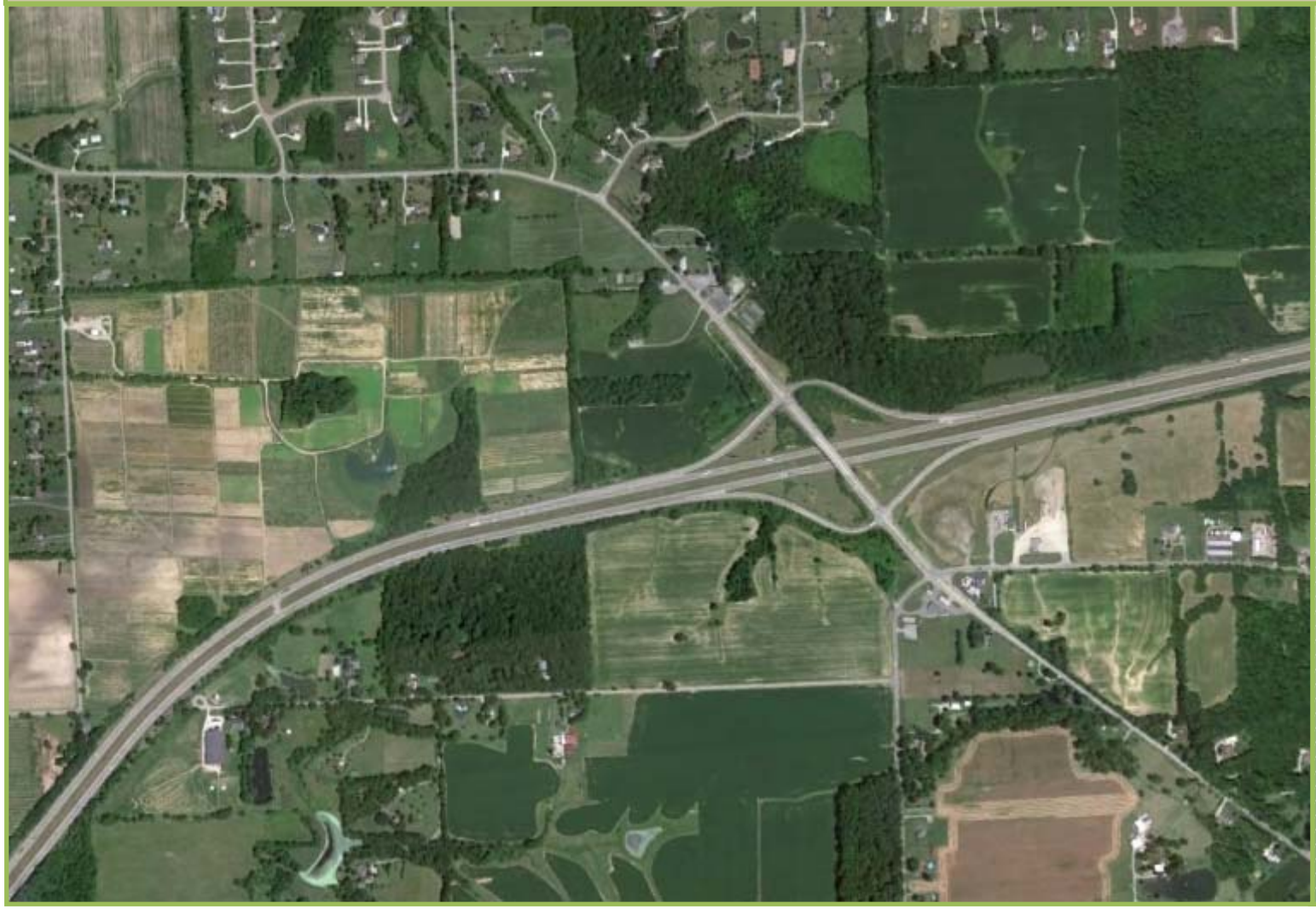
71/123 AREA PLAN



Warren County
Regional Planning Commission

Warren County

Turtlecreek Township

City of Lebanon

ACKNOWLEDGEMENTS

The creation of the 71/123 Area Plan was made possible by the cooperative efforts of elected and appointed officials, Township staff, City of Lebanon staff, the Warren County Regional Planning Commission and concerned business and property owners. The primary objective of any long-range plan is to produce definable and attainable goals, which provide glimpses of possible futures that are grounded in the realities of today. Warren County Staff, Township Trustees, and the City of Lebanon thank the many people, organizations, and departments for their efforts in providing data, direction, insight, and constructive criticism throughout the production of the Plan. The business and property owners in the surrounding area deserve special recognition, as well, for participating in the planning process and making a difference in outcome of this Plan.

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EXECUTIVE SUMMARY

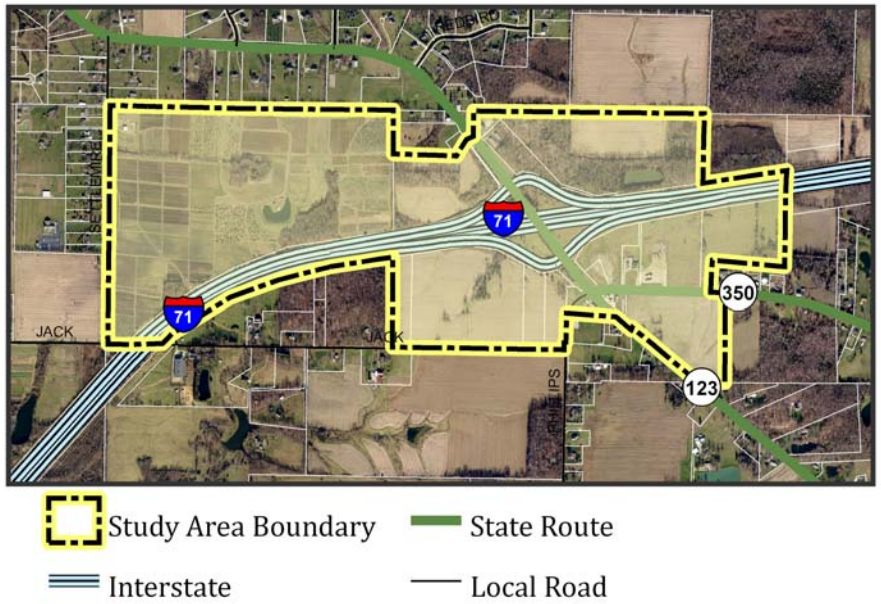
The purpose and intent of the 71/123 Area Plan is to direct growth and investment to ensure that future development at the I-71/SR 123 Interchange (also referred to as the study area), is of utmost quality. The Plan was completed and adopted by the Warren County Commissioners on *Date*, ending a 9-month process that began in May of 2012. A Planning Advisory Committee (PAC), consisting of Turtlecreek Township staff, City of Lebanon staff, Warren County staff, and property owners from the study area all contributed in moving the 71/123 Area Plan forward. The PAC identified the existing conditions of the study area and surrounding area; developed a vision for the study area; identified challenges and issues that might inhibit the vision; developed several plans to mitigate challenges involved with sewer and water extension, transportation improvements, zoning and design standards, and economic development strategies; and finally, the 71/123 Area Plan was drafted and finalized. The vision statement and guiding principals of the Plan are stated below:

"The goal of the 71/123 Area Plan is to enhance the economic environment of the interchange by attracting a mix of quality industrial and commercial businesses in a sound, aesthetically pleasing manner, while mitigating negative impacts on surrounding residential areas."

Guiding principals:

- Attract quality development and jobs.
- Establish a gateway corridor to Turtlecreek Township, the City of Lebanon, and the surrounding area.
- Plan for sound growth.
- Ensure the efficient movement of goods and people.
- Accommodate a mix of uses.

The 71/123 Area Plan should be sensitive to the land use patterns that currently exist within the County and sensitive to the affects that new development within the study might have on surrounding industrial and commercial areas. During the early stages of the planning process, the PAC determined that industrial and commercial development is unlikely to occur at a rapid pace within the study area in the near future. Essentially, the other industrial and commercial areas surrounding the interchange, primarily south along I-71, need to fill out before the study area will begin to see growth. Nevertheless, it is important to have a plan in place that will fulfill the goals of 71/123 Area Plan.



LAND USE & DESIGN (Chapter 2)

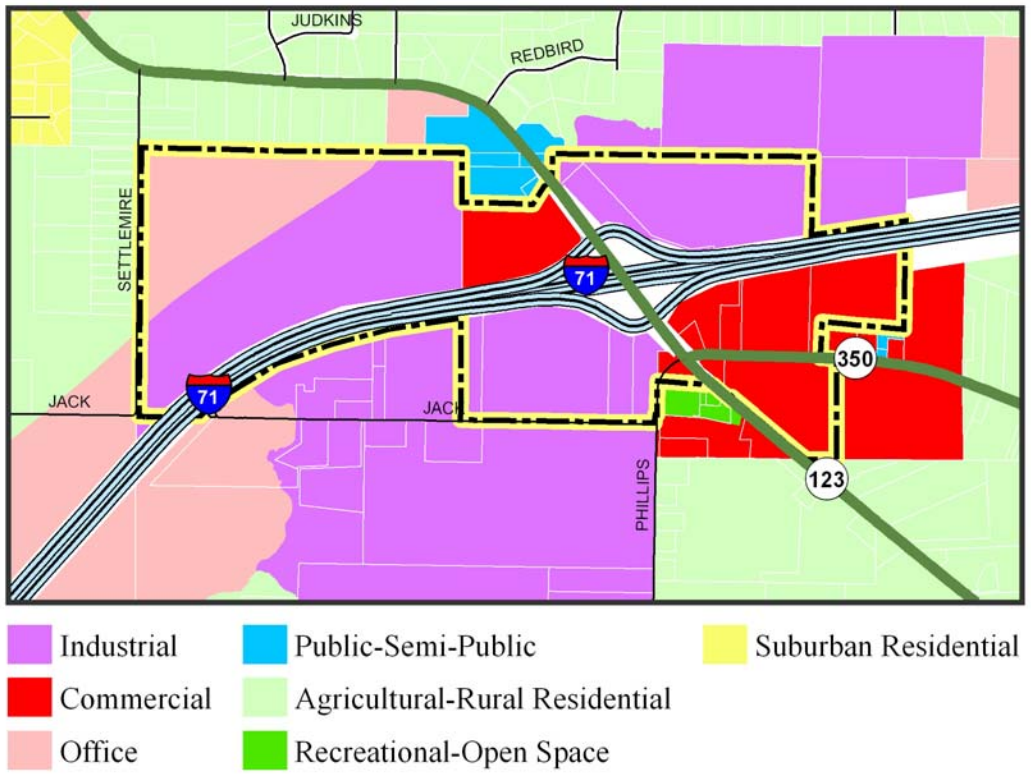
The land use policy recommendations in the Land Use and Design chapter focus on high quality development that is designed in a way to preserve natural resources while simultaneously promoting economic development, providing opportunities for corporate administrative offices, commercial services, and industrial uses. The goals of the Land Use and Design chapter are as follows:

- Foster economic development, increase jobs, and generate tax revenues through new development.
- Generate private investment in the JEDD because of its potentially distinctive character.
- Create a positive image through well designed, high quality development.
- Set a positive tone for the area so that it serves as a gateway.

Recommendations for land use within the study area are as follows:

- Amend Comprehensive Plan and Zoning Code.
- Develop the JEDD Overlay District as a supplement of the zoning code to accommodate increased scale of development, allow a mix of commercial and industrial uses, enforce site design guidelines, and provide compatibility standards for development adjacent to residential areas.
- Draft Protective Covenants that would be enforced by a Development Advisory Board as supplemental standards to the zoning code.
- Develop administrative policies for development review that would incorporate the Development Advisory Board.
- Encourage transitional development between incompatible land uses with the use of increased landscaping, screening, fencing, additional setback, building orientation, and bulk and height limitations.
- Screening should be increased for site intensive uses (outdoor storage, lumber yards, junk yards, car dealerships, etc).
- Use gateway signage to create a positive image of the area.

Warren County Future Land Use Plan



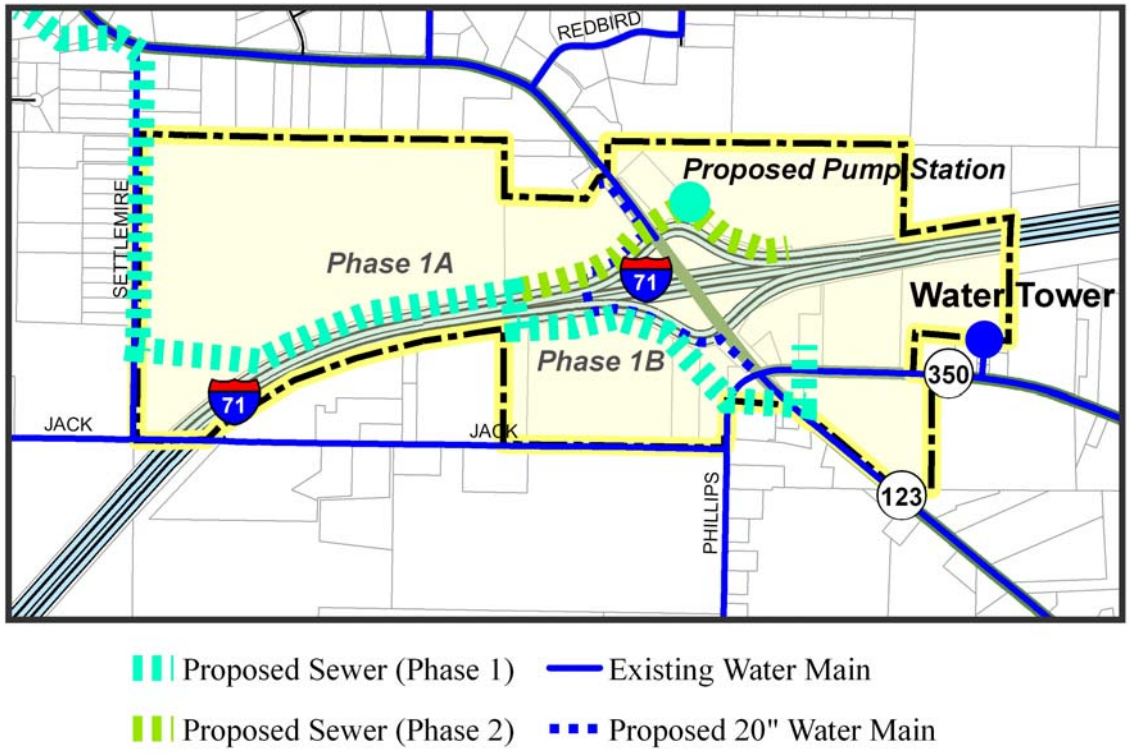
UTILITIES (Chapter 3)

Water and sewer service is a critical element of the 71/123 Area Plan. Quality future development is dependent upon this infrastructure. A storm water management plan is also necessary to accommodate the increased intensity of development proposed in the Land Use and Design chapter. Goals for utilities within the study area are identified below:

- Provide sewer and water service to all parcels within the study area in a cost efficient manner.
- Design a sewer and water system that could accommodate future growth beyond the study area.
- Plan sewer extensions in a way that is mindful of residential properties to prevent forced tie-ins when possible.
- Utilize storm water management and existing watersheds as a means of creating an aesthetically pleasing setting for development.
- Mitigate the visual impact of new power lines, telephone lines, fiber-optic lines, etc.
- Protect the Little Miami River Aquifer.

Recommendations for utilities are listed below:

- Amend the 208 Plan, administered through the Ohio-Kentucky-Indiana Regional Council of Governments (OKI), to release the study area for sewer improvements.
- Implement the proposed sewer plan, which involves finalizing sewer designs, obtaining permits and easements, constructing the sewer lines, and financing sewer improvements.
- Waive forced tap-in fees for residential properties located within 200 ft of the newly constructed sewer lines.
- Implement the proposed water extension plan.
- Develop a Master Storm Water Management Plan.
- Create the 71/123 JEDD Overlay District to include standards for utilities and infrastructure.



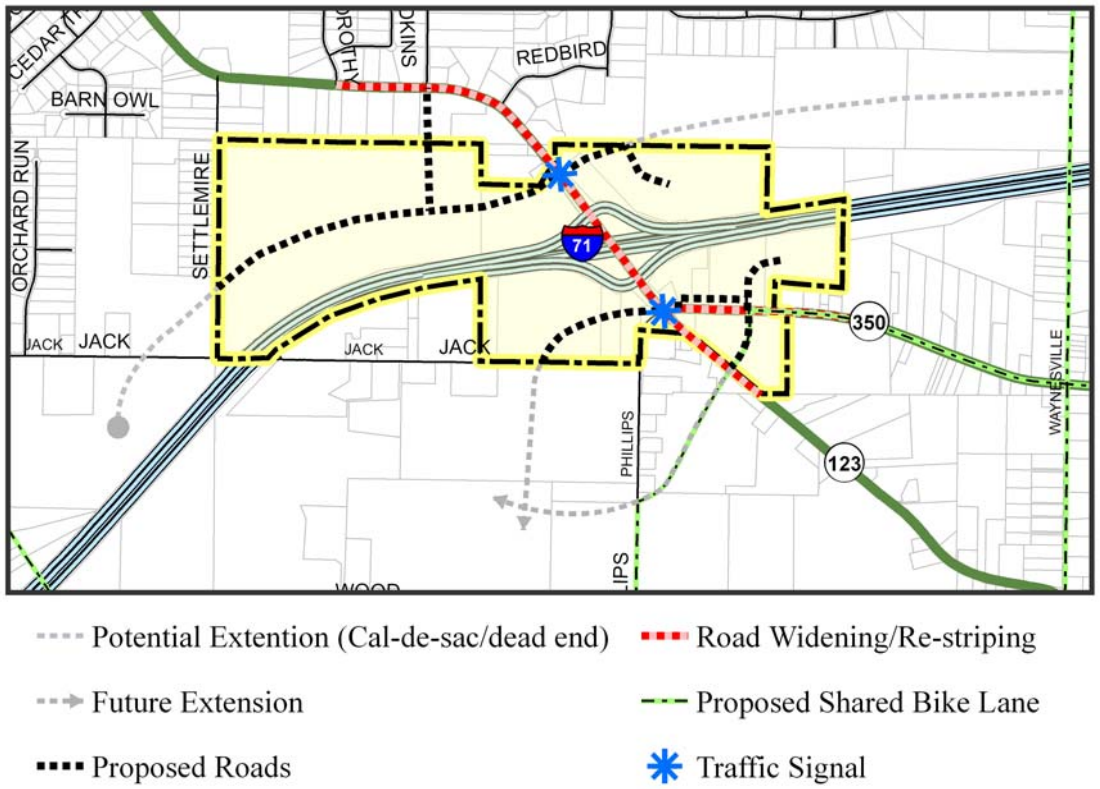
TRANSPORTATION (Chapter 4)

Careful transportation planning will ensure that new commercial and industrial growth within the study area is accommodated appropriately. This component of the 71/123 Area Plan addresses the need for efficient traffic flow, access management, roadway safety, and the need for an attractive streetscape. Transportation goals are stated below:

- Improve traffic movement through the study area and preserve the integrity of the interchange/arterial road system.
- Develop a collector road system that moves truck traffic efficiently.
- Improve the operating efficiency of existing roadways.
- Create transportation infrastructure and promote land use patterns that encourage the sustainable use of resources.
- Minimize the negative impacts of transportation on existing and future neighborhoods.
- Attain a safe, healthy environment and protect capacity through a sound access management program.

Recommendations for transportation improvements are as follows:

- Amend the County's Thoroughfare Plan to reflect the road improvements specified in the chapter.
- Develop a detailed road improvements and gateway plan.
- Secure funding for road improvements.
- Work with ODOT and OKI to analyze capacity, operational, and safety concerns at the intersection of I-71 and SR 350.
- Work with OKI to analyze traffic and circulation needs of the study area.
- Monitor traffic counts along SR 123 and work with ODOT to determine when and where signal installation is necessary.
- Road improvements should be implemented in conjunction with proposed development.
- Develop a detailed bikeway and pedestrian plan, and construct facilities in accordance with the Plan's recommendations.



ECONOMIC DEVELOPMENT (Chapter 5)

The purpose of the economic plan is to guide the City, the Township, and its strategic partners in achieving long-term economic growth and sustainability for the study area through a multitude of identified goals and strategies. The economic plan is also intended to fulfill the requirement of The Ohio Revised Code Section 715.75(C) for the establishment of a Joint Economic Development District (JEDD). The goals and strategies listed below are essential for the implementation of an employment/industrial center; job creation, and tax base growth. The three primary goals of the economic plan are as follows:

- An increased tax base for Turtlecreek Township, the City of Lebanon, and Warren County.
- Job creation.
- The development of the JEDD and TIF program.

Recommendations of the economic development plan are stated below:

- Develop a new Tax Increment Finance (TIF) program for the designated JEDD that will allow for the expansion and replacement of new infrastructure.
- Expand JEDD boundary as development occurs in recognition that new development will likely demand sewer service from the City; ensure that water and sewer extensions can accommodate future growth.
- Complete a market assessment of the district to determine the best industrial, commercial, and office uses for the area.
- Coordinate economic development strategies with the City, the Township, the County, and the Warren County Port Authority.
- Prepare a capital improvement program (CIP) outlining the tools and funding needed, a schedule for completion, and other necessary requirements.
- Develop a marketing program or strategies to endorse the study area as a good place to conduct business and to promote a sense of identify for the area.

CHAPTER 1
INTRODUCTION AND BACKGROUND

PURPOSE AND INTENT

The potential for unchecked growth can be disconcerting for any jurisdiction. The purpose and intent of this Plan is to direct growth and investment to ensure that future development at the I-71/SR 123 Interchange, herein referred to as the study area, is of utmost quality. To accomplish this and the many other goals mentioned throughout the Plan, collaboration among local jurisdictions and organizations must take place. This means that Turtlecreek Township, the City of Lebanon, Warren County, and property/business owners should continue to work together to resolve potential issues and carryout the vision of the Plan, which is discussed at the end of this chapter.

The Plan is essentially a roadmap that is intended to guide public and private decision-making. This Plan will inform business owners and property owners on the different ways infrastructure will be funded and how it will affect them. For public officials, the Plan provides several recommendations on how to improve service delivery, infrastructure, and zoning regulations to suit the needs of existing and future businesses within the study area.

Planning Process and Initiation

The 71/123 Area Plan was completed and adopted by the Warren County Commissioners on *Date*, ending a 9-month process that began in May of 2012. The planning process involved the following steps:

1. **Project Setup** – The initial phase of the planning process involved the identification of steps to gather input for the Plan's main topic areas. This included set up of a Planning Advisory Committee (PAC), which consisted of 16 people from multiple different backgrounds. Staff from the City of Lebanon, Turtlecreek Township, and Warren County along with several property owners, all attended monthly PAC meetings and contributed in moving the 71/123 Area Plan forward.
2. **Existing Conditions Analysis** – To orient the PAC, an existing conditions analysis was conducted. This included a discussion about existing land use, zoning, utilities, and roads around the study area.
3. **Visioning** – After taking a "snapshot" of the area's existing conditions, the next step was to determine the direction that future development should take. A comparison of other highway interchanges along I-71 and I-75 aided in these discussions and it was quickly determined that the study area should be an attractive "gateway" into the Township and City.
4. **Development Challenges/Issues** – The focus of subsequent PAC meetings was to identify challenges and hurdles that might impede future development and the overall vision for the area. This was done on a topic-by-topic basis, including water & sewer, transportation, and development design standards.
5. **Development Concept Plan** – Various sub-committees began to form in order to develop and improve plans for water and sewer extension, transportation improvements, zoning and design standards, and economic development strategies.
6. **Draft and Finalize the 71/123 Area Plan** – Approximately three months into the planning process, the 71/123 Area Plan began to be drafted based on input from monthly PAC meetings and more frequent sub-committee meetings. The Plan was reviewed by the PAC then finalized in October of 2012.

PLAN GUIDE

The 71/123 Area Plan consists of four main components:

- Land Use & Design
- Utilities
- Transportation, and
- Economic Development.

Each component is interrelated and plays a crucial role in providing the details necessary to realistically carryout the overall mission of the Plan described herein. To ensure that infrastructure improvements are both effective and efficient, they must first be designed appropriately and funded accordingly through economic development strategies (i.e. Tax Increment Financing, creation of a Joint Economic Development District, etc). Likewise, without the prospect of future economic development and strategies to promote such growth, infrastructure improvements would be a wasted effort. Further, quality economic development will likely not occur without purposeful land use and design standards in place. Each component of the Plan should be analyzed cohesively.

Land Use & Design – This chapter primarily focuses on the types of land uses and development that are desired within the study area. This includes a discussion about existing land uses as well as proposed land uses through the year 2030 in accordance with the Warren County Comprehensive Plan. Zoning and design standards are also discussed in this chapter.

Utilities – This chapter documents the proposed locations within the study area where utility extensions are most feasible (in regards to topography and cost) with the main objective of serving all properties within the study area. Storm water management is also discussed in this chapter.

Transportation – This chapter documents the existing roadways within and around the study area and provides plans for road improvements that will maximize the efficient movement of people and goods. Business access and roadway safety are also addressed in this chapter.

Economic Development – Strategies to encourage development within the study area are provided in this chapter. The creation of a Joint Economic Development District is the primary focus in addition to other financing options including Tax Increment Financing, assessments, and so forth.

Implementation

Each component of the Plan contains an implementation section with recommendations and strategies to achieve the Plan's goals and objectives. This is a long-range action program for each component that highlights specific tasks that will become the responsibility of pertinent government bodies, boards, organizations, and business owners to carry out. This is a crucial step in enforcing the Plan and making sure that all issues and opportunities are accounted for. All recommendations of the Plan are summarized in *Appendix E* on page 62.

Key Terms

Below are several planning terms that will be referenced throughout the Plan:

Comprehensive Plan (Area Plan) – a broad, overarching set of goals, aspirations, and ideals that guide future policies and regulations within a specified area. Comprehensive plans typically cover a long-term time horizon (10-30 years) and a broad range of topics including but not limited to land use, utilities, recreation, and transportation. The 71/123 Area Plan is a supplemental document of the Warren County Comprehensive Plan.

Development Advisory Board – a board consisting of two property owners and a representative from each jurisdiction involved with the study area including the City of Lebanon, Turtlecreek Township, and Warren County to enforce protective covenants and design standards.

