# THE TURTLECREEK CROSSROADS PLAN

State Routes 63 and 741

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COUNTY PLAN ADOPTION RESOLUTION

*BOARD OF COUNTY COMMISSIONERS*
*WARREN COUNTY, OHIO*

# Resolution

*Number* 18-0704 *Adopted Date* April 24, 2018

APPROVE AMENDMENT TO THE WARREN COUNTY COMPREHENSIVE PLAN TO ADOPT AND INCLUDE THE TURTLECREEK CROSSROADS PLAN

WHEREAS, this Board met this 24th day of April 2018, in the Commissioners' Meeting Room to consider an amendment to the Warren County Comprehensive Plan to adopt and include the Turtlecreek Crossroad Plan; and

WHEREAS, this Board has considered all testimony both in favor of and in opposition to said amendment; and

NOW THEREFORE BE IT RESOLVED, to approve an amendment to the Warren County Comprehensive Plan to adopt and include the attached Turtlecreek Crossroads Plan.

Mr. Young moved for adoption of the foregoing resolution, being seconded by Mr. Grossmann. Upon call of the roll, the following vote resulted:

Mrs. Jones – absent
Mr. Young - yea
Mr. Grossmann - yea

Resolution adopted this 24th day of April 2018.

BOARD OF COUNTY COMMISSIONERS

Tina Osborne, Clerk

\tao

cc: RPC (file)
Public Hearing file
Turtlecreek Township

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# ACKNOWLEDGMENTS

The Warren County Regional Planning Commission would like to thank the following individuals for their valuable assistance, input, and guidance in developing this Plan.

## TURTLECREEK TOWNSHIP TRUSTEES

James Vandegrift | Daniel Jones | Jonathan Sams

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## WARREN COUNTY REGIONAL PLANNING COMMISSION

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# EXECUTIVE SUMMARY

## INTRODUCTION

The Turtlecreek "Crossroads," defined by State Route 63 and State Route 741 in western Turtlecreek Township, is an area that will see significant changes over the next several decades including the development of Union Village, the Warren County Sports Park, and portions of the State Property. These changes will bring new challenges and new opportunities to both the Township and the County, that are wholly addressed in the "Turtlecreek Crossroads Plan." The Plan brings two ideas together, "Road Design" and "Placemaking," with the overarching goal of planning roads that are context sensitive. That is, roads that are designed with future development patterns and pedestrians in mind. The vision is for a Crossroads that is safe, accessible, attractive, and unique with specific recommendations to improve State Routes 63 and 741, construct new roadways, create a culture of walking and biking, and to consider "green streets." The vision statement, goals, and key recommendations are provided on the next few pages.

## VISION STATEMENT

*The Crossroads defines a unique sense of place with enhanced fluidity of movement, environmental sensitivity, and connectivity for residents, workers, and visitors incorporating transportation modes of all types, including cars, bikes, and pedestrians. The Corridor enables an active pedestrian life and integrates residential, commercial, recreation, education, faith, and retail. The streetscape is safe, accessible, and uniquely Turtlecreek Township with unifying gestures and green space that make it an attractive thoroughfare with irresistible gathering places.*

# EXECUTIVE SUMMARY

## ROAD DESIGN

**Goal 1: A safe, accessible, sustainable, and efficient multi-modal transportation network.**

- Widen and improve SR 63 to five lanes (two travel lanes in each direction with a center turn-lanes in each direction with a center turn-lane/ median.
- Improve the intersection of SR 63 and SR 741 with additional travel lanes and turn lanes, and incorporate pedestrian crosswalks and refuge islands.
- Limit spacing for new major intersections along SR 63 to a minimum of 1/2 mile.
- Improve sight-distance on SR 63 near McClure Road.
- Transform SR 741 into an urban, walkable street through Otterbein and Union Village Town Center.
- Calm traffic through Otterbein and the Village Center with the addition of strategically placed roundabouts.
- Improve SR 741 near Armco Park and the Warren county Sports Park to three lanes (one travel lane in each direction with a center turn lane) and right-turn lanes at major intersections.

**Goal 2: A connected road network.**

- Amend the Warren County Thoroughfare Plan to include the "Frontage Road", the "East/ West Connector Road" and other new roadways identified in the Plan.
- Secure right of way and require development of the "Connector Road" as development of sites occur.

**Goal 3: A culture of walking and biking.**

- Install an ergonomic pedestrian crosswalk that connects Armco Park and the Sports Park.
- Design for improved accommodation of pedestrians and bicycles along the corridor, in particular along RS 741 through Union Village and at intersections. Design to accommodate both bicyclists and walkers with adequate space between these users.

## PLACEMAKING

**Goal 1: Design green streets.**

- Install raised and planted medians on the approaches to the intersection of SR 63 and SR 741
- Develop and implement unified streetscape treatment along SR 63 and SR 741 consisting of street trees, shrubbery and hedges, and other improvements that can help beautify and distinguish these important thoroughfares.

**Goal 2: Establish gateways.**

- Install gateways along SR 63 at the entrance of the new roads planned on the state property.

**Goal 3: Establish commercial nodes and design for growth.**

- Establish commercial nodes along SR 63; one to the west of SR 741 (the state property), and one east of Union Village.

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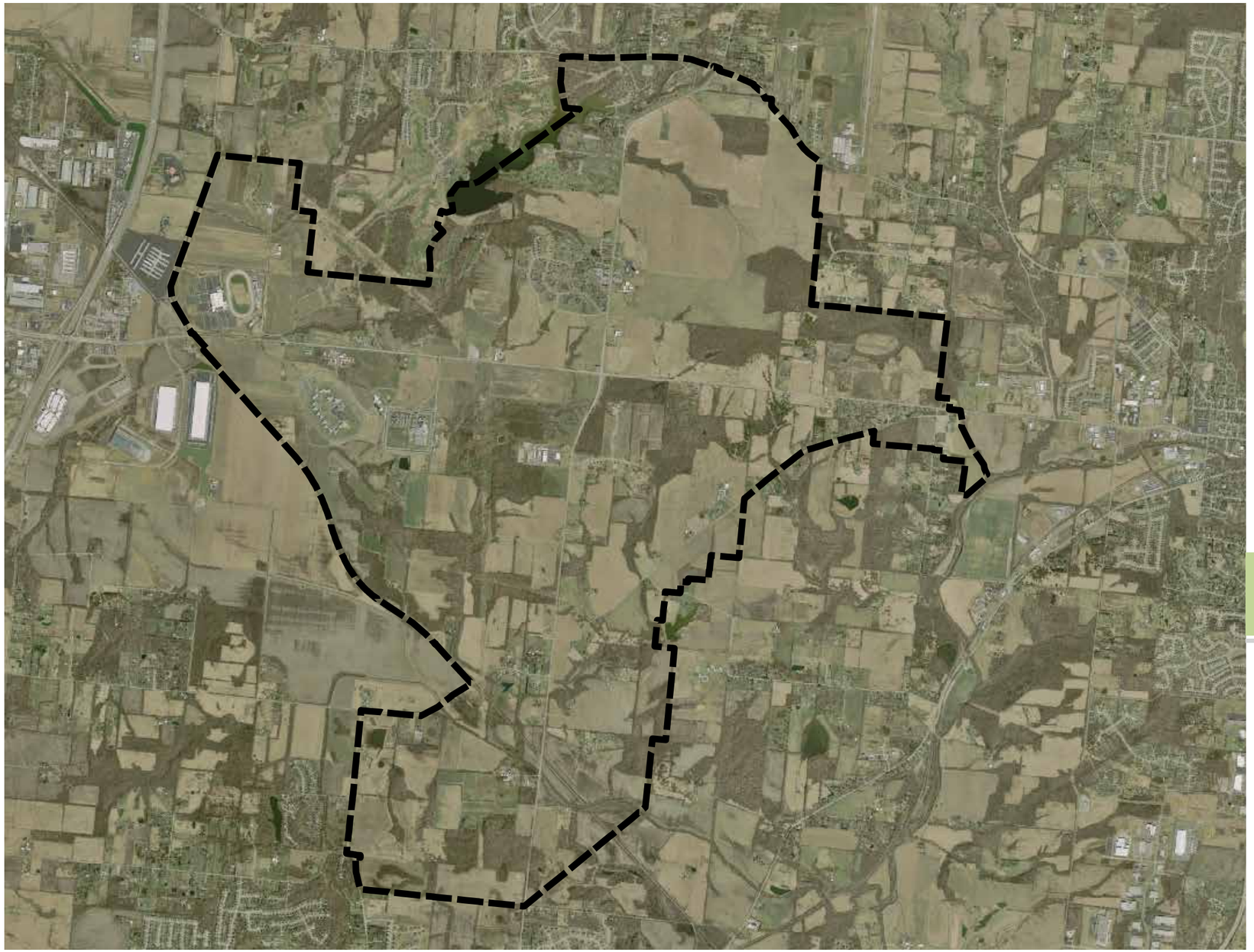


MAP 1.1: Regional Vicinity Map

# CHAPTER 1
## INTRODUCTION & VISION

## BACKGROUND

The area around state Route 63 and 741 in Turtlecreek Township, "the Crossroads", has the potential to evolve into a place with more jobs, vibrant neighborhoods, and more parks. It is an exciting time for the County and Township as we collectively plan ahead for change and growth.

The Turtlecreek Crossroads Plan is the product of foresight and anticipation of this change and growth. Improvements to State Route 63 and emerging market conditions are the primary catalyst for the plan. This Plan outlines a comprehensive set of recommendations that will serve as a guide for the design and development of the corridor. Specific criteria for roadway design, gateways, and site design, to ensure that all new development in the area and improvements within the right-of-way fulfill the vision for a welcoming and coherent corridor. Throughout this document, concepts, graphics, and examples are offered. These images are for illustrative purposes only and are not intended to suggest a specific style or design.

The Turtlecreek Crossroads Plan is the result of a year and a half planning process that began in Spring 2016. During this time, The Warren County Regional Planning Commission facilitated multiple public participation opportunities and worked extensively with a variety of stakeholders. A Citizens Advisory Committee (CAC), composed of stakeholders, residents, elected officials, and professional staff from nearby municipalities and agencies, was created to provide technical expertise and help guide the direction of the Plan. During the course of this planning effort, over 200 residents and stakeholders participated in public open houses and online surveys. The open houses allowed residents to learn about the study and offer input on corridor issues and opportunities. Additionally, the RPC provided online updates and posted public presentations on a website specific to the Turtlecreek Crossroads Plan which allowed residents to help identify corridor needs and recommend improvement strategies.

