production per Worker	$111,227
Direct Payroll, including Benefits	$120,795,775
Total Impact	
Output – Sales Impact in the County	$549,918,621
Total Jobs in the County	4,965
Payroll in the County	$183,539,517
Indirect Business Tax Impact	
Federal Governments	$2,147,578
State and Local Governments	$11,024,346

Assuming these buildings will need to be rehabilitated in similar ways to the case study

building, a total rehabilitation cost of $365,050,000 was calculated. Based on this rehabilitation cost, 3,282 direct construction jobs, as well as an additional 1,683 indirect jobs would be created in Marion County. The average annual earnings for those construction jobs would be $36,805. Marion County would also experience an additional sales impact of over $184 million. The state and local government would experience an additional tax income of over $11 million.

Economic Impact from Building Operations - Manufacturing

Direct Impact	
Direct Output – Annual Production	$1,547,118,081
Direct Jobs	6,478
Average Annual Earnings per Job	$52,500
Annual Production per Worker	$238,827
Direct Payroll, including Benefits	$340,093,685
Total Impact	
Output – Sales Impact in the County	$2,221,073,659
Total Jobs in the County	13,604
Payroll in the County	$638,294,630
Indirect Business Tax Impact	
Federal Governments	$7,374,976
State and Local Governments	$37,858,595

Assuming the project attracts manufacturing tenants, the annual direct output of these buildings would be over $1.5 billion, where direct output equals goods or services produced. The average annual earnings of those employed within the building would be $52,500. The project would create an additional 7,126 indirect jobs, in addition to its 6,478 direct jobs, and would

produce an additional sales impact of over $675 million for Marion County. The state and local government would achieve an additional $38 million in tax revenue.

Economic Impact from Building Operations - Warehousing

Direct Impact	
Direct Output – Annual Production	$664,594,298
Direct Jobs	6,478
Average Annual Earnings per Job	$41,868
Annual Production per Worker	$102,593
Direct Payroll, including Benefits	$271,221,598
Total Impact	
Output – Sales Impact in the County	$971,277,983
Total Jobs in the County	13,202
Payroll in the County	$450,322,780
Indirect Business Tax Impact	
Federal Governments	$6,448,489
State and Local Governments	$33,102,581

Assuming the project attracts warehousing tenants, the annual direct output of the project would be $665 million. The average annual earnings of those employed within the building would be $41,868. The project would create 6,478 direct jobs and an additional 6,724 indirect jobs, and would produce an additional $307 million in sales impact for Marion County. The state and local government would achieve an additional $33 million in tax revenue.

Township and County-wide Impacts - Currently For Sale Properties

There are currently over 2.7 million square feet of light industrial space for sale in Marion County. Given the assumption used in the previous two scenarios, the economic, earnings and employment impacts of these buildings are outlined below. These figures demonstrate the opportunity for community and eocnomic development using these buildings as catalysts.

Economic Impact from Physical Building Rehabiliation

Direct Impact	
Direct Output – Cost of Project	$66,277,939
Direct Jobs	596
Average Annual Earnings per Job	$36,805
Annual Production per Worker	$111,227
Direct Payroll, including Benefits	$21,931,503
Total Impact	
Output – Sales Impact in the County	$99,842,413
Total Jobs in the County	902
Payroll in the County	$33,323,164
Indirect Business Tax Impact	
Federal Governments	$389,911
State and Local Governments	$2,001,564

With the assumption that the cost per square foot for rehabilitating these buildings is $24.50, the total rehabilitation costs of these for-sale buildings would be $66,277,939. This amount would create 596 construction jobs as well as an additional 306 indirect jobs in Marion County. The average annual earnings for those construction jobs would be $36,805. Marion County would also experience an additional sales impact of over $33.6 million. The state and local government would experience an additional $2.1 million in tax revenue.

Economic Impact from Building Operations - Manufacturing

Direct Impact	
Direct Output – Annual Production	$280,859,966
Direct Jobs	1,176
Average Annual Earnings per Job	$52,500
Annual Production per Worker	$238,827
Direct Payroll, including Benefits	$61,739,761
Total Impact	
Output – Sales Impact in the County	$403,208,185
Total Jobs in the County	2,470
Payroll in the County	$115,874,419
Indirect Business Tax Impact	
Federal Governments	$1,338,835
State and Local Governments	$6,872,755

Assuming the project attracts manufacturing tenants, the annual direct output of the project would be almost $281 million, where direct output equals goods or services produced. The average annual earnings of those employed within the building would be $52,500. The project would create an additional 1,294 indirect jobs, in addition to its 1,176 direct jobs, and would produce an additional sales impact of $122.4 million for Marion County. The state and local government would achieve an additional $6.9 million in tax revenue.

Economic Impact from Building Operations - Warehousing

Direct Impact	
Direct Output – Annual Production	$120,648,795

Direct Jobs	1,176
Average Annual Earnings per Job	$41,868
Annual Production per Worker	$102,593
Direct Payroll, including Benefits	$49,236,894
Total Impact	
Output – Sales Impact in the County	$176,323,388
Total Jobs in the County	2,397
Payroll in the County	$81,750,477
Indirect Business Tax Impact	
Federal Governments	$1,170,643
State and Local Governments	$6,009,360

Assuming the project attracts warehousing tenants, the annual direct output of the project would be $120.6 million. The average annual earnings of those employed within the building would be $41,868. The project would create an additional 1,221 indirect jobs, in addition to its 1,176 direct jobs, and would produce an additional $55.7 million in sales impact for Marion County. The state and local government would achieve an additional $6 million in tax revenue.

Impact Conclusion

It is clear from the economic impact analysis that this case study scenario could not only benefit the neighborhood and but all of Marion County. Collectively, these types of buildings positively impact employment and income opportunities within Marion County.

BARRIERS, RECOMMENDATIONS, OPPORTUNITIES AND NEXT STEPS

The following section 1) addresses barriers to historic industrial reuse, 2) recommends policy and programs that support historic industrial redevelopment and surmounts these barriers, 3) reveals opportunities that could arise from this type of development, and 4) discusses further research questions that were not covered by this study.

BARRIERS TO REUSE

This section summarizes the perceived barriers of historic industrial reuse.

Site Barriers

Remediation

The risk in reuse lies in the unknowns. The risk, which comes in the form of financial and legal concerns for development stakeholders as a result of potential site contamination or remediation costs, can outweigh the gain and therefore diminish motivation to pursue the development.

Building Barriers

Rehabilitation Costs

These historic buildings may not offer the open floor plans that are usually seen in industrial spaces developed today. Structural interruptions, such as column spacing or low ceiling heights, are often cited as a barrier to reusing these buildings for industrial purposes.

Financing Barriers

Lending

Banks are risk averse and hesitant to lend into industrial property rehabilitations based on perceived risk in remediation, and percieved lack of demand for urban industrial space.

Rents

A perception exists that current market forces may not command high enough rent for these types of redevelopments to make sense financially. If historic industrial rehabilitation becomes the rule rather than the exception, rents could be very competitive for industiral owners within Marion County.

RECOMMENDED POLICY AND PROGRAMS

This section addresses policies and programs that help offset risks associated with unknowns and the barriers discussed above. To mitigate percived barriers upfront allows for a seamless and minimal-risk development process that could catalyze this type of rehabilitation in Indianapolis.

Site Issues

Remediation

Creating policy directives to develop urban industrial infill sites within a defined boundary before approving permits for greenfield indstrial development would increase the value of the infill sites. Developers would have incentive to develop in the urban core.