Joint Economic Development District (JEDD) – a legal contract between two or more jurisdictions in which the public entities in the agreement provide specified infrastructure improvements or public services in exchange for a share of the tax revenue generated from the district.

Protective Covenants – a set of design guidelines administered and enforced by a designated Development Advisory Board with the purpose of

protecting and maintaining property values.

Special Assessment – property owners pay an annual or monthly fee based on the size of their property to fund infrastructure improvements.

Tax Increment Financing (TIF) – allows jurisdictions to freeze real property values to capture tax revenue generated from any increase in value to said properties as a direct result of public investment. Tax revenue generated from the increased value of the property goes directly into a special fund that incrementally pays off the debt accrued from providing the public investment (sewer and water extension, road improvements, etc.).

Traffic Impact Study – a study that is typically completed by civil engineers to assess the impact that new development will have on a nearby roadway in terms of traffic volume and congestion to determine if road improvements are needed.

71/123 Study Area – refers to the land adjacent to the Interstate "71" and State Route "123" interchange (See *Figure 1.2* on page 5).

BACKGROUND

History[1]

The history of the study area will provide context for future development and offer valuable insights as to how the area once looked and functioned. Ft. Ancient, located approximately 2 miles east of the study area, is a notable historical site in the surrounding area. It is the largest and best-preserved hilltop enclosure in the United States, according to the Dayton Society of Natural History, with over 3.5 miles of earthworks confined within 125 acres. The term Fort Ancient stems from late 18th Century historians who suggested that the site looked as if it represented a "fort" and that it was built by "ancient" people[2]. The Hopewell Native Americans built the mounds dating as far back as 100 BC.

For generations, the farms in the immediate area had been owned by many of the same families including the Ivins for which Ivins Memorial Park was named after, located along Phillips Road near SR 123. Another family, the Perrine's, had owned 315 acres of land where the 71/123 interchange currently exists. Joseph Perrine was a native of New Jersey who eventually settled in Warren County, OH in 1826 after living in Pennsylvania and Kentucky for a period of time.

The Bethany Congregational Christian Church was established on the Perrine property in 1821 (a church may have existed on the Perrine property as early as 1815). The present sanctuary was erected in 1846 and in subsequent years, more land was donated from the Perrine family to the church for the cemetery and an additional structure that is now known as the "Rock School."

The Rock School was built across the street from the church in 1871 by William Perrine (Joseph Perrine's son) who was a trustee on the school board. The schoolhouse became known as the "Rock School" because it is located in close proximity to the largest known rock in Warren County, measuring 17 ft in length, 13 ft in width, and 8 ft tall. It has an estimated weight of 275 tons and was deposited by a glacier thousands of years ago. In 1936 the Rock School was bought at auction by the church to be used as a parish house for recreational purposes. The Rock School and the church still remain at the interchange; however, a new church has replaced the little white church that collapsed in the 1960s.

Before I-71 was built, SR 3, also known as the old "3C Highway," was the primary route between Cincinnati, Columbus, and Cleveland. Before the conception of the automobile, 3C Highway was used as a stagecoach route. Interstate 71 was planned in the 1950s, but was not completed until the early 1960s. It was completed in several sections and existing two and four lane highways filled in the gaps. The creation of I-71 required several

[1] Source: Warren County Historical Society

[2] Source: Jack Blosser, Dayton Society of Natural History

changes to the existing road network in the area. Jack Rd was split into two sections and the entrance of Phillips Rd off of SR 123 was realigned with the SR 123/SR 350 intersection. Several gas stations were built along SR 123 once the interchange opened.

The residential subdivisions (Timbercreek, Candlewood, and Cedar Trace) that currently exist along SR 123 north of I-71 were developed in the 1980s and 1990s.

Past Planning Efforts

In the mid 2000s, the City of Lebanon and Turtlecreek Township entered into discussions about the creation of a 301-acre JEDD that would encompass the area around the I-71/SR 123 interchange. The JEDD never came to fruition, however, many of the efforts from this proposal are still useful and have been incorporated into the new 2012 JEDD agreement and 71/123 Area Plan. Then as now, the purpose of the JEDD was to attract higher quality development to the interchange by jointly providing government services. Throughout the proposal process, the City and Township documented the existing conditions of the area and identified the potential issues, challenges, and considerations listed below that are still valid:

- The interchange currently remains underdeveloped due to the lack of infrastructure.
- The City of Lebanon would provide sanitary sewer hook-up to the JEDD.
- Limited access right-of-way designation by ODOT along SR 123 near I-71 presents a challenge.
- Access to the southwest portion of interchange is critical to development phasing and sewer extension.
- Settlemire Road does not provide adequate access to the JEDD; an alternate ROW must be acquired.

AREA AND LOCATION

The 71/123 interchange is located at the geographic center of Warren County, as shown in *Figure 1.1*, with a straight-line distance of approximately 29 miles from Cincinnati and 24 miles from Dayton.

Figure 1.1 - Location

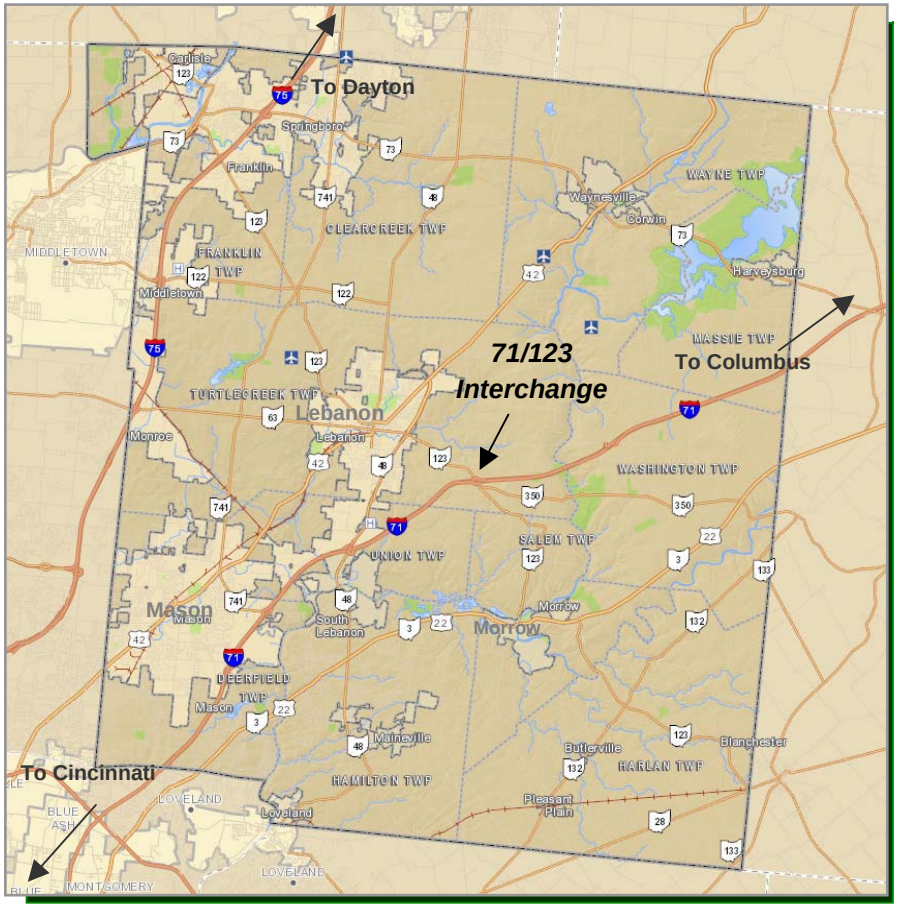
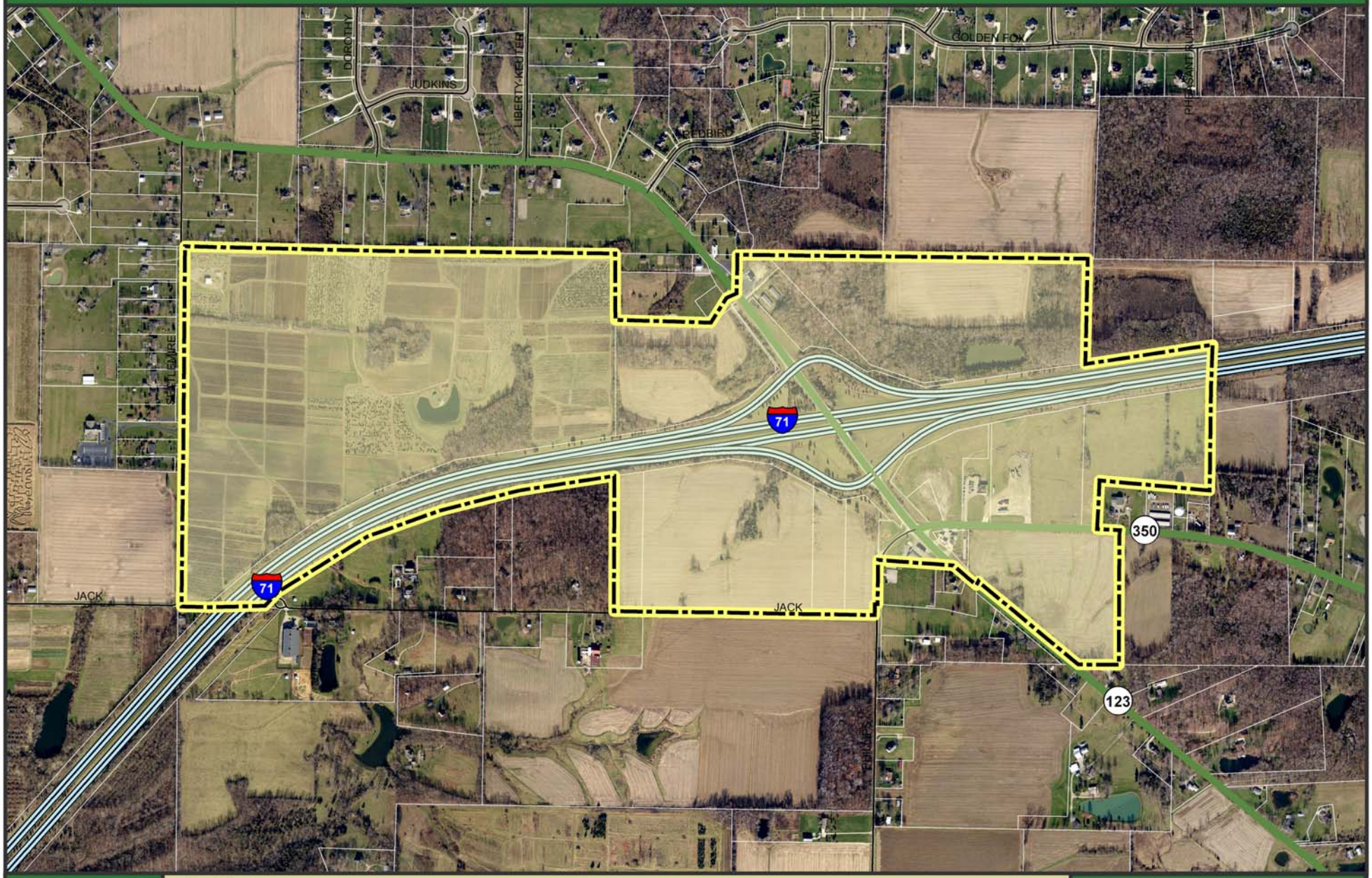


Figure 1.2 - Study Area



Legend

- Study Area Boundary
- Political Boundary
- Parcels
- Interstate
- State
- County
- Local Roads

N W E S

1 inch = 1,000 feet

Feet

0 250 500 1,000

Columbus, located approximately 72 miles away from the study area, is also relatively close with direct access through I-71. Within Warren County, the closest city is Lebanon, located approximately 3 miles northwest of the interchange. From a regional perspective, the interchange has relatively good access to the Warren County Airport and numerous recreational amenities including Kings Island, Caesar Creek State Park, and Fort Ancient State Park.

Figure 1.2 on the previous page provides an outline of the Plan study area, which coincides with the JEDD boundary that will be discussed in greater detail in *Chapter 5: Economic Development*. The study area is 382 total acres (approximately 311 acres within 18 parcels of land excluding road right-of-ways) consisting mostly of open land with six existing businesses including a temporary batch plant located along Phillips Road (See *Chapter 2: Land Use and Design*).

The area immediately surrounding the Plan study area consists primarily of rural residential and agricultural land. Residential properties line the western side of Settlemire Road and the southern side of SR 123 north of the interchange. Cedar Trace, Candelwood, and Timbercreek are three notable residential subdivisions located along SR 123 north of the interchange, as well. There are also several residential properties along Jack Road east of I-71. Future development within the study area will need to be mindful of these properties, as will be discussed in greater detail in *Chapter 2*.

Regional Context

This section highlights some of the area's socioeconomic characteristics and land use patterns to help provide a better context of the surrounding region, shown in *Figures 1.3 and 1.4* on the following pages.

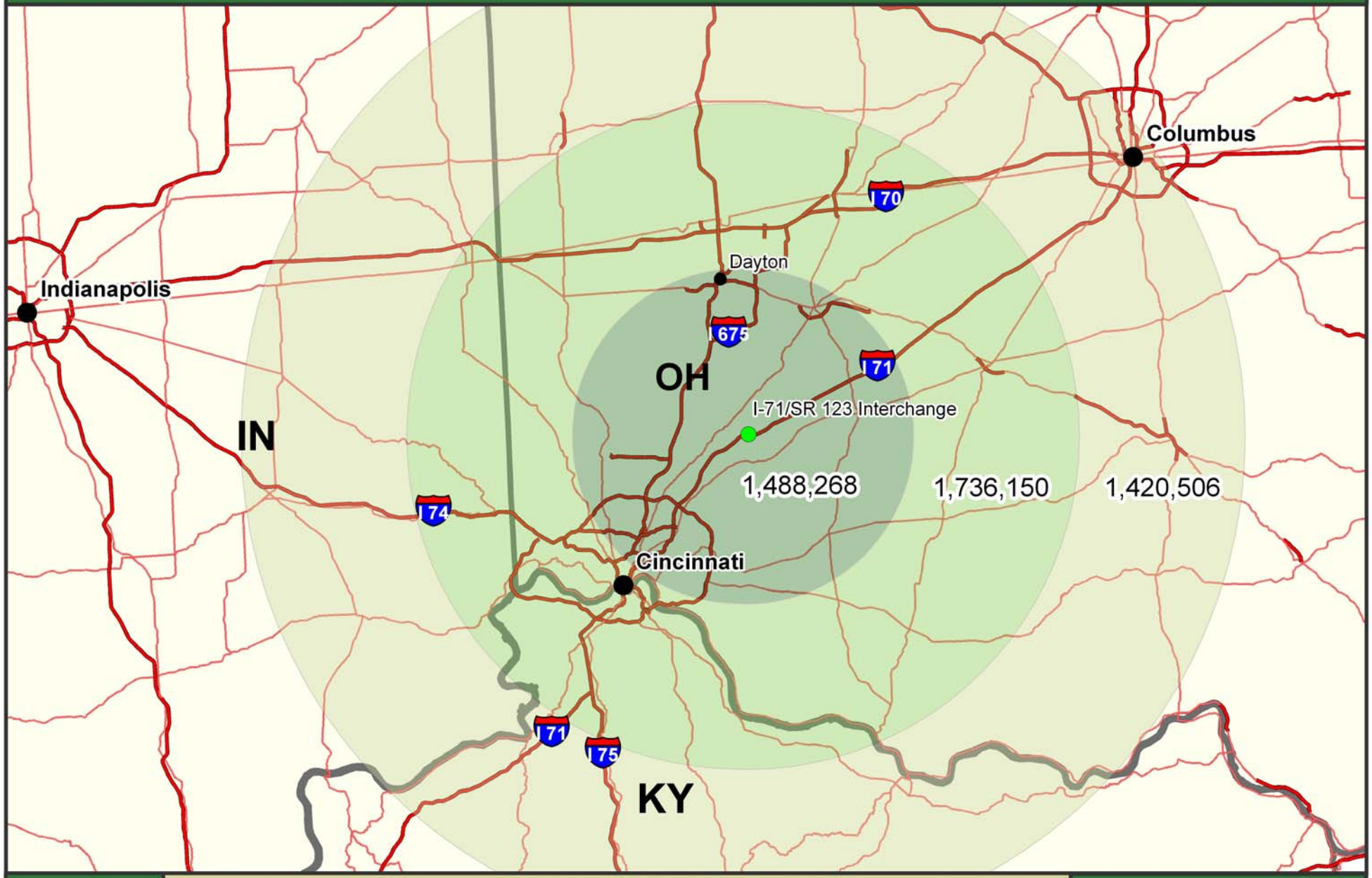
One of the challenges that may inhibit future development within the study area is the lack of critical mass in the surrounding community. However, from a regional perspective, the populations within Cincinnati, Dayton, and Columbus could provide the critical mass to support regionally oriented businesses and industrial uses. *Figure 1.3* shows how many people live within 25, 50, and 75 miles of the 71/123 interchange. The 25-mile buffer around the interchange contains 1,488,268 people, which encompasses the southern extent of Dayton and the northeastern portion of Cincinnati. Further, the 75-mile buffer extends over to Columbus and contains a total of 4,644,924 people.

The creation of this Plan for the 71/123 interchange should be sensitive to the land use patterns that currently exist within the County and the affects that new development within the study area might have on surrounding industrial and commercial areas. *Figure 1.4* show areas of developed versus undeveloped land within Warren County that is zoned commercial and industrial. Currently, the majority of industrial zoned land is found within the western portion of the County, more specifically the southern portion of Lebanon, portions of Mason, Monroe, Carlisle, Franklin, and the western portion of Springboro. Kingsview Dr, located close to the I-71/SR 48 interchange and the area along SR 42 and West Main St in Lebanon are two significant industrial areas located within close proximity to the study area. There is also industrial zoned land south of the study area along US 22/SR 3 and *Figure 1.4* shows that much of the land within these industrial zoned areas, Lebanon included, remains undeveloped. During the early stages of the planning process, the PAC quickly determined that industrial and commercial development is unlikely to occur at a rapid pace within the study area in the near future. Essentially, the other industrial and commercial areas surrounding the interchange, primarily south along I-71, need to build out before the study area will begin to see growth.

The commercially zoned land within the County is closely tied to major transportation corridors such as I-75, I-71 and select state routes. The largest expanses of commercially zoned land are found along I-75, on the western edge of Turtlecreek Township. Currently, there are still large tracts of land south of the study area along I-71 that will likely develop first.

Additional information for industrial and commercial land uses within Warren County is provided in *Appendix A* (page 56).

Figure 1.3 - Regional Population



Legend

Limited Access Highway

Highway

25 miles

50 miles

75 miles

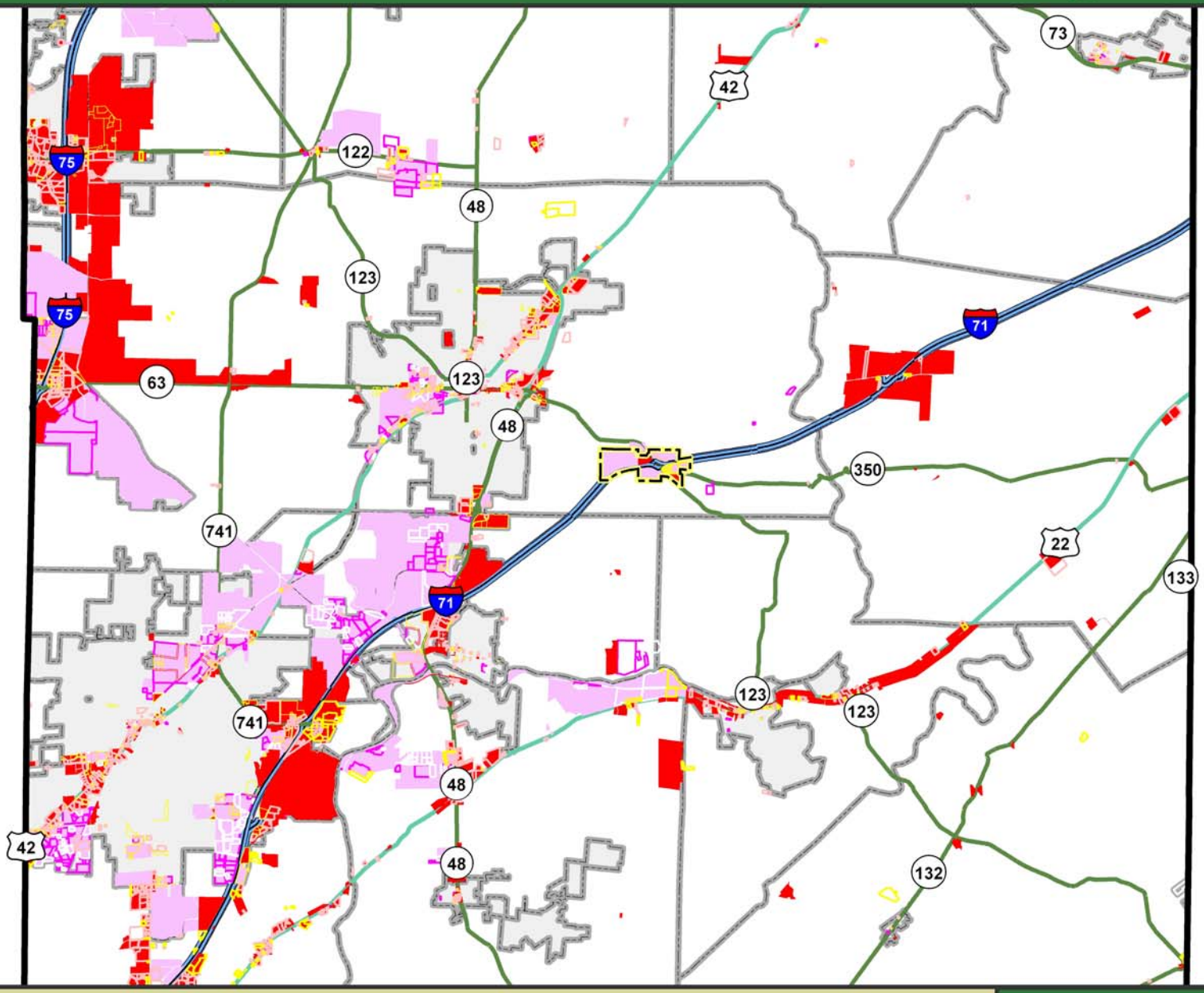
N W E S

1 inch = 20 miles

Miles

0 5 10 20

Figure 1.4 - County Industrial & Commercial Use & Zoning



Legend

- County Boundary
- Jurisdiction Boundary
- Study Area
- Interstate
- US Route
- State Route
- Commercial Zoned
- Existing Commercial Use
- Existing Vacant Commercial
- Industrial Zoned
- Existing Industrial Use
- Existing Vacant Industrial

N W E S

1 inch = 2 miles

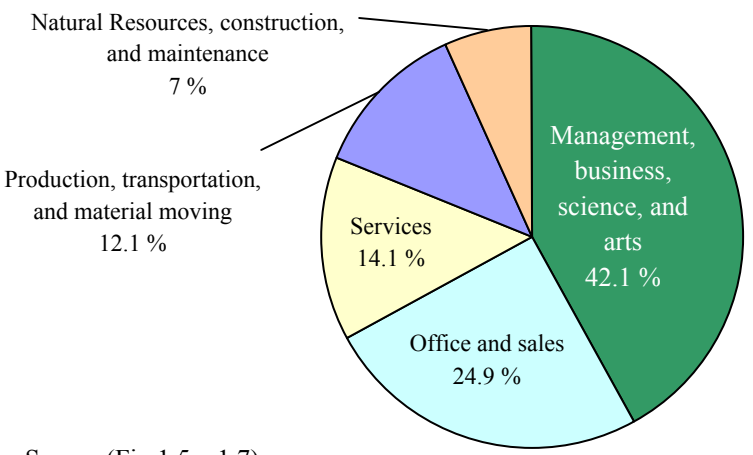
0 0.5 1 2 Miles

ECONOMIC PROFILE

Figures 1.5 through 1.7 help provide a better understanding of the area's economy. *Figure 1.5* to the right shows that management, business, science, and arts is the largest sector of the economy in which Warren County residents are employed at 42.1 %, which is a strong indication of a highly skilled work force. More specifically, about one out of every five County residents of working age is employed in the educational services, health care, and social assistance industry. Although much of the County remains predominantly rural, agricultural related activities represent the smallest portion of the economy with only 7 % of occupations in natural resources, construction, and maintenance.

Warren County's income distribution (*Figure 1.6*) is another indication of a highly skilled workforce with 50,005 or two-thirds of all households earning over $50,000 annually. *Figure 1.7* shows that the City of Lebanon and Turtlecreek Township fall towards the middle of the pack in terms of median household income when compared to surrounding jurisdictions and the County.