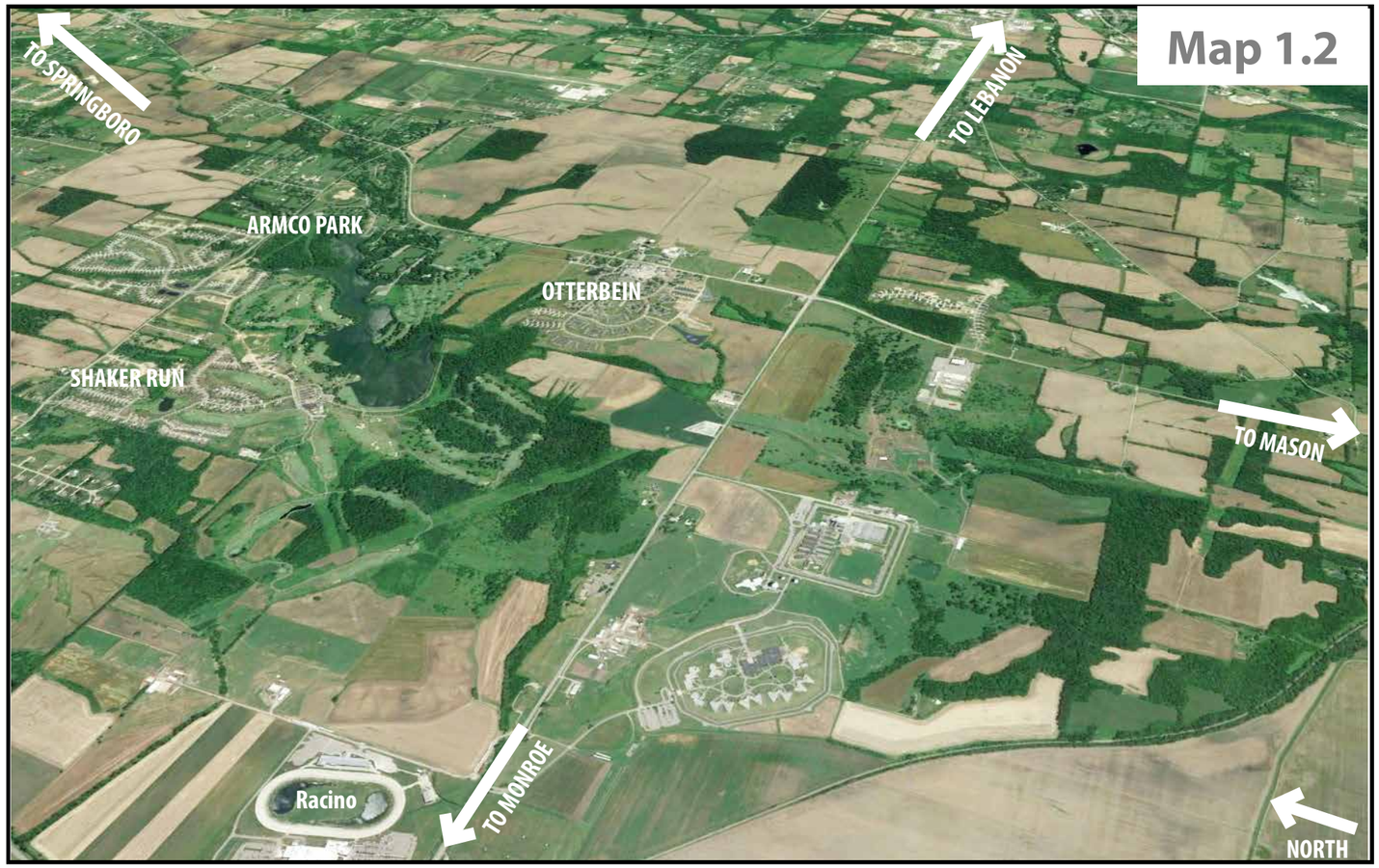



**FIGURE 1.1** Turtlecreek Township Population Growth

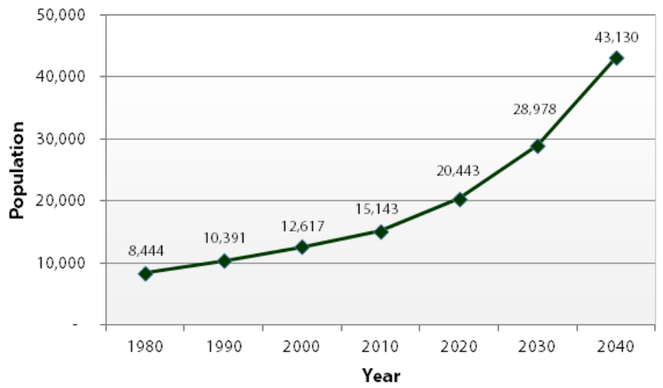



**TABLE 1.1** Surrounding Subdivisions

| Subdivision Name | Units (u) | Acres (ac) | Density (u/ac) |
|---|---|---|---|
| **Estates of Keever Creek** | 95 | 146 | 0.7 |
| **Shaker Run** (PUD) | 1,304 | 765 | 1.7 |
| **Trails of Shaker Run** | 387 | 168 | 2.3 |
| **Union Village** (PUD) | 4,500 | 1,125* | 4.0 |
| **Vistas of Shaker Run** | 790 | 381 | 2.1 |
| **Totals & Average Density** | **7,076** | **2,585** | **2.7** |

## Purpose

The purpose for the Crossroads Plan is to:

1. Create a road system that will effectively manage projected traffic demand
2. Establish the visual character of the Crossroads
3. Provide infrastructure for future businesses and jobs
4. Create a pedestrian/bike-supportive environments and
5. Improve connectivity on a local and regional scale.

The Plan has four sections: "Introduction and Vision", which explores the existing conditions of the study area and establishes the vision for future improvements; "Transportation", which looks long-term at how the road network should look and function; "Placemaking", which includes illustrative details that communicate streetscape components and the desired character of the Crossroads; and Implementation, which outlines goals and strategies to put the plan into action.

## Process

In June 2016, the Turtlecreek Township Trustees initiated the process to develop a corridor plan. Through coordination with ODOT, the Warren County Engineer's Office, and the Warren County Regional Planning Commission, the plan establishes a framework for long-term streetscape improvements that include new sidewalks, shared-use paths, crosswalks, refuge islands, street lights, street trees, landscaping, signage/wayfinding, and commercial site design. The Warren County Engineer's Office utilized the services of RL Record LLC to conduct a Scoping Study of the corridor. Following this, the RPC began its process by collecting and interpreting data to identify issues and needs. Jointly, we explored the existing conditions of the corridor through site visits and the use of GIS data and aerial imagery. Through the production of maps and diagrams that describe physical elements of the corridor, the team was able to identify the strengths and constraints of the corridor.

The initial CAC meeting was held on June 16, 2016 as a preliminary step in understanding the existing character and goals of the corridor and in preparation for the public input meetings. The CAC also studied the existing conditions along the corridor with multiple tours, then held educational workshops with state, county, and township representatives, as well as design professionals to discuss several potential design options to make the Corridor more attractive, green, safe, and functional for motorists and pedestrians/ bikers.

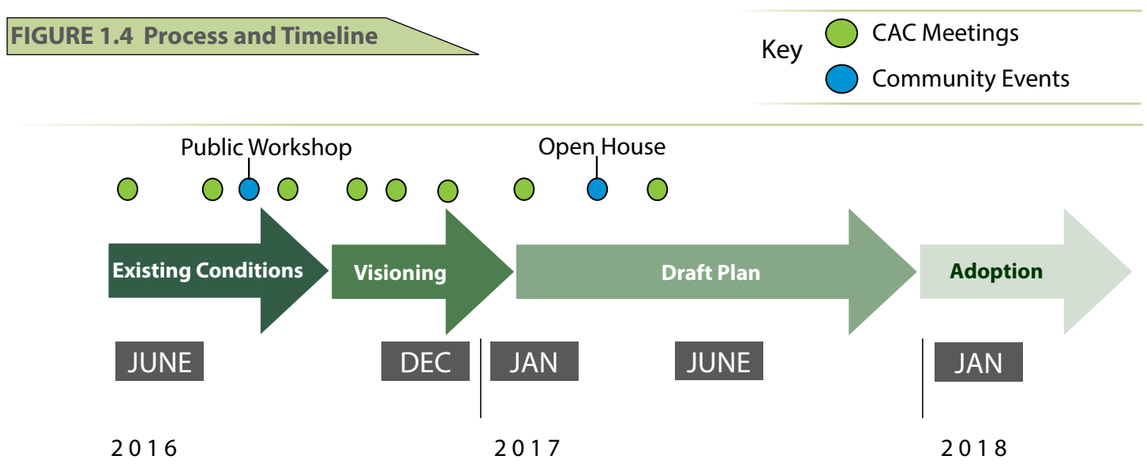
Those discussions and meetings led to a draft set of options that were presented at the public workshop. Residents were able to indicate the best options through a visual preference survey.

The public workshop was held on August 8, 2016 to collect valuable insights and to understand perceptions of property owners, residents, neighborhood groups, local developers, and the public. Additional meetings were held with property owners along State Route 63 and State Route 741 to introduce a preliminary draft document. Those discussions and meetings led to a final set of options that are presented in this plan. These efforts culminated with a public review and comment period and a final draft document in 2017 for the Warren County Commissioners approval.