Developing policy to support reuse despite potential contamination or remediation cost would mitigate risks and motivate developers. There are a variety of grants that help offset remediation costs, particuarly when a not-for-profit is involved in a development. For private developers, public-private partnerships could present the best opportunities to overcome cost barriers associated with remediation.

Creating policy to fund brownfield site clean up as part of a targeted area redevelopment would alleviate risk. They City could review and develop plans for reuse, including cost estimates, which would be reliable enough for private sector partners to obtain private lending. Offering assistance to manage risks, such as abatements or technical consulting assistance, could further motivate developers. For example, the City, County or State could partner with entities that train in site remediation techniques, and use the educational process to assist developers with site assessments, potentially lowering their remediation costs.

Building Issues

Rehabilitation Costs

Architects, engineers, and construction experts are well-versed in upgrading buildings. Most of these historic industrial buildings are over-structured, and in many cases building obselescence can be overcome through appropriate tenant placement and creative building rehabilitation. Programs that offer grant funding to pay for architectural and engineering fees,

would encourage more creative reuse and quality rehabilitation projects. Criteria for building selection should be established by a local preservation entity.

Offsetting the risks associated with the unknowns through technical assistance from the City, County, or State may motivate developers to take a deeper look at historic industrial rehabilitation. The City could offer architectural or engineering expertise to developers in determining the feasibility of updated space configurations, which would offset architectural and engineering expenses in the development process. This is a situation where both sides win; the developer realizes reduced costs, and the City has a hand in rehabilitating a building that employs its citizens and contributes valuable tax revenue.

Financing Issues

Lending

Risks associated with space demand could be counteracted by conducting a market and economic development impacts analysis to determine a neighborhood's need for industrial rehabilitation. Based on a need determination, banks would be free to charge higher fees or interest rates to compenate for risk. The bank loans could be federally insured so that the need for higher fees or interest rates would be mitigated.

Contingency programs could be provided to keep lenders out of risk's way when considering unknown remediation issues. If issues arise for developers and lenders during the remediation process, perhaps the property could fall on the responsibility of the City's land bank; the property would be owned by the land bank, and the land bank's priority would be industrial infill development. Or the property could fall within the responsibility of a remediation fund held by the City, until the issues are resolved.

Rents

The City, as well as the Federal Government, could offer programs that help owners/occupiers secrure grant funding to help offset debt and equity costs associated with rehabilitation in exchange for job creation. Supplying updated space commands higher rents, rendering this type of development more feasible in the long run. A tax credit program that prioritizes industrial infill projects would catalyze development, just as the Low Income Housing Tax Credits and Historic Preservation Tax Credits have renewed interest in affordable housing and historic rehabilitations.

OPPORTUNITIES

This section addresses opportunities created by historic industrial rehabilitation.

Small Business Generation and Employment Opportunities

Small businesses play a significant role in employing Indiana's residents; as of 2010, over a quarter of Indiana's working population was employed by small businesses. Between 2000 and 2010, over $686 million in warehousing and manufacturing small business loans were guaranteed in Indiana by the Small Business Administration. This small business demand, coupled with the ideal location of the proposed rehabilitation and the size of the targeted tenants, creates a valuable opportunity for small business support in Marion County.

Historic and Cultural Preservation

The proposed rehabilitation site sits within a neighborhood that has a long history of mixed uses. Rehabilitating this building and providing jobs for community members would not only provide future opportunities to the neighborhood, but also contribute to preserving the historic and cultural integrity of its surrounding community.

Sustained Neighborhood Revitalization

Neighborhood revitalization does not end with cosmetic upgrades and higher population densities. Without job creation and opportunities for a variety of populations, there is a risk of eliminating diversity within communities. Providing a diverse economic and employment base not only benefits tax revenues achieved by the city, but also benefits the neighborhood, its residents and its employers by offering opportunities for a variety of population profiles. This economic diversity creates attractive, culturally diverse, and rich communities that have the potential to sustain themselves well into the future.

NEXT STEPS

Four research items were not covered in this paper that would be welcome additions to how historic industrial buildings can serve as catalysts for urban economic development.

First, tools used by cities where history and industry are more intertwined, such as Seattle, San Francisco, Boston, and Baltimore, could enlighten the middle United States about economic tools that aid in industrial asset reuse. Seattle and Tacoma, Washington have a long history of industrial use due to the shipping industry. They are also a land-locked metropolitan area, forcing creativity in all property use and reuse; manufacturing and warehousing buildings still exist within the downtown and within close proximity to other uses.

The second is how industrial reuse coincides with and enhances goals for economic development. A more in depth analysis of specific job types needed and tenants currently in the market for space could take this research to the next level by giving it a more difinitive outcome.

Third, studying case study precedent projects that involve historic industrial reuse could reveal tested methods and outcomes. While it is likely that the rehabilitation scenario presented in this paper has been put to the test, it is more often the exception rather than the rule.

And finally, profiling developers that could entertain this type of rehabilitation would be a first step in making this research reality. With over two million square feet of this type of space currently on the market, there is a lot of room for developer opportunity and growth.

CONCLUSION

There is a perception that as manufacturing and warehousing continue to advance technologically, employment opportunities for workers in those industries will continue to decline. However this perception must not account for all manufacturing and warehousing employment; rather what is written and talked about in a variety of outlets around the world only accounts for large corporate manufacturing. What of small companies and small business?

Large operations were the exception rather than the rule for many decades in American manufacturing history. The Lowell and Slater mill towns in the early nineteenth century were antithetical to most manufacturing operations, which employed about 20 people and were family-owned and operated. These smaller operations were taking place in a variety of spaces and places, manufacturing a variety of products, and employing a variety of people.

The variety of goods produced throughout history has not abated. If anything, the diversity has increased, along with the array of production methods and space configurations. Product variety, technological advancements and industrial buildings have been constantly changing since the early nineteenth century. This variety found in industrial real estate and its associated processes is a testament to the unending opportunities found in these properties, particularly the ones that have withstood the tests of time.

Employees historically came from neighboring farms, and eventually the neighborhoods in which factories sat. International trade agreements, technology and worldwide political forces ultimately allowed labor to be outsourced to countries with cheaper wages, or rendered human labor obselete.

The American working class has lost hope for the American Dream, and questions whether it really ever existed. Henry Ford embraced technological advances that altered American production, and at the same time valued his employees by paying wages that allowed them to afford what they produced. Today, large manufacturing operations, and their associated technology, depreciate human labor.

Large corporations cannot remain the only hope for job creation and economic resurgences in faltering economies; rather we must embrace the impacts that small companies make on our neighborhoods and communities, for both employment and economic diversification. Diminishing the importance of small businesses and start-up companies will only stifle employment opportunities further.

Under-used historic industrial buildings are ideal resources for small businesses, which are inherently local and culturally aware, and need space to build a company. Yes, these businesses may outgrow these buildings, however given the manufacturing and logistics real estate development patterns, there is already a bigger building waiting for them. Manufacturing and warehousing have always been diverse and ever-changing industries, therefore industrial real estate will always need to cater to a variety of producers, large and small.