Figure 1.5 – Warren County Employment by Occupation



Source (Fig 1.5 – 1.7):
U.S. Census Bureau – '06-'10 ACS

Figure 1.6 – Household Income Distribution of Warren County

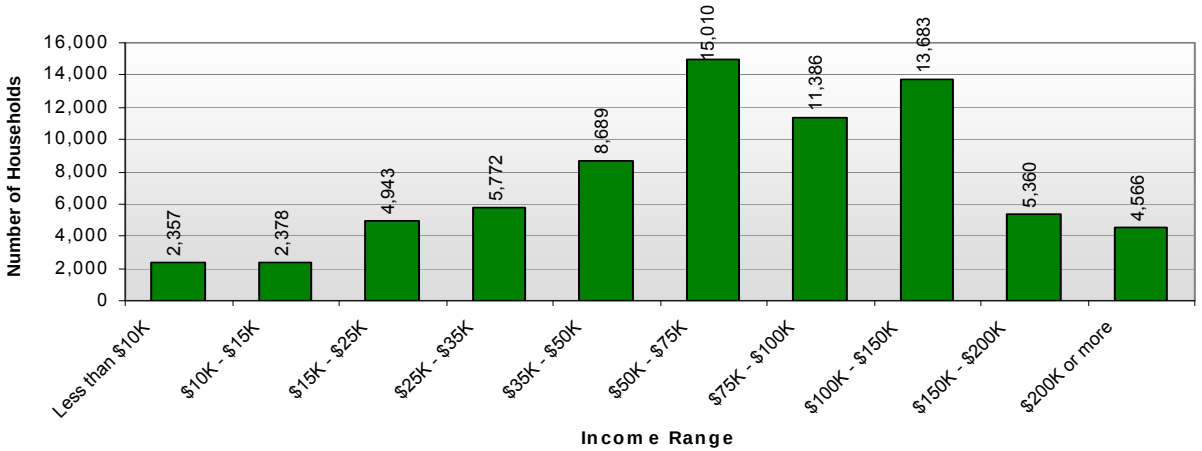
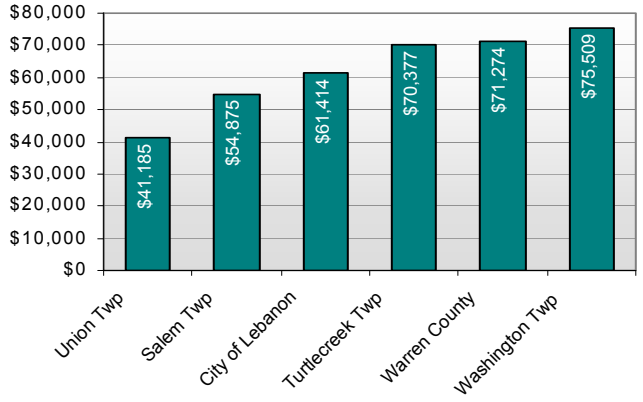


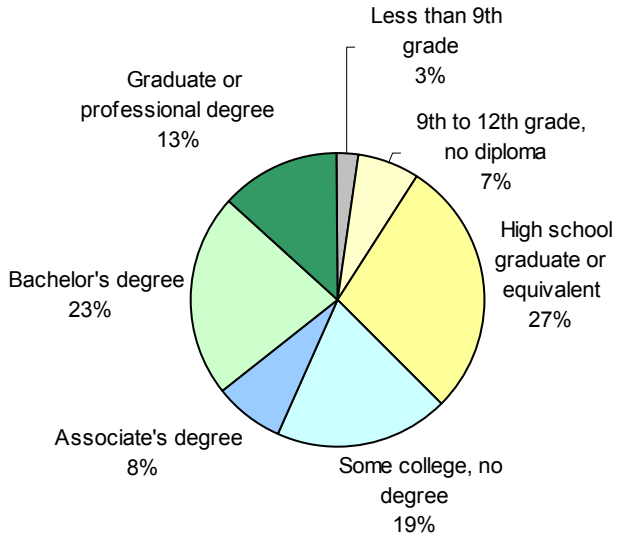
Figure 1.7 – Median Household Income Comparison



Educational Attainment

The educational attainment data shown in *Figure 1.8* supports what was discussed in the employment and income section. Warren County is highly skilled and educated with over one-third of the population over age 25 having earned a bachelor's, graduate, or professional degree. Further, 63 % or nearly two-thirds of the population 25 years or older have, at the very least, taken some college courses. According to the Ohio Department of Education (ODE) at the conclusion of the 2009-10 school year, the Lebanon City School District had a high school graduation rate of 95 %. The Lebanon City School District was also rated excellent by the ODE. A highly skilled work force will continue to play a large role in attracting quality jobs to the County and the study area. For a complete demographic profile of the study area, see *Appendix B*.

Figure 1.8 – Educational Attainment of Warren County



Source: U.S. Census Bureau – 2006-10 ACS

THE VISION

The establishment of an overall vision for a particular area is always an important step in any planning process because it focuses attention on a community's core values and aspirations. Here the focus is to determine where the community wants go in the future as described in the vision statement below:

> *"The goal of the 71/123 Area Plan is to enhance the economic environment of the interchange by attracting a mix of quality industrial and commercial businesses in a sound, aesthetically pleasing manner, while mitigating negative impacts on surrounding residential areas."*

It will take continued hard work and collaboration between local governments, property owners, and businesses within the area to ensure that this vision comes to fruition. The guiding principals listed below provide a further dissection of the vision and provides a framework for the rest of the Plan.

1. **Attract quality development and jobs.** This is the top priority of the Plan. A quality interchange is what is needed to essentially "put the area on the map," as this corridor is one of only two interchanges in the County that is largely undeveloped. This essentially means that local city planners and developers have a "clean slate" in which to work with and a chance to do things the correct way from the start, ensuring that the area becomes a vibrant place to work and conduct business well into the future.
2. **Establish a gateway corridor to Turtlecreek Township, the City of Lebanon, and the surrounding area.** This is an important step towards creating a quality interchange. Landscaping and landmarks can go a long way in changing the look and feel of the interchange to a special place that people can identify with. The preservation of some the area's unique history including Ft. Ancient, Bethany Church, and the Rock School is another way of creating a sense of pride in the immediate and surrounding area.

3. **Plan for sound growth.** As development pressures at the interchange continue to increase, the importance of sound planning practices should not be overlooked. The goal of this Plan is not to look solely at the Plan study area and the immediate future, but to recognize that growth will likely occur beyond this area at a later point in time. This would involve planning infrastructure to accommodate growth in a manner that is cost effective and requires careful review of specific site plans. Another key aspect of planning for sound growth is to mitigate any potentially negative impacts that development might have on surrounding properties as stated in the vision statement.
4. **Ensure the efficient movement of goods and people.** The 71/123 interchange is a key junction between major thoroughfares (I-71, SR 123, and SR 350) and as such, the efficient movement of goods and people is a high priority. It is a task of this Plan to address traffic circulation, safety, and access to all properties within the study area.
5. **Accommodate a mix of uses.** To encourage development and allow market demands to dictate the use of land at the interchange, a variety of different uses should be allowed. Campus style industrial and commercial uses are most desired, but it is understood that travel oriented businesses such as restaurants and fueling stations will likely come first.

There are several development challenges that must be addressed by the Plan in order to follow through with these guiding principals and the vision statement. Each component of the Plan herein will analyze both the existing conditions and development challenges specific to the particular topic (Land Use, Water and Sewer, Transportation, and Economic Development). Further, the overall vision of the Plan will be reflected in the goals, objectives, and recommendations of each remaining chapter.

CHAPTER 2

LAND USE & DESIGN

As discussed in Chapter 1, the mission of the 71/123 Area Plan, is to create a place that will add to the long-term economic stability of Warren County, the City of Lebanon, and Turtlecreek Township; not just respond to immediate market forces and trends. Long-term economic stability will be prompted by the economic development vision for an integrated mix of uses that will create jobs and capture the full economic advantage of the interchange. The land use policy recommendations in this chapter focus on high quality development that is designed in a way to preserve natural resources while simultaneously promoting economic development, providing opportunities for corporate administrative offices, commercial services, and a wide range of light industrial uses. Land uses within the study area should be designed to minimize impact on residential uses by appropriate buffering and overall site design. High standards of appearance and design are required and should be maintained with restrictions on outdoor storage and similar activities. Broad land use policies and design guidelines will help ensure that all new projects and other planning initiatives contribute to a cohesive, well-designed, and functional district.

FUTURE LAND USE PLAN

The Warren County Comprehensive Plan (2011)

The future land use element is the primary component of the Warren County Comprehensive Plan that will be used as a guide when considering future development within the study area. The Future Land Use Plan has a year 2030 time horizon and designates development "policies" for standardized land use categories. The Future Land Use categories are designated areas of consistent character, use, and intensity that share similar goals and objectives for future use, preservation, and/or development. The study area includes commercial and industrial future land use categories as indicated in *Figure 2.1* on the following page. The two primary land use categories that are found within the study area are described below:

1. **Commercial (Red)**

   These mapped areas represent where commercial type land uses are anticipated. Examples of uses found in this category include retail, sales, services, eating and drinking establishments, financial institutions, professional offices, service and repair businesses, visitor accommodations, entertainment businesses, and day care facilities. Uses identified as either an allowed use or a conditional use within the B-1 through B-5 commercial zoning districts of the zoning code are considered consistent with the Commercial future land use category.

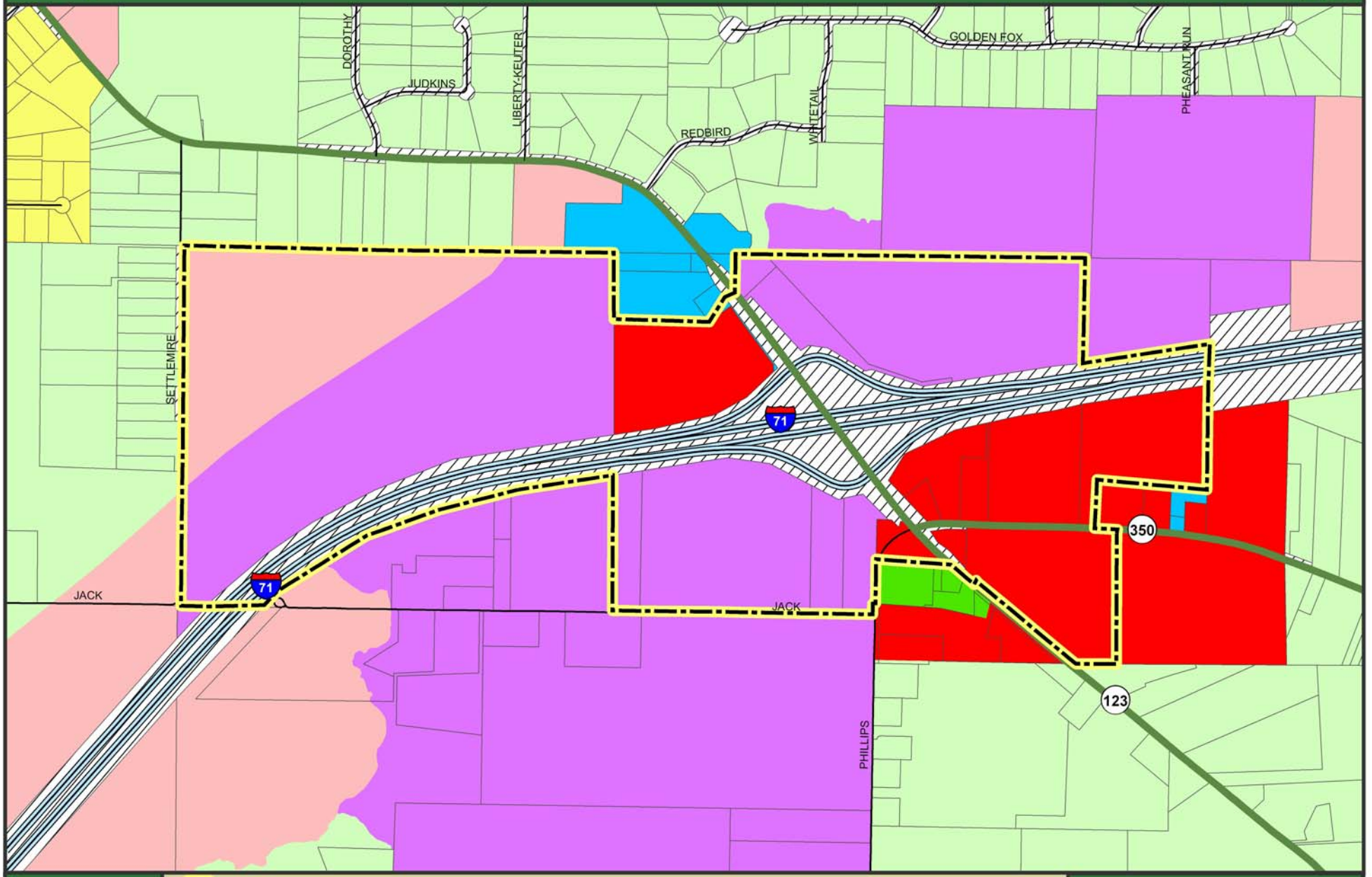
2. **Industrial (Purple)**

   These mapped areas represent where industrial type land uses are anticipated. Manufacturing and production facilities, resource extraction and processing, warehousing, transportation terminals, feed mills, and wholesale establishments are some examples of uses included in this category. Uses identified as either an allowed use or a conditional use within the I-1 Light Industrial Manufacturing or I-2 General Industrial Manufacturing Districts are considered consistent with the industrial land use category.

The City of Lebanon Comprehensive Plan (2009)

The City of Lebanon's Comprehensive Plan designates the 71 & 123 Interchange Area as "Freeway Commerce." This designation is applied to select areas with freeway frontage and convenient access that may accommodate large office development and corporate headquarters. The Plan recommends reserving these areas for companies that cultivate lifestyles associated with their products or services and wish to reflect this

Figure 2.1 - Warren County Future Land Use Plan



Legend

- Study Area Boundary
- Parcels
- Interstate
- State Route
- Local Road
- Industrial
- Commercial
- Office
- Public-Semi-Public
- Multi-Family Residential
- Agricultural-Rural Residential
- Protection Area
- Recreational-Open Space
- Suburban Residential
- Rural Residential
- Roads ROW

N W E S

1 inch = 1,000 feet

0 250 500 1,000 Feet

in their corporate headquarters. Signature buildings and iconic architecture are encouraged. Sustainable office development is also an important component; this is achieved by organizing development in a campus style pattern with well-sited parking, greenspace, bicycle, and pedestrian accommodations and by planning ahead for stormwater infrastructure. Stormwater infrastructure should become an attractive feature rather than requiring individual detention basins for each site. The aim of these strategies is to position the interchange as an attractive place for companies with a strong corporate culture and identity. Guidelines for development within the Freeway Commerce District are attached as *Appendix C*.

The City of Lebanon's Comprehensive Plan identifies the area around the interchange as a "Freeway Gateway" and states that it is important to define the arrival into Lebanon and to offer a positive first impression. The Plan supports the establishment of gateways that incorporate signage, landscaping (native plants), and/or a monument feature that compliments the natural setting of the location. The Plan cautions against the use of foreign materials and themes (e.g. use of palm trees and bright lights), that may be eye-catching, but could detract from the genuine experience of the area or lead to a conflicting sense of place.

The Future Land Use plans described above provide a glimpse of the future after the required infrastructure has been provided. With improved sewer, water, and access, the area could transform into a thriving employment center that includes some integration of office, commercial, and industrial development along with open space preservation. Both plans (City and County) acknowledge the need for the development and the transition of the area from agriculture. According to the Warren County Comprehensive Plan, growth is planned for this area and calls for the transition for the area into an industrial employment center. Both plans provide a clear picture of how the area should be developed; an integration of commercial, office, and industrial use in a manner that preserves natural resources and enhances the visual character. The zoning code follows a similar pattern, allowing land uses that support an industrial and commercial base. One hundred percent of the study area is zoned for either commercial or industrial development. Together with the Comprehensive Plan and zoning code, the 71/123 Area Plan provides developers and designers with the expectations for future development within the study area.

EXISTING LAND USE SUMMARY

The 382-acre study area is the focus of this Plan. The area includes large development sites located on relatively flat, unencumbered land and the most prominent land use in the study area (68 percent of the total land area) is classified as "agriculture and other resource lands" (which includes open space areas). Transportation (20 percent), commercial (11 percent), and industrial (1 percent) comprise the remaining types of land uses. Existing land uses by general type and their distribution within the study area are shown in *Figure 2.3* on the following page.

Figure 2.2 – Existing Land Uses within Study Area

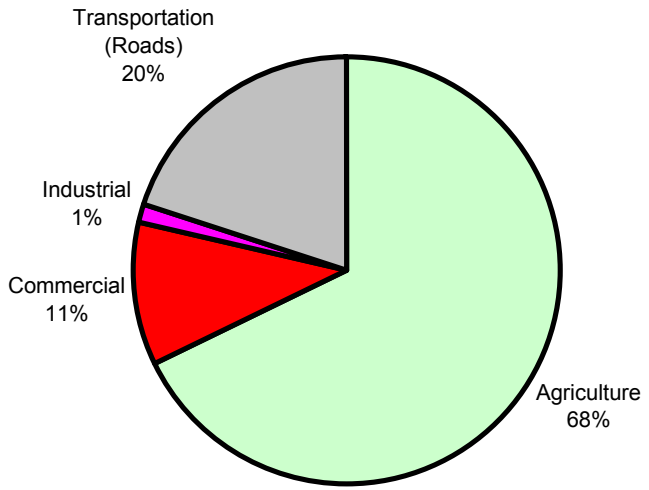
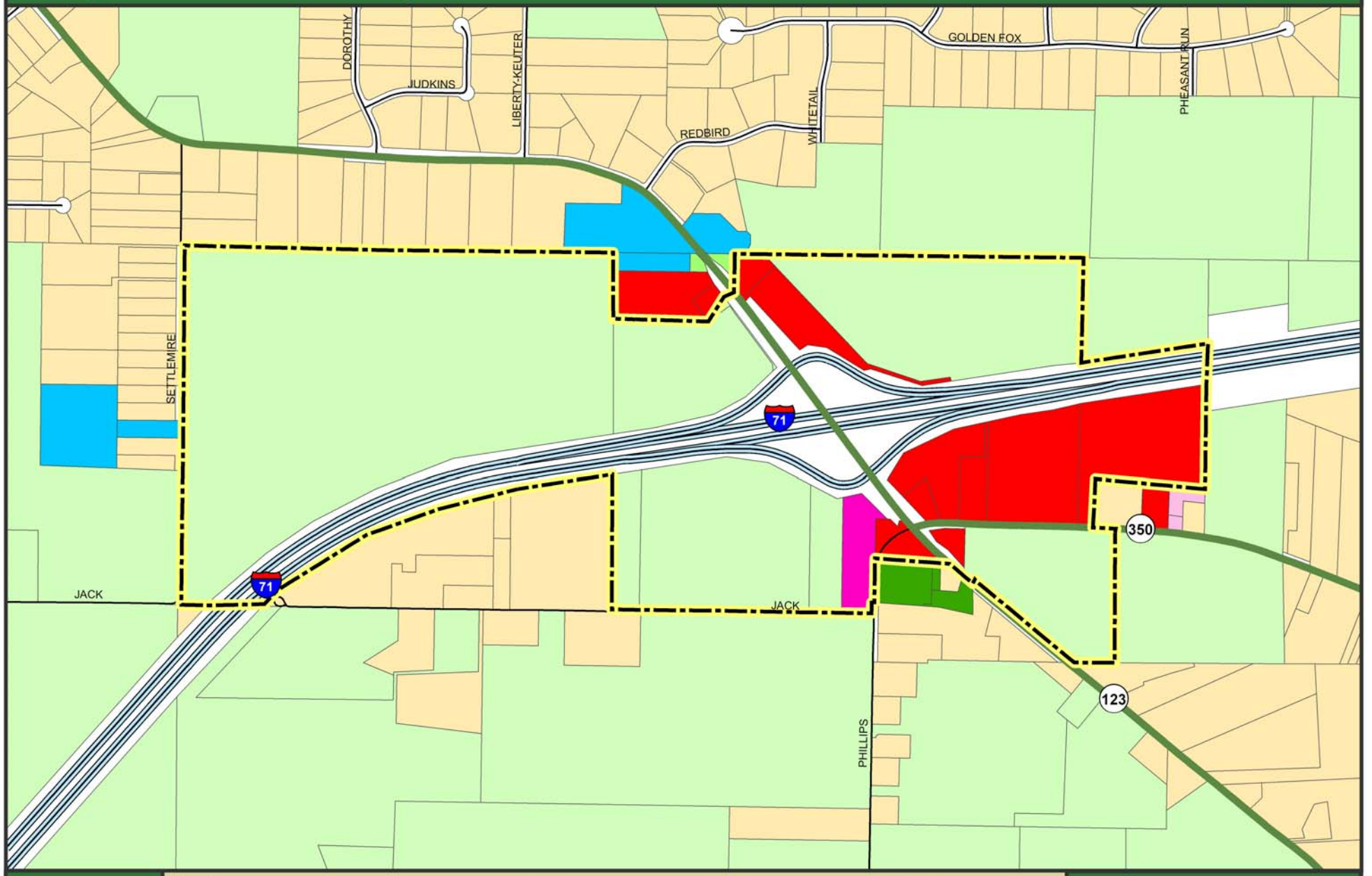


Figure 2.3 - Existing Land Use



Legend

- Study Area Boundary
- Parcels
- Interstate
- State Route
- Local Road
- Industrial
- Commercial
- Public Institutions
- Rural Residential
- Agricultural
- Open Space
- Parks
- Utilities
- Road ROW

N W E S

1 inch = 1,000 feet

Feet

0 250 500 1,000

There are five existing businesses within the study area, employing approximately 30 people. Business development is primarily concentrated located along SR 350 or in the vicinity of 71/123 interchange. These are primarily service related businesses that depend heavily on their proximity to the interchange. Specific uses include a restaurant, two gas station convenience marts, two self-storage facilities, and an automobile repair shop. Most of the district's businesses are auto-oriented, serving a mixture of community members and visitors. A temporary batch plant along Jack and Phillips Rd is the only industrial development within the study area, which expires in October 2015.

Developed land uses (including the temporary batch plant) only comprise 17.97 acres, or 4.7 percent, of the study area. The area's natural resources are limited to several groves of trees. Adjacent land uses primarily include open space, agriculture, and low density residential uses (along Settlemire Road, Jack Road, and north of the study area).

CURRENT ZONING

The current zoning for study area (*Figure 2.4* on the following page) was adopted in 2012 and was based on the Warren County Comprehensive Plan and the prior zoning code. The current zoning supports the concept of the study area as a major employment center for Warren County, the City of Lebanon, and Turtlecreek Township. The zoning designations allow a wide range of commercial and industrial uses. The following are summaries of the current zoning and overlay designations:

1. **Community Business Zone (B-2)**: The B-2 zone and regulations are for purposes of permitting and encouraging business establishments in centralized locations to allow a wide range of uses to meet the needs of the community. Design standards are intended to limit the impact on the road network through the layout of sites and internal vehicular access between sites.
2. **Light Industrial Manufacturing Zone (I-1)**: The Light Industrial zoning district was established to accommodate certain office and light industrial uses, such as research and development and manufacturing or fabrication of products that have minimal off-site impacts. Performance standards were incorporated into the zoning code to provide buffering, signage, landscaping, and lighting standards, and other methods to limit any adverse impacts and ensure compatibility with adjacent areas. Certain warehousing, transportation, and distribution uses may be appropriate if performance standards can be achieved.
3. **The Interstate Overlay District:** The study area also includes an Interstate Overlay District (a floating zone), applied to areas of the County appropriate for employment centers, and industrial and commercial development. This district focuses on sustainable, high quality development that is designed in a way to preserve the County's natural resources while simultaneously promoting economic development.

OPPORTUNITIES & CONSTRAINTS

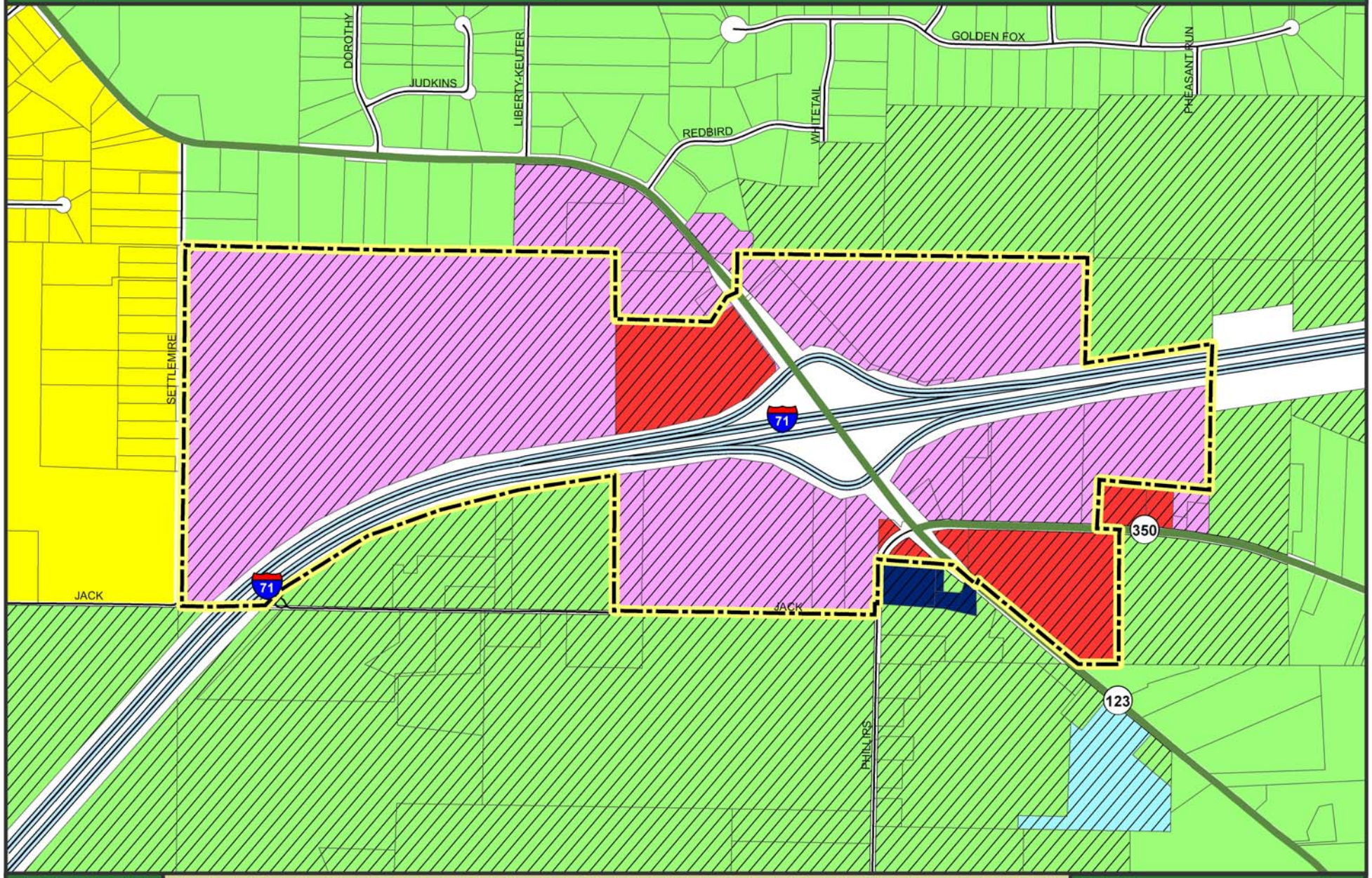
Opportunities

The interchange area has the potential to become a thriving employment center once sewer, water, and transportation improvements area made. Situated along the interstate, the study area will bring in substantial numbers of consumers; attract business and industrial development; become a major destination point; and serve those who use the area on a regular basis for travel to other areas. To ensure the district's success, proposed development must include supporting commercial services, an integrated mix of uses, and capitalizing on future development.