**FIGURE 1.2 Public Workshop**

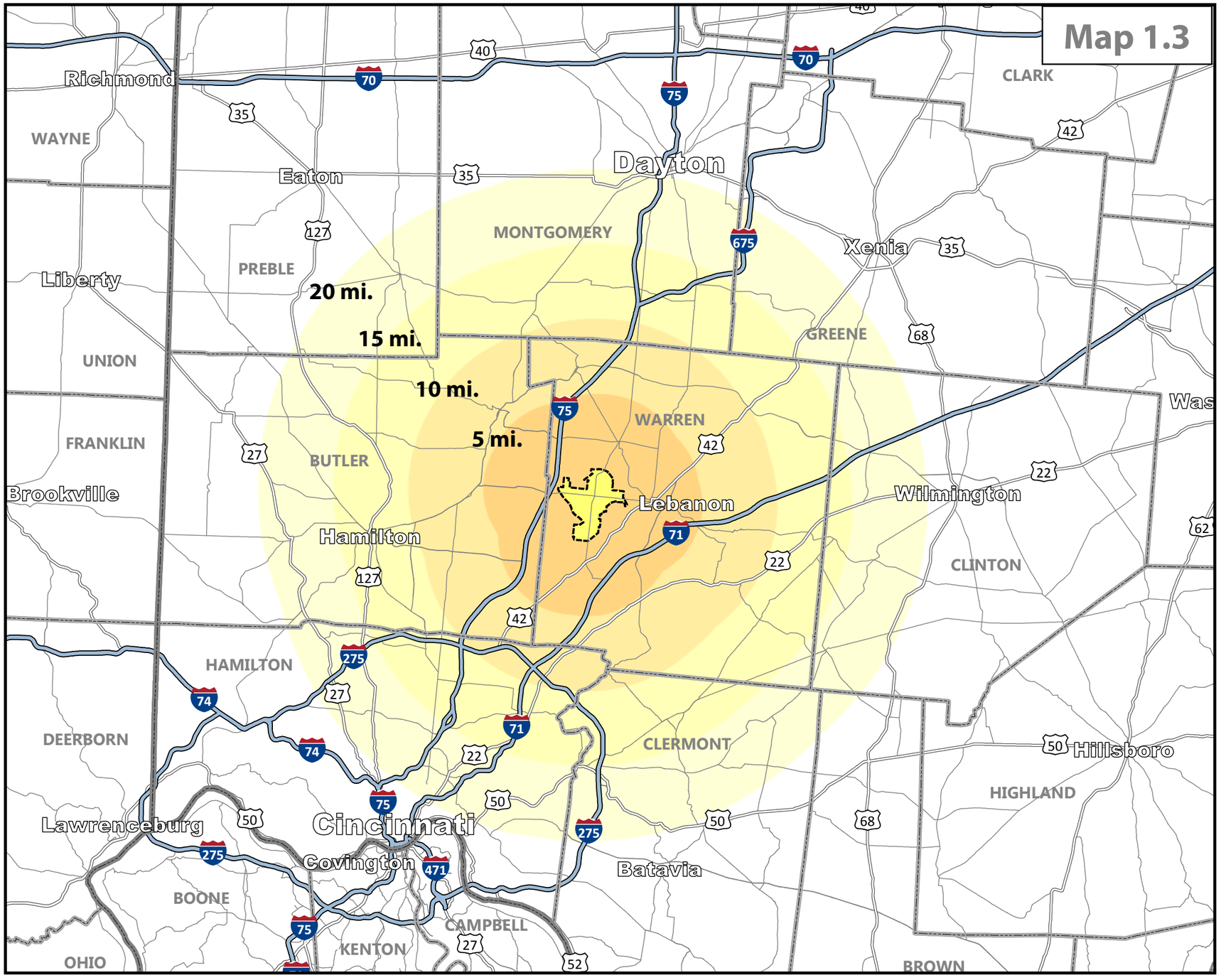
**FIGURE 1.3 Public Workshop**

**FIGURE 1.4 Process and Timeline**



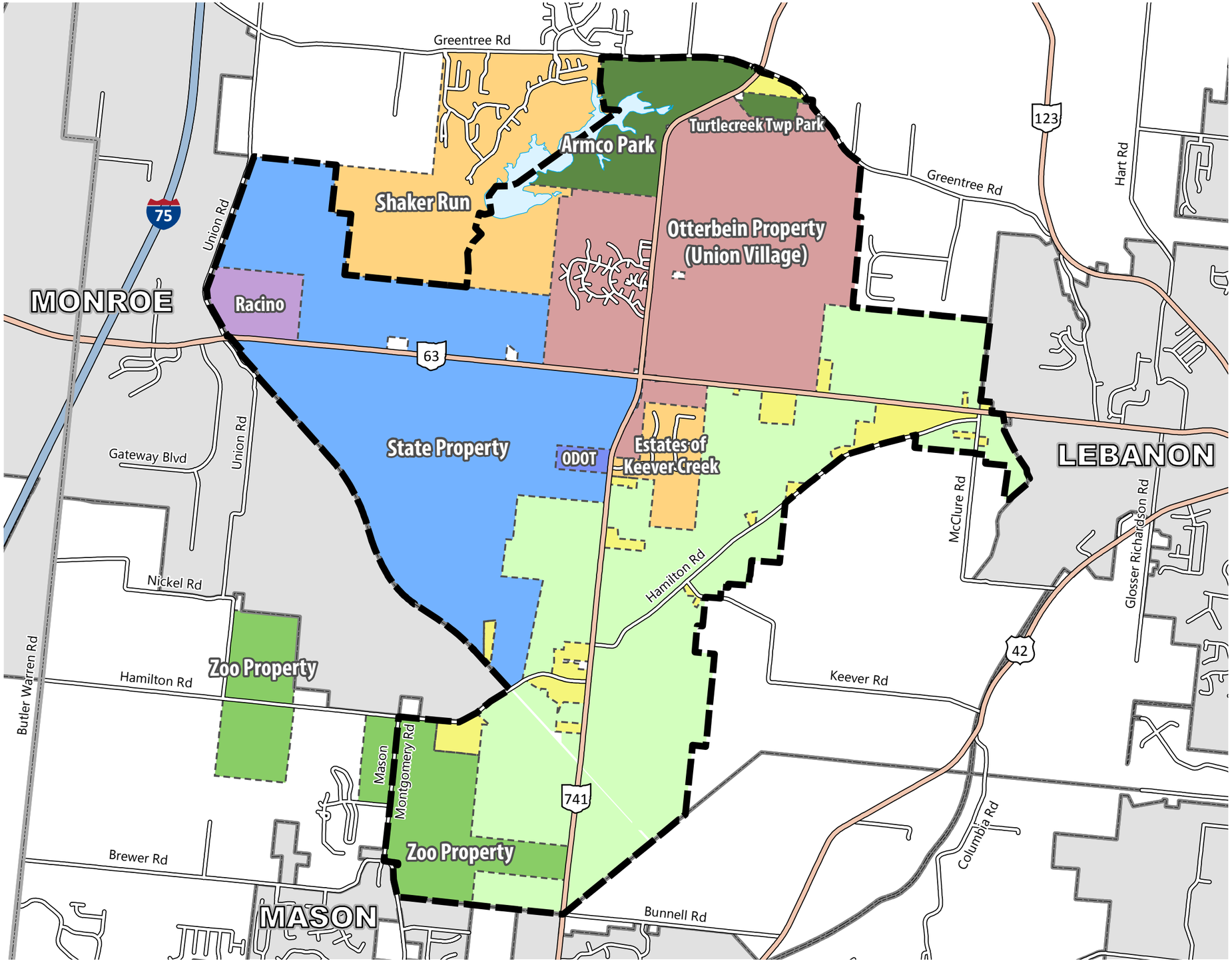
## STUDY AREA

The planning process used several GIS mapping layers to investigate and understand the area and to help define the study area boundaries. The study area is located within the western portion of Warren County in Turtlecreek Township. The State Route 63 segment extends from Union Road in the City of Monroe (i.e western gateway) to the City of Lebanon corporation boundary (i.e eastern gateway). The segment along State Route 741 extends from the City of Mason to the intersection of SR 741 and Greentree Road. The total area of the corridor is approximately 11 square miles. Although the recommendations contained in this document are focused on the Crossroads Corridor, the focus area for traffic impact was expanded beyond the study area described above. This was done to assess the existing traffic conditions to determine whether the road network would be able to maintain adequate levels of service while incorporating enhanced pedestrian, vehicular, and bicycle friendly features in the focus area.



# Map 1.4

**Study Area**




**LEGEND**

- Study Area
- County Boundaries
- Political Subdivisions
- Lakes and Rivers

**Features and Uses**

- Agricultural Properties
- Residential Properties
- Major Residential Subdivisions
- Miami Valley Gaming (Racino)
- ODOT
- Otterbein Property
- Parks
- State Property
- Zoo Properties
- Other

N

MILES

0 0.5 1

# EXISTING CONDITIONS

## Corridor Description

**State Route 63** is a major arterial roadway that provides mobility for daily commuters to a multitude of shopping, restaurants, and civic amenities. The corridor connects Turtlecreek Township residents to the cities of Monroe and Lebanon and to Interstate 75. Currently SR 63 is two lanes with additional left turn lanes at the intersection with SR 741. SR 63 is located on rolling hills and descends 194 feet over its four-mile length traveling from west to east. The steepest grades occur between SR 741 and Markey Road. The hilly terrain results in poor sight distance and creates difficult driving conditions in poor weather. The hills also present challenges to improving or modifying SR 63. The posted speed limit along SR 63 is 55 mph and the speedy character of traffic on the roadway is commonly cited. The race car mentality of motorists and the topography within this corridor make mobility unpredictable and dangerous, most notably at the McClure Road intersection.

**State Route 741** is a secondary arterial that traverses north-south connecting the City of Mason to the future Union Village. SR 741 has two 11-foot wide lanes in each direction, along most of its length and limited shoulders beyond its intersection with SR 63. At the SR 63 intersection, left turn lanes are provided on both approaches to SR 63. The maximum speed limit is 55 miles per hour. Open ditches provide stormwater drainage as curbs and gutters are not in place. Visibility along SR 741 is fairly good with minimal vegetation and no obstructions. Currently, there are two signalized intersections on SR 741 within the study area, one at SR 63 and the other at Greentree Road. At the intersection of SR 63 and SR 741 is signalized with left turn lanes but no left turn signals. No crosswalks are proposed at the SR 63 and SR 741 intersection although there is a crosswalk at otterbein to get to the proposed Union Village development. Notable cultural elements include a cemetery at the northwest corner of the SR 741 and SR 63 intersection, which is owned and operated by Otterbein. The cemetery will likely be expanded gradually to the west along SR 63. Historic structures within Otterbein include Marble Hall and Phillippi Hall.

## Traffic Volumes

Land use within western Turtlecreek Township has changed in recent years from predominantly rural and agricultural uses to a mix of rural, agricultural, and suburban uses. This transformation has led to a population increase and an increase in traffic volumes on both SR 63 and SR 741. Future development within Union Village and other planned communities will continue this trend as many new residents are choosing to live in areas served by SR 63 and commute to employment hubs elsewhere in Cincinnati and Dayton. Traffic forecasts indicate continued growth along SR 63 between now and 2030. By 2030, traffic volumes are expected to increase by an estimated 30 to 50 percent along the corridor, based on a two to three percent annual increase in traffic. Traffic analyses for intersection operations and corridor conditions for 2016 traffic volumes for the AM and PM peak hours along the corridor were provided by ODOT. This data confirmed comments that congestion and delays are lengthy at the intersections of SR 63 and SR 741.