APPENDICES

APPENDIX A – BROKER SURVEYS

	Broker Questions	Broker 1	Broker 2	Broker 3
1	**What is your definition of an industrial park? Include location - urban, suburban, rural, accessibility, etc.**	not necessarily deined by location (urbna, sub, etc). More multiple buildings, main entrance, monumnet sign, cohesive park.	An area in the city that is zoned for industrial businesses that are similar. This area usually has good interstate access, near the airport or on the outskirts of a city.	An area designated for industrial uses…warehousing, distributing, manufacturing. Can be urban, suburban and rural. Does need good accessibility.
2	**What types of tenants do you find in industrial parks?**	varies from plumbing supply guy to refridg distributors. 1M SF, 30000SF industrial with multiple smaller tenants. All ranges of sizes.	These tenants are in the manufacturing or distrit	All types of companies ranging from manufacturers to food suppliers, tech companies, 3PLs
3	**Describe the tenants found in industrial parks. List characteristics of interest - height, weight, load, access, etc.**	Couple three buildings.Plumbing supply guy, roofing supply guy, will call area. Looking for as many dock high doors as they can get. Want an occassional grade level door so they can get a fork lift in and out. At least 24' clear if warehousing - they want to rack it. 100K SF 30' clear. ESFR spinklers for big guys. They want a certain level of parking for employees, truck maneuvering adequate for what they're doing. 53' trucks they want 120' of clear.	These tenants need 18'-36' clear height, good interstate access, multiple docks and overhead doors for distribution.	
4	**What needs do these tenants usually need fulfilled? What do they look for in their space?**		They usually need very little office space. They need a high clear height for racking, multiple docks, ample power for manufacuring, parking for employees, and sometimes they will need trailer storage.	Functionality. The building has to work for their process.
5	**How much space do they usual want? What space configuration are they looking for?**		It can range from 5,000-an unlimited amount. It just depends on the tenant's operation. They usually want an open configuration.	Depends on what type of business
6	**What are the physical needs for these tenants' uses? What are their structural requirements and workflow space requirement? What performance criterion does the space need to be designed to?**		Some tenant's prefer a cross dock operation. Meaning that there are docks on both ends of the warehouse. They need enough room so that they can move their material easily and efficiently through the warehouse for outbound and inbound product.	Again, depends on the company
7	**What are the typical lease terms for these tenants?**	5 years - really 3-5 years. Sometimes 7-10, but average 5 year leases. Typically NNN. They are responsible for buildings' operation and maintenance but roof, walls, foundation is landlord's problem. If leak, tenant, If replace, landlord.	A typical lease term would be 3-5 years. From 2008-2011 it was usually 1-3 years.	Most tenants look at 5 year terms. 3PL's look for terms that fit their contracts.
8	**What types of Tis do they want?**	typically LL will build out office for tenants - lunchroom, office, kitchen. Costs about $85/SF to build. LL pays for it but he'll charge 0.85/sf per month. On top of shell. If warehouse is .35, then .85/sf for office. Different in different markets.	In the office they usually get new carpet and paint. New T-5 lighting in the warehouse. Depending on the tenant's credit and length of term they can get more parking spots, expand the current office build out, add docks or drive-in ramps, etc..	Upgraded lighting, dock levelers
9	**What's the average rent paid? How is this calculated?**	anywhere from .28 to .60/sf - depends on if you're in Auburn or Everett, etc.	See market report attached.	Again, this depends on the size of the space. Big box users pay a lower shell rate than smaller box users. New office is $0.85/SF, older office is $0.65-$0.75/SF.

10	**How often and how quickly do they expand out of their space? Where do they seek more space? Within the same park or are they more likely to move elsewhere?**	Generally doesn't happen. Presumably they've been in business for a while when you take them on so they know what they need. Typically renew without changing SF. For financial models, 70% retention ratio - 705 of them stay without change.	It depends on the operation. If they run out of space, they would like to find more space next to their current operation or where ever their client may be located.	Expansion depends on the business. If they can get the space in the same park with good terms and they are happy with the landlord they will try to stay in the same park. If rental rate is the driver they may move to get a better rate.
11	**How often do they break leases because they've grown out of the space? How long does it take that to happen?**		Depending on who the Landlord is, the Landlord may have more space in another building for them. So they would relocate them. Leases don't normally get broken, but sometimes the company can buy out of their contract. They usually find more overflow space if they can.	Rarely
12	**How important is location? How is a good location defined?**	more sensitive to access to highways, to where product is being delivered. South center location - had other things around - didn't need to drive to lunch, etc. Want customers to be able to find them - on truck lines - convenient cost effective vendors for various things for shipping and so forth. Proximity to where executives live.	Location is very important. They need great interstate access and a labor force that will work for them.	Location is just one component of the decision. Lease rate also is a major factor. A good location allows the business with easy reach to its markets, suppliers, customers.
13	**What are some more creative light industrial uses you've seen?**	Wineries, coffee roasters, scooter/motorcycle sales and service. Flooring companies, architects, wood working studios/sales. In downtown Seattle we are seeing a ton of tech absorption, but they are taking new buildings generally.	In the winter people use the spaces for Baseball training and batting cages. Another group has come in called Sky Zone and built up the spaces with multiple trampolines.	
14	**What immediate concerns do you have about reusing historic manufacturing/warehouse buildings/space for light industrial purposes? Summarize into a list of top 3 to 5.**	The unknowns. If you're the developer what are you going to run into if you haven't run into . What happens when you start tearing into these things. Reception in market? How will it be perceived. Gotta be able to lease it.	Clear height, size and amount of dock doors, and location. Usually the clear height is lower than what most users want. The typicall user wants to go up, not out. Meaning they want to rack their material as high as possible. Older buildings may not have enough docks for today's user and docks are now 9'x10'. Most older buildings have 8'x8' docks. To upgrade all of those docks could be costly. An older historic building is probably closer to the city if not in the middle of downtown. This location may not be the best for logistics and the labor force.	1. Functionality, 2. Accessibility 3. Pricing
15	**Other than your immediate notions, what are your other concerns or ideas you have thought of and not acted on or put into practice? Summarize into a list of top 3 to 5.**	Limited functionality. Limited footprint.	The way sales is moving is that prospects jump on their computer to search for their needs first before they do anything else. I would like to be more active in social media and develop a website so that I have more of a internet presence. Another thing that i have noticed is that land prices are starting to go back up and tenants are starting to build again. I have some land listings, but would like to pick up more. I believe the third one is more client relations work. Our business is all relationships. Doing more for my current clients as in different things to entertain and getting to know them.	

City Commerce Center - Infill reuse deal. Took big square building with no truck manuv room and cut out section of middle of building to provide for truck loading - made square building into U. 18' clear. Some users had flooring supply (dist flooring but also had showroom), brewery went in there also had tasting area, and then scooters sales service and repair tenant (showroom in front then maintenance and repair)
IKEA

APPENDIX B – PLANNER SURVEYS

	City Planning Department	Planner 1	Planner 2	Planner 3
1	**In your professional opinion, what are the greatest barriers to the reuse of historic industrial buildings?**	high cost of project vs. roi often historic industrial buildings are not in best location to earn high enough rents to cover costs, allow for profitable project cost of environmental clean up, from lead paint to ground contamination	Most of the historic industrial buildings are on brownfield sites, which must be mitigated in order for the buildings to be reused. Brownfield clean-up is expensive, and there are often liability issues which impact clean-up and/or redevelopment. Historic industrial buildings are often located in close proximity to residential neighborhoods. Care must be taken to assure the new use is compatible with the residential uses. Many tradeoffs may be necessary for the building owner and the neighborhood to reach a consensus on what is appropriate. Building codes have changed since many older industrial buildings were constructed. Rehabilitation of the building may require upgrades in accordance with current codes. The upgrades may be expensive and/or they may require changes to the historic fabric of the structure. Historic industrial buildings are often not energy efficient. Upgrades are expensive.	Site contamination, renovation costs
2	**In your professional opinion, what are the greatest barriers to the reuse of historic industrial buildings for light industrial purposes?**	often less expensive to develop suburban light industrial buildings. taxes are often lower in suburbs vs. cities with old industrial buildings old builiding locations don't often meet transportation needs of industry, whether it is dock/floor elevation, or quick easy access to interstates	Transportation modes have shifted. Today's industrial buildings are located near major interstates or easily-accessible thoroughfares. Older industrial buildings were often located along railroads or waterways, with poor street access. New construction techniques create large open areas, with tall ceiling heights, which are more flexible for light industrial uses. The older buildings often don't accommodate flexibility. Older industrial buildings are typically on small sites, with minimal expansion opportunities, while new industrial buildings are often developed on greenfields, where expansion is possible in the future. The brownfield issues stated above are also relevant for industrial uses.	Site contamination, lack of interstate access, obsolete building and site configuarations, lack of parking or expanison room