Constraints

To realize the opportunity described above, the greatest challenge is the need to cohesively plan the area and to achieve consensus on the vision of the district; coordinating the vision of the Township, County, City, and property owners in a complementary and coordinated manner. Currently there are approximately 8 private landowners within the study area. These landowners and public entities must work together and communicate in

Figure 2.4 - Current Zoning



Legend

- Study Area Boundary
- Parcels
- Interstate
- State Route
- Local Road
- Highway Overlay District
- R1A-Single Family Zone (3 acre density)
- R1B-Single Family Zone (1 acre density)
- B2-Community Commercial Business Zone
- I1-Light Industrial Manufacturing Zone
- PUD-Planned Use Development Zone
- PR-Public Recreation Zone

N W E S

1 inch = 1,000 feet

Feet

0 250 500 1,000

order to create a district that will support planned development and achieve the most lucrative mixture of development. Likewise, developers must coordinate with the County, Township, and the Development Advisory Board.

Implementing zoning standards is also a challenge. As with most communities, the focus of the County's zoning regulations is on separation of uses, and what uses are not desired. Implementation of the Plan will require a shift in focus to the pattern and form of development as well as building detail.

The final challenge is the financing and delivery of public services and infrastructure to support planned land uses.

DEVELOPMENT VISION

The vision of the study area is to capture the income and job creating potential that is forecasted to be attracted by the interchange. This Plan offers tools to guide this vision and meet the overriding goal of creating new jobs. Therefore, it is crucial to permit industries and land uses for this area that will provide jobs for Warren County residents as well as for other residents of the Cincinnati metropolitan area. High quality office, commercial, and industrial uses are recommended, with development standards tailored to create an executive park appearance. The opportunity exists for the development of offices wishing to create a strong corporate image.

A secondary goal is to create a gateway to the City of Lebanon and Turtlecreek Township that will be memorable to business people traveling to the area. With high visibility from I-71, travelers will associate businesses located in this area with the "Gateway" image.

Development goals are as follows:

- Foster economic development, increase jobs, and generate tax revenues through new development.
- Generate private investment in the JEDD because of its potentially distinctive character.
- Create a positive image through well designed, high quality development.
- Set a positive tone for the area so that it serves as a gateway.

Guiding Principles

In light of the previously identified goals, the following guiding principles for land use and development have been prepared. These principles provide a framework for evaluating development proposals and for encouraging new development. Guiding principles and development standards are recommended for the entire study area. The principles listed below are intended to create guidelines and standards that will have a lasting impact on the type and quality of development in the area.

- Maximize the economic development potential of the area and each site.
- Provide a mix of uses that maximizes fiscal return to the City, Township, and County; and diversifies the tax base by emphasizing office and industrial uses.
- Focus on quality job creation for residents.
- Provide for supporting retail and business service uses.
- Create a district identity with attractive and distinctive building architecture and open space amenities that serve as a gateway.
- Use landscaping to soften and enhance buildings, roadways, parking lots, and other outdoor spaces.
- Utilize naturalized retention ponds as focal points of developments and to help maintain open view corridors.

IMPLEMENTATION

As described above, the study area has a number of unique and highly desirable attributes. The study area is flat, open, highly visible, and an appropriate location for office, commercial, and industrial development.

These factors make a dynamic combination for the development of commercial and industrial businesses. Additionally, the area will serve as both a gateway and a major employment center.

The intent of the Plan, including the proposed mixed use commercial/industrial development pattern, does not clearly match any of the existing County zoning districts and the full range of uses proposed by the Plan is not permitted under the Warren County Zoning Code. Thus, implementation will require a robust toolbox of zoning and design standards to carry out the intended mix of uses, patterns of development, and forms that are proposed in the Plan. Implementation of the Plan is recommended through the County's existing development codes and amendments to those codes or by the development of new provisions, such as an overlay district and protective covenants.

Land Use and Design

The Plan proposes uses that include office showroom, corporate offices, retail and commercial services, manufacturing, assembly, warehousing, energy production, food processing, research and development, and a full range of industrial services within a mixed-use setting.

Industrial developments should project a clean appearance with service and manufacturing activities being conducted indoors and/or within screened outdoor areas. Operations are envisioned to be relatively quiet and will limit impacts such as odor, noise, and vibration. Development centered on the intersection of SR 123 and Interstate 71 is envisioned to project an attractive image (façade and landscaping) and serve as an entry into the Township and City of Lebanon. The uses in this area enjoy good visibility and access, and will set the tone for the image of the JEDD (see *Chapter 5*). Buildings should also be positioned to take advantage of the natural landscape, which may also be enhanced to distinguish the district.

The following are key land use and design elements:

- Support light industrial and commercial uses such as office, showroom, manufacturing, assembly, warehouse, energy production, food processing, technology, professional services, corporate headquarters, and research and development.
- Support retail and service uses intended to complement industrial and employment uses and travel related uses. Appropriate uses may include: convenience stores, restaurants, fueling stations, banks, clinics, day cares, and hotels.
- Evaluate uses based on performance standards for noise, odor, light, and vibration.
- Provide flexibility in parcel sizes.
- Building and site development that presents an attractive appearance.

Land Use Map

While the Comprehensive Plan uses lines to identify specific areas for commercial and industrial development, the goal of this Plan is to promote more organic and holistic development patterns, to mix uses more than to obey lines on a map. The idea behind this is not to separate uses by area, but to promote the best use of each area in concert with the others. The Plan recommends a continuum of land uses that integrate and spill from one to the other, rather than delineating land into zones by function. The intent is to create a place that is an integrated whole—mixing uses both vertically and horizontally, while protecting certain adjacent uses such as low density residential areas from the impacts of commercial or industrial development. Although this Plan does not emphasize the segregation of uses, it does suggest the areas in which certain types of development are most likely to flourish, given the location of other development and access to the interstate. Most areas will typically be comprised of a variety of different land uses in relatively close proximity to each other.

The 71/123 JEDD Overlay District

There are several other challenges in adapting the existing zoning districts as the regulatory tools for implementing the Plan. The zoning code establishes maximum intensity standards— Floor Area Ratio for both commercial and industrial uses, while the Plan is focused more on function,

aesthetics, and efficient land use. To address these challenges and work within the framework of the existing zoning code, the County should undertake one or more of several actions:

- Increase the Maximum Floor Area Ratio and Impervious Surface Ratio and incorporate the new standards into an overlay district; and
- Permit a mix of industrial and commercial uses— all the uses allowed in the B-1 and I-1 zoning districts shall be subject to review by an advisory board. These uses should be incorporated into a unique overlay district drafted for the Joint Economic Development District.

In addition, to ensure the visual quality of commercial and industrial developments within the district and along I-71, design guidelines, such as the City of Lebanon's architectural standards, should be incorporated into protective covenants to be administered by the JEDD Advisory Board or incorporated within the JEDD overlay district.

RECOMMENDATIONS

1. **Amend Plans and Zoning Code:** As described above, the comprehensive plans and zoning code provide general guidance for this area. No changes to the Future Land Use Map are required. However, one key element that is anticipated to be updated is the Thoroughfare Plan, which should consider this Plan's recommendations as they relate to land use.

   A key element of implementation will be changing a portion of the existing zoning code that applies to the study area. The study area can retain its existing zoning designation. However, individual zoning districts are incongruent with a mixed-use vision. It is important to note that changes proposed here will require that amendments be made to the zoning code but not to the existing base zoning districts (e.g. I-1 and B-2 zones). Regardless, zoning changes will not result in existing uses being made non-conforming. The Warren County Rural Zoning Code should be amended to reflect any final decisions related to land use and to establish the JEDD overlay district. The overlay should be crafted to promote the form and character outlined in this Plan— an attractive mixed-use employment center.

2. **Draft Protective Covenants:** The Ohio Revised Code establishes regulator parameters of the zoning authority of counties. Therefore, other tools, in addition to the zoning code, are required to effectuate the vision of the district. An advisory board that oversees these protective covenants will help ensure the quality of development and proper function of the district. Protective covenants should include aesthetic, use, and performance standards.

3. **Develop Administrative Policies for Development Review:** The Warren County Building and Zoning Department should develop policies that incorporate comments from the proposed JEDD Advisory Board into the County's development review processes.

4. **Encourage Transitional Development**: In those cases where a transitional use is not possible, means should be provided to minimize objectionable elements. Potential treatments include, but are not limited to, landscaped screening, fences and walls, additional setback, building orientation, and bulk and height limitations.

5. **Screening**: emphasis should be placed on setback and adequate screening for all primary site intensive uses or uses that require a high proportionate use of outdoor storage or operations, such as junk yards, lumber yards, car dealerships, cement product manufacturing, and any type of storage yards.

6. **Gateway:** A prime development objective is to create a "Gateway" that will be remembered by business people traveling to the area. A positive image is achieved through development review geared to create an executive park appearance. Guidelines based upon standards contained in The City of Lebanon zoning code may be implemented through a variety of mechanisms, some of which are

currently in place. These mechanisms are identified as follows:

a. Standards are attached to development site(s) via conditions of approval.

b. Protective covenants.

c. A new overlay district, which adds development standards.

7. **Develop the JEDD Overlay District:** Overlay zones are designed to address planning concerns in "special" areas, where physical development objectives transcend single parcel ownership and land use district boundaries, and represent a need to establish, maintain, or change the character of development in a planning area. In the case of the study area, the planning area is "special" as a major employment/industrial center and gateway to the Township and City of Lebanon. It requires special standards to address development that is visible from the interstate and to encourage the most efficient mix and intensity of land uses. To ensure that these objectives are met, new development standards are justified. The overlay district should achieve the following:

   a. To allow more intense development, the overlay district should allow development with larger footprints, increased floor area ratios, and impervious surface ratios.

   b. Permit a mix of commercial uses (all B-2 uses) and industrial uses (all I-1 uses) district wide.

   c. Increase the building height, comparable to the City of Lebanon's standards for industrial uses and what exists at the major interchanges throughout Warren County.

   d. Include design guidelines. The purpose of design guidelines is to provide directions for the architects and developers of future projects and to create an environment that has a significant degree of coherence and continuity.

   e. Eliminate minimum development site requirement.

   f. Develop a review process that incorporates the JEDD Advisory Board.

   g. Provide compatibility standards for development adjacent to residential uses and districts.

CHAPTER 3

Utilities

Water and sewer service is a critical element of the 71/123 Area Plan because future development in the study area and beyond is dependent upon this infrastructure. Further, the provision of water and sewer service is necessary to help attract the quality development that is described in Chapter 2. The effectiveness and efficiency of water and sewer service are two of the primary focuses of this chapter. For this infrastructure to be *effective*, water and sewer lines must be designed to serve all parcels within the study area as well as areas that may develop around the study area in the distant future. Likewise, for this infrastructure to be *efficient*, it must perform in the best possible manner with the lowest possible cost and effort to supply the service. This chapter addresses how to accomplish these goals and provides a preferred sewer alignment along with other recommendations for utility improvements within the study area including storm water management.

PAST SEWER PLANS AND PROPOSALS

Several potential sewer alignments have been proposed as a result of increased development pressures within the study area. In early to mid 2012, Henkle-Schueler & Associates, a large development company and owner of several parcels within the study area, conducted the first of such studies to determine the feasibility of providing water and sewer service to the study area. The Henkle-Schueler Plan is an alignment that is not much different from the one described later in this Chapter, as both Plans would provide sewer access to all four quadrants (northwest, northeast, southeast, and southwest) of the 71/123 interchange, while utilizing gravity flow and a lift station. The sewer alignment of the Henkle-Schuler Plan links to the existing sewer line in the Cedar Trace subdivision. From there the line extends southeast to Settlemire Rd, follows Settlemire Rd south to I-71 where it then changes direction, extending northeast along I-71 toward the interchange. All effluent from the southwest, southeast, and northeast quadrants flows to a lift station at a low point near the off ramp for southbound I-71. The effluent is then pumped across SR 123 and flows by gravity to the Cedar Trace subdivision and eventually to the City of Lebanon Waste Water Treatment Plant. The estimated cost of this alignment is $3,126,220. Water infrastructure improvements were also described in the Plan and estimated to cost an additional $1,147,500, which would bring the total cost for infrastructure improvements to $4,273,720.

Earlier this year (mid 2012), representatives of a proposed travel center had also proposed their own sewer alignment after discovering difficulties of sharing an existing package plant with a nearby. The travel center's plan was to extend sewer service from the Cedar Trace subdivision along SR 123 to the interchange. The sewer line would originate in the southeast quadrant where the business is trying to locate, cross I-71 by gravity flow to a lift station in a similar location as shown in the Henkle-Schuler Plan, and then connect to the proposed line along SR 123. This sewer alignment would be most efficient and beneficial to the new business, but would not service a large portion of the study area; more specifically, the northwest quadrant.

Warren County and the City of Lebanon reviewed both plans and developed the preferred alignment described in greater detail later in this chapter. The Henkle-Schueler Plan and the Travel Center Plan were beneficial in prompting the creation of this Plan's sewer alignment and providing some of the information and details necessary to move this Plan forward.

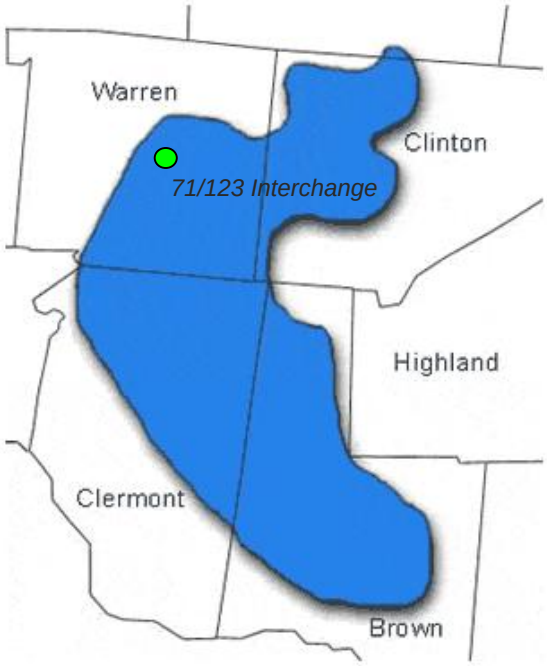
EXISTING CONDITIONS

The following subsections describe the existing conditions of the utility infrastructure that currently services the study area.

Water Service

Water service within the study area is provided by the Western Water Company, a non-profit, customer owned system that supplies water to a large portion of Warren, Clinton, Clermont, and Brown Counties as shown in *Figure 3.1*. The Western Water Company draws its water supply from the Little Miami River Aquifer located in Warren County.

Figure 3.1 – Western Water Company Supply Area



Source: http://western-h2o.com/map.htm

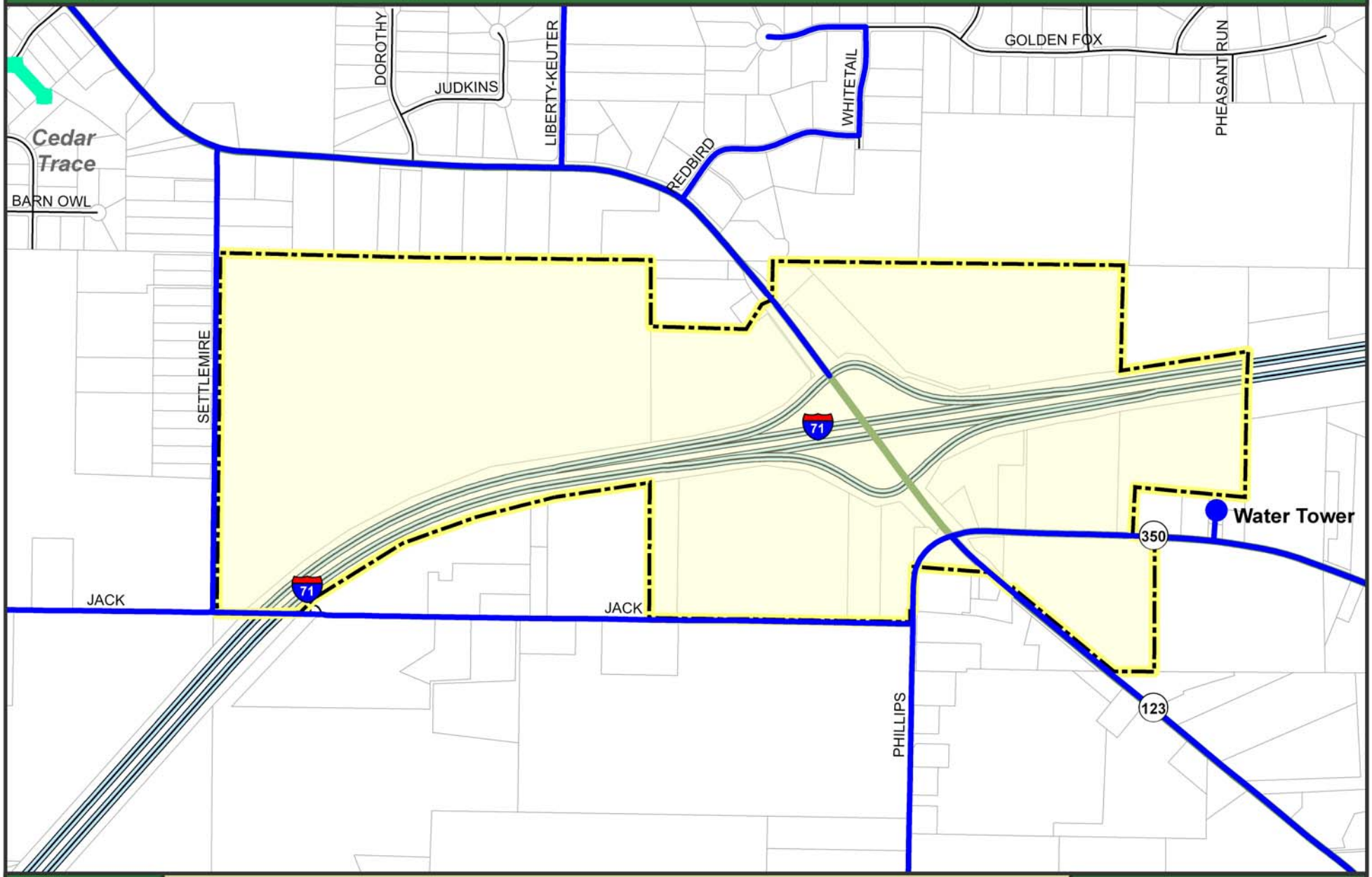
The Western Water Company has a water tower located along SR 350 just outside of the study area as shown *Figure 3.2*, which could potentially supply water to all of the properties within the study area. There are two existing waterlines, a 10" line and a 20" line, that extend from the water tower towards SR 123 along SR 350. The 10" water line continues from SR 350 to Phillips Rd and from Phillips Rd the line extends to Jack Rd. The water line then extends over to Settlemire Rd and transitions from a 10" pipe to a 6" pipe along Jack Rd. The 6" water line then extends north along Settlemire Rd to SR 123 where the pipe then follows SR 123 east to Liberty-Keuter Rd. At the intersection of SR 123 and Liberty-Keuter Rd the 6" pipe becomes a 3" pipe that terminates along SR 123 in front of the Rock School across the street from the Bethany Church.

The existing 20" water line that extends from the water tower also follows SR 350 to SR 123. However, at the intersection of SR 350 and SR 123 the 20" pipe extends north for a short distance then terminates before reaching the on/off ramps for northbound I-71. The 20" line was put in place to accommodate larger development within the area and will likely need to be extended in the near future.

Sewer Service

The only existing sewer located in relatively close proximity to the 71/123 interchange is located within the Cedar Trace subdivision as shown in *Figure 3.2*. Sewer service is provided by the City of Lebanon through its Waste Water Treatment Plant, located at 1525 Mason-Morrow-Millgrove Rd. The existing sewer line is 15" in diameter with a depth of 13 feet and was designed to accommodate future growth at the interchange. A 15" sewer line has the capacity to accomodate up to 1.87 million gallons of effluent per day at a minimum grade of 0.2 percent. According to an analysis conducted by the City of Lebanon Engineering Department, the entire gravity sewer service area, including areas beyond the propsed JEDD, could produce a peak demand of 1.80 MGD, which is well within the capacity of the existing sewer line.

Figure 3.2 - Existing Water and Sewer Lines



Legend

- Study Area Boundary
- Parcels
- Existing Water Main
- Existing Sewer Line

N W E S

1 inch = 1,000 feet

Feet

0 250 500 1,000

Other Utility Providers

The study area is serviced with electricity from Duke Energy, which also provides gas to the Cedar Trace subdivision and properties along SR 123. Telecommunication services are provided through a variety of companies including CBT, Time Warner, and Century Link.

ISSUES & OPPORTUNITIES

Issues

Cost and Financing – This is a major issue to consider when implementing infrastructure improvements. The cost of extending sewer service to the entire study area is expected to cost millions of dollars, as expressed in the Henkle-Schuler Plan, however, there are potential ways of reducing costs with different sewer alignments that minimize the use of lift stations and the number of times the sewer line crosses major roadways. The cost of tree removal/clearing, pavement repair, piping, manholes, storm tile repair, erosion control, seeding, and mulching are all potential costs that must be analyzed before infrastructure plans are implemented.

After the estimated cost of construction has been established, the next step is to determine how the infrastructure improvement will be financed. Special assessments and Tax Increment Financing (TIF) are two of the options that were contemplated throughout the planning process. The preferred option is Tax Increment Financing, in which the taxes generated from increased real property values would be placed into a special fund to pay off infrastructure improvements (see *Chapter 5* for an in depth analysis on how the TIF should be implemented).

Amending the "208" Plan – In 1977, the Ohio-Kentucky-Indiana Regional Council of Governments, also known as "OKI," completed the first Areawide Water Quality Management Plan in accordance with Section 208 of the 1972 Clean Water Act, which was enacted "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 208 of the Clean Water Act requires that a water quality management plan be developed on a regional or area-wide basis (i.e. Butler, Clermont, Hamilton, and Warren Counties collectively) to fulfill the goals of the Clean Water Act. The water quality management plan is often referred to as the "208 Plan."

Before sewer improvements can be made to the study area, the Lebanon/South Lebanon Facility Planning Area boundary must be amended as a part of the 208 Plan. Essentially, the study area must be "released" for sewer improvements, which must be approved by OKI.

Permits and Easements – Obtaining all permits and easements necessary to supply the study area with sewer service will be a challenge. Easements will be required from multiple property owners in all phases of the sewer extension. Costs associated with easement acquisition have not been included in the construction cost estimate from the City of Lebanon, as the extension of the sanitary sewer to serve these properties greatly benefits them. An inability to secure the necessary easements could jeopardize any proposed sewer projects. Permits will be required by the OEPA, ODOT, and local jurisdictions to support any proposed improvements.

Residential Tie-ins – This is an issue that involves residential properties that are located in close proximity to any newly constructed sanitary sewer line(s). According to Ohio Administrative Code (OAC) 3701-29-02 M, "[w]henever a sanitary sewerage system becomes accessible to the property, a household sewage disposal system shall be abandoned and the house[hold] sewer directly connected to the sewerage system." For a sanitary sewer system to be considered accessible as described in Ohio Revised Code (ORC) 6117.51, the foundation wall of the structure from which sewage or other waste originates must be located within two hundred feet of the proposed sewer line. As stated in the vision statement, one of the main goals of the 71/123 Area Plan is to mitigate negative impacts on surrounding residential areas and as such, the new sanitary sewer system should be designed in a manner that minimally impacts residential properties. It is understood that this would be costly for property owners to 1) pay the tap in fee and 2) pay out-of city sewer rates to compensate the City of Lebanon for supplying the sewer service in an area that does not pay taxes to the City.

Water Capacity – As the study area develops, the demand for water will increase. This means that the existing water infrastructure within the study area will have to be improved. Western Water Co. has indicated that the current water capacity of the existing water tower located along SR 350 near the interchange, which holds 750,000 gallons, is capable of accommodating future industrial and commercial growth. However, a complete build-out analysis would be necessary to verify this assumption.

Another water capacity concern is the need for larger pipes to accommodate future industrial and commercial development. This means that new pipes will likely need extended underneath I-71, which is forecasted to be a large expense.

Opportunities

Replacement of Old or Failing Septic Systems – The extension of sewers to the study area will provide existing businesses and potentially some residential properties surrounding the study area to abandon their old or failing septic systems. In general, the cost of constructing and/or maintaining a new septic system would likely be more than the cost to tie into the newly constructed sewer. Also, as previously discussed, if the sewer line is extended within 200 ft of the house foundation, the property owner must abandon their septic system by law.

Storm Water Management – One of the main goals of the Plan is to attract development in an aesthetically pleasing manner and storm water management presents an opportunity to do so. Because the study area does not contain many existing businesses, the ability to develop a storm water management plan that would benefit numerous properties, rather than on a site by site basis would be beneficial in making the study area an attractive place to work and conduct business. Ponds and catch basins that contain native fauna and connect to existing watersheds is one example of a way to improve storm water management within the study area.

Topography – The study area contains minimal obstacles in terms of natural features, as there are only two ponds and one small stream/creek bed. The land around the 71/123 interchange is relatively flat, as well. Both of these conditions make it easier to route water and sewer lines throughout the study area. Sewer lines can flow by gravity to the Lebanon Waste Water Treatment Plant.

Contributions to Fund Sewer Extension – The City of Lebanon and the proposed travel center have both expressed willingness to fund a portion of the sewer extension totaling $580,000. This presents the opportunity to either pay down construction costs up-front or use the contribution as a reserve fund to make loan payments at a later date (see *Chapter 5*).

VISION & GOALS

Utility improvements within the study area are necessary to accomplish the development goals and overall vision of the 71/123 Area Plan because future development is most dependent upon this infrastructure. To attract the quality office and industrial development that is desired, sites must be equipped with water and sewer service. Likewise, storm water runoff must be managed appropriately and other utilities such as power, telephone, and fiber-optic lines should be designed to limit visual impacts on the study area.

The vision is not only just to have utilities in place, but also to ensure that they are supplied in both an effective and efficient manner. This means that the entire study area should have access to such improvements, within reason, and this should be done in a way that minimizes the costs to provide each service.

Goals for infrastructure and storm water management are as follows:

- Provide sewer and water service to all parcels within the Plan study area in a cost efficient manner.
- Design a sewer and water system that could accommodate future growth beyond the study area.
- Plan sewer extensions in a way that is mindful of residential properties to prevent forced tie-ins when possible.
- Utilize storm water management and existing watersheds as a means of creating an aesthetically pleasing setting for development.