**TABLE1.2** Road Classification

| ROAD NAME | CLASSIFICATION | OWNERSHIP | STUDY AREA LENGTH (mi) | SPEED LIMITS | LANES | THOROUGHFARE PLAN ROW WIDTH |
|---|---|---|---|---|---|---|
| SR 63 | Primary Arterial | ODOT | 4.15 | 55 | 2 | 66-105 |
| SR 741 | Secondary Arterial | ODOT | 6.62 | 45-55 | 2-3 | 66-102 |

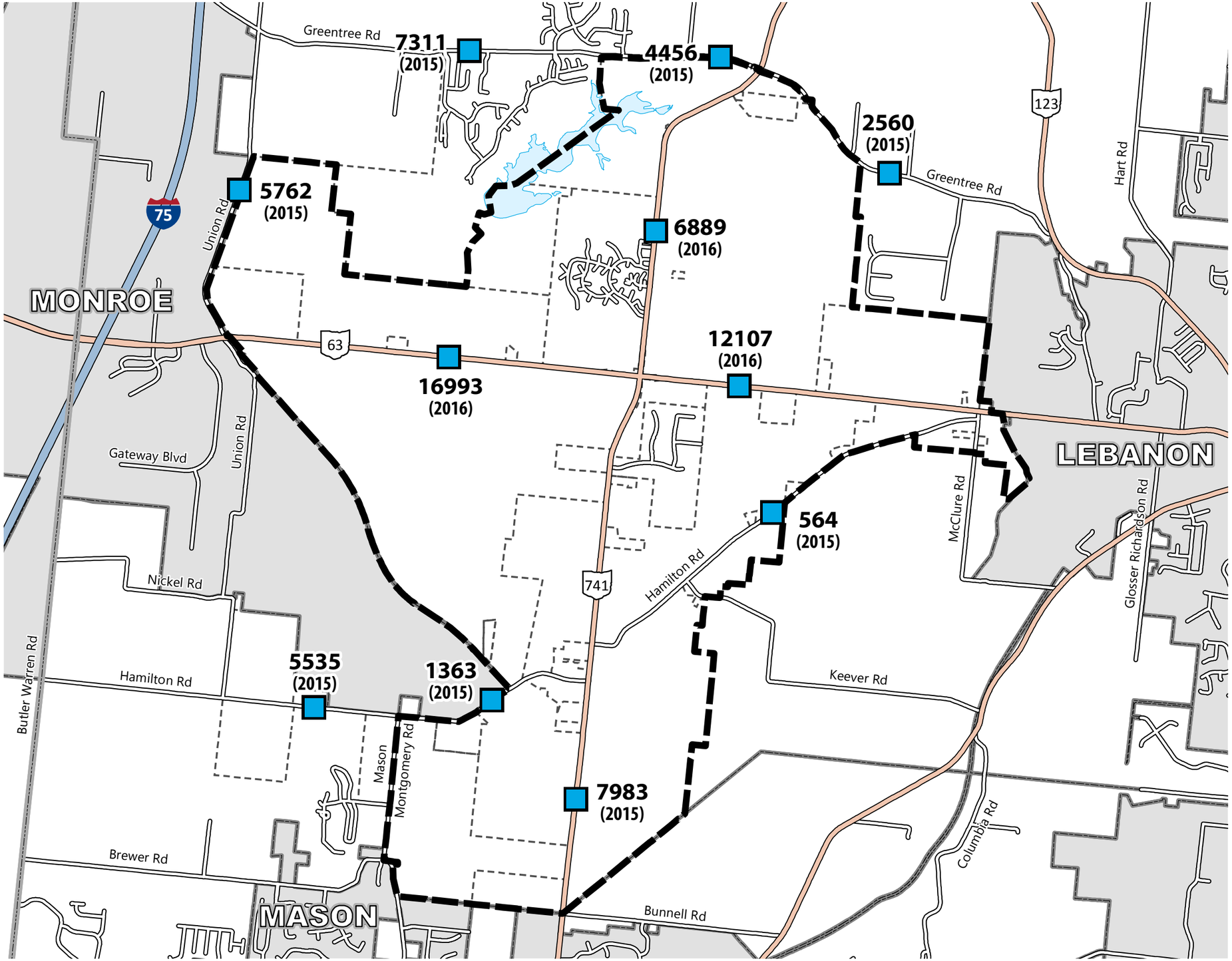
Map 1.5 shows the 2016 and historic Annual Average Daily Traffic (AADT). Analysis indicates that the majority of roadways in the planning area carry less than 10,000 vehicles per day (VPD). The highest daily volumes, (greater than 12,000 VPD), are along sections of SR 63 at the western boundary of the study area and along SR 741 South of SR 63.

**TABLE 1.3** Traffic Counts

| SR 741 South of SR 63 | | SR 741-North of SR 63 | | SR 63 West of SR 741 | | SR 63 East of SR 741 | |
|---|---|---|---|---|---|---|---|
| **Year** | **AADT** | **Year** | **AADT** | **Year** | **AADT** | **Year** | **AADT** |
| 2015 | 7,983 | 2016 | 6,889 | 2016 | 16,993 | 2016 | 12,107 |
| 2014 | 7,898 | 2015 | 7,148 | 2015 | 16,378 | 2015 | 11,579 |
| 2013 | 8,100 | 2014 | 6,922 | 2014 | 16,205 | 2014 | 11,456 |
| 2010 | 7,920 | 2013 | 6,820 | 2013 | 16,620 | 2013 | 11,750 |
| 2006 | 8,710 | 2010 | 7,300 | 2010 | 13,870 | 2010 | 9,720 |

# MAP 1.5

## Traffic Counts




**LEGEND**

- Study Area
- County Boundaries
- Political Subdivisions
- Lakes and Rivers

**Traffic Counts**

**AADT**
**(Year)**

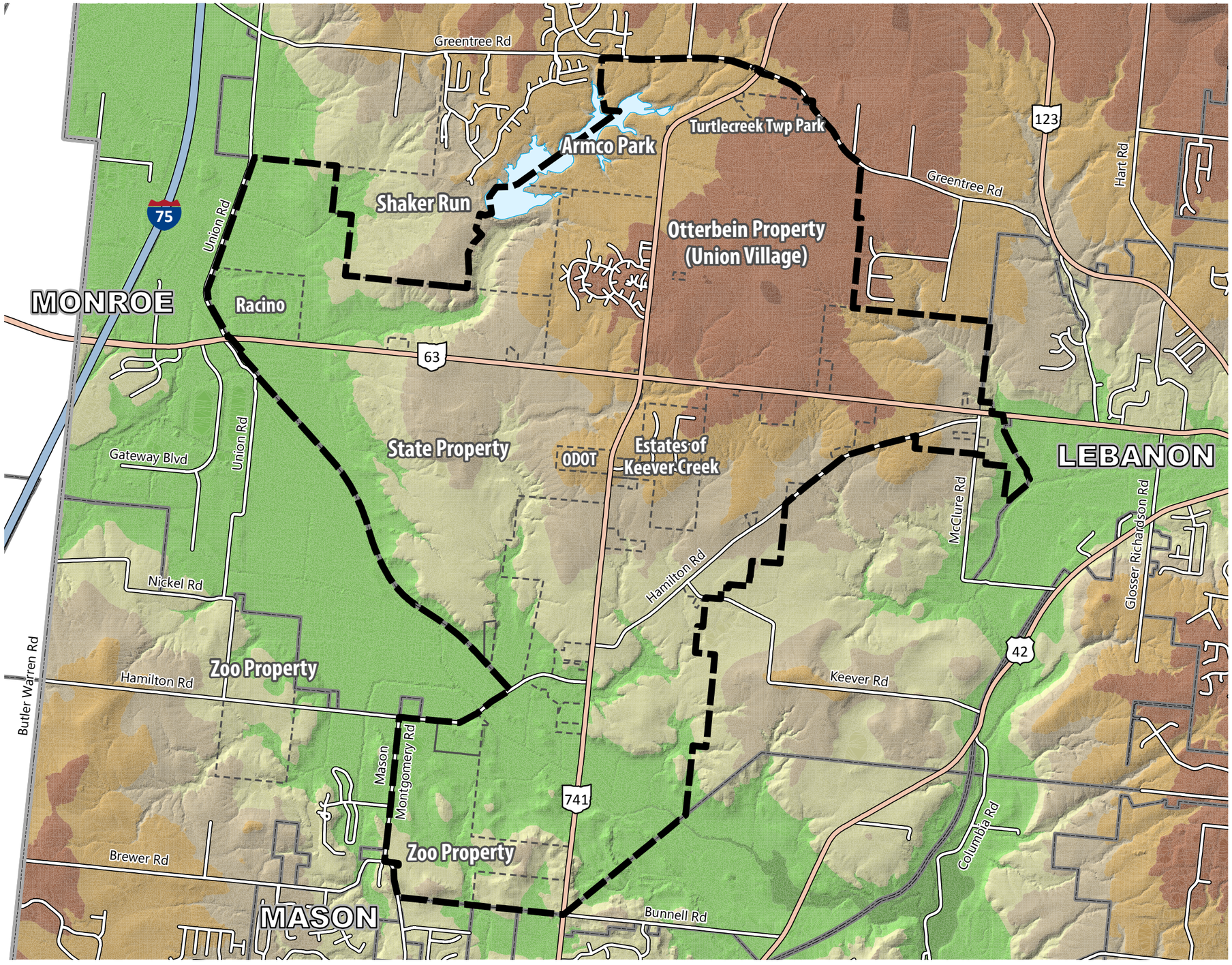
AADT is Average Annual Daily Traffic

N

MILES
0 0.5 1

# MAP 1.6

## Topography




**LEGEND**

- Study Area
- County Boundaries
- Political Subdivisions
- Lakes and Rivers

**Elevation (feet)**

- 1050 - 1100
- 1000 - 1050
- 950 - 1000
- 900 - 950
- 850 - 900
- 800 - 850
- 750 - 800
- 700 - 750
- 650 - 700
- 600 - 650
- 563.4 - 600