3	**Is current zoning a barrier to reuse? Can you cite an example of this?**	zoning can be a barrier, if residential use is not allowed in old industrial zoning districts	If a site is reused for industrial purposes, zoning is likely not a problem, unless the owner wants to expand the footprint of the building. Older industrial buildings were likely developed prior to the adoption of existing zoning ordinances, and are nonconforming – especially related to setbacks, loading areas, and parking. Nonconforming buildings are not allowed to be expanded by right. If the use of an industrial building is proposed to change to commercial, residential or something else, the property would need to be rezoned. Indianapolis' Zoning Ordinances generally don't allow non-industrial uses in industrial zones. 55 South Harding Street, formerly zoned I-4-U, was rezoned to CBD-2 in 2001 to provide for condominium development. It was not controversial. White River Parkway and Oliver Avenue, currently zoned I-4-U, and will likely be rezoned to CBD-S in order to allow mixed uses in a planned development. The site is the former GM stamping plant, and plans are not final at this time.	most historic industrial sites are correctly zoned, meeting modern parking requirement may be a probelem for pre-WWII industrial sites

4	**What role do you see industrial space playing in your city in the future?**	the City of Carmel has placed most emphasis on service economy (fire) and health care… I expect that focus to continue	Reuse of vacant industrial space can create some unique developments that aren't typical of new construction. Indianapolis has many examples of industrial buildings redeveloped for residential lofts, apartments and condominiums. The City also has examples of warehouses reused for live/work art space, like the Wheeler Arts Community in the Fountain Square Neighborhood. Developer Town is a co-location of several small start-up businesses located in a former warehouse south of Broad Ripple at 5255 Winthrop Avenue. The National Design Center plans include a variety of uses in a former warehouse along the Monon Trail, at 22nd and Yandes. The City of Indianapolis recently applied for a planning grant to study the reuse of several former auto plants, including those vacated by GM, Ford, and Chrysler. When large plants are closed and vacated, the City must be proactive in facilitating redevelopment. The City also received a grant from the Environmental Protection Agency (EPA) to assist in brownfield clean-up, and we will use those funds on vacant industrial properties. If the City is not proactive, many large, outdated industrial buildings may continue to remain vacant for years, unless funds are found to address brownfield issues, inefficient building design, and building obsolescence.	as important centers for jobs and tax revenue

APPENDIX C – HISTORIC PRESERVATION SURVEYS

	HP Quesitons	HP 1	HP 2	HP 3
1	**What are the most commonly seen uses for the reuse of historic industrial buildings?**	Housing and restaurant seem to be the most common uses.	Nearly all adaptive reuse of indistrial/warehouse type structures in the RITC program are for residential occupancy. An exception for this in Indianapolis has been the development of auto related resources from the early 20th C where a single building often housed manufacturing, sales and service. Two such properties have been redeveloped for office occupancy, with retail commercial/service businesses at street level. I am aware of several other adaptive occupancy of industrial buildings for office/service/commercial/government uses (including a jail) that have not participated in the RITC program. There have been no rehabilitations for continuing industrial use that have participated in the RITC program during my tenure.	residential in my experience
2	**Which ones are most successful? How do you measure that success? Please provide examples.**	Wheeler Art Center / housing is a good example. It qualified for tax credits, so, it's a good design from a preservation point of view. It's also been in use over 5 years.	I have little knowledge of the economic success of projects with reference to return on investment, etc. I have casual knowledge of succes as may be based on observable occupancy. It would seem that these projects are largely succesful by the appearance of fairly full occupancy. Strangely, the street-level commercial components are often slower to lease-up, but this may be because these have not been the prime-tenants identified prior to development.	The projects that keep the look and feel of an industrial space seems to stayed leased better.
3	**What types of businesses succeed and stay longer than 2-5 years, or longer than the duration of their original lease?**	Housing seems to stay longest, especially when subsidized by low income HUD housing credits.	As noted above, street-level commercial occupancies are often slow to lease-up and sometimes turn-over frequently. This is likely associated with the failure-rate of small start-up retail business.	I don't know the terms of leases enough to know
4	**On average, how long do these uses remain within the same facility? Explain.**	I have no way of knowing.	I have no basis for comment here.	I have never been involved with a reuse project that's end use is light industiral so I have a hard time answering the next few
5	**What causes a company to move?**	I believe that most move because they were inticed to do so, by something like tax abatements or perception of a better location.	Again, I have only casual knowledge, but have observed business-service firms rapidly out-growing their facilities. These sometime become "repeat-offenders", developing adjacent facilities, or relocating to a larger facility, sometimes also rehabilitated.	Most of the time the old buildings are abandoned due to needs to modernize equipment or business location needs
6	**Are communities open to the reuse of historic industrial buildings being reused for light industry? Why or why not?**	I think they would support light industry. The location of most historic industries is such that area residents are used to a variety of mixed uses near to housing.	Again, I am unaware of RITC being employed for indutrial concerns, This may be more a function of the decline in the manufacturing sector as opposed to community interests. I imagine that communities would welcome any re-occupation of blighted industrial properties, but the pressure of changing demographics in the housing sector seem to drive most rehabilitation.	I would think so

7	**What are barriers to reuse when tax credits are involved?**	I believe windows and issues with window repair or replacement are high on the list. The need to retain open spaces is also a challenge.	Since one would presume that industrial re-use would require less investment than would be required for adaptation to a more finished occupancy, there could be some difficulty in meeting the "substantial rehabilitation test". It might sometimes be difficult to resolve the imperatives for historic preservation with the necessities of haz-mat remediation. One must stay cognizant that many older industrial facilities, not listed or eligible for the National Register may qualify for and utilize the more generic 10% credit for buildings built before 1936, but it seems that little information on the use and impact of that credit has been as deeply analyzed as the certified credit.	I would think it would be fairly easy -- but could see some issues arising if say special equipment was needed in a space
8	**What are barriers to reuse regardless of tax credit use?**	Site pollution and clean-up are challenges.	Especially when warehousing is related to production or is the primary activity of the business, the floor area, overhead height, and structural interruptions present in older facilities may simply not fit the requirements for fork lift operation or accommodating other machine/equipment and in-line production. Historical industrial buildings typically housed activities more related to localized handwork executed at benches of small machine stations with product moved from station to staion on hand-carts or overhead conveyance. There is sometimes a challenge in finding engineers who are willing to ascribe structural values to in-place achaic materials and assemblies that may not conform to standard design values, etc., however this paradigm seems to be shifting somewhat as methods for empitical testing and computer modeling develop.	I could see that the same issues that make one industrial use move out -- modernization needs, location -- could also effect a light industiral user