- Mitigate the visual impact of new power, telephone, fiber-optic lines, etc.
- Protect the Little Miami River Aquifer.

IMPLEMENTATION

To fulfill the vision and goals of this chapter, the following implementation strategies have been identified with infrastructure improvements being the primary focus.

The 208 Plan

Amending OKI's 208 Plan is the first step in bringing sewer service to the study area. This is done through OKI, which governs water quality management planning for the four county region (Butler, Clermont, Hamilton, and Warren Counties). OKI follows a firm process when analyzing 208 amendment requests and they have an established list of criteria that is used when reviewing amendments to the 208 Plan (See *Appendix D*). In general, the process involves gathering relevant information including maps; notifying the Ohio EPA and other local jurisdictions to establish agreements if necessary; and eventually the jurisdiction making the request must prepare a staff report which must be presented with recommendations to OKI.

One of the key items OKI will need to review is the proposed modification of the City of Lebanon's Facility Planning Area (FPA), shown in *Figure 3.3* on the following page. Currently, the City of Lebanon Facility Planning Area is considered an overlay FPA that falls within the much larger Southwest Warren County Wastewater FPA. However, the amendments to the Lebanon FPA shown in the *Figure 3.3* would also encompass a portion of the Fort Ancient FPA. The proposed boundary change is to expand the Lebanon FPA from the Cedar Trace subdivision to the study area and surrounding area in anticipation of growth. This new area for sewer release, shown in light blue on the following page, encompasses 918 acres and was delineated based on topography. Essentially, sewers could potentially be extended to all parcels within this newly released FPA boundary via gravity flow with the creation of one new pump station, as shown in *Figure 3.4* on page 30. However, it is not the intent of this Plan to extend sewers to areas (residential properties in particular) that do not desire such improvements.

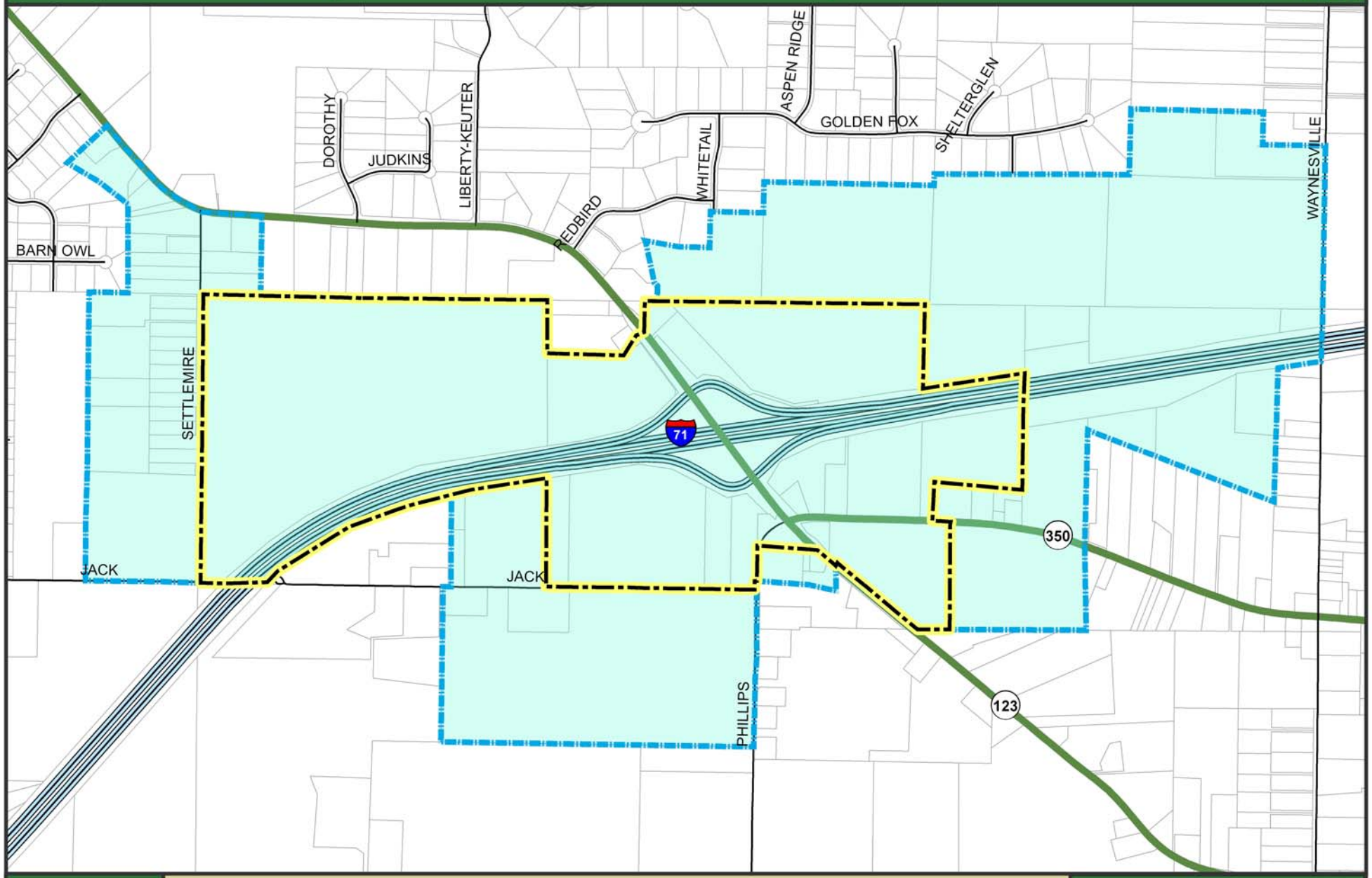
Proposed Sewer Extension

After the 208 Plan has been amended and the study area has been released for sewer service, the proposed sewer extension shown in *Figure 3.4* can be implemented. The proposed sewer extension consists of two separate phases, Phase 1 and Phase 2; Phase 1 is also broken down into two sub-phases, 1A and 1B.

Phase 1 is designed to extend sewers to a new development that has expressed interest in a site located at the northeast corner of the SR 123 and SR 350 intersection. In Phase 1A, a 15" sanitary sewer line will be extended from the existing sewer line located at the edge of the Cedar Trace subdivision, located northwest of the study area. This line would extend east to the intersection of SR 123 and Settlemire Rd, where the line would then follow Settlemire Rd south. The line then extends east along I-71 and concludes just before reaching the I-71 on and off ramps, bringing the total sewer length of Phase 1A to 7,416 ft.

To access the southern quadrants of the study area, Phase 1B is needed. Phase 1B extends the 15" sanitary sewer underneath I-71 via a "jack & bore," which requires a 24" casing pipe. Phase 1B then continues along I-71 and eventually crosses Phillips Rd and SR 123 where the two existing gas stations (BP and Valero) are located. Immediately after crossing SR 123, the sanitary sewer line extends north across SR 350 to provide access to the new travel center development. Phase 1B would require 3,648 ft of new piping, which brings the Phase 1 total to just over 11,000 ft. Phase 1 effectively provides sewers to three out four quadrants of the study area and utilizes gravity to carry effluent from the southeast corner of the Plan study area all the way to the Lebanon Wastewater Treatment Plant. This phase of the proposed sewer plan would cost approximately $2.5 million.

Figure 3.3 - Proposed FPA Sewer Boundary



Legend

Study Area Boundary

FPA Sewer Boundary

Parcels

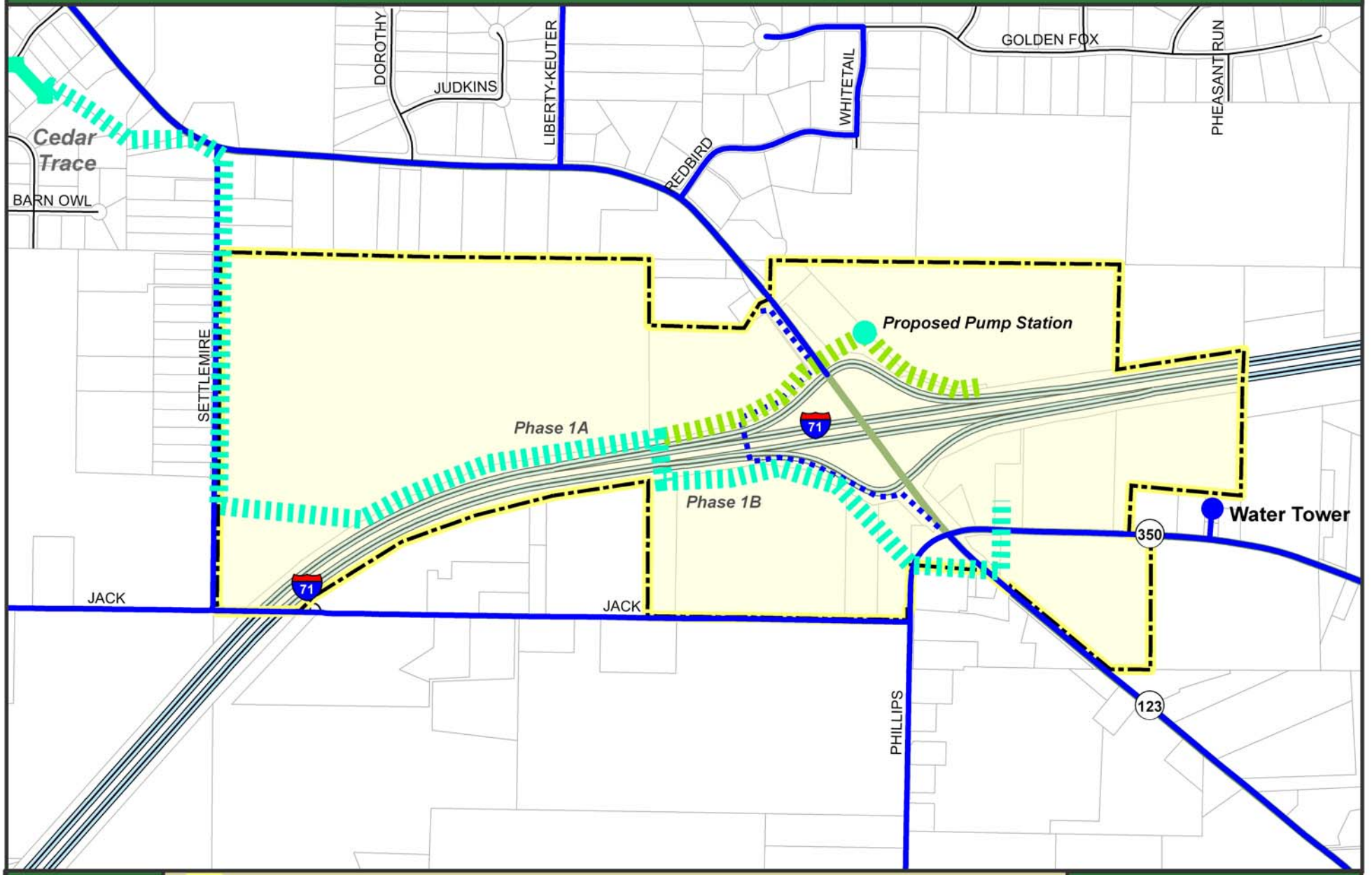
N W E S

1 inch = 1,250 feet

Feet

0 250 500 1,000

Figure 3.4 - Proposed Water and Sewer Alignment



Legend

- Study Area Boundary
- Parcels
- Existing Water Main
- Proposed 20" Water Main
- Existing Sewer Line
- Proposed Sewer (Phase 1)
- Proposed Sewer (Phase 2)

1 inch = 1,000 feet

0 250 500 1,000 Feet

The purpose of Phase 2 is to provide sewer service to the remaining northeast quadrant of the study area. Phase 2 would begin at the same location where phase 1B begins (where Phase 1A ends close to the I-71 on/off ramps). This would be a 12" sanitary sewer line that follows I-71 east across SR 123 until the line can no longer provide service by gravity. A sanitary lift station with an 8" force main is required to provide further access into the northeast quadrant. This Phase 2 sanitary sewer line then would continue along I-71 east to accommodate development on an as needed basis. The total length of the Phase 2 sewer line shown in *Figure 3.4* is 2,770 ft and would cost approximately $843,000 with the sanitary lift station being the largest expense at an estimated $150,000.

There are several reasons why this proposed sanitary sewer alignment (Phase 1 and 2) is preferred. First, it effectively provides easy access to all parcels within the study area. Second, the proposed lines have been sized appropriately so that they can potentially accommodate future growth beyond the study area. Third, this sewer plan minimizes the amount of residential properties that would be legally obligated to tie into the newly constructed sanitary sewer lines. Routing the sewer line for Phase 1 south along Settlemire Rd, which only has residencies on one side of the road, is better than routing the sewer line east along SR 123, which is lined on both sides with residential properties. To reduce the number of residential tie-ins even more, one possibility would be to ensure that the sanitary sewer line is constructed 200 ft away the houses located along Settlemire Rd. Fourth, this sewer alignment will provide the opportunity to replace old or failing septic systems; there are currently two or three existing businesses with septic systems that are in poor condition. Finally, the estimated cost to implement this sewer plan ($3,343,000) is about the same when compared to the cost of other sewer extension plans that had previously been proposed to service the entire study area.

It is important to note that this proposed sewer plan will be constructed only on an as needed basis and expenses associated with final designs, easement and permit acquisition, tie-ins, and so forth will be the responsibility of the property owner(s) and/or developer(s) that demand sewer service. Currently, there is one potential development that is driving demands for Phase 1 sewer improvements and Phase 2 improvements will occur at a later date. Initial construction costs for each phase will have to financed appropriately, as well. During Planning Advisory Committee (PAC) meetings, the property owners that attended expressed that financing infrastructure projects via a TIF or multiple TIFs is the preferred method of choice (see *Chapter 5*). Once the proposed sewer lines have been installed, they would be effectively turned over to and maintained by the City of Lebanon.

The next step in moving this project forward is to contract with an engineering firm to develop detailed construction plans and documents necessary to secure the necessary easements and permit approvals. Once this is complete, the project can then be released for bids. It is estimated that engineering will commence once a JEDD agreement (see *Chapter 5*) has been approved by both the City and the Township, with construction of the sanitary sewer improvements scheduled to begin in early April.

Proposed Water Main Extension

Currently, both sides of the study area (north and south of I-71) are serviced with water from the Western Water Company, however, the existing water lines located north of I-71 cannot accommodate new development. To solve this issue, a new 20" water main is being proposed as shown in *Figure 3.4*. This new water main would connect to the existing 20" water main located at the intersection of SR 123, SR 350, and Phillips Rd and extend north around the I-71 northbound exit ramp. The water main would then bore underneath I-71 and continue along the I-71 southbound on ramp to SR 123. A project like this is expected to cost $1.3 million and would be development driven. Likewise, the developer would assume construction costs.

There are no proposed improvements to the existing water tower for the time being as the Western Water Company feels that it has the capacity to accommodate almost any type of growth. However, a water tank may be needed on newly developed sites that require millions of gallons per day as the two existing water towers that service the 71/123 study area hold only 750,000 gallons each.

Storm Water Management Plan

The development vision for the study area prompts higher intensity development with increased impervious surface ratios and gross floor area ratios, thus, there is a greater need to establish a master storm water management plan to alleviate flooding, erosion, and environmental impacts. Since industrial uses are projected to develop within the study area, the storm water management plan should utilize detension basins and apply retension ponds only in areas that will be minimally impacted by pollution sources. Storm water detension basins are typically better at containing and filtering pollutants before the water is returned to streams and underground aquifers. They are designed to hold water for a short period of time, typically after a large rainfall event, in order to settle storm water particles and reduce peak flows. Each detension basin should also have an emergency spillway to control flooding hazards. Use of native fauna, such as tall grasses, around and within detension basins and ponds will enhance the visual appearance of the study area, as well.

The City, the Township, the County, the Warren County Engineer's Office, and property/business owners within the study area should be involved in the process of creating the Master Storm Water Management Plan. This will generate input from multiple backgrounds and ensure that the Storm Water Plan fits the needs of the broader area – not just individual sites. One task of this planning effort will be to identify existing water features and watersheds followed by recommendations on how to improve these existing conditions. The planning committee will then be tasked with developing strategies to fund the storm water management projects, which could include a TIF program, special assessments, corporate guarantees, and/or landowner guarantees.

Zoning Code and Visual Impacts of Utilities

The visual appearance of the study area is a major focus of the 71/123 Area Plan and utilities could be detrimental in achieving this goal unless appropriate design standards are in place. Essentially, utility and infrastructure improvements should not be a defining feature of the study area, rather they should be hidden from view when possible. To accomplish this task, the 71/123 JEDD Overlay District should incorporate additional standards that address the impacts of infrastructure. For instance, power, telephone, and fiber-optic lines can be buried to mitigate visual impacts on the area. As a precaution, this may require larger easement widths of 15-20 ft if necessary. Additionally, if power boxes are required on site, landscaping can be added to surround and hide them from public view. Another potential development standard would be to construct all new streets with curbs and gutters to supplement the Master Storm Water Management Plan. This would eliminate the need for drainage ditches at the edge of roadways, thus enhancing the image of the study area.

RECOMMENDATIONS

1. **Amend the 208 Plan**: To fulfill the requirements of Section 208 of the 1972 Clean Water Act, OKI must be notified and the subsequent steps listed in Appendix C must be followed. This is the critical first step that must occur before sewers can be extended to the study area.
2. **Implement the Proposed Sewer Plan**: This consists of the following:
    a. Finalize sewer designs and specifications with local contractors.
    b. Obtain all pertinent easements and permits.
    c. Construct the sewers and pump station. It is recommended to start construction by April 2013 to meet the timetable expectations of the new proposed travel center.
    d. Finance the sewer project. A TIF program is recommended that would utilize the $580,000 contribution from the new travel center and the City of Lebanon as a reserve fund (see *Chapter 5*). This would provide a safety net for any unforeseen project costs or failure to make loan payments.
3. **Waive forced tap-in fees for residential properties**: Tap-in fees for properties located within 200 ft of the newly constructed sewer

lines that would be legally obligated to tie-in should be waived. These properties should also be charged reduced sewer rates opposed to outside City of Lebanon rates.

4. **Implement the Proposed Water Extension Plan**: Work with the Western Water Company to extend water lines to newly developed properties.
5. **Develop the Master Storm Water Management Plan**: Bring the City, the Township, the County, the Warren County Engineer's Office, and property/business owners within the study area together to identify existing conditions and develop specific storm water management strategies that would benefit the new JEDD.
6. **Create the 71/123 JEDD Overlay District**: In addition to the recommendations specified in *Chapter 2*, new standards for utilities are necessary. These would include the following:
    a. Electric and telephone service lines shall be installed underground.
    b. A minimum easement width of 15 ft is required.
    c. All streets within the JEDD shall be constructed with curbs and gutters in accordance with the standards set forth by the Warren County Engineers Office to improve storm water management within the District.

CHAPTER 4
TRANSPORTATION

Within Warren County, there are six interchanges along Interstate 71, the majority of which serve major retail and office development. The land surrounding nearly all of these interchanges has been committed to development. One of the exceptions is the 71/123 interchange, making the land within this area a limited resource. This increases development pressures, but also creates new opportunities. Thus, it is important that steps are taken to determine how to accommodate new growth in the most beneficial way. Transportation infrastructure is critical in this task — careful transportation planning will ensure that these opportunities lead to investments and operational improvements that accommodate the desired industrial/commercial growth.

The focus of the transportation component is to understand the operation and condition of existing traffic circulation; projected transportation needs; and to recommend specific solutions that support the vision of a major employment/industrial center. The purpose for doing this is to ensure the integrity of the transportation system; plan for efficient traffic flow; and provide property owners appropriate access to the road network. This section provides a description and analysis of roadways, traffic volumes and patterns, traffic control, and roadway safety. This chapter also will be used to help guide the look and feel of roads and gateways within the study area.

EXISTING CONDITIONS

Roadways in the study area are under several different ownerships/jurisdictions, as listed in *Table 4.1* on page 40. While I-71, SR 350 and SR 123 are controlled by the Ohio Department of Transportation (ODOT), Turtlecreek Township has jurisdiction over Jack, Phillips, and Settlemire Roads. There are no railroad right-of-ways in the study area.

Major access roads provide connections between the study area, the interstate, and the surrounding community, and include the following:

- State Route 123
- State Route 350

State Route 123: This roadway traverses northwest to southeast connecting the City of Lebanon to the Village of Morrow. Designated as a state route, it has a functional classification of both a primary arterial (north of I-71) and secondary arterial (south of I-71). State Route 123 has two 11-foot wide lanes in each direction, along most of its length and no shoulders; near the on and off ramps for I-71 there is a shoulder and the approach to the interchange was designed to accommodate four travel lanes. The maximum speed limit is 55 miles per hour. Open ditches provide stormwater drainage as curbs and gutters are not in place. Outside the study area, hilly terrain and curving roads result in sight distance and radius problems along the roadway. In addition, road dips and sloped curves also create problems. Visibility along SR 123, within the study area is fair with minimal vegetation and no obstructions. Currently, there are no signalized intersections within the study area. As the area develops there will be a need to provide traffic lights along SR 123 close to the interchange.

State Route 350: SR 350 is a major east-west thoroughfare originating within the study area, connecting the study area to Washington Township and Clinton County to the east. SR 350 does have a shoulder, but does not have sidewalks. Outside of the study area, this road is steep, narrow, and winding with many sharp turns and hidden driveways. Such conditions make travel on this road difficult, especially for emergency vehicles and trucks. Semi-trucks can access businesses within the study area, but outside the district, SR 350 becomes impassable.

In addition to I-71, SR 123 and SR 350, the study area's transportation system is composed of three township roads that serve small rural home

sites, farms, and subdivisions. The Township currently maintains approximately 58 miles of local roadways. Like the state-maintained roads, these roads are narrow and lack shoulders. They carry less traffic than the major roads but are an important component of the system. Together, these roadways form a fairly complete network providing access to most sites. There are no collector roads that exist within the study area as shown in *Figure 4.1* on the following page. The remaining roads that are located within the study area are listed below:

- Jack Rd
- Phillips Rd
- Settlemire Rd

Jack Road: Jack Road is divided into two parts by I-71. To the east of I-71, Jack Road is a local secondary road providing local access. It is adjacent to the southern boundary of the study area, while the western part of Jack Road is not part of the study area. This road does not have a shoulder or sidewalks. Trucks cannot traverse this road east of the interchange, as there is not adequate space to turn around at the end of the cul-de-sac. Likewise, semi-trucks cannot traverse Jack Road west of I-71 due to the sharp right-angle turn that connects Jack Road with Settlemire Road.

Phillips Road: Phillips Road runs north to south connecting SR 123 to local roads and is classified as a local primary street. There are no shoulders or sidewalks along this road. Street signs for Phillips Road are not obvious and easy to miss when driving by. There is no traffic light at the intersection area of Phillips Road, SR 123, and SR 350.

Settlemire Road: Settlemire Road defines the west boundary of the study area and runs north to south connecting SR 123 to the local road network. This road does not have shoulders or sidewalks. Several residential properties line the western side of the road.

Liberty-Keuter Road: Liberty-Keuter Rd is not located within the study area, but is worth mentioning because it may connect to a new roadway in the future, as described later in this chapter. It runs north to south and is a collector road, which connects local traffic to SR 123. It is a rural road with scenic, winding turns and no shoulder or sidewalks.

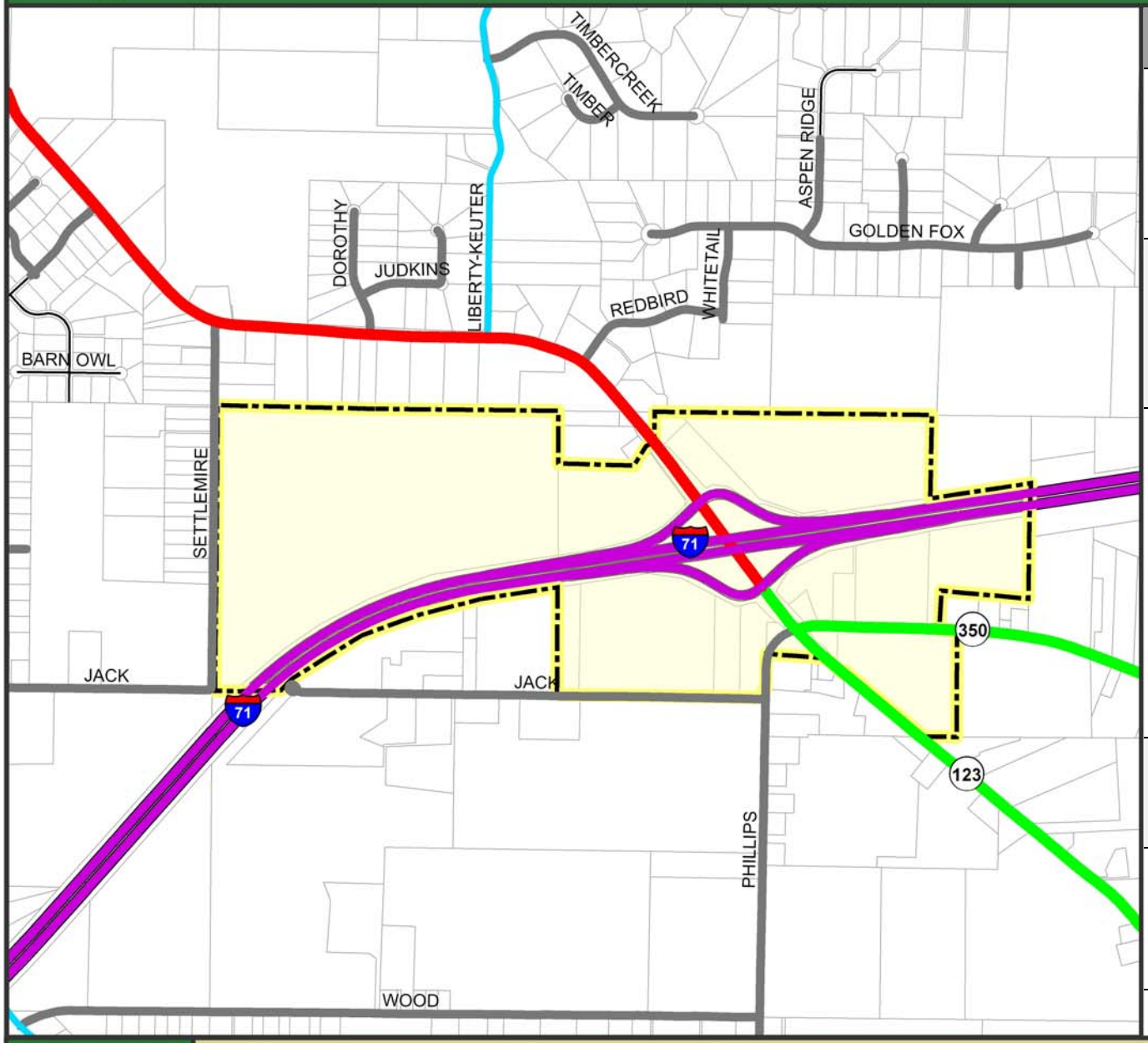
Road Classifications

Functional classification is a concept that categorizes roads into different classes based on the kind of vehicular travel they are intended to accommodate. Three roadway functional classes are found within the study area: primary arterials, secondary arterials, and local roads. Arterial roadways are intended to carry traffic over longer distances and are more regionally oriented in terms of function. Local roads are intended primarily to provide access to individual parcels of land, while collector roads are the logical step between the two classifications. The study area has a total of 2.25 miles of roadway with the majority of these roadways being low-volume, secondary arterials. The functional classification of roads in the study area is determined by The Warren County Engineers Office and is illustrated in *Figure 4.1* on the following page.