N

MILES

0 0.5 1

## EXISTING PLANS

### The Gateway Plan-West (2015)

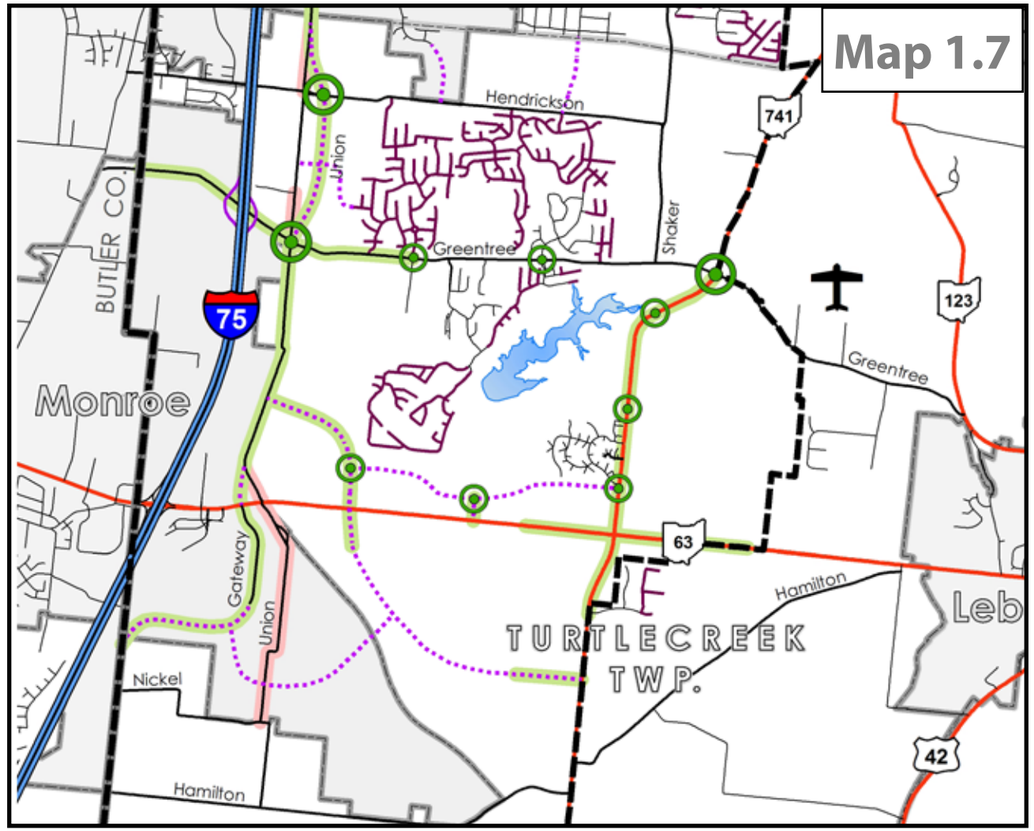
This Plan was adopted in April of 2015, primarily as a guide for the management of growth and development along I-75, Warren County's western gateway. This area is inclusive of western Turtlecreek Township, Monroe, and Middletown. The Plan also focuses on the establishment of cultural icons, parks, and places that ultimately will become destinations. The Gateway Plan-West recommends the following for the Crossroads area:

- State Route 63: A primary strategy is to widen State Route 63 to five lanes and install landscaped medians. Trees should also be planted alongside the road to soften the view of the correctional facilities and overhead utilities or otherwise per ODOT standards. To improve safety and visibility, hills should be removed or graded and developers should work with ODOT and the Warren County Engineer's Office to determine the best access points for new roads or businesses. Traffic signals at proposed intersections will also be necessary.

- State Route 741: State Route 741 should be widened to three lanes from Greentree Road to State Route 63 with a landscaped median at select locations. To calm traffic, four roundabouts are desired between Greentree Road and State Route 63. At the Village Center, parallel parking should be introduced. Several designated and well-marked crosswalks will need to be incorporated with the Union Village development as well.

In addition, the Gateway-West Plan recommends the following:

1. A collector road around the Racino, reducing pressure at the intersection of Union Road and SR 63.
2. A new east-west local or minor collector road, north of SR 63 with roundabouts at key intersections and attractive entryways.
3. Safe street crossings along SR 63.
4. Elements that adequately accommodate pedestrians and bicyclists such as pedestrian refuge islands, clear crosswalk markings, and signalization.




**Legend**

- Study Area Boundary
- Municipal Boundaries
- Township Boundaries
- County Border
- Interstate
- State and US Routes
- Major Local Roads
- Other Local Roads
- Proposed Roads
- Approved Subdivision Streets
- Proposed Highway Ramps
- Proposed Boulevards
- Proposed Road Vacation
- Proposed Small Roundabouts
- Proposed Large Roundabouts

## Warren County Thoroughfare Plan (2011)

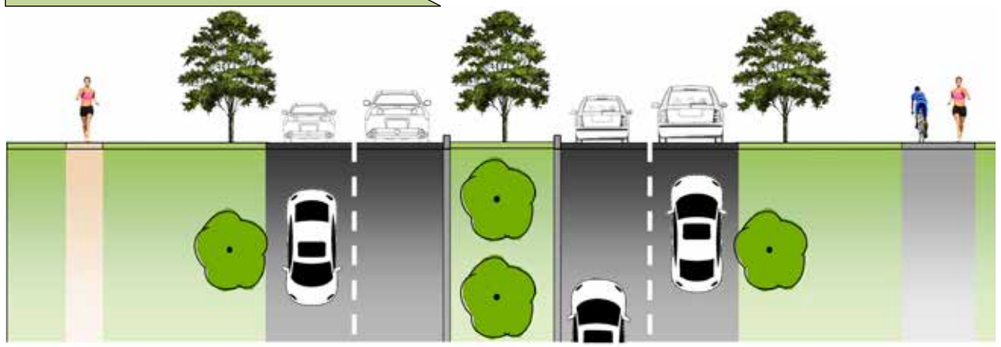
The Warren County Thoroughfare Plan is an overall guide used to enable individual developments within the County to be coordinated into an integrated, unified transportation system, and is also a basis for future street improvements. The Plan classifies roads within the Crossroads planning area and serves as a guide for determining future roadway and right-of-way requirements. The future roads and roads connections recommended are illustrated in (Map 1.8). These recommended roadways will serve as collector roads that distribute traffic away from major arterials such as SR 63 and SR 471.

## The Lebanon Turtlecreek Trails Initiative (2015)

The Lebanon Turtlecreek Trails Initiative (LTTI) Plan adopted in 2015 is an element of the Warren County Comprehensive Plan. The overarching priority of this Plan is to connect to the Great Miami Trail and the Little Miami Trail. Seventy miles of trails are planned to connect Union Village to Lebanon, Mason, and the Little Miami Trail and also provide access to a 'mega park' (Armco Park, Turtlecreek Township Park, and the regional sports park). The trail connection from Mason to Union Village would provide access to the zoo properties. Heading west of Union Village, the trail will meander through the State Property over to Miami Valley Gaming and Cincinnati Premium Outlets, then further west through Monroe. To the north of Union Village, the trail along Shaker Road will connect to the Hunter community, the eastern portion of Middletown where Atrium Medical Center is located, and downtown Franklin. Another north-south connection to the Great Miami Trail can be made along the Union Road corridor. The plan offers the following recommendations that affect the crossroads corridor:

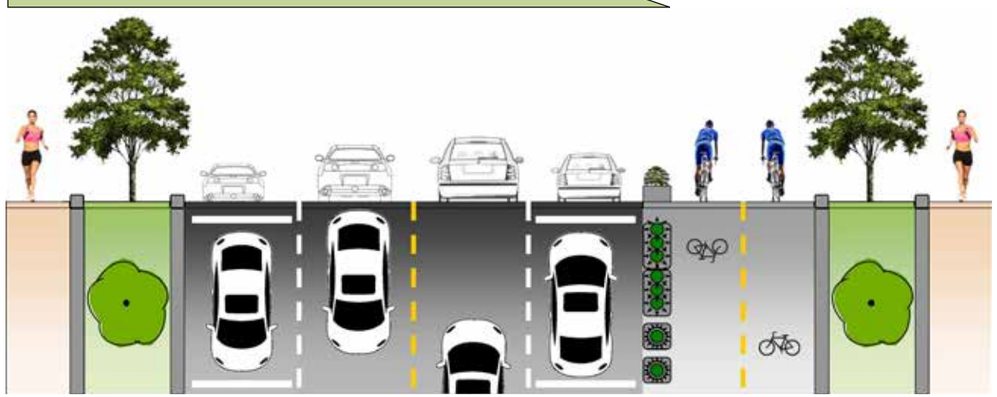
- Provide safe areas for pedestrians and cyclists to cross busy roadways (e.g. State Route 63 and State Route 741)
- Armco Park, Turtlecreek Township Park, and the new Sports Park will be connected with multi-purpose paths, but crossing State Route 741 could be a challenge. The bike trail should be aligned with the access point to the new sports park along with a marked crosswalk. A flashing beacon or similar system may also be needed to improve safety.
- Consider the use of materials such as pavers or smooth bricks for crosswalks and paths through cultural centers.
- Consider the use of crosswalk designs that privilege pedestrians and cyclists over motorists.
- Establish primary trailhead locations at Union Village, downtown Lebanon, the Countryside YMCA, and the Native Ohio Center.
- Establish an identifiable way finding system and brand.

**FIGURE 1.5** SR 63 Streetscape



Multipurpose path adjacent to 'primary arterial' road (e.g. SR 63)

**FIGURE 1.6** SR 741 Village Center Streetscape



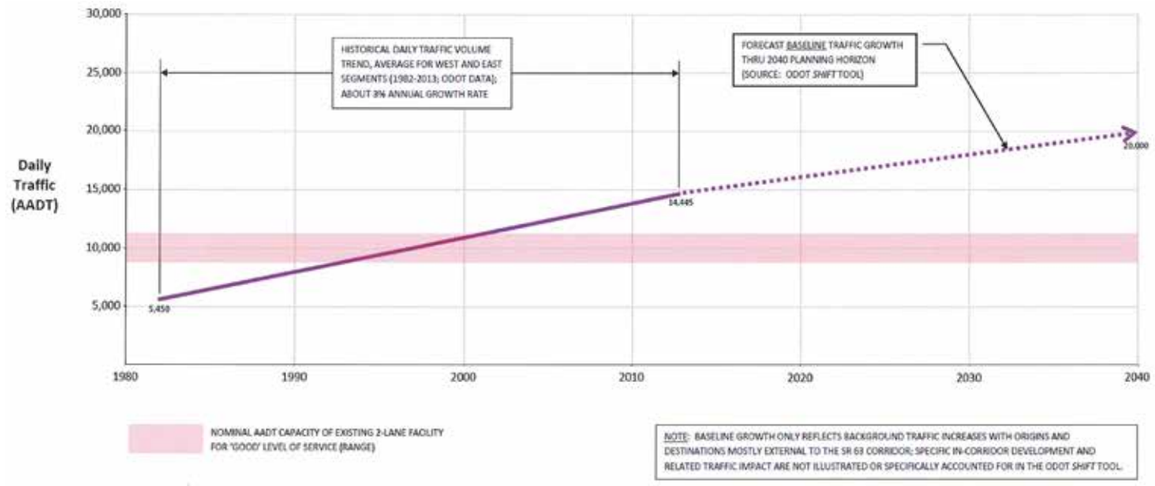
Protected bike lanes through urban center (e.g. Village Center at Union Village)

## SR 63 Scoping Study (2016)

The scoping study was undertaken by the Warren County Transportation Improvement District, with the assistance of ODOT District 8. The goal of this study was to identify long-term transportation strategies for the corridor and begin prioritizing improvement projects. The study recommends the following:

- A four-lane rural roadway with a grass median for the sections both east and west of 741.
- Realign Union Road to Gateway Blvd. to improve safety.
- LeCI/WCI access consolidation and section upgrade.
- SR 63 and SR 741 intersection project.