9	**How does this reuse affect neighborhood stabilization and/or gentrification?**	Most reuses I've seen either augment housing options in an already thriving area, or offer housing in an area that hasn't seen new housing in decades.	I do not see rehabilitation as directly contributing to gentrification, perhaps with the exception of adaptation to housing and related diplacement of work opportunities. The social distribution of equity is a socio-economic issue related to wages, ownership and finance, not the physical distribution of economic activity (except as dislocation may make access to employment more problematic). Such developments rarely cause the closure of a production facility. The typical adative re-use of industrial structures occupies already vacant properties.The poor are not well served by being relegated to substandard living conditions as may result from failure of maintenance. While rural poverty has always been endemic, the suburbanization of poverty is largely a result of trickle-down in housing (and in Indianapolis displacement of HUD investment to accomplish desegregation of schools). In this way rehabilitation of existing urban housing stock may exacerbate then gentrification phenonmenon. To the extent that RITCs are employed collaterrally with affordable tax credits, they may actually improve access to affordable housing in urban neighborhoods.	With a light industrial use I would not see it changing the trends -- but if the use has a noise, smell or truck traffic associated with it that could cause a shift.
10	**On average, how structurally viable are most of the historic industrial buildings you've dealt with? Cite examples if you are able.**	I would say most are structurally viable.	The typical historic factory/warehouse structure is profoundly overstructured for most modern activities. In fact, the main reason that these structures remain available for redevelopment is the high cost related to demolition and disposal. Typcally massive in character, constructed of heavy timber and masonry, and later steel and concrete, these structures can endure decades of deferred maintenance without substantial loss of structural integrity. Studies of demolition find that most demolition affects buildings less than 50 years old, no doubt related to planned obsolescence, lightweight modern construction, technology, and the scale of post WWII urban expansion.	The H. Lauter Company (101 S. Harding Street) was fairly compromised structurally from 75 years of use as a scrap metal recyclers. It was a wood frame building and so the years of forklifts did damage and a fair amount of structural rebuilding needed to take place. In case of Kahn Tailoring (800 N. Capitol) the building is solid cast concrete construction and so structurally it is fine. Updates to mechanicals are not as easy for reuse though. In both cases these are residential reuses. In the case of HCS Motor Car (1402 N. Capitol). It was reused as office space and had no structural issues. In all the cases, however, some level of environmental clean up was an issue due to past industrial use.

APPENDIX D – OWNER-OPERATOR PRO FORMA

Owner Operator Sources and Uses

SOURCES		
Debt	$	1,454,400
Equity	$	1,019,955
Total Sources	**$**	**2,474,355**

USES		
Hard Costs		
Acquisition	$	650,000
Office Construction	$	50,000
Warehouse Construction	$	576,000
	$	1,777,000
Soft Costs		
Contingency	$	213,240
Design Fee & Engineering	$	73,255
Construction Interest and Fees	$	36,624
Title & Recording	$	5,000
Survey & Appraisal & Market Study	$	28,175
Tax Credit Fees	$	5,000
Environmental	$	28,175
Insurance	$	24,646
Legal Costs	$	35,540
Marketing	$	35,000
Lease Up Costs	$	35,000
Operating Reserve	$	-
Developer Fees	$	177,700
Total Soft Costs	**$**	**697,355**
Total Uses	**$**	**2,474,355**
Deficity/Overage	$	(0)

OMAR BAKING COMPANY - REIT
FINANCIAL FEASIBILITY ANALYSIS

CAPITAL PROGRAM

Uses of Funds

Acquisition	$ 650,000
Hard Costs	$ 1,127,000
Soft Costs	$ 697,355
	$ 2,474,355

Sources of Funds

Equity	$ 1,484,613
Gap/Grant Money/Gifts, etc	$ -
Debt Financing	$ 989,742
	$ 2,474,355

Value	$1,939,200
LTV	51.0%

OPERATING PROGRAM

				YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15
Gross Income/Rent Structure																		
Suite A	16,000	$ 3.00	per s.f. gross rate	$ 48,000	$ 48,960	$ 49,939	$ 50,938	$ 51,957	$ 52,996	$ 54,056	$ 55,137	$ 56,240	$ 57,364	$ 58,512	$ 59,682	$ 60,876	$ 62,093	$ 63,335
Suite B	20,000	$ 3.00		$ 60,000	$ 61,200	$ 62,424	$ 63,672	$ 64,946	$ 66,245	$ 67,570	$ 68,921	$ 70,300	$ 71,706	$ 73,140	$ 74,602	$ 76,095	$ 77,616	$ 79,169
Suite C	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite D	10,000	$ 3.00		$ 30,000	$ 30,600	$ 31,212	$ 31,836	$ 32,473	$ 33,122	$ 33,785	$ 34,461	$ 35,150	$ 35,853	$ 36,570	$ 37,301	$ 38,047	$ 38,808	$ 39,584
Suite E	25,000	$ 3.00		$ 75,000	$ 76,500	$ 78,030	$ 79,591	$ 81,182	$ 82,806	$ 84,462	$ 86,151	$ 87,874	$ 89,632	$ 91,425	$ 93,253	$ 95,118	$ 97,020	$ 98,961
Suite F	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite G	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite H	15,000	$ 3.00		$ 45,000	$ 45,900	$ 46,818	$ 47,754	$ 48,709	$ 49,684	$ 50,677	$ 51,691	$ 52,725	$ 53,779	$ 54,855	$ 55,952	$ 57,071	$ 58,212	$ 59,377
	101,000	$ 3.00																
Total Revenue				***$ 303,000***	***$ 309,060***	***$ 315,241***	***$ 321,546***	***$ 327,977***	***$ 334,536***	***$ 341,227***	***$ 348,052***	***$ 355,013***	***$ 362,113***	***$ 369,355***	***$ 376,742***	***$ 384,277***	***$ 391,963***	***$ 399,802***
Less General Vacancy				$ (21,210)	$ (21,634)	$ (22,067)	$ (22,508)	$ (22,958)	$ (23,418)	$ (23,886)	$ (24,364)	$ (24,851)	$ (25,348)	$ (25,855)	$ (26,372)	$ (26,899)	$ (27,437)	$ (27,986)
Net Revenue				**$ 281,790**	**$ 287,426**	**$ 293,174**	**$ 299,038**	**$ 305,019**	**$ 311,119**	**$ 317,341**	**$ 323,688**	**$ 330,162**	**$ 336,765**	**$ 343,500**	**$ 350,370**	**$ 357,378**	**$ 364,525**	**$ 371,816**
Expenses																		
Operating Cos	101,000	$ 0.55	per s.f.	$ (55,550)	$ (56,661)	$ (57,794)	$ (58,950)	$ (60,129)	$ (61,332)	$ (62,558)	$ (63,809)	$ (65,086)	$ (66,387)	$ (67,715)	$ (69,069)	$ (70,451)	$ (71,860)	$ (73,297)
Utilities	101,000	$ 0.75	per s.f.	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)
RR	101,000	$ 0.05	per s.f.	$ (5,050)	$ (5,151)	$ (5,254)	$ (5,359)	$ (5,466)	$ (5,576)	$ (5,687)	$ (5,801)	$ (5,917)	$ (6,035)	$ (6,156)	$ (6,279)	$ (6,405)	$ (6,533)	$ (6,663)
Total Operating Expenses				**$ (136,350)**	**$ (137,562)**	**$ (138,798)**	**$ (140,059)**	**$ (141,345)**	**$ (142,657)**	**$ (143,995)**	**$ (145,360)**	**$ (146,753)**	**$ (148,173)**	**$ (149,621)**	**$ (151,098)**	**$ (152,605)**	**$ (154,143)**	**$ (155,710)**
Net Operating Income				**$ 145,440**	**$ 149,864**	**$ 154,376**	**$ 158,979**	**$ 163,673**	**$ 168,462**	**$ 173,346**	**$ 178,328**	**$ 183,409**	**$ 188,593**	**$ 193,879**	**$ 199,272**	**$ 204,772**	**$ 210,383**	**$ 216,106**
Less Debt Service	$989,742	5.00%	15	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)
Debt Coverage Ratio				1.53	1.57	1.62	1.67	1.72	1.77	1.82	1.87	1.92	1.98	2.03	2.09	2.15	2.21	2.27
Net Cash Flow				**$ 50,086**	**$ 54,510**	**$ 59,022**	**$ 63,625**	**$ 68,319**	**$ 73,108**	**$ 77,992**	**$ 82,974**	**$ 88,055**	**$ 93,239**	**$ 98,525**	**$ 103,918**	**$ 109,418**	**$ 115,029**	**$ 120,751**