Traffic Volumes

Traffic volumes along I-71 and SR 123 serve as indicators of the market potential for developments that serve motorist as well as factors influencing industrial and commercial development. Within the study area, year 2010 traffic volumes along Interstate 71 range from 36,130 to 36,520 Annual Average Daily Traffic (AADT). This represents a lower volume of traffic, compared to segments of the interstate within Deerfield Township and the City of Mason (82,750 AADT). However, similar traffics volumes may be expected upon full build out of the study area. Traffic volumes along the two secondary arterials (SR 123 and SR 350) are growing, but are still generally under 10,000 trips per day. There are no major destinations that attract large volumes of traffic to the study area. *Figure 4.2* on page 38 shows both the current and projected traffic counts for the study area. As development continues, AADT volumes will increase, particularly on the segment of SR 123 north of the interchange.

Figure 4.1 - Road Classifications



Definitions	
Interstate	Intended for the uninterrupted flow of inter- and intra-state traffic through an area at the highest speed relative to all other thoroughfares.
Primary Arterial	Typically the most direct link between urban and rural communities as well as major traffic-generating land uses and attractions.
Secondary Arterial	Generally carry a lesser through-traffic volume (compared to primary arterials) over shorter distances by linking lower functioning thoroughfares, less intense use attractions, and smaller rural communities to higher functioning thoroughfares, larger populated communities, and more intense land uses.
Collector (Minor)	Intended as the first link between local roads for land access and higher functioning roads.
Local	Intended to provide access for land uses that are located along them, such that through-traffic movement is often discouraged.
Source:	Warren County Thoroughfare Plan

Legend

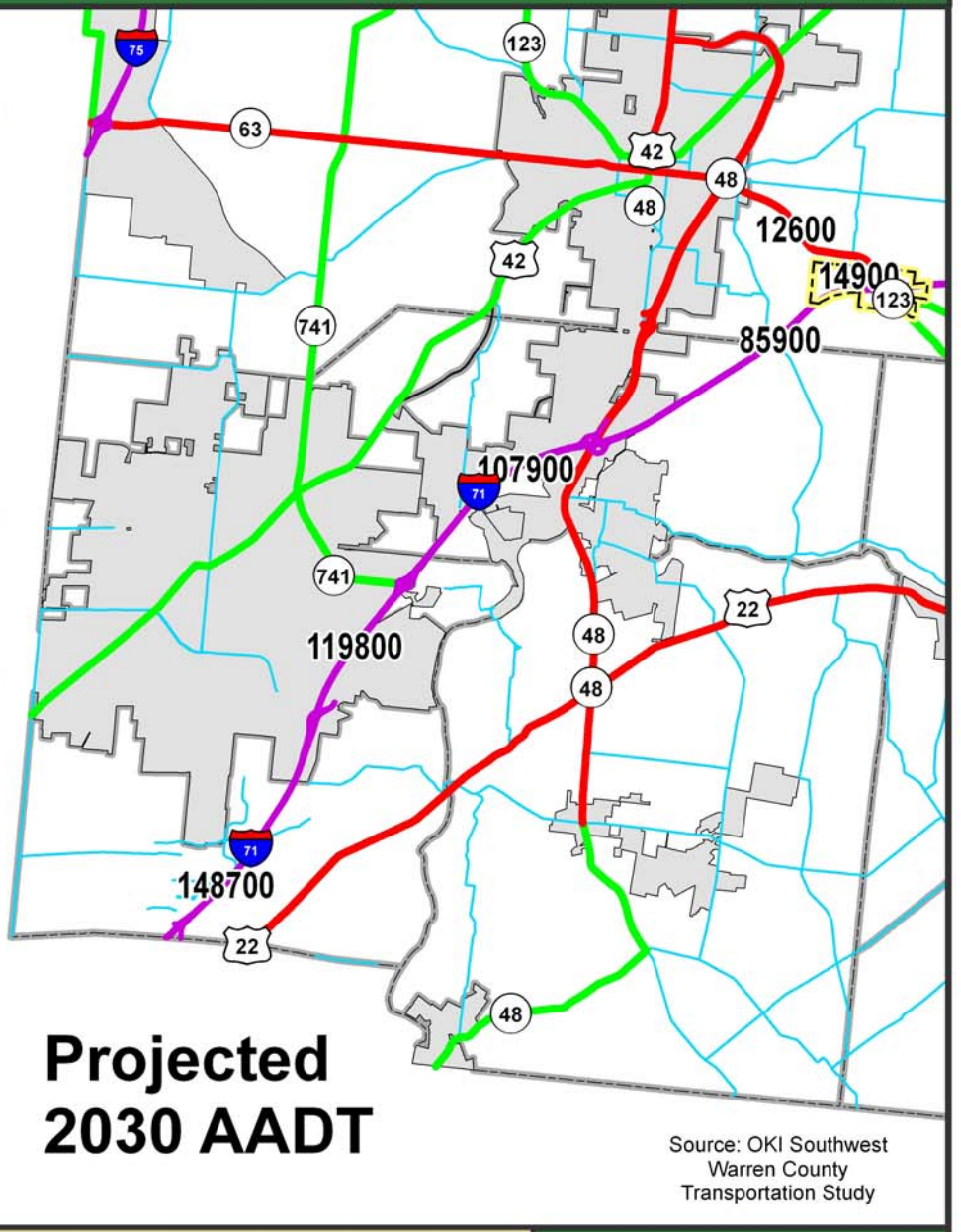
Study Area Boundary
Parcels
Collector
Primary Arterial
Secondary Arterial
Interstate Arterial
Local

N W E S

1 inch = 1,500 feet

Feet
0 375 750 1,500

Figure 4.2 - Traffic Counts



N W E S 1 inch = 2,500 feet Feet 0 6251,250 2,500

Collector
Primary Arterial
Secondary Arterial
Interstate Arterial
Local
Study Area Boundary
Political Boundary
Parcels

N W E S 1 inch = 2 miles Miles 0 0.5 1 2

Roadway Safety

While some roads have been upgraded to current standards, some have changed little from the time when originally constructed and have substandard lane and shoulder widths and have substandard horizontal and vertical alignments. This situation may result in safety issues and limits the capacity of the roadways to serve anticipated industrial and commercial traffic demands. Currently no major improvements to the transportation infrastructure have been slated for the next few years within the study area.

ODOT collects crash data for use in analyzing and evaluating traffic operations. Such data is useful in prioritizing resources and applying for grants. The accident analysis, shown in *Figures 4.3 and 4.4*, indicates that there are no major problem intersections or alignments. In the three-year period from 2008 to 2010, there were 33 total crashes within the study area, seven of which resulted in injury. Fifty-eight percent of those crashes occurred away from road intersections.

Access Management: How and where road access is allowed is one of the greatest influencing factors on the overall performance of roads. Direct access to properties must be balanced with the use of a roadway to move traffic. The access management techniques for a given roadway must be appropriate for the facility with respect to the roadway classification, traffic volumes, adjacent land uses, and traffic speeds. Warren County has access management standards that promote safe and efficient use of County and Township roadways. Similar techniques are used by ODOT for state roads.

Development Review: The County and ODOT currently require developers to submit a traffic impact analysis, prepared by a licensed professional engineer to determine if the traffic volumes generated from the development will surpass the capacity of the road system and/or result in a reduction in level of service. This analysis is submitted with development plans at the appropriate point in the development approval process and provides the Warren County Engineers Office with the opportunity to address safety and capacity concerns. Developers are typically required to make roadway and other transportation improvements to mitigate the impacts of the proposed development.

Figure 4.3 – Frequency of Crashes by Severity (Study Area)

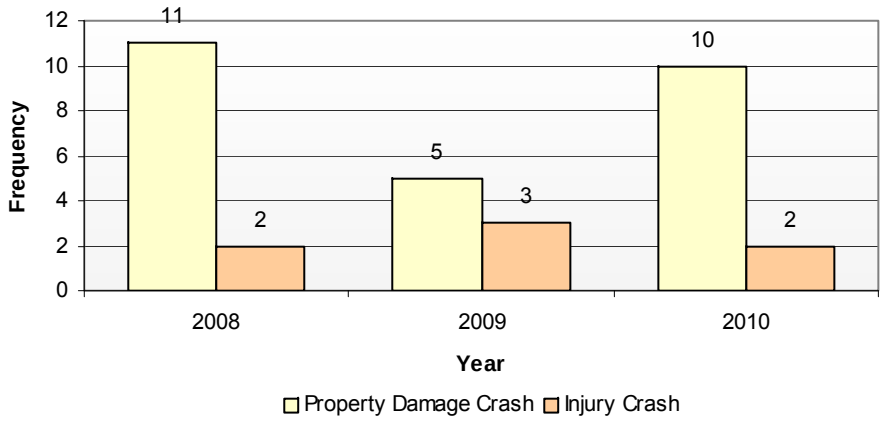
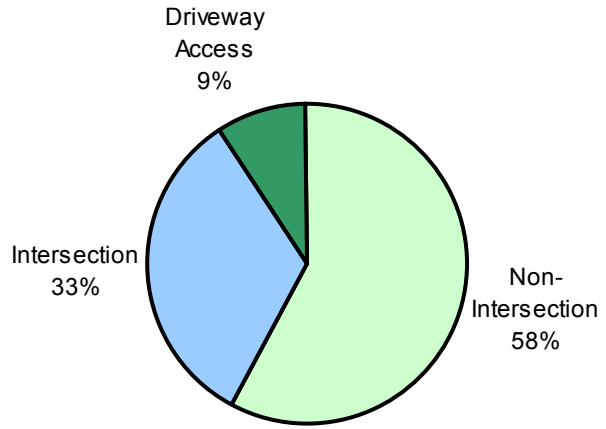


Figure 4.4 – Frequency of Crashes by Location (3-Yr Avg. for Study Area)



Source (Fig 4.3 – 4.4): Warren County Engineer's Office

Table 4.1 – Roadway Characteristics

Road Classification	Interstate	Arterial			Collector	Local		
		Primary (Rural)	Secondary			Primary		Secondary
Road Name	**I-71**	**SR 123 (north)**	**SR 123 (south)**	**SR 350**	**Liberty-Keuter Rd.**	**Settlemire Rd**	**Phillips Rd**	**Jack Rd (east)**
Ownership	ODOT	ODOT	ODOT	ODOT	Turtlecreek Twp	Tutlecreek Twp	Turtlecreek Twp	Turtlecreek Twp
Function	Interstate travel	Primary arterial; connects to I-71 and Lebanon	Minor arterial; connects to I-71 and Morrow	Minor arterial; connects to SR 123	Collector; connects to SR 123	Local Primary Street; connects to SR 123	Local primary street; connects to SR 123	Local secondary street; provides local access.
Length in Study Area (miles)	1.34	0.32	0.21	0.28			0.13	
Speed Limits (mph)	65	55	55	45	55	55	55	55
Number of Lanes	4	2	2	2	2	2	2	2
Lane Striping	Pavement markings used to delineate travel lanes.	Pavement markings used to delineate travel lanes.	Pavement markings used to delineate travel lanes.	Pavement markings used to delineate travel lanes.	Pavement markings used to delineate travel lanes.	Has centerline striping and edgeline striping.	Has centerline striping and edgeline striping.	Has centerline striping and edgeline striping.
Bicycle/ Pedestrian Facilities	None	None	None	None	None	None	None (bike lane proposed)	None
Type of Traffic (truck, local traffic)	Regional and truck traffic	Local traffic	Local traffic and truck for portion	Local traffic and truck for portion	Local traffic	Local traffic	Local traffic	Local traffic
Thoroughfare Plan ROW Width (feet)	Varies	105	102	102	80	50	50	50
Width of Travel Lanes (feet)	12	12	12	12	9	9	9	9

ISSUES & OPPORTUNITIES

Based on the analysis of existing conditions, as well as input from the Planning Advisory Committee and members of the community, a number of existing transportation issues have been identified. Major issues include the following:

Increased Traffic: Major developments will attract substantial new traffic to the area and with no infrastructure plan in place, roadway conditions will deteriorate even under the existing zoning scenario.

Connectivity: The road network is not as connected as it could be. As a result, the road network does not allow for optimal development of the study area's large tracts of land. The road network supporting the study area is limited and access relies substantially on SR 123 or SR 350. Several parcels, particularly those in the northwestern portion of the study area have very limited access to major roadways. Likewise, properties along Settlemire Road and Jack Road have indirect access to the interstate.

Inadequate road designations and cross sections: Existing roadway cross-sections (Jack, Phillips, and the state routes) do not adequately accommodate the proposed land use patterns and anticipated traffic volumes. Alternative road cross-sections need to be explored. In addition, future roadway connections or enhancements and other improvements are needed to support future growth.

Impacts on local roads and residential areas: New industrial development could generate secondary impacts to surrounding residents (Settlemire Road and residents north of the study area). Traffic, air, and noise pollution as well as visual impacts are all primary concerns. This plan must address how new development in the study area will impact the carrying capacity of the local transportation infrastructure and surrounding residents in particular, before a new east/west road is constructed.

Opportunities for new, "complete" streets: The residential character of Settlemire Road may be incompatible for access to industrial and commercial development. The proposed road extension shown on page 44 promotes interconnectivity, and encourages multi-use, "complete" streets. These strategies prevent overloading Settlemire and other existing streets with traffic, which can be a deterrent to businesses and surrounding residents.

Pedestrian and bike paths: As is the case for the pedestrian environment, bicycle access and connections are very poor and there are major barriers to bicycle linkages.

Topography: The widths, alignments, and grades of the roads, sometimes influenced by topography, limits the possibilities of adding new routes to the network to enhance connectivity. However, circulation can be improved by extending select roads (Liberty-Keuter Road to Turtlecreek-Union Road) to create a complete system.

Visibility: Commercial and industrial developers often seek highly visible and accessible properties, preferably on roads with high traffic volumes and, optimally, at an important intersection.

Access management and design review: If a particular new business is successful, it will change traffic patterns and may disrupt the efficiency of the larger transportation system. Access and development can be better accommodated through development review and with a particular focus on internal circulation, cross connections, and minimizing driveway access points.

ODOT regulations: The minimum spacing for a new signalized intersection is approximately 600 feet from the Interstate 71 interchange.

VISION

The study area is strategically located for industrial and commercial development due to its proximity to I-71. If this area is to develop to the extent envisioned, the transportation network serving it must provide internal access and accommodate the expected increase in traffic, including the heavy vehicles associated with industrial uses.

The transportation network must support the development of a variety of flexible sites for small, local, or start-up businesses, as well as sites for large national or regional enterprises. The road system should be designed

to encourage convenient circulation including multiple access points to help disperse traffic. Likewise, a complete system of streets, sidewalks, and bicycle paths would help improve circulation within the area and connections to the surrounding roadway transportation network.

Goals

The transportation system plays a critical role in implementing the vision and strengthening the area's ability to accommodate the envisioned development opportunities. In this regard, the following six goals were identified.

1. Improve traffic movement through the study area and preserve the integrity of the interchange/arterial road system and the proposed road network over the long-term.
2. Support new development in accordance with the Land Use Element by emphasizing the importance of developing an employment and industrial center and attracting key employers that will benefit the JEDD— develop a collector road system that moves truck traffic efficiently.
3. Improve the operating efficiency of existing roadways.
4. Create transportation infrastructure and promote land use patterns that encourage the sustainable use of resources and reduces demands on natural resources.
5. Minimize the negative impacts of transportation on existing and future neighborhoods.
6. Attain a safe, healthy environment and protect capacity through necessary roadway expansion and a sound access management program.

IMPLEMENTATION

The Proposed Road Network

The road system plays a major role in the success of the study area, providing safe, convenient access and circulation to businesses. The proposed road network is composed of arterials, collectors, and local roads as shown in *Figure 4.6* (page 44). The map identifies proposed collectors and key local roads that provide connections to existing arterials and the interstate. Generally, local roads are to be planned and designed by developers based on the various design considerations provided in this Plan or more detailed future road plans. The collector systems should be planned, designed, and built in partnership with the City, Township, County, and the private sector. The alignments and designations in the Plan are conceptual and subject to further study.

Traffic and Interconnected Streets

Establishing a sound and effective transportation system for the study area will involve significant coordination among various jurisdictions, as well as the design considerations that make roads effective for industrial and commercial operations. To optimize the network's performance for local and through traffic, special consideration must be paid to connectivity and design in addition to access control and road classifications.

Connectivity: The road layout proposed for the study area enhances connectivity and maximizes the efficiency of the transportation network, facilitating local and regional circulation. The Plan presents a system of collector roads with multiple routes and connections. The proposed connectivity will allow greater access for fire, medical, and law enforcement and enhance accessibility to the interstate. The proposed network, design, and access policies results in the following benefits:

- More direct routes to I-71 and with shorter trips.
- Multiple routes can relieve or minimize congestion.
- Improved access to development sites.
- Emergency service response times will be shorter.

The Plan has proposed a complete network of arterial, collector, and local roads to ensure reasonable connectivity throughout the area and support the improvement of the local road system in association with the development

of individual properties.

Road Design

All roads should be constructed in accordance with the design element set forth in the Warren County Thoroughfare Plan and built to the highest standards of acceptable engineering practice. Roads should be designed and sized to optimize industrial and commercial vehicular traffic and should be designed to accommodate vehicles with large turning radii. These roadways are basically local roads and collectors that route industrial vehicles to I-71. Travel lanes should be 12 feet in width and new roads should incorporate sidewalks, walkways, or pathways as shown in *Figure 4.5* below.

Pedestrian & Bicycle Circulation

The Plan envisions that pedestrian and bicycle traffic will be accommodated and encouraged within the study area. It is also envisioned that new roads will be constructed to safely and comfortably accommodate these users. In addition, the Plan illustrates a trail/multi-use path network along Phillips Road. This network is intended to connect to an existing and future regional network in and around the study area. It is envisioned that the trail network will function as a recreational amenity and serve as an alternative transportation mode to and from the industrial/employment center.

Figure 4.5 – Conceptual Street Cross Section

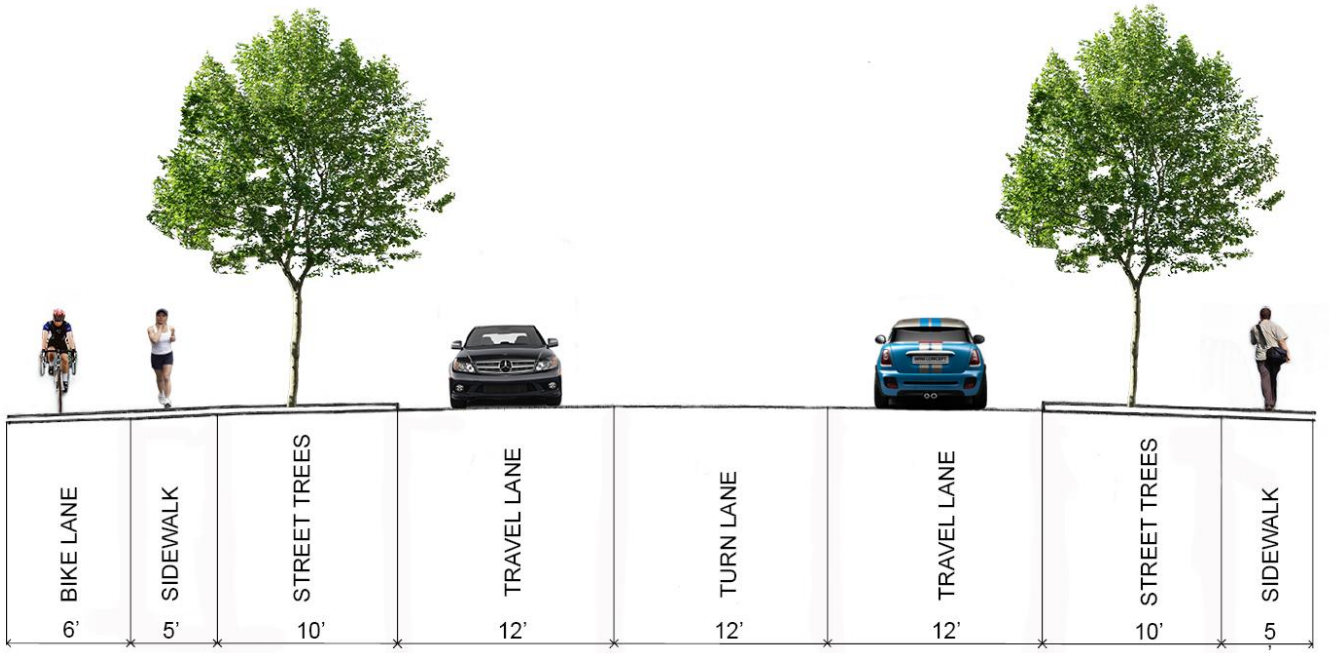
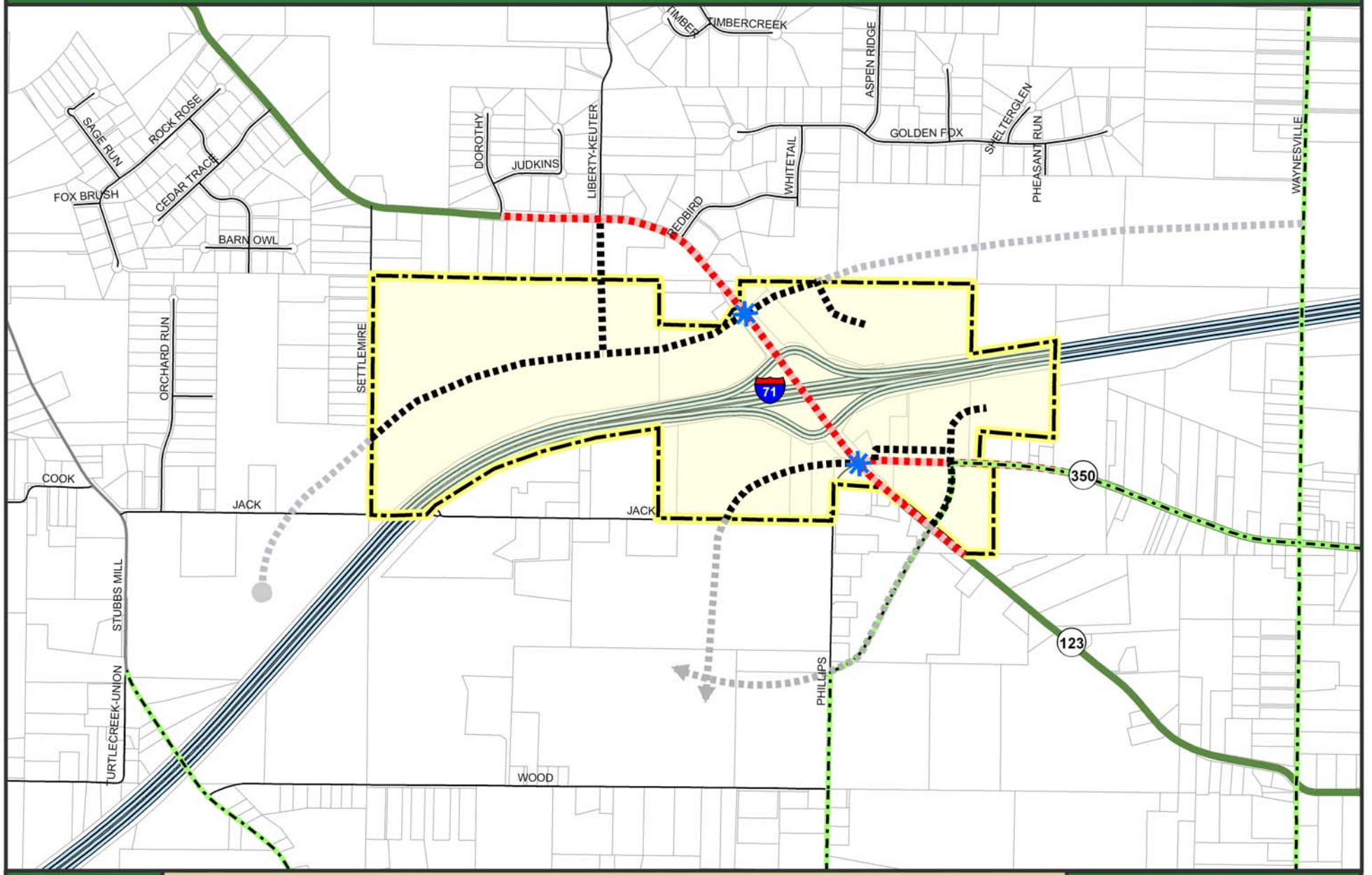


Figure 4.6 - Conceptual Road Improvements



Legend

- Study Area Boundary
- Parcels
- Potential Extention (Cal-de-sac/dead end)
- Future Extension
- Proposed Roads
- Road Widening/Re-striping
- Proposed Shared Bike Lane
- Traffic Signal

N W E S

1 inch = 1,500 feet

0 375 750 1,500 Feet

Conceptual Road Improvements

Major elements of the proposed road plan (*Figure 4.6*) include:

- A road parallel to I-71, approximately 600 feet to the north of the interchange, which connects Waynesville Road to Turtlecreek-Union Road. This road should be constructed to collector road standards and provide more direct connections to I-71. This concept allows for additional development sites between the interstate and SR 123. The construction of this road will also add capacity and improve safety conditions within the northern portion of the study area. This proposal also ensures that Settlemire Road does not become congested by excessive development and does not serve as a major access point for industrial and commercial development. This road will end in a cal-de-sac south of Jack Rd (west of I-71), instead of being a throughway to South Lebanon, enabling development within the study area to be more destination oriented.
- A connection from the proposed road to Liberty-Keuter Road. This road extension will alleviate traffic congestion at the new intersection created for the new east-west road located north of I-71.
- Realignment of Jack Road (east of I-71) and Phillips Road will improve roadway safety within the southern portion of the study area. This will improve traffic patterns around the SR 123/SR 350 intersection and prevent truck traffic from entering residential streets. Phillips Road will be rerouted in a northeast-southwest orientation towards SR 123 with possibilities for a shared bike lane, while a new road will be extended from SR 350 over to Jack Road and potentially beyond the study area.
- A cross access easement and new road along the northern side SR 350 to improve access management and minimize curb cuts for existing and future businesses.
- Roadway design standards that include pedestrian/bike amenities, aesthetic features, and practical mobility considerations. Additionally, the Plan envisions that certain sustainability elements be included in the roadway design to manage stormwater runoff and ensure water quality. The study area roadway designs should address and accommodate the following fundamentals:

    a. Safely and effectively accommodate semi-truck and industrial vehicles;

    b. Provide pedestrian sidewalks and/or multi-use paths;

    c. Plan for bicycle traffic along the roadways in the study area and provide designated/shared bicycle lanes;

    d. Create an attractive streetscape that identifies the study area as a unique part of the community. This should include uniform landscaping and streetscape elements; and

    e. Incorporate stormwater management/water quality facilities into roadway design.