**FIGURE 1.7** Future Traffic Forecast for SR 63




## The Union Village Plan (2014)

Union Village is located west of Lebanon in Turtlecreek Township adjacent to Otterbein retirement campus. The village will be a multi-generational, master-planned community that could house over 12,000 people and will contain several shops, restaurants, and places to work within walking or biking distance to neighborhoods. The village center illustrated below will contain several cultural icons including a central green, performing arts center, YMCA, and a church. There is also the possibility for new school sites within the village, including a small college campus. Armco Park, Turtlecreek Township Park, and a new sports complex collectively form a large recreational destination on the north side of the property. The sports complex is expected to draw 750,000 visitors annually.

**Map 1.8**

**The Union Village Master Plan**




# VISION

The vision proposes better traffic circulation with roadways that function efficiently and safely; improving pedestrian safety and comfort, creating outdoor gathering spaces, improving stormwater management, and increasing opportunities for business. Together, these improvements can enhance the corridor's appearance, reduce the environmental impact of the built environment, and increase development potential.

## Guiding Principles

The input received during the visioning process led to the creation of four guiding principles that inform the recommendations of the plan and sets the framework for realizing the vision for the Crossroads Corridor:

**Mobility:** Develop a corridor that better accommodates pedestrians, cyclists, and motorists while maintaining adequate vehicular access, parking and improved safety.

**Identity:** Establish a roadway network that solidifies the identity of Turtlecreek Township.

**Vitality:** Promote economic opportunities, healthy living and walkable commercial areas.

**Appeal:** Foster distinctive, attractive, comfortable, inviting commercial nodes along the corridor that have a strong sense of place.

Further guidance for development of the Plan are below:

- Design the land use and transportation system to facilitate walking and biking, increase local connectivity, and manage increased traffic.
- Balance goals for economic development, open space, and community character goals along the corridor to encourage development of vibrant centers.
- Provide strategies that encourage commercial nodes in a pedestrian-friendly manner where feasible.
- Integrate green infrastructure elements that reflect the local climate and maintenance practices.
- Create well-defined gateways and edges.
- Establish a streetscape concept that will support and energize the corridor.
- Address safety and interconnectivity of pedestrians, bikers, and motorists.

## Vision Statement

The vision statement is the result of input received from stakeholders and the community during the planning process. At the beginning of the process, visioning meetings were held with both the citizens advisory committee and the public. Participants identified how the future corridor should look and function. By reflecting the conscious choices of residents and their elected leaders, the Plan will achieve results far more beneficial than if land uses and development were determined only by market forces. Common desires expressed during the visioning process aim to protect community assets -- including vital natural resources and quality of life -- and identify opportunities to improve traffic circulation, community aesthetics, image, and recreation. Residents felt that the County should be prepared for market-driven development that can result from major infrastructure investment to State Route 63 and State Route 741, as well as the potential impact on quality of life and the environment. A similar segment is reflected in the Gateway Plan – West, which recommends the creation of a 21st century roadway—a modern boulevard that would solidify the identity of Turtlecreek Township. The following statement captures the vision for what the corridor will become in the next two decades:

*The Crossroads defines a unique sense of place with enhanced fluidity of movement, environmental sensitivity, and connectivity for residents, workers, and visitors incorporating transportation modes of all types, including cars, bikes, and pedestrians. The Corridor enables an active pedestrian life and integrates residential, commercial, recreation, education, faith, and retail. The streetscape is safe, accessible, and uniquely Turtlecreek Township with unifying gestures and green space that make it an attractive thoroughfare with irresistible gathering places.*

## Summary

The breadth of the opportunities expressed by the community to improve roadway design and crate a sense of place includes:

- Improve the streetscape and public realm including street trees, sidewalks, separation between sidewalk and curb, signage and wayfinding, bike lanes, roundabouts, crosswalks, and placing utilities underground.
- Improve roadway capacity by adding more lanes, reducing speed limits, making lane widths consistent throughout the Corridor, creating access management and creating a continuous center median with turn lanes.
- Improve neighborhood character by enhancing connections to neighborhoods, adding sidewalks within neighborhoods, providing wider sidewalks and creating greenway connections to public parks.
- Promote commercial development in select areas.
- Design a safe pedestrian environment; complete bicycle system; attractive street landscaping; and a strong branding and wayfinding system with unified gateways.
- Consider the Corridor in its entirety from an aesthetic, and image standpoint. In areas where it is to the Corridor's advantage, alter the design to respond to "context sensitive" nuances such as to promote the preservation of large stands of trees.
- Consider creative and innovative ways of providing the "Complete Street" mindful of the costs and complexity associated with right-of-way purchase and the nature of the existing conditions of the Corridor.
- Install medians with left hand turn pockets is most preferred, followed by installing additional right turn lanes. Combining or reducing the number of driveways and curb cuts is also well-supported.

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# CHAPTER 2

## Road Design

## INTRODUCTION

The purpose of this Chapter is to provide recommendations that address existing and emerging safety, mobility, and design needs on a four-mile stretch of SR 63 from Union Road to the City of Lebanon and a seven-mile stretch of SR 741 from the City of Mason to Greentree Road. These corridors are greatly impacted by growth and currently function primarily as routes for commuters, recreational trips, and freight trips. Currently, there are few traffic circulation alternatives and most trips must go through the SR 63 and SR 741 intersection. When future development occurs, the need for a more robust modern road network with improvements to the SR 63 and SR 741 corridor will be needed to keep traffic flowing efficiently.

Given the character of both SR 63 and SR 741 and minimal planning and engagement to date, there is a long-held desire within the community to improve these corridors. This desire is bolstered now by a more recent recognition of enduring growth pressure radiating out from western Turtlecreek Township. Future development within Union Village and Shaker Run necessitates improvements to the existing roadways and recent development projects such as the Racino illustrate emerging development potential. This has generated community interest given the potential impacts on traffic circulation. In response to this renewed interest, in 2016, Turtlecreek Township Trustees requested that the Warren County Regional Planning Commission (RPC) in cooperation with Warren County Engineer's Office and ODOT, identify transportation issues, potential improvements for SR 63 and SR 741, and recommendations for implementation.

The transformation of SR 63 and SR 741 is inevitable. Stakeholders are advocating a new vision for the corridor: an improved roadway that is safe, accessible, vibrant, and attractive to all users. The corridor should also enable an active pedestrian life and integrate residential, commercial, recreational, educational, faith, and retail uses into attractive and irresistible gathering places. Residents see streetscape, gateways, and green space as paramount in designing a distinctive corridor that is uniquely Turtlecreek Township. The corridor should be predictable to the driver, and traffic should be calmed through better design.

The improvements that are needed and the character of the roadway were fundamental questions asked throughout the planning process. The basis for our "needs" started in 2016 through well-attended steering committee meetings. This information was supplemented with a public outreach session (charrette) and data analysis. An important element of planning for the corridor has been through a visual preference survey and visualizing change with illustrative renderings that apply Plan goals to actual streets, intersections, properties, and public spaces. Stakeholders used these images to evaluate alternatives and refine ideas.

The Plan contains a set of consensus-based recommendations for areas served by SR 63 and SR 741 that will increase safety and reliability, reduce person and vehicle delay, manage access, and respond to growth in the years to come. The Plan also addresses inadequate regional accessibility and connectivity. This overall lack of connectivity may also be an impediment to the Township's economic growth and development. One benefit of the Plan is that it shows potential developers that there is an agreed-upon blueprint and vision for improvements to the area. With help from the steering committee and stakeholders, a list of potential improvements and design concepts for the Crossroads area was developed.

## VISION

The Plan was initiated to fulfill important recommendations and the vision outlined in the 2015 Gateway-West Plan. The Gateway Plan West calls for comprehensive improvements within the Crossroads study area that addresses traffic circulation, bicycle and pedestrian safety, and placemaking. The Crossroads Plan further embellishes this recommendation.

Community input toward the development of a vision was critical as it helped staff better understand the daily travel patterns, and identify specific areas in need of improvement. In response to residents and Steering Committee input, guiding transportation principles were established, which, collectively, form a new template for transportation decision making within the Crossroads planning area. Residents are seeking a wholesale change in the way the traffic circulation issues are addressed in the form of alternatives that promote transportation choice, enhance connectivity, maintain the County's high quality of life, and improve the aesthetics of Turtlecreek Township.

The five guiding principles listed below counteracts the traditional approach taken in the past, which assumes the primary use of the automobile in the design and operation of roadways. Turtlecreek Township embraces a new approach to mobility, imploring multiple methods of overcoming automobile dependency. The intent is to improve the existing transportation system not only through recommended infrastructure improvements, but also through careful land use decisions and design of future development. Together, the five guiding principals below will improve existing facilities and minimize impacts on these facilities as western Turtlecreek continues to develop over the next 15 to 20 years and beyond.

### Guiding Principles:

1. **Develop context-sensitive recommendations** including link-road and frontage road options that can be implemented and agreed to by stakeholders. The context for a project will consider political acceptability, funding suitability , environmentally sustainable. The context for a recommendation should be responsive to the vision for the Township and the corridor.
2. **Provide "Complete Streets" safe for everyone** – pedestrians, bicyclists, and motorists alike. Design the corridor to enable safe access for all users, install sidewalks and safe pedestrian crosswalks to make it easier to cross the roadway, increase connectivity to neighborhoods, and design safe bicycling paths.
3. **Establish a welcoming, vibrant, and attractive corridor.** Design the roadway to strengthen the Township's image, respect existing neighborhoods, and improve identity through a series of distinctive, mixed-use activity centers. Install welcoming gateways and wayfinding/signage that enhances the sense of arrival and promotes easy navigation of the corridor. Improve landscaping, street tree canopy (shaded sidewalks), lighting, and the aesthetic of utilities.
4. **Encourage economic vitality while preserving roadway capacity.** Identify select access points that allows the corridor to be developed as an innovative place to establish commercial, industrial and institutional uses.
5. **Scale roadway design to address the issue.** Find the best solution that fits within the context, is affordable, has community support, and can be implemented in a reasonable time frame. Roadways should respect the Township's character as well as current and planned land uses.