INVESTMENT PROGRAM

												Projected Sales Proceeds		2,514,567				2,881,407
												Projected Cap Rate	7.50%					
												Less Loan Payoff		$ (412,833)				$ (0)
												Net Sales Proceeds		**2,101,734**	**2,194,973**			**2,881,407**
			Initial Investment	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10					
Total Cashflow			**$ (1,484,613)**	**$ 50,086**	**$ 54,510**	**$ 59,022**	**$ 63,625**	**$ 68,319**	**$ 73,108**	**$ 77,992**	**$ 82,974**	**$ 88,055**	**$ 93,239**	**$ 98,525**	**$ 103,918**	**$ 109,418**	**$ 115,029**	**$ 3,002,158**
	Internal Rate of Return:	**8.49%**																
Return on Equity (ROE)				**3.4%**	**3.7%**	**4.0%**	**4.3%**	**4.6%**	**4.9%**	**5.3%**	**5.6%**	**5.9%**	**6.3%**	**6.6%**	**7.0%**	**7.4%**	**7.7%**	**8.1%**

Forecast Assumptions	
Annual Rent Increase	2.00%
Annual Operating Expense G	2.00%
Vacancy Loss Rate	7.00%
Annual Reserve Increase	2.00%

Debt Service	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10					
Interest	$ 49,487	$ 47,194	$ 44,786	$ 42,257	$ 39,602	$ 36,815	$ 33,888	$ 30,815	$ 27,588	$ 24,199	$ 20,642	$ 16,906	$ 12,984	$ 8,865	$ 4,541
Principal	($45,867)	($48,160)	($50,568)	($53,097)	($55,752)	($58,539)	($61,466)	($64,539)	($67,766)	($71,155)	($74,712)	($78,448)	($82,370)	($86,489)	($90,813)
Balance	$ 943,875	$ 895,715	$ 845,147	$ 792,050	$ 736,298	$ 677,759	$ 616,293	$ 551,754	$ 483,988	$ 412,833	$ 338,121	$ 259,673	$ 177,302	$ 90,813	$ 0

10-year	**Internal Rate of Return:**	**7.53%**	$ (1,484,613)	$ 50,086	$ 54,510	$ 59,022	$ 63,625	$ 68,319	$ 73,108	$ 77,992	$ 82,974	$ 88,055	$2,194,973	

APPENDIX E – GAP FUNDING PRO FORMA

GAP Funding Sources and Uses

SOURCES		
Debt	$	1,454,400
HTC	$	225,400
VCITC	$	730,000
IDGF	$	-
Equity	$	64,555
Total Sources	**$**	**2,474,355**

USES		
Hard Costs		
Acquisition	$	650,000
Office Construction	$	50,000
Warehouse Construction	$	576,000
	$	1,777,000
Soft Costs		
Contingency	$	213,240
Design Fee & Engineering	$	73,255
Construction Interest and Fees	$	36,624
Title & Recording	$	5,000
Survey & Appraisal & Market Study	$	28,175
Tax Credit Fees	$	5,000
Environmental	$	28,175
Insurance	$	24,646
Legal Costs	$	35,540
Marketing	$	35,000
Lease Up Costs	$	35,000
Operating Reserve	$	-
Developer Fees	$	177,700
Total Soft Costs	**$**	**697,355**
Total Uses	**$**	**2,474,355**
Deficity/Overage	$	(0)

OMAR BAKING COMPANY - GAP
FINANCIAL FEASIBILITY ANALYSIS

CAPITAL PROGRAM

Uses of Funds

Acquisition	$ 650,000
Hard Costs	$ 1,127,000
Soft Costs	$ 697,355
	$ 2,474,355

Sources of Funds

Equity	$ 64,555
Gap/Grant Money/Gifts, etc	$ 955,400
Debt Financing	$ 1,454,400
	$ 2,474,355

Value	$1,939,200	75% LTV Limit	
LTV	75.0%	$1,454,400	

OPERATING PROGRAM

				YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15
Gross Income/Rent Structure																		
Suite A	16,000	$ 3.00	per s.f. gross rate	$ 48,000	$ 48,960	$ 49,939	$ 50,938	$ 51,957	$ 52,996	$ 54,056	$ 55,137	$ 56,240	$ 57,364	$ 58,512	$ 59,682	$ 60,876	$ 62,093	$ 63,335
Suite B	20,000	$ 3.00		$ 60,000	$ 61,200	$ 62,424	$ 63,672	$ 64,946	$ 66,245	$ 67,570	$ 68,921	$ 70,300	$ 71,706	$ 73,140	$ 74,602	$ 76,095	$ 77,616	$ 79,169
Suite C	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite D	10,000	$ 3.00		$ 30,000	$ 30,600	$ 31,212	$ 31,836	$ 32,473	$ 33,122	$ 33,785	$ 34,461	$ 35,150	$ 35,853	$ 36,570	$ 37,301	$ 38,047	$ 38,808	$ 39,584
Suite E	25,000	$ 3.00		$ 75,000	$ 76,500	$ 78,030	$ 79,591	$ 81,182	$ 82,806	$ 84,462	$ 86,151	$ 87,874	$ 89,632	$ 91,425	$ 93,253	$ 95,118	$ 97,020	$ 98,961
Suite F	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite G	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite H	15,000	$ 3.00		$ 45,000	$ 45,900	$ 46,818	$ 47,754	$ 48,709	$ 49,684	$ 50,677	$ 51,691	$ 52,725	$ 53,779	$ 54,855	$ 55,952	$ 57,071	$ 58,212	$ 59,377
	101,000	$ 3.00																
Total Revenue				***$ 303,000***	***$ 309,060***	***$ 315,241***	***$ 321,546***	***$ 327,977***	***$ 334,536***	***$ 341,227***	***$ 348,052***	***$ 355,013***	***$ 362,113***	***$ 369,355***	***$ 376,742***	***$ 384,277***	***$ 391,963***	***$ 399,802***
Less General Vacancy				$ (21,210)	$ (21,634)	$ (22,067)	$ (22,508)	$ (22,958)	$ (23,418)	$ (23,886)	$ (24,364)	$ (24,851)	$ (25,348)	$ (25,855)	$ (26,372)	$ (26,899)	$ (27,437)	$ (27,986)
Net Revenue				**$ 281,790**	**$ 287,426**	**$ 293,174**	**$ 299,038**	**$ 305,019**	**$ 311,119**	**$ 317,341**	**$ 323,688**	**$ 330,162**	**$ 336,765**	**$ 343,500**	**$ 350,370**	**$ 357,378**	**$ 364,525**	**$ 371,816**
Expenses																		
Operating Cos	101,000	$ 0.55	per s.f.	$ (55,550)	$ (56,661)	$ (57,794)	$ (58,950)	$ (60,129)	$ (61,332)	$ (62,558)	$ (63,809)	$ (65,086)	$ (66,387)	$ (67,715)	$ (69,069)	$ (70,451)	$ (71,860)	$ (73,297)
Utilities	101,000	$ 0.75	per s.f.	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)
RR	101,000	$ 0.05	per s.f.	$ (5,050)	$ (5,151)	$ (5,254)	$ (5,359)	$ (5,466)	$ (5,576)	$ (5,687)	$ (5,801)	$ (5,917)	$ (6,035)	$ (6,156)	$ (6,279)	$ (6,405)	$ (6,533)	$ (6,663)
Total Operating Expenses				**$ (136,350)**	**$ (137,562)**	**$ (138,798)**	**$ (140,059)**	**$ (141,345)**	**$ (142,657)**	**$ (143,995)**	**$ (145,360)**	**$ (146,753)**	**$ (148,173)**	**$ (149,621)**	**$ (151,098)**	**$ (152,605)**	**$ (154,143)**	**$ (155,710)**
Net Operating Income				**$ 145,440**	**$ 149,864**	**$ 154,376**	**$ 158,979**	**$ 163,673**	**$ 168,462**	**$ 173,346**	**$ 178,328**	**$ 183,409**	**$ 188,593**	**$ 193,879**	**$ 199,272**	**$ 204,772**	**$ 210,383**	**$ 216,106**
Less Debt Service	$1,454,400	5.00%	15	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)	($140,120)
Debt Coverage Ratio				1.04	1.07	1.10	1.13	1.17	1.20	1.24	1.27	1.31	1.35	1.38	1.42	1.46	1.50	1.54
Net Cash Flow				**$ 5,320**	**$ 9,744**	**$ 14,256**	**$ 18,858**	**$ 23,553**	**$ 28,341**	**$ 33,226**	**$ 38,208**	**$ 43,289**	**$ 48,472**	**$ 53,759**	**$ 59,152**	**$ 64,652**	**$ 70,263**	**$ 75,985**