Gateways

As part of the 71/123 Area Plan planning process planning, the Planning Advisory Committee discussed how the study area would serve as a gateway for the community. Gateway planning can promote a positive impression of a particular area and the community as a whole.

Gateways are essentially the front door of a community that provides a unique identity and sense of place. As a visitor approaches the study area, the sequence of views forms a first impression— this impression can be positively or negatively affected by the appearance of the study area. Linking the sequence of views together with common elements will give the area its own identity. The image at the I-71 interchange and entryways to the study area will let travelers know they are going through a special place and should invite travelers and visitors to discover the area. The basic premise of the gateway recommendations below is that a unique and memorable visual statement can be made along I-71 and entrances to the study area through the repetition of noticeable landscaping, signage, and an

enhanced SR 123 overpass to create a visual theme. The study area should be "memorable" in that it would contain features that would attract the attention of the motorists and be remembered.

Strategies: Some of the gateway planning objectives can be achieved with current regulatory and design standards or aesthetic controls (i.e. the landscaping tools and buffer requirements addressed in *Article Three, Chapter Four: Landscaping and Screening Standards* of the Warren County Rural Zoning Code). Other supporting features such as business signage should also be reviewed to help support the desired effect of the Plan. Much of the proposed improvements would be provided as part of the substantial amount of new development that is anticipated and the major public improvements that are planned. Some additional improvements to developed areas and existing right-of-ways are also proposed to fill gaps in improvements, resolve unsightly areas, and complete the project. The idea is that attractive, impressive gateways may be achieved by directing all available resources to contribute to a consistent theme.

The Plan recommends the development of a distinctive theme or visual impression through a combination of consistent and attractive public improvements at approaches to the interchange and consistent landscape materials within the privately developed, landscaped areas that adjoin the Interstate. The existing SR 123 overpass would be retrofitted with distinctive decorative treatments to convey a consistent, special pattern. The Plan proposes that the interstate traveler be exposed to repetitive design elements that would make the study area memorable. It is recognized, however, that landscape areas adjoining the interstate, but outside of the right-of-way, will command much of the attention of the traveler. Such areas will be subject to development review.

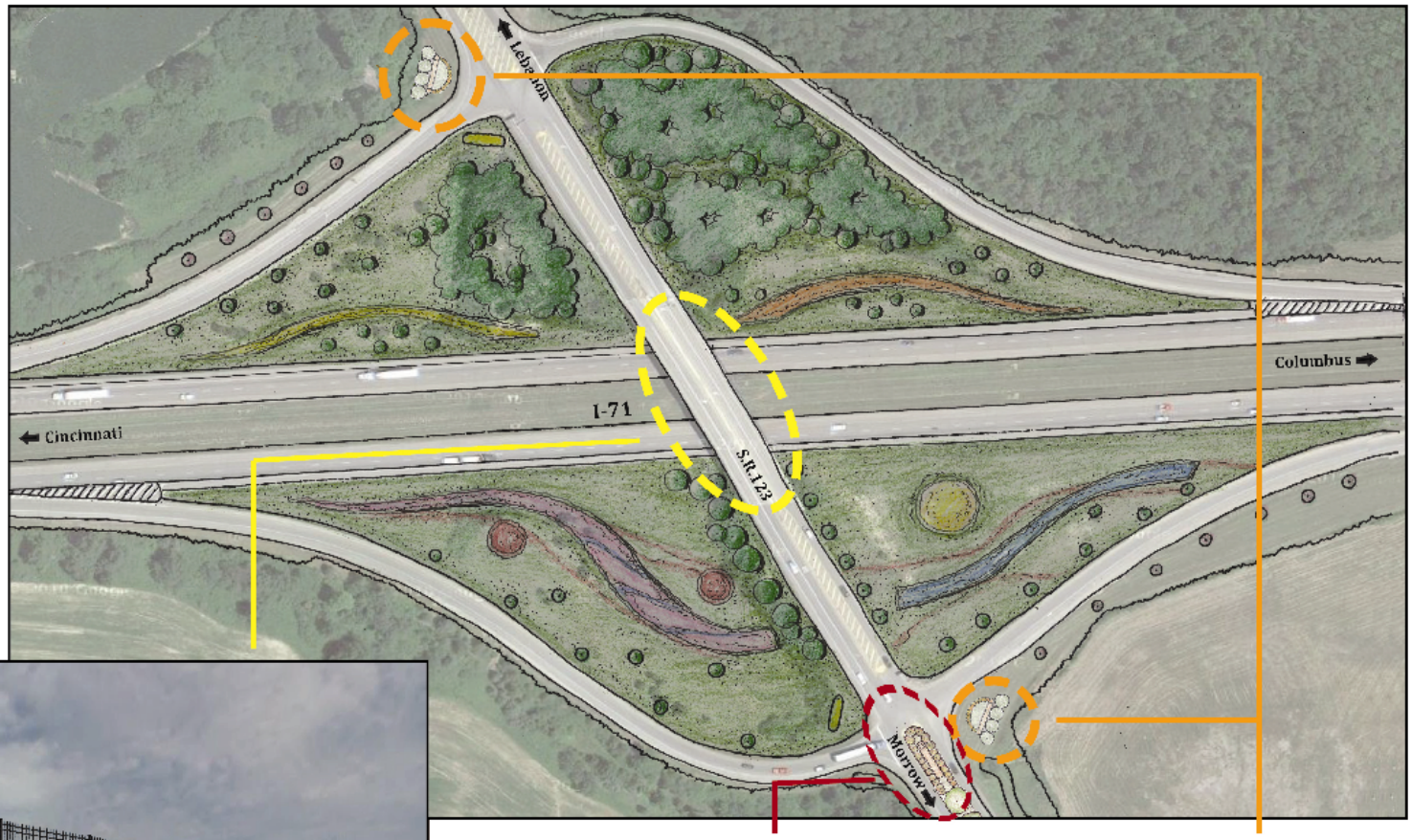
The Concept Diagram, depicted in *Figure 4.7* on the following page, highlights the locations and future improvements that would implement these recommendations. The improvements focus on five entryways to the district; the SR 123 overpass; and approaches to the interchange along I-71. These improvements occur within the existing and proposed road right–of-ways.

In addition, the following basic recommendations for gateway treatments are suggested:

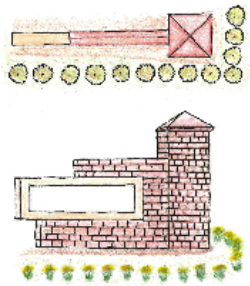
1. Implement gateway aesthetic improvements through careful attention to landscaping, signage, lighting, and materials during development plan review.
2. Design gateway elements to include:
   a. Signage;
   b. Landscaped buffers and landscaping that screens undesirable views; and
   c. Planted medians.
3. Follow ODOT guidelines when implementing gateway aesthetics within Interstate or State Route right-of-ways.

West Chester, OH: The roundabout and clock tower pictured here, is a good example of an attractive gateway that is located off of Union Centre Boulevard.

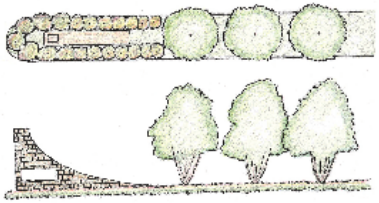
Figure 4.7 – Conceptual Gateway Designs



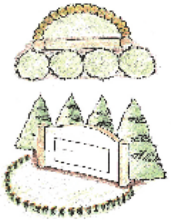
Signage: Option 1



Median Improvements



Signage: Option 2



RECOMMENDATIONS

1. Amend the County Thoroughfare Plan to reflect the road improvements specified in this chapter.
2. Develop a detailed road improvement plan that incorporates the gateway improvements and conceptual road improvements indicated in this Plan.
3. Turtlecreek Township, the City, and County should work together to identify and pursue funding for the following improvements:
    a. A new east/west road off of SR 123 (approximately 600' from the I-71 On/Off Ramp – if permitted by ODOT) in both the northwest and northeast quadrants.
    b. An extension of Liberty-Keuter Road south to the study area.
    c. A new road providing access to parcel(s) in the northeast quadrant, which connects to the new east-west road.
    d. The reconfiguration of Jack Road and Phillips Road.
    e. The incorporation of a cross access easement along SR 350.
    f. Improve the existing roads per the requirements of future Traffic Impact Studies and Access Management Regulations.
4. Work with ODOT and OKI to analyze capacity, operational, and safety concerns at the intersection of SR 123 and I-71, reducing delay time and improving intersection geometry for trucks traveling in the study area. In particular, the study should analyze the suitability of the current on-ramps to accommodate truck traffic.
5. Work with OKI to analyze traffic and circulation needs of the study area.
6. Monitor traffic counts along SR 123 and work with ODOT to determine when and where signal installation is necessary.
7. Some of the above improvements as well as additional improvements identified below should be implemented in conjunction with proposed development, including:
    a. Construct exclusive left-turn lanes on southbound portion of SR 350;
    b. Right-of-way preservation for potential long-term road widening;
    c. Sidewalks and paths constructed on the local road system consistent with County standards;
    d. Relocating driveway access on SR 123 within 600 feet of interchange terminals to satisfy ODOT access management standards; and
    e. Requiring shared driveway access or cross-access easements.
7. Develop a detailed bikeway and pedestrian plan, and construct facilities in accordance with the Plan's recommendations. This plan shall address a variety of ways to realize bicycle and pedestrian improvements. At a minimum, the following should be examined during the development of the plan:
    a. Possible improvements to Phillips Road to accommodate non-motorized travel where appropriate.
    b. Subdivision guidelines to ensure connectivity, consistent design, and construction of bicycle and pedestrian facilities within the study area.
    c. Connectivity to the City of Lebanon and the Little Miami Trail.

CHAPTER 5
ECONOMIC DEVELOPMENT

The purpose of the Economic Development Plan is to guide the City, the Township, and its strategic partners in achieving long-term economic growth and sustainability for study area through a multitude of identified goals and strategies. These goals and strategies are deemed essential for the implementation of an employment/industrial center, job creation, and tax base growth. This will be accomplished through a collection of projects that serve to improve sewer and water service, road connectivity, storm water management, and the beautification of the public realm.

The intended result from this planning effort is the establishment of a Joint Economic Development District (JEDD) and a Tax Increment Financing (TIF) program to facilitate economic development. This Plan is also intended to fulfill the requirement of The Ohio Revised Code Section 715.75(C) for the establishment of a JEDD as an economic development plan for the district consisting of both of the following schedules:

1. *A schedule for the provision of the new, expanded, or additional services, facilities, or improvements described in division (A) of section 715.74 of the Revised Code;*
2. *A schedule for the collection of an income tax levied under division (C) of section 715.74 of the Revised Code.*

STRENGTHS AND OPPORTUNITIES

The 71/123 Area Plan Planning Advisory Committee has completed several meetings and identified the strengths, opportunities, and economic development priorities described below. These values will be used to identify economic development strategies for the study area.

Strengths

The following identified strengths will be used to help market available properties:

- Access to the interstate
- Topography
- Proximity to Cincinnati and Dayton
- Cooperative leadership and strong partnerships
- Few adjacent residential uses
- Large landholdings
- Current zoning and development standards
- Minimal natural constraints to development
- Available land for industrial, commercial, or office development
- Two major state routes

Opportunities

The opportunities identified below will be used to prioritize goals for promoting economic development within the study area and JEDD:

- Economic development
- Control development quality
- Increased tax base
- Opportunity to implement the vision
- Planned district
- Land use categories that target industries are high quality with higher income jobs
- Coordinated provision of infrastructure—to be constructed either before, or concurrent with, new development
- Market location

- Aesthetic improvements (trees, parks, pedestrian connections)
- Interchange and road network improvements
- A diverse mix and range of industrial and commercial uses

Economic Development Priorities

- Create economic prosperity. Growth within the study area will create numerous opportunities for residents and businesses to benefit and prosper. The benefits of high-paying jobs, investment opportunities, and rising property values can be attained.
- Be proactive in providing infrastructure to support, attract, and expand businesses.
- Maximize the study area for industrial, commercial, and office uses in a sustainable and mixed-use setting.
- Educate residents on the need for commercial development to help support taxes and other community costs.
- Establish partnerships.
- Establish priorities; there are limits to the resources (financial and physical) that are available. Therefore, it is important to establish priorities in the implementation of infrastructure.

WARREN COUNTY COMPREHENSIVE PLAN

The 71/123 Area Plan was developed within the framework of the Warren County Comprehensive Plan and is implemented through the County Comprehensive Plan. The Comprehensive Plan provides the following policy directions and recommendations:

1. "*Further review should be done regarding the SR 123 Industrial District's future development. It has excellent access to Interstate-71 and, as utilities are further upgraded and extended, could become a prime business corridor."*
2. *"Specific attention should be given to this area so that the integrity of the site is not damaged due to unregulated growth or zoning/land use in this area."*
3. *"SR 123 Industrial District will need upgrades to infrastructure and zoning controls if it is to continue to be a viable site for future Business and Industrial development."*
4. *"SR 123 … should also be looked at for major improvements and ... could become both a major commercial and industrial access point for both the County as well as Lebanon."*

The Comprehensive Plan concludes that land use issues are key to the successful development of the study area and that the County must implement strong land use requirements to maintain the future integrity of the area. The Plan states that the area has great potential for both manufacturing and research; is suited to handle large volumes of truck traffic from distribution and manufacturing activities; and could be used as a multi-target industry site for various users.

VISION AND GOALS

The study area is one of the most promising expanses of underdeveloped land in Warren County. This Plan recommends planning the area for high-intensity, mixed-use development with business, industrial, research and development, retail, and office uses. This development should be of high quality with excellent design and sustainability components. The study area should be recognized as a major economic development catalyst of the region with the potential for attracting major industries and commercial/office development that create high paying jobs and provide needed services and employment opportunities. This should occur within a mixed-use district of high-quality building and development that enhances the district's image. The goals of the Economic Development Plan are:

1. An increased tax base
2. Job creation
3. The development of the JEDD and the TIF program

The creation of an additional, quality tax base is important to the City, County, and the Township because it helps fund the cost of services and infrastructure. Employment within the study area helps create an increased tax base through income taxes that add substantially to local tax revenues. Businesses also contribute significant sales tax revenue in addition to real estate property tax revenue. Job creation is also an important objective that should focus on key occupations and industries that provide quality jobs. The City and the Township will share income tax revenues generated within the district and work together to provide services.

The establishment of a JEDD and TIF is necessary, in order to plan and develop the necessary infrastructure for industrial and commercial development. The JEDD will also aid in accomplishing the goals of the Warren County and City of Lebanon comprehensive plans and will serve as a means to implement the proposed services, facilities, and improvements set forth in the previous chapters. These improvements will have a direct benefit to current property owners, future companies and their employees operating within the JEDD.

IMPLEMENTATION

The Joint Economic Development District

The JEDD provides benefits to the City and the Township in the form of increased revenue and provides more extensive and efficient services to the district. JEDDs typically occur where neither contracting entity has both the land and the infrastructure to secure further business development and growth, but the two entities together are able to produce both the land for the development and the infrastructure to support the development. To accomplish the goal of attracting new commercial, office, and industrial development to the study area, the City and the Township are considering the formation of a JEDD pursuant to Ohio Revised Code Sections 715.72 through 715.81. As development occurs, it will create and preserve jobs and employment opportunities in the City and the Township. It will also improve the economic wellbeing of the residents in the City, the Township, and the surrounding area. The JEDD sought to be created by the City and the Township is to be known as the Lebanon-Turtlecreek Joint Economic Development District.

The purpose of the Lebanon-Turtlecreek JEDD is to use the assets and strengths of both the City and the Township to attract new development to the area. The large tracts of undeveloped land situated near the I-71 transportation corridors are usually appealing to developers. However, such tracts are currently not attractive to industrial developers because the Township cannot provide sanitary sewer services. On the other hand, the City is in short supply of large tracts of undeveloped land that is otherwise attractive to developers looking to develop large industrial sites.

Accordingly, the City and the Township are proposing to create the Lebanon-Turtlecreek Joint Economic Development District wherein the City will extend sewer lines into the district in order to make the large tracts of undeveloped land in the Township attractive for industrial development. Both are proposing that the Lebanon-Turtlecreek JEDD also levy an income tax in the district to raise revenue to allow each JEDD party to provide improved services in the district and to provide better services to the inhabitants and users of the respective jurisdictions.

The territory that is proposed to be included in the Lebanon-Turtlecreek JEDD is the study area that is outlined in *Figure 1.2* on page 5. A description of the services to be provided to the Lebanon-Turtlecreek JEDD is set forth in Schedule I. The proposed income tax to be levied in the Lebanon-Turtlecreek JEDD is set forth in Schedule II.

Schedule I: The City shall provide sewer services within the Lebanon-Turtlecreek JEDD. The Township will provide fire and police protection and road maintenance services as currently provided and expanded as needed to serve the Lebanon-Turtlecreek JEDD along with any other services that the Township generally provides to unincorporated areas of the Township. All services to be provided within the JEDD by the City or the Township shall be provided in accordance with the official JEDD Agreement between the City and the Township.

Schedule II: A Lebanon-Turtlecreek JEDD Board shall be created and shall levy an income tax in the JEDD Territory in an amount equal to the

income tax levied within the City. The current City income tax rate is one percent (1%), and the City income tax rate may be amended from time to time in accordance with applicable law. The City shall be compensated for its services in the collection and distribution of the income taxes generated by the Lebanon-Turtlecreek JEDD in the amount of two percent (2%) of the total income tax revenue collected within the JEDD. The Lebanon-Turtlecreek JEDD Board shall be entitled to eight percent (8%) of the total income tax revenue collected within the JEDD to pay the operating expenses of the Lebanon-Turtlecreek JEDD Board. The remaining balance of the total income tax revenue collected within the JEDD shall be split evenly between the City and the Township to allow each party to provide services throughout their respective jurisdictions. All income taxes to be levied within the JEDD shall be levied in accordance with the JEDD Agreement between the City and the Township and Ohio Revised Code Sections 715.72 through 715.81.

The economic development of the JEDD is a long-term process that will require a continuous and harmonious relationship with the JEDD partners to achieve the goals, vision, and identity of the district. This Economic Development Plan will enable all entities to focus on the "end product" of development and use these strategies when reviewing development proposals.

Tax Increment Financing

TIF is an economic development mechanism to finance public infrastructure improvements. A TIF works by locking in the taxable worth of real property at the value it holds at the time the authorizing legislation was approved. Payments derived from the increased assessed value of any improvement to real property beyond that amount are directed towards a separate fund to finance the construction of public infrastructure defined within the TIF legislation. TIF funds may implement a number of infrastructure needs including water and sewer lines, public roads, service facilities, and storm water management infrastructure.

A TIF program will be necessary to fund certain infrastructure improvements benefiting the JEDD, including the initial extension of the City's sewer lines to serve the JEDD. The steering committee evaluated several funding mechanisms and supporting institutions that could be used to generate/collect funds and assist with implementation (e.g. TIF, special assessments, corporate or landowner guarantees, and bond finance through the Warren County Port Authority). It is anticipated that the City, the Township, the County, and the Warren County Port Authority will cooperate using the TIF program, certain corporate or landowner guarantees, certain contributions from the City, and certain contributions from key landowners to issue a series of Warren County Port Authority revenue bonds to fund the initial infrastructure improvements benefiting the JEDD.

Funding

Early in the planning process, funding emerged as a high priority issue to both stakeholders and the government entities involved. Despite the obvious need to improve the study area, there is a lack of adequate public funds to finance improvements. There are several challenges to funding infrastructure/sewer improvements including:

- Absence of a committed large commercial project in the immediate future, other than the proposed travel center development;
- Uncertain development pattern and timeframe;
- Need for an immediate reliable revenue stream for bond support; and
- Multi-jurisdictional cooperation.

In light of these challenges, the PAC evaluated funding mechanisms that could generate appropriate levels of revenue in a complex and uncertain environment.

The funding strategies described in this section identify partnerships between property owners and government entities as an integral part of this Plan's success. These partnerships will facilitate development of the area and serve as the foundation for a viable financing solution.

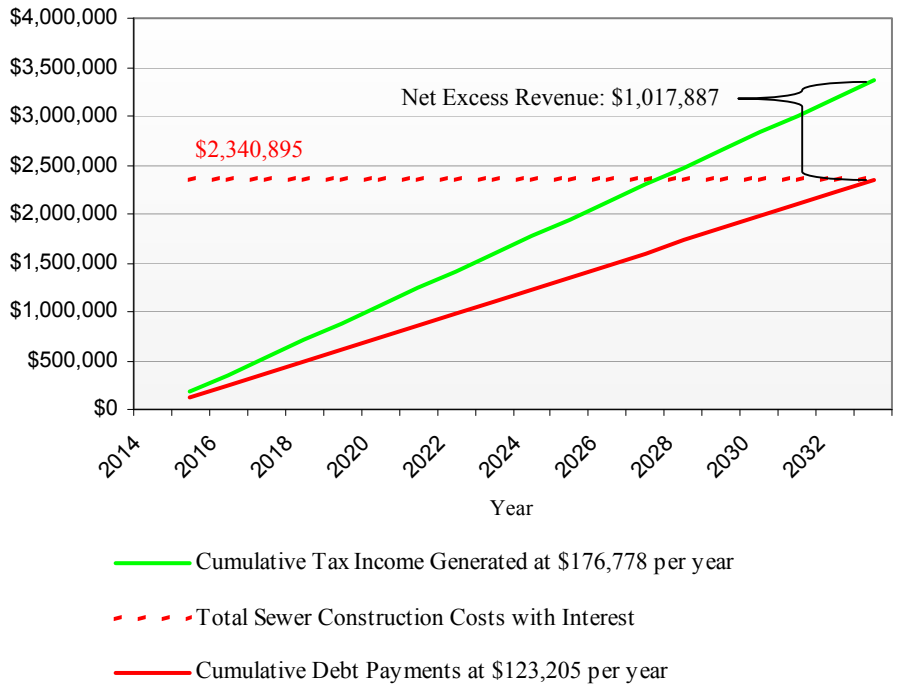
The foundation of the funding mechanisms is the concept that the cost of infrastructure improvements should include participation by those that benefit from the improvements, and that beneficiaries should participate in rough proportion to their degree of benefit. The following section describes the process for identifying and evaluating funding alternatives and developing fair and practical funding mechanisms. Alternatives were evaluated against benefit theory principles and several other criteria, including revenue stream certainty and ability to generate revenue early in the bond payment period. Once an appropriate mix of funding mechanisms was identified, the political feasibility and legislative authority for implementation were evaluated.

The sewer infrastructure plan outlined in Chapter 3 is the primary focus of funding strategies for the JEDD. There are two funding scenarios, described below, that potentially could be used to allocate costs. Each scenario is dependent upon three assumptions 1) the Phase 1 sewer improvements will cost $2.1 million, 2) a new development (the travel center), valued at an estimated $9.2 million after construction, will be locating at the northeast corner of the SR 123 and SR 350 intersection in 2013, and 3) contributions to fund the phase 1 sewer project will be $580,000 in total ($500,000 from the new travel center and $80,000 from the City of Lebanon). Additionally, it is anticipated that the Warren County Port Authority will facilitate the acquisition and ownership of the sewer improvements to enable ease of procurement and speed to market.

The following is a description of the two funding scenarios shown in *Figures 5.1 and 5.2*, each of which contemplate no growth in assessed value with respect to any parcel of real property within the JEDD:

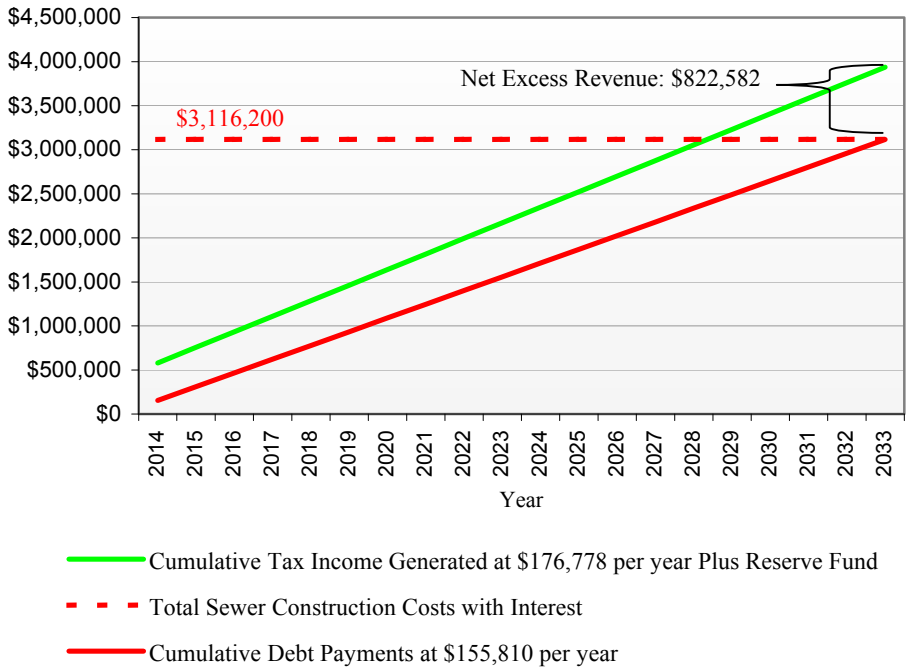
- **Use of Monetary Contributions to Fund a Portion of Project Costs Upfront**: This scenario applies the $500,000 contribution from the travel center and the $80,000 contribution from the City to pay for certain costs of the project as soon as construction begins, with the remaining costs of the project being funded with a Warren County Port Authority revenue bond secured with TIF revenue. Assuming 1) a 20-year finance term at a 3.5% interest rate, and 2) the new development has an assessed valuation at full build out that roughly matches its construction cost and land purchase price estimates, this scenario would produce an approximate $1,018,000 revenue surplus. The annual required bond payment under this scenario is approximately $123,205. Under this scenario, the use of special assessments, corporate guarantees, or landowner guarantees may be necessary in order to provide enough security to make the Warren County Port Authority revenue bond marketable.