## GOALS, STRATEGIES, & RECOMMENDED PROJECTS

This section identifies recommended improvements for the Crossroads area. These recommendations are based on the evaluation of several factors, including but not limited to field review, land use, traffic counts, crash data analysis, consultation with various agencies, and information provided by the public. The intent is to offer a range of potential mitigation strategies for corridor issues and areas of concern. Small scale improvement options have been identified and may be as simple as adding pedestrian crossing signs at intersections. Larger, more complex improvements are also envisioned. These include reconfiguration of the SR 63 and SR 741 intersection and a new SR 741 connector road. Landscaped medians, and access control improvements have also been identified. During project development, the potential may exist to combine several improvement options for ease of implementation and efficiencies.

A major recommendation is to update the Thoroughfare Plan to show road classifications and improvements that are consistent with the suggestions of the Crossroads Plan and to revise the Subdivision Code to add an internal road connectivity standard. The RPC, Township, and County Engineer's Office will work with ODOT to gain support of the roadway improvements and suggestions indicated in the Crossroads Plan for State Routes. Recommendations for gateways, streetscape, lighting, landscaping, overhead utilities, planted medians, and additional pedestrian and cyclist amenities are fully addressed in Chapter 3: Placemaking.

**Modernized mobility for the Crossroads Corridor will...**

*… contain a series of unique mixed-use "activity nodes" of varying scale and character.*

*… feature improved placemaking with unique architectural character and personality expressed through buildings and public spaces, and sensitive transitions to single family neighborhoods.*

*… be more "green" by incorporating street trees; improved landscaping in public spaces gateways and landscaped medians.*

*… develop a unique sense of place through roadway design of SR 63 and SR 741.*

## GOAL 1: A safe, accessible, sustainable, and efficient multi-modal transportation network.

### Recommendations for State Route 63

Over 16,620 vehicles per day travel this roadway. The citizens advisory committee recommends SR 63 to be widened to a four-lanes (two lanes in each direction) with a center median. The center median will offer space for turn lanes where needed and areas for landscaping where appropriate. Right turn-lanes may also be needed at key intersections. These recommendations for SR 63 pertain to the segment of roadway between the City of Monroe and the City of Lebanon. The combination of smaller shoulders, curbs, landscaping, and slightly reduced speeds will enhance the overall character of the SR 741 and SR 63 intersection and will make this area safer as it develops. The transition from a rural road to an urban road is similar to existing examples of SR 63 in Lebanon and US 50 in Mariemont. It should be noted that the recommendations below are merely suggestions as SR 63 falls within the jurisdiction of the Ohio Department of Transportation (ODOT) and they will make the final determination on how state routes will be designed.

The intent of these recommendations is to blend the goals ODOT, the Township, and County has for an efficient roadway that is planned in consideration of future development patterns.

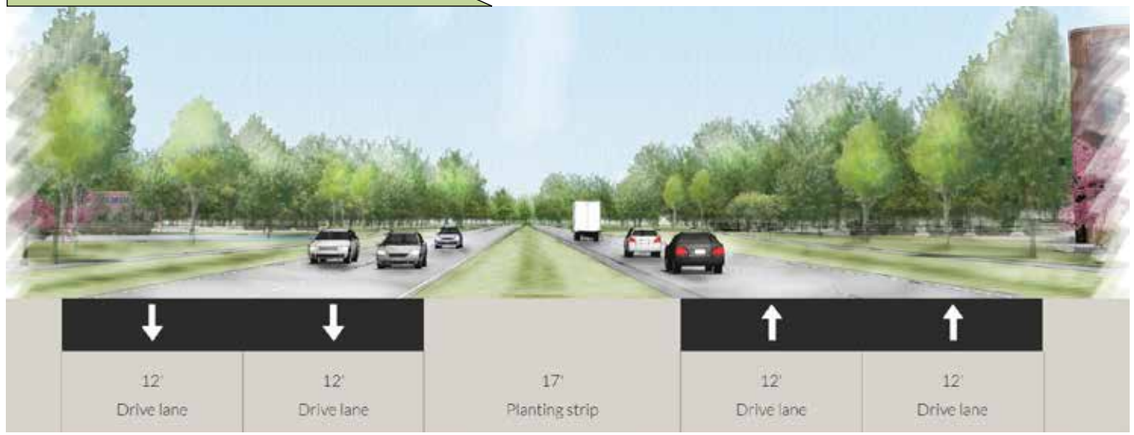
As this area develops, improving the aesthetics along SR 63 to serve as a "gateway" into Turtlecreek Township with low maintenance landscaping alongside the roadway will soften the view of the prison facilities and utilities.

Landscaping is encouraged at key intersections and gateways if a local jurisdiction agrees to assume the maintenance of the landscaped area.

**Rural Locations**
(Rural areas outside of planned urban locations)

- 12' travel lanes
- Side ditches
- Shoulders may be needed
- Generally higher speed limit (e.g. 55 mph)

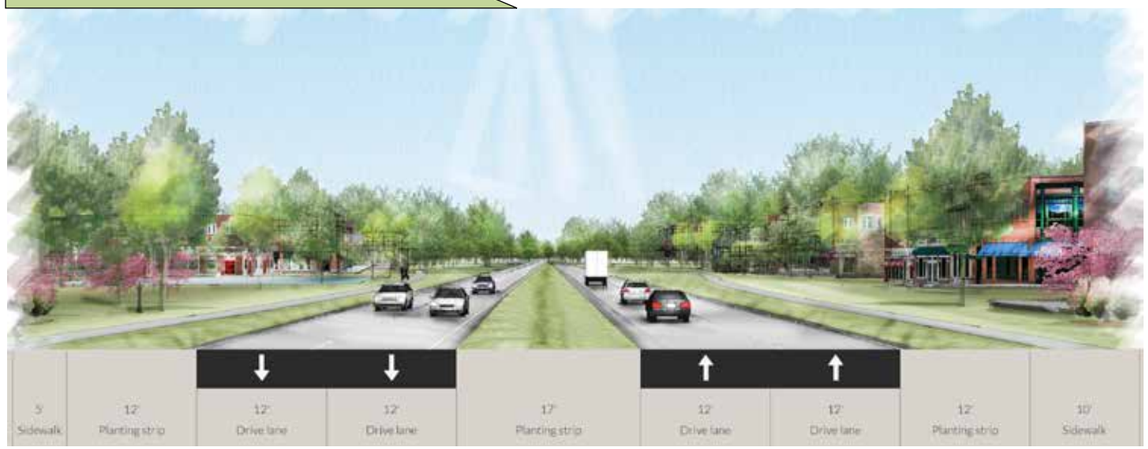
**FIGURE 2.1:** Rural Cross-Section




**Urban Locations**
(Urban areas span approximately 1/2 mile east and west of SR 741)

- 12' travel lanes
- Curb and gutter
- Small shoulder width or no shoulders
- Slightly reduced speed limit (e.g. 45 mph)
- Landscaping and decorative lighting is encouraged

**FIGURE 2.2:** Urban Cross-Section



**Right-of-Way and Thoroughfare Designation**

To accomplish the road widening envisioned for SR 63, additional right-of-way may be needed. SR 63 is currently classified as a "Primary Arterial" in the Warren County Thoroughfare Plan, which ranges from 105 feet total right-of-way width for rural areas, to as small as 66 feet total right-of-way width for urban areas. It is recommended to change the thoroughfare designation of SR 63 to a "Primary Collector/Distributor," which will increase the total right-of-way width to 150 feet. It should be noted that this right-of-way will only apply to future development projects, but when implemented, it will allow sufficient space to meander SR 63 around existing residences, widen the road, and grade the road as necessary. Additional thoroughfare types may need to be added to the Thoroughfare Plan to reflect the road designs depicted in Figures 2.1 and 2.2 but the key recommendation here is to increase right-of-way width.

**FIGURE 2.3: Rural Cross-Section**

**FIGURE 2.4: Urban Cross-Section**

**Intersection Spacing**

To ensure efficient traffic circulation, future intersections and access to the SR 63 should be carefully planned. Map 2.1 on page 26 shows recommended locations for future roadway intersections with SR 63. Generally, these intersections should be limited to no closer than 1/2 mile from one another. The suggested intersections west of SR 741 follow this rule, however, east of SR 741 could be more of a challenge. Union Village has two planned access points east of SR 741 and there are many other large properties east of Union Village that will need access if developed. Further, ODOT will decide appropriate intersection spacing and access management controls when these properties are ready to develop.

**Sight Distance**

The geography that gives SR 63 its unique character also constrains access. For some sites, particularly along the eastern portions of SR 63 near McClure Road, drivers experience limited sight distance and high traffic volumes. Improved sight distance will add a dimension of time that allows a driver to detect and react to an unexpected condition along the roadway. When designing improvements to SR 63, these locations should be examined in coordination with crash data and operational performance to determine what corrections are warranted to improve sight distance and provide an additional margin of safety. A long-term improvement option is to flatten and/or lengthen the vertical curves to provide longer sight distance.

## Recommendations for State Route 741

### Road Design through Otterbein and Village Center

State Route 741 through Otterbein and the future "Village Center" of Union Village should be carefully designed and coordinated by ODOT and the surrounding community. The ability of residents and workers at Otterbein to cross the street safely is of particular importance. The design should also fully complement the existing buildings and planned urbanism on both sides of the road.

The following road characteristics are strongly encouraged:

- Strategically placed roundabouts for traffic calming
- Narrower travel lanes (10-11 feet wide maximum)
- Curb and gutter
- Reduced speed limit (e.g. 25-35 mph)
- Dual bike lane or shared bike lanes
- Wide sidewalks (6-12 feet wide)
- Marked cross-walks
- Street trees, decorative lighting, benches, and landscaping

These characteristics are shown in Figures 2.5 and 3.1 and will create a street that is designed for pedestrians. Each bullet point works to naturally slow traffic without the need of other traffic devices such as signage, flashing beacons, and speed bumps. The result is a street that is safer for both pedestrians and motorists. One of the best local examples of this type of roadway is SR 741 in Springboro. This road efficiently moves traffic, it is safe, and it is attractive.