INVESTMENT PROGRAM

													Projected Sales Proceeds					2,514,567		2,881,407
													Projected Cap Rate	7.50%						
													Less Loan Payoff					$ (606,647)		$ (0)
														Net Sales Proceeds				**1,907,920**	**1,956,392**	**2,881,407**
				Initial Investment	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15	
Total Cashflow				**$ (64,555)**	**$ 5,320**	**$ 9,744**	**$ 14,256**	**$ 18,858**	**$ 23,553**	**$ 28,341**	**$ 33,226**	**$ 38,208**	**$ 43,289**	**$ 48,472**	**$ 53,759**	**$ 59,152**	**$ 64,652**	**$ 70,263**	**$ 2,957,392**	
	Internal Rate of Return:	**38.64%**																		
Return on Equity (ROE)					**8.2%**	**15.1%**	**22.1%**	**29.2%**	**36.5%**	**43.9%**	**51.5%**	**59.2%**	**67.1%**	**75.1%**	**83.3%**	**91.6%**	**100.2%**	**108.8%**	**117.7%**	

Forecast Assumptions

Annual Rent Increase	2.00%
Annual Operating Expense G	2.00%
Vacancy Loss Rate	7.00%
Annual Reserve Increase	2.00%

Debt Service	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15
Interest	$ 72,720	$ 69,350	$ 65,811	$ 62,096	$ 58,195	$ 54,099	$ 49,797	$ 45,281	$ 40,539	$ 35,560	$ 30,332	$ 24,843	$ 19,079	$ 13,027	$ 6,672
Principal	($67,400)	($70,770)	($74,309)	($78,024)	($81,925)	($86,022)	($90,323)	($94,839)	($99,581)	($104,560)	($109,788)	($115,277)	($121,041)	($127,093)	($133,448)
Balance	$ 1,387,000	$ 1,316,230	$ 1,241,921	$ 1,163,897	$ 1,081,971	$ 995,950	$ 905,627	$ 810,788	$ 711,207	$ 606,647	$ 496,859	$ 381,582	$ 260,541	$ 133,448	$ 0

10-year	**Internal Rate of Return:**	**48.51%**	$ (64,555)	$ 5,320	$ 9,744	$ 14,256	$ 18,858	$ 23,553	$ 28,341	$ 33,226	$ 38,208	$ 43,289	$ 1,956,392					

APPENDIX F – REIT PRO FORMA

REIT Sources and Uses

SOURCES	
Debt	$ 989,742
Equity	$ 1,484,613
Total Sources	**$ 2,474,355**

USES	
Hard Costs	
Acquisition	$ 650,000
Office Construction	$ 50,000
Warehouse Construction	$ 576,000
	$ 1,777,000
Soft Costs	
Contingency	$ 213,240
Design Fee & Engineering	$ 73,255
Construction Interest and Fees	$ 36,624
Title & Recording	$ 5,000
Survey & Appraisal & Market Study	$ 28,175
Tax Credit Fees	$ 5,000
Environmental	$ 28,175
Insurance	$ 24,646
Legal Costs	$ 35,540
Marketing	$ 35,000
Lease Up Costs	$ 35,000
Operating Reserve	$ -
Developer Fees	$ 177,700
Total Soft Costs	**$ 697,355**
Total Uses	**$ 2,474,355**
Deficity/Overage	$ -

OMAR BAKING COMPANY - REIT
FINANCIAL FEASIBILITY ANALYSIS

CAPITAL PROGRAM

Uses of Funds

Acquisition	$ 650,000
Hard Costs	$ 1,127,000
Soft Costs	$ 697,355
	$ 2,474,355

Sources of Funds

Equity	$ 1,484,613
Gap/Grant Money/Gifts, etc	$ -
Debt Financing	$ 989,742
	$ 2,474,355