Figure 5.1 – Monetary Contributions Used Upfront



- **Use of Monetary Contributions as a Reserve Fund**: This scenario applies the $500,000 contribution from the travel center and the $80,000 contribution from the City to provide a reserve fund for a Warren County Port Authority revenue bond. The entire cost of the project would be funded with a Warren County Port Authority revenue bond secured with TIF revenues and the reserve fund. Assuming 1) a 20-year finance term at a 3.5% interest rate, and 2) the new development has an assessed valuation at full build out that roughly matches its construction cost and land purchase price estimates, this scenario produces an approximate $823,000 surplus. The annual required bond payment under this scenario is approximately $155,810. Similar to the previous scenario, the use of special assessments, corporate guarantees, or landowner guarantees may be necessary in order to provide enough security to make the Warren County Port Authority revenue bond marketable.

Figure 5.2 – Monetary Contributions Used as a Reserve Fund



Both scenarios include an amortization schedule for a 20-year revenue bond on the sewer extension. The assumed bond interest rate is 3.5% and the term of the debt is 20 years with two payments per year. Efforts were made to ensure a bondable, reliable revenue stream and to maintain the appropriate cost/benefit distribution among participants. It is anticipated that a lender or a bondholder will insist upon certain additional security – additional cash reserves, special assessments, corporate guarantees, or landowner guarantees – to ensure its expected return on investment. All revenue raised from the TIF is assumed to be held in a fund supporting debt service payment. The two scenarios are illustrative and the projected revenues are highly dependent upon uncertain projections of the travel center that will likely locate at the intersection of SR 123 and SR 350. If additional funds are identified in the future or if additional infrastructure projects are identified, these scenarios may require modification and additional funding mechanisms will be necessary.

Identity

Turtlecreek Township and the City of Lebanon wish to enhance the image of the study area to promote a sense of place and community. The following strategies should be used to help promote the study area to the industrial, commercial, and office market:

- Brand area for high quality office, commercial, and industrial development.
- Development should be consistent with zoning.
- Development should be harmonious and consistent with adjacent uses.

- Signage should be kept to a minimum.
- Provide aesthetic improvements in the areas of major entrance nodes to the JEDD.
- Provide significant landscaping to break up large expanses of parking lots and open fields.
- Develop a sense of place through uniform lighting, signage, traffic signals and landscaping.
- Expand bike trails and sidewalks to provide alternative forms of transportation.
- Improve access management to reduce conflict points.
- Encourage sustainable development.
- Development should reflect campus-style patterns, which take advantage of clustered buildings and large amounts of open/green space.
- Market available properties and local workforce.

As previously mentioned, the strategies listed above will be a long-term process and it will take continued collaboration with the City, the Township, the County, and others to achieve overall vision of a quality employment center.

RECOMMENDATIONS

The study area represents a key economic development asset that is included in the Warren County Comprehensive Plan. Substantial undeveloped land holdings should be preserved for future office, commercial, and industrial use. Utility service to this area is a top priority. Both water and sewer services are expected to be available in this area by 2013. In addition, the following is recommended:

1. Develop a new TIF program for the designated JEDD that will allow for the expansion and replacement of new infrastructure for businesses (i.e., sewer lines, roads, storm water infrastructure).
2. Expand the JEDD boundary as development occurs in recognition that new development will likely demand sewer service from the City and ensure that water and sewer extensions can accommodate growth.
3. Complete a market assessment of the district to determine the best industrial, commercial, and office uses for the area.
4. Coordinate economic development strategies with the City, the Township, the County, and the Warren County Port Authority, including coordination for the issuance of revenue bonds by the Warren County Port Authority secured by cash reserves, special assessments, corporate guarantees, and/or landowner guarantees.
5. Prepare a capital improvement program (CIP) outlining the tools and funding needed, a schedule for completion, and other necessary requirements.
6. Develop a marketing program or strategies to endorse the study area as good place to conduct business and to promote a sense of identity for the area. Further, enhance the image of the area as an attractive “Gateway” corridor to the City and Township.

APPENDIX A: County Industrial & Commercial Land Use & Zoning

Industrial Land Use & Zoning by Jurisdiction

Townships	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Clearcreek	536.681	3.87%	178.205	5.48%	-	-
Deerfield	22.1.072	1.60%	11.878	0.37%	-	-
Franklin	746.583	5.39%	-	-	19.495	1.56%
Hamilton	1,305.355	9.42%	116.310	3.58%	243.126	19.47%
Harlan	36.907	0.27%	41.627	1.28%	-	-
Massie	-	-	-	-	-	-
Salem	-	-	2.378	0.07%	-	-
Turtlecreek	509.143	3.67%	84.147	2.59%	2.475	0.20%
Union	1,292.622	9.33%	158.596	4.88%	27.719	2.22%
Washington	-	-	0.211	0.01%	-	-
Wayne	37.709	0.27%	6.102	0.19%	6.393	0.51%
Total	**4,686.072**	**33.82%**	**599.454**	**18.45%**	**299.208**	**23.96%**

Cities/Villages	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Blanchester	-	-	-	-	13.466	1.08%
Butlerville	-	-	0.504	0.02%	-	-
Carlisle	436.887	3.15%	92.947	2.86%	23.349	1.87%
Corwin	24.948	0.18%	9.634	0.30%	2.118	0.17%
Franklin	1,603.127	11.57%	448.065	13.79%	229.646	18.39%
Harveysburg	14.774	0.11%	5.059	0.16%	-	-
Lebanon	1,876.723	13.54%	496.044	15.27%	251.233	20.12%
Loveland	-	-	-	-	-	-
Maineville	-	-	1.670	0.05%	-	-
Mason	2,313.084	16.69%	808.591	24.88%	324.662	26.00%
Middletown	-	-	-	-	-	-
Monroe	2,077.826	14.99%	429.261	13.21%	1.182	0.09%
Morrow	-	-	1.481	0.05%	-	-
Pleasant Plain	-	-	-	-	-	-
S. Lebanon	71.543	0.52%	52.909	1.63%	6.509	0.52%
Springboro	752.872	5.43%	303.201	9.33%	97.248	7.79%
Waynesville	-	-	0.702	0.02%	-	-
Total	**9,171.784**	**66.18%**	**2,650.068**	**81.55%**	**949.413**	**76.04%**

	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Warren County	**13,857.86**	**100.00%**	**3,249.522**	**100.00%**	**1,248.621**	**100.00%**

Commercial Land Use & Zoning by Jurisdiction

Townships	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Clearcreek	326.255	2.71%	144.149	3.50%	55.927	2.62%
Deerfield	1,089.331	9.04%	707.152	17.19%	203.049	9.53%
Franklin	525.591	4.36%	40.498	0.98%	16.210	0.76%
Hamilton	514.306	4.27%	193.768	4.71%	93.839	4.40%
Harlan	89.441	0.74%	14.208	0.35%	43.312	2.03%
Massie	-	-	1.411	0.03%	-	-
Salem	380.206	3.16%	30.844	0.75%	13.667	0.64%
Turtlecreek	2,122.222	17.62%	76.514	1.86%	125.089	5.87%
Union	333.241	2.77%	44.510	1.08%	0.484	0.02%
Washington	857.395	7.12%	92.962	2.26%	3.544	0.17%
Wayne	302.503	2.51%	85.939	2.09%	81.610	3.83%
Total	**6,540.491**	**54.30%**	**1,431.955**	**34.81%**	**636.731**	**29.89%**

Cities/Villages	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Blanchester	-	-	1.070	0.03%	-	-
Butlerville	-	-	0.944	0.02%	0.196	0.01%
Carlisle	127.938	1.06%	83.575	2.03%	10.568	0.50%
Corwin	31.716	0.26%	15.124	0.37%	15.134	0.71%
Franklin	566.698	4.70%	295.821	7.19%	111.115	5.22%
Harveysburg	36.393	0.30%	25.924	0.63%	5.498	0.26%
Lebanon	760.817	6.32%	372.685	9.06%	266.651	12.52%
Loveland	-	-	5.332	0.13%	2.444	0.11%
Maineville	18.668	0.15%	6.936	0.17%	0.611	0.03%
Mason	1,677.036	13.92%	516.086	12.55%	451.409	21.19%
Middletown	1,257.914	10.44%	507.398	12.34%	148.824	6.99%
Monroe	422.159	3.50%	270.873	6.59%	70.642	3.32%
Morrow	122.240	1.01%	31.589	0.77%	18.565	0.87%
Pleasant Plain	-	-	6.681	0.16%	1.265	0.06%
S. Lebanon	143.079	1.19%	201.767	4.91%	128.933	6.05%
Springboro	252.543	2.10%	263.487	6.41%	246.639	11.58%
Waynesville	87.513	0.73%	75.854	1.84%	15.355	0.72%
Total	**5,504.714**	**45.70%**	**2,681.119**	**65.19%**	**1,493.849**	**70.11%**

	Zoned Ac	% Cnty	In Use Ac	% Cnty	Vacant Ac	% Cnty
Warren County	**12,045.21**	**100.00%**	**4,113.074**	**100.00%**	**2,130.580**	**100.00%**

APPENDIX B: Demographic Profile

Population

According to the last decennial census (2010) Warren County had a total population of 212,693. The area around the interchange, comprised of all the jurisdictions shown in *Figure A.1*, had a total population of 46,978 in 2010. The western portion of the interchange consisting of Lebanon and the majority of Turtlecreek Township is much more populous when compared to the eastern and southern portion consisting of Union, Salem, and Washington Townships, which are largely rural. Turtlecreek Township is also rural, but has a much larger population count because it encompasses a larger area. This population distribution affects commute patterns to the interchange.

Figure A.2 to the right shows trends in how Warren County has grown historically from 1970 to present and also provides two different growth scenarios. One is a linear growth scenario in which the County is projected to have 260,000 people by the year 2030; the other is an exponential growth scenario in which the County is projected to have 320,000 people by 2030. Much of the County's growth has occurred around the interstate corridors as a result of suburban expansion from Cincinnati and Dayton.

Figure A.1 – 2010 Population Comparison

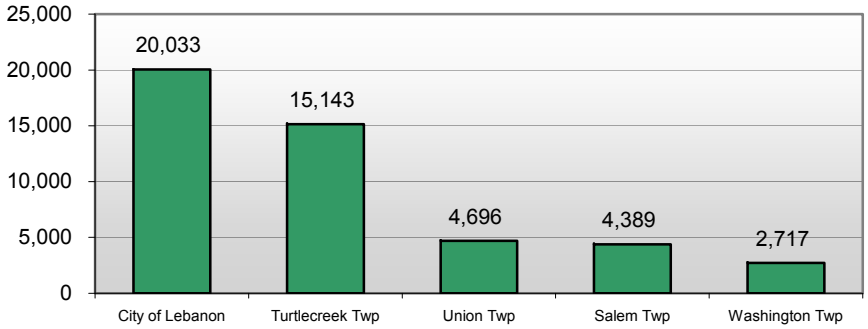
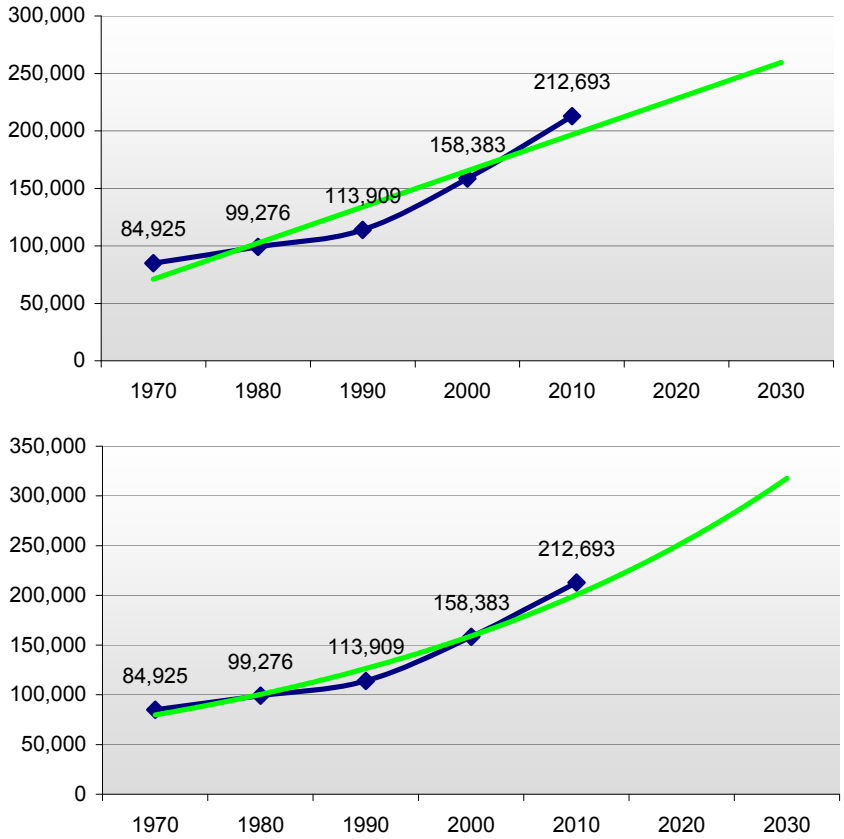


Figure A.2 – Projected Population of Warren County



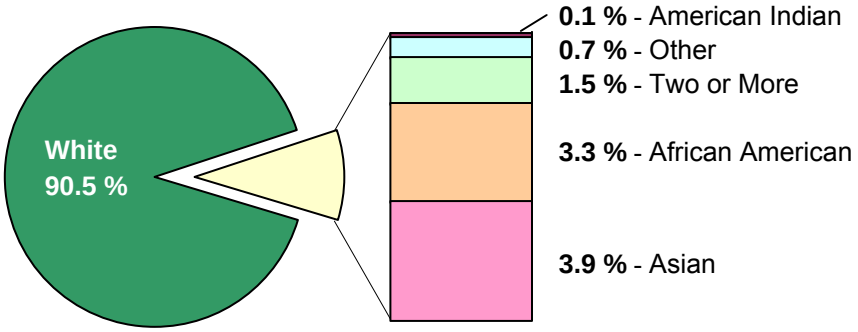
Source (A.1 & A.2): U.S. Census Bureau and Warren County Regional Planning Commission

Race, Ethnicity, and Age

The following set of figures describe the race and age of citizens within Warren County. According to the latest U.S. Census, Warren County is predominantly white with 9.5 % minorities. Asians and African Americans represent the largest minority groups at 3.9 % and 3.3 % respectively.

Figure A.4 below shows that there are two fairly predominant age groups within Warren County, youths (under 19) and middle age (35 to 55), which strongly indicates that there are a significant number of family households in the area. When comparing the median age of local jurisdictions around the interchange (*Figure A.5*), the rural townships tend to be slightly older with a 43.5 median age in Salem Township compared to a 34.7 median age in the City of Lebanon.

Figure A.3 – Racial Composition of Warren County



Note: 2.2 % of Warren County residents identify themselves as Hispanic.

Figure A.4 – Age Distribution of Warren County

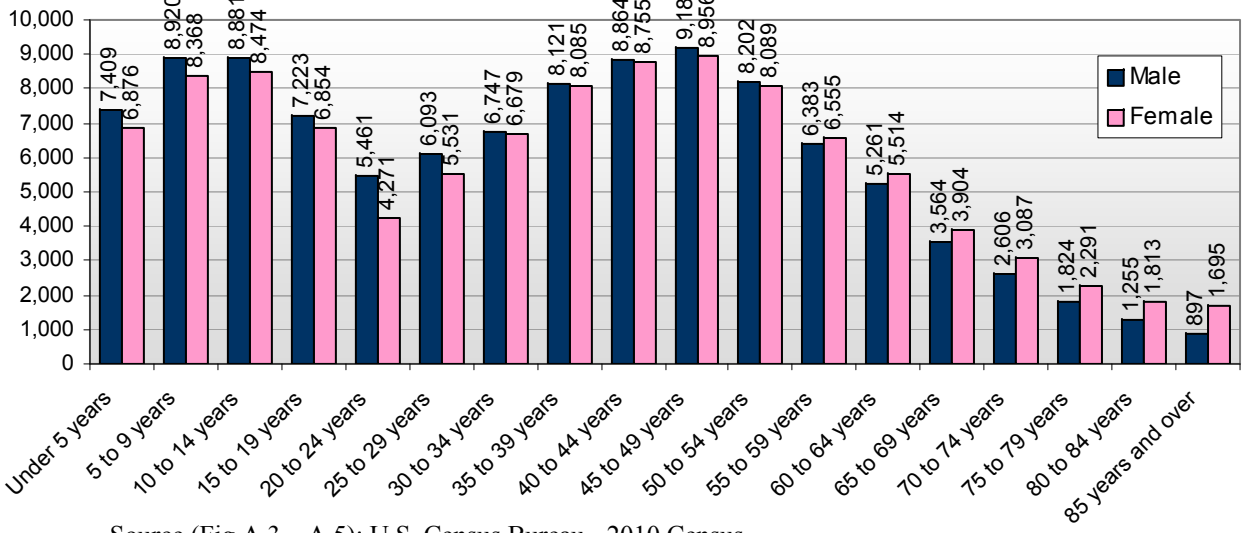
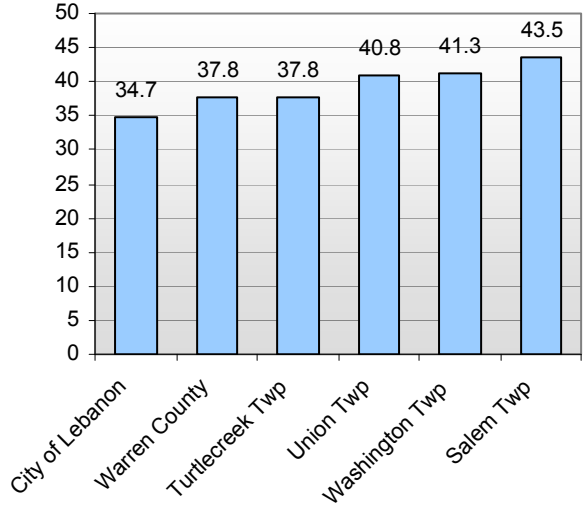


Figure A.5 – Median Age Comparison



Source (Fig A.3 – A.5): U.S. Census Bureau - 2010 Census

APPENDIX C: City of Lebanon Freeway Commerce District Standards

The Freeway Commercial District permits larger format office development in Lebanon and allows limited retail to serve office employment. The following are guidelines for development in the Freeway Commerce District:

Office

1. Maximum 15,000 sf/acre -18,000 sf/acre office buildings.
2. Maximum six (6) stories.
3. Must be compatible with surrounding uses and densities. Buffering must be provided between freeway commercial developments and existing or planned residential areas contiguous to the site.
4. Iconic architecture is encouraged.
5. Use of green building and site design techniques are encouraged.
6. Arrangement of buildings should be organized to create organized greenspaces and attractive corridors. A building surrounded by parking is not permitted.
7. Parking must be located to the side or rear of the primary building facade. Common parking areas are encouraged to reduce overall parking needs and size of parking lots.
8. Landscaping must be incorporated into the site and be compatible with the character of the area.
9. Drainage infrastructure within this district should be coordinated whenever possible to reduce the need for ponds on each individual site. Drainage infrastructure must be wet and pond edges must be naturalized.
10. Site lighting must be attractive and no light spill can occur on adjacent properties.
11. Provisions for amenities within the development, like walking paths, well organized open spaces, and bikeways are required throughout the development and connections must be made to existing or planned Lebanon trails.
12. Connections must be made wherever possible to existing non-residential developments and stub streets must be constructed to any neighboring non-residential undeveloped parcels.
13. All facades that face roadways must have a presence on the street or freeway.

Retail

1. Retail uses may be no larger than 6,000 sq ft per acre to 8,000 sq ft per acre and no greater than 2 stories.
2. Small-scale convenience retail and restaurants are permitted to serve the office users.
3. Parking for the retail uses must be located to the side or rear of the primary facade of the building.
4. Retail developments must connect with office uses and must include pedestrian and bicycle connections to the greater sidewalk and trail network.
5. Design of site, building, and signage must meet the minimum requirements of the Retail District.

Source: City of Lebanon Comprehensive Plan (2009)

APPENDIX D: Amending the 208 Plan

Steps in Amending the 208 Plan

1. The jurisdiction notifies OKI of its desire for a plan amendment.
2. The jurisdiction meets with appropriate OKI staff for a pre-submittal conference to review the amendment process steps, documentation required, and background material.
3. The jurisdiction prepares the request letter and documentation required for the plan amendment and submits it to OKI.
4. OKI reviews the documentation and requests additional documentation as appropriate.
5. OKI makes arrangements for public notification and opportunity for input on the proposed amendment in keeping with federal and state requirements.
6. OKI prepares a staff report and recommendation and summarizes the results of public input for consideration by the OKI Executive Committee (which meets monthly) or Board of Directors (which meets quarterly).
7. The OKI Executive Committee or Board of Directors considers the amendment, staff recommendation and public input and takes action.
8. If approved, the amendment is forwarded to the appropriate state agency for certification by the governor.

This is a 3-6 month process depending on the complexity of the amendment process.

Information Checklist

1. A letter requesting the plan amendment, explaining the reason for the request.
2. Appropriate map(s), preferably in digital form, including:
    a. Boundaries of the current sanitary sewer system and all existing wastewater treatment plants (including packaging plants).
    b. Location of trunk lines and lift stations
    c. Location of any system overflow points
    d. Current Facility Planning Area (FPA) boundary
    e. Proposed FPA boundary, if applicable
    f. Unsewered areas within existing and proposed FPAs
    g. Appropriate jurisdictional boundaries
3. Existing service population and twenty-year population projections for the (existing, and if applicable, proposed) FPA based on best available census data.
4. Description of existing and proposed wastewater treatment options for the FPA including options for the unsewered/undeveloped areas within the FPA.
5. Table(s) showing the plant permit number under the National Pollutant Discharge Elimination System (NPDES), current plant permit limits, current demand, existing plant design capacities, and projected plant capacities.

6. Discussion of how the proposed wastewater treatment options will meet the needs of the proposed population.
7. Discussion of how the proposed wastewater treatment options will be protective of water resources, including streams, rivers lakes, wetlands, and groundwater.
8. Summary of the entity's financial and managerial capability to undertake the proposed project and its projected financial impact on rate payers.
9. Documentation of any public participation involved in proposing the wastewater treatment improvements.
10. Acknowledgements from other jurisdictions located within or adjacent to the existing FPA that they have been notified of the proposal, and copies of any relevant service agreements.

Criteria and Policy Considerations

The following are general criteria the OKI uses in a general sense when reviewing plan amendment requests.

1. Mitigation of public health hazards (such as those due to failing onsite systems).
2. Need for water quality maintenance or improvement and timeliness of service.
3. Adequate wastewater treatment capacity for existing and projected needs.
4. Opportunity for treatment on a watershed or sub-watershed basis (e.g. enables gravity sewers and eliminates lift stations).
5. Existing development patters and population densities suitable for centralized wastewater treatment systems.
6. Local comprehensive plans indicating growth areas for which new infrastructure will be needed, areas where slow growth or no growth is expected, and existing and projected population densities.
7. Financial and institutional capability of management entity or entities.
8. Impact on rate payers
9. Agreement or neutrality among jurisdictions affected and potentially affected
10. Degree and content of public participation.

Source: OKI - Ongoing Areawide Water Quality Management Planning (Chapter 8)

APPENDIX E: Recommendations Checklist

LAND USE & DESIGN (pages 21-22)

- ☐ Amend Plans and Zoning Code
- ☐ Draft Protective Covenants
- ☐ Develop Administrative Policies for Development Review
- ☐ Encourage Transitional Development
- ☐ Screening (emphasis on setback and screening for site intensive uses)
- ☐ Gateways (increased development standards for new development)
- ☐ Develop the JEDD Overlay District

UTILITIES (pages 32-33)

- ☐ Amend the 208 Plan
- ☐ Implement the Proposed Sewer Plan
- ☐ Waive forced tap-in fees for residential properties (within 200 ft of sewer line)
- ☐ Implement the Proposed Water Extension Plan
- ☐ Develop a Master Storm Water Management Plan
- ☐ Create the 71/123 JEDD Overlay District (with specific standards for utilities and stormwater management)

TRANSPORTATION (page 48)

- ☐ Amend County Thoroughfare Plan
- ☐ Develop a Detailed Road Improvement and Gateway Plan
- ☐ Pursue Funding for Road Improvements
- ☐ Work with ODOT and OKI to Analyze Capacity, Operational, and Safety Concerns
- ☐ Work with OKI to Analyze Traffic and Circulation Needs
- ☐ Monitor Traffic Counts along SR 123
- ☐ Implement Road Improvements in Conjunction with Proposed Development
- ☐ Develop a Detailed Bikeway and Pedestrian Plan

ECONOMIC DEVELOPMENT (page 55)

- ☐ Develop a New TIF Program
- ☐ Expand the JEDD Boundary as Development Occurs
- ☐ Complete a Market Assessment of the District
- ☐ Coordinate Economic Development Strategies (City, Township, County, and Port Authority)
- ☐ Prepare a Capital Improvement Program
- ☐ Develop a Marketing Program to Endorse the Study Area