Value	$1,939,200
LTV	51.0%

OPERATING PROGRAM

				YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10	YR 11	YR 12	YR 13	YR 14	YR 15
Gross Income/Rent Structure																		
Suite A	16,000	$ 3.00	per s.f. gross rate	$ 48,000	$ 48,960	$ 49,939	$ 50,938	$ 51,957	$ 52,996	$ 54,056	$ 55,137	$ 56,240	$ 57,364	$ 58,512	$ 59,682	$ 60,876	$ 62,093	$ 63,335
Suite B	20,000	$ 3.00		$ 60,000	$ 61,200	$ 62,424	$ 63,672	$ 64,946	$ 66,245	$ 67,570	$ 68,921	$ 70,300	$ 71,706	$ 73,140	$ 74,602	$ 76,095	$ 77,616	$ 79,169
Suite C	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite D	10,000	$ 3.00		$ 30,000	$ 30,600	$ 31,212	$ 31,836	$ 32,473	$ 33,122	$ 33,785	$ 34,461	$ 35,150	$ 35,853	$ 36,570	$ 37,301	$ 38,047	$ 38,808	$ 39,584
Suite E	25,000	$ 3.00		$ 75,000	$ 76,500	$ 78,030	$ 79,591	$ 81,182	$ 82,806	$ 84,462	$ 86,151	$ 87,874	$ 89,632	$ 91,425	$ 93,253	$ 95,118	$ 97,020	$ 98,961
Suite F	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite G	5,000	$ 3.00		$ 15,000	$ 15,300	$ 15,606	$ 15,918	$ 16,236	$ 16,561	$ 16,892	$ 17,230	$ 17,575	$ 17,926	$ 18,285	$ 18,651	$ 19,024	$ 19,404	$ 19,792
Suite H	15,000	$ 3.00		$ 45,000	$ 45,900	$ 46,818	$ 47,754	$ 48,709	$ 49,684	$ 50,677	$ 51,691	$ 52,725	$ 53,779	$ 54,855	$ 55,952	$ 57,071	$ 58,212	$ 59,377
	101,000	$ 3.00																
Total Revenue				***$ 303,000***	***$ 309,060***	***$ 315,241***	***$ 321,546***	***$ 327,977***	***$ 334,536***	***$ 341,227***	***$ 348,052***	***$ 355,013***	***$ 362,113***	***$ 369,355***	***$ 376,742***	***$ 384,277***	***$ 391,963***	***$ 399,802***
Less General Vacancy				$ (21,210)	$ (21,634)	$ (22,067)	$ (22,508)	$ (22,958)	$ (23,418)	$ (23,886)	$ (24,364)	$ (24,851)	$ (25,348)	$ (25,855)	$ (26,372)	$ (26,899)	$ (27,437)	$ (27,986)
Net Revenue				**$ 281,790**	**$ 287,426**	**$ 293,174**	**$ 299,038**	**$ 305,019**	**$ 311,119**	**$ 317,341**	**$ 323,688**	**$ 330,162**	**$ 336,765**	**$ 343,500**	**$ 350,370**	**$ 357,378**	**$ 364,525**	**$ 371,816**
Expenses																		
Operating Cos	101,000	$ 0.55	per s.f.	$ (55,550)	$ (56,661)	$ (57,794)	$ (58,950)	$ (60,129)	$ (61,332)	$ (62,558)	$ (63,809)	$ (65,086)	$ (66,387)	$ (67,715)	$ (69,069)	$ (70,451)	$ (71,860)	$ (73,297)
Utilities	101,000	$ 0.75	per s.f.	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)	$ (75,750)
RR	101,000	$ 0.05	per s.f.	$ (5,050)	$ (5,151)	$ (5,254)	$ (5,359)	$ (5,466)	$ (5,576)	$ (5,687)	$ (5,801)	$ (5,917)	$ (6,035)	$ (6,156)	$ (6,279)	$ (6,405)	$ (6,533)	$ (6,663)
Total Operating Expenses				**$ (136,350)**	**$ (137,562)**	**$ (138,798)**	**$ (140,059)**	**$ (141,345)**	**$ (142,657)**	**$ (143,995)**	**$ (145,360)**	**$ (146,753)**	**$ (148,173)**	**$ (149,621)**	**$ (151,098)**	**$ (152,605)**	**$ (154,143)**	**$ (155,710)**
Net Operating Income				**$ 145,440**	**$ 149,864**	**$ 154,376**	**$ 158,979**	**$ 163,673**	**$ 168,462**	**$ 173,346**	**$ 178,328**	**$ 183,409**	**$ 188,593**	**$ 193,879**	**$ 199,272**	**$ 204,772**	**$ 210,383**	**$ 216,106**
Less Debt Service	$989,742	5.00%	15	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)	($95,354)
Debt Coverage Ratio				1.53	1.57	1.62	1.67	1.72	1.77	1.82	1.87	1.92	1.98	2.03	2.09	2.15	2.21	2.27
Net Cash Flow				**$ 50,086**	**$ 54,510**	**$ 59,022**	**$ 63,625**	**$ 68,319**	**$ 73,108**	**$ 77,992**	**$ 82,974**	**$ 88,055**	**$ 93,239**	**$ 98,525**	**$ 103,918**	**$ 109,418**	**$ 115,029**	**$ 120,751**

INVESTMENT PROGRAM

												Projected Sales Proceeds		2,514,567				2,881,407
												Projected Cap Rate	7.50%					
												Less Loan Payoff		$ (412,833)				$ (0)
												Net Sales Proceeds		**2,101,734**	**2,194,973**			**2,881,407**
			Initial Investment	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10					
Total Cashflow			**$ (1,484,613)**	**$ 50,086**	**$ 54,510**	**$ 59,022**	**$ 63,625**	**$ 68,319**	**$ 73,108**	**$ 77,992**	**$ 82,974**	**$ 88,055**	**$ 93,239**	**$ 98,525**	**$ 103,918**	**$ 109,418**	**$ 115,029**	**$ 3,002,158**
	Internal Rate of Return:	**8.49%**																
Return on Equity (ROE)				**3.4%**	**3.7%**	**4.0%**	**4.3%**	**4.6%**	**4.9%**	**5.3%**	**5.6%**	**5.9%**	**6.3%**	**6.6%**	**7.0%**	**7.4%**	**7.7%**	**8.1%**

Forecast Assumptions	
Annual Rent Increase	2.00%
Annual Operating Expense G	2.00%
Vacancy Loss Rate	7.00%
Annual Reserve Increase	2.00%

Debt Service	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	YR 10					
Interest	$ 49,487	$ 47,194	$ 44,786	$ 42,257	$ 39,602	$ 36,815	$ 33,888	$ 30,815	$ 27,588	$ 24,199	$ 20,642	$ 16,906	$ 12,984	$ 8,865	$ 4,541
Principal	($45,867)	($48,160)	($50,568)	($53,097)	($55,752)	($58,539)	($61,466)	($64,539)	($67,766)	($71,155)	($74,712)	($78,448)	($82,370)	($86,489)	($90,813)
Balance	$ 943,875	$ 895,715	$ 845,147	$ 792,050	$ 736,298	$ 677,759	$ 616,293	$ 551,754	$ 483,988	$ 412,833	$ 338,121	$ 259,673	$ 177,302	$ 90,813	$ 0

10-year	**Internal Rate of Return:**	**7.53%**	$ (1,484,613)	$ 50,086	$ 54,510	$ 59,022	$ 63,625	$ 68,319	$ 73,108	$ 77,992	$ 82,974	$ 88,055	$2,194,973	

APPENDIX G – BARRIER AND OPPORTUNITY MATRIX

Appendix G – Barrier and Opportunity Matrix

Barrier/Issue	Federal/State/ Local	Description – Legal, Policy, Constituency, Private Market, Public Agency	Real or Possible Solution – Legal, Policy, Constituency, Private Market, Public Agency
Remediation	Federal, State and Local	The unknown is a legal, financing and cost worry for stakeholders	Develop policy to support reuse despite potential issues. Public/private development partnerships are eligible for a variety of grants that help offset remediation costs
Structural Interruptions and Retrofitting Design	N/A	Production uses need open space, high ceilings and specific electrical needs	Architects and construction managers are well-versed in upgrading buildings, rendering upgrades a non-issue, aside from where cost is excessive or the building is beyond repair. In many cases, these issues are minimal and can be overcome with creative tenant placement
Financing	Federal, State, Local	Banks are hesitant to lend on industrial properties based on perceived risk in remediation and lack of demand for urban industrial space	Provide policy to keep bank out of risk's way when considering unknown remediation issues. If issues arise, perhaps the property falls on the responsibility of the City's land bank or within the City's remediation goals/funding. Perhaps the city can provide a construction bond/guarantee or perhaps it's a tool of the private construction industry.
Dirty Uses	Fedreal, State, Local	Not seen often on many industrial uses	Mandate cleaner business impacts through policy. Indianapolis's Comprehensive Plan already mandates clean use and development
Rents	Local	Local market forces may not command enough rent for the redevelopment to make sense	The City as well as the Federal Government offer programs to help developers secure grant funding to help offset debt and equity costs. Supplying updated space will command higher rents.
Taxes on Manufacturers	State, Local	Taxes are currently higher on manufacturing facilities in Indianapolis	Policy to lower taxes on manufacturing buildings in Indianapolis. Tax abatements

			may also help offset the higher property taxes
Finding employees	Local	Tenants may worry about finding an adequate labor pool	Indianapolis has an array of employment tools, including LISC, to place employees in jobs from a variety of backgrounds and with all levels of skills. Indianapolis also has a seasoned manufacturing employee population given the history manufacturing and Indiana share.

APPENDIX H – REFERENCE LIST

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