The vision for SR 741 described above will work best if coordinated with other improvements to the surrounding road network that will lessen traffic pressures on SR 741. For example, the gridded street pattern of Union Village and the planned roadways on the State Property (shown on Map 2.1) will provide multiple ways to travel through the Crossroads area without the need to use this segment of SR 741 through Otterbein. Regardless, if the road is widened to five lanes, the roadway characteristics described above can still be applied and will help create a pedestrian-friendly environment. SR 741 through Otterbein and the Village Center should feel like going through "downtown."

To help achieve the above, the Plan includes strategies to add new street cross-sections to the Warren County Thoroughfare Plan, which include narrower streets, parallel parking, designated space for planters and street trees, and alleys.

**FIGURE 2.5:** SR 741 Rural Streetscape

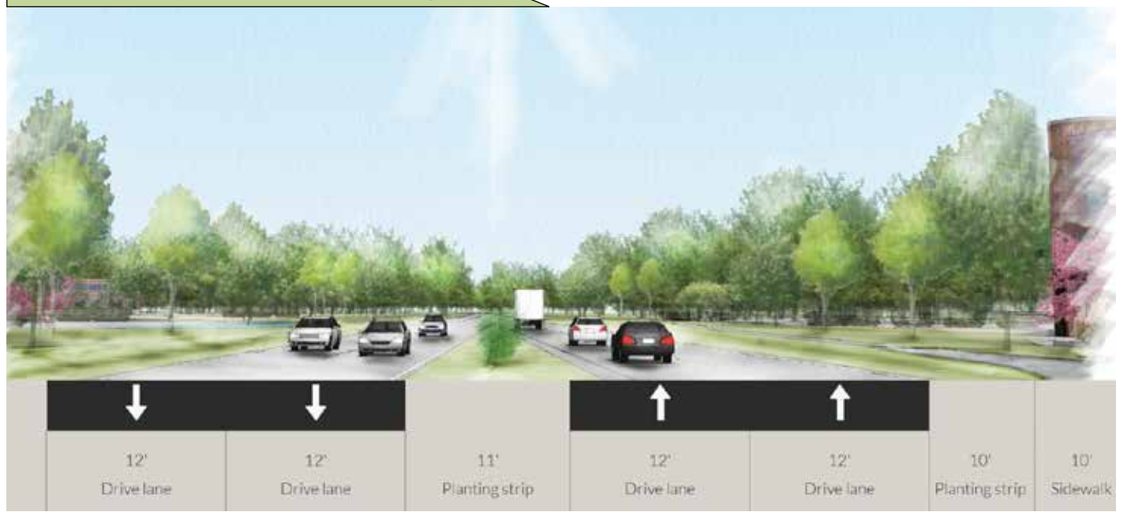



**FIGURE 2.6:** SR 741 Village Center Streetscape

**FIGURE 2.7:** SR 741Rural Streetscape


**FIGURE 2.8:** SR 741 Village Center Streetscape


**Design of SR 741 through Garden District and through the Sports Park:**

Limited improvements are proposed along SR 741 south of the ODOT District 8 building and north of Mason city limits. This area is generally called the "Garden District" and is planned to remain much more rural and agricultural in character. The current road configuration should be sufficient to handle regional traffic demand and the allowable densities from the Zoning Code are significantly less in the Garden District compared to the densities seen in subdivisions along Greentree Road and in Union Village. If properties in the Garden District do develop into subdivisions, traffic impact studies may require improvements to SR 741 such as adding turn lanes. Recommendations for this segment of road primarily focuses on aesthetic improvements. SR 741 should be enhanced with tree canopy and landscaped buffers, transforming this section into a scenic, "green road." One way to accomplish this is to work with developers and property owners to incorporate landscaping, street trees, and buffers into their site plans. State Route 741 through the Warren County Sports Park and Armco Park will also be more rural in character, but may require more significant improvements as over 700,000 annual tournament goers are expected to come to the new Sports Park. An incremental approach to road widening is recommended, starting with widening to three lanes (one in each direction with center turns lanes and right turn lanes where needed). Then if traffic volumes increase more from future development in Union Village and elsewhere, the road should be widened to five lanes (two lanes in each direction with a center turn lanes). Map 2.1 also shows a roundabout at the SR 741 intersection with Greentree Road to calm traffic and improve safety.

The following road characteristics are encouraged for rural segments of SR 741 (through the Garden District and Sports Park):

Rural Locations (generally areas outside of planned urban locations):

- 12' travel lanes
- Side ditches
- Small shoulder width or no shoulders
- Generally higher speed limit (e.g. 45-55 mph)
- Marked Crosswalks between parks
- Landscaping and street trees that complement park space and rural areas.

## Recommendations for SR 63 & 741 Intersection

Poor roadway connectivity and population pressure have contributed to high traffic volumes along the corridor, especially at the intersection of SR 63 and SR 741. The addition of new development and redevelopment along the corridor will continue this trend and push the limits of the corridor toward widening. The following is proposed for the SR 63 and SR 741 intersection to accommodate growth and improve safety.

1. Four (4) – 11' travel lanes.

2. For the eastbound and west bound approaches to the intersection, an offset left-turn lane is recommended. Islands between the offset left-turn lane and the through traffic lanes should be landscaped with shrubs.

3. Medians with refuge islands and right turn slip lanes with channelization islands. This can reduce the conflict zone and provide safe refuges for pedestrians. Medians/refuge islands should be at least 6 feet wide for pedestrian comfort and safety. Pedestrians and bicyclists should have a clear path through the medians/refuge islands and should not be obstructed by poles, sign posts, utility boxes, etc.

4. All new projects at the SR 63 and SR 741 intersection should be designed with the assumption that pedestrians will use them.

5. The channelized island should be designed to slow vehicles and have clear visibility of a crossing pedestrian. The channelized island design must still accommodate large vehicles and have the appropriate crosswalk signage.

6. Raised and planted medians and curbs should be considered on the approach to the intersection.

**FIGURE 2.9:** Standard Intersection


**Landscaped Medians**

Raised medians and islands provide space to locate pedestrian safety features and traffic control devices, amenities, landscaping and stormwater management. They can provide traffic calming and aesthetic benefit, but the addition of medians alone may also cause an increase in vehicle speeds by reducing friction between opposing directions of traffic.

**Gateway Features**

The purpose of a neighborhood gateway sign is to identify a major entrance to a city neighborhood. These signs promote the branding of a neighborhood and also serve as navigational tools. Special features like the one shown here give the area a sense of image and uniqueness. Not only does it let one know where they are but it also gives a landmark to enhance aesthetics.

## CONSIDERATION FOR ROUNDABOUTS

### Introduction

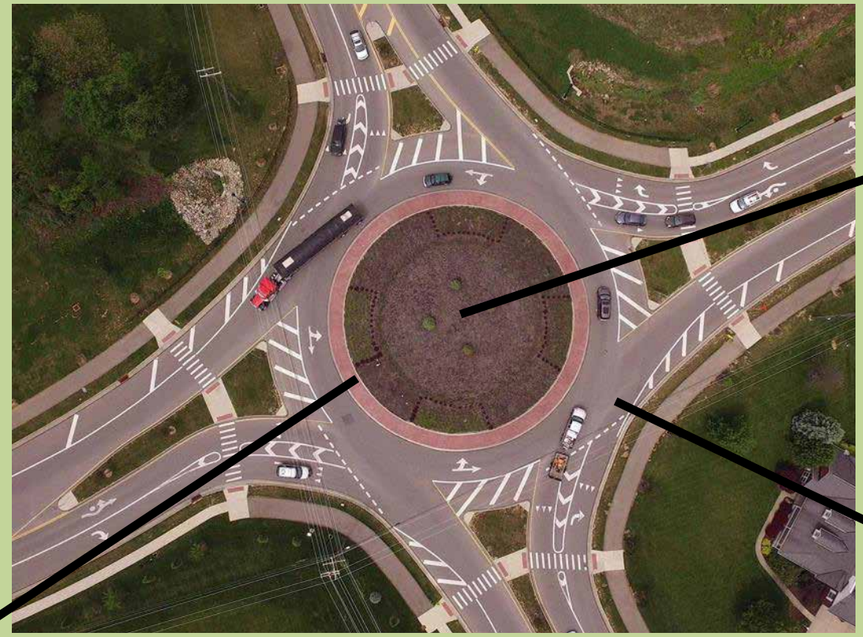
Roundabouts are circular intersections that require all entering traffic to yield at entry. Geometric features of a roundabout include channelized approaches, geometric curvature that ensures travel speeds within the roundabout are around 30mph or less, and diameters usually between 80ft to 200ft. They are designed to be safer and more efficient than a traditional intersection. Roundabouts prevent high angle crashes such as "T-bone" and left turn angle crashes. Lower angle, low speed crashes tend to be less severe than higher angle, high speed crashes.

### Oversized & Emergency Vehicles

Roundabouts easily accommodate tractor-trailers, buses, fire engines, farm equipment and other large vehicles. The truck apron (or spillover lane) surrounding the center island, allows the rear wheels of vehicles and trailers with large turning radii to move through the intersection. Truck aprons are typically slightly elevated with roll-over curbs and contain materials such as brick or cobblestone to discourage other smaller vehicles from using the spillover lane.

### Maintenance

The upfront costs to build each roundabout will vary and in some instances may cost more than traditional intersections. However, overall maintenance and electricity costs can be reduced by an estimated $5,000 annually per roundabout. Roundabouts also have a much longer service life; 25 years compared to 10 years for the traditional intersection.



### Aesthetics

The center island provides an opportunity to provide attractive landscaping and landmarks, forming inviting gateways. Air pollution and harmful emissions are also reduced due to decreases in vehicle stacking and idling. Further, roundabouts are quieter by comparison because vehicles accelerate gradually upon exit of the intersection.

### Capacity

Roundabouts keep traffic flowing through the intersection, reducing the amount of vehicle stacking. A study from IIHS showed that roundabouts can reduce vehicle delays by 13 to 23 percent. Intersections with a high volume of left turns are also better handled by a roundabout compared to traffic signals.

### Pedestrian Safety

Roundabouts are typically safer for pedestrians because vehicles move at slower speeds (typically 20-25 mph) and pedestrians only need to cross one direction of traffic at a time. The splitter islands improve safety by providing a refuge point for pedestrians in the middle of the roadway.

Sources: The Insurance Institute for Highway Safety and roundaboutsusa.com

## GOAL 2: A connected road network.

### East/ West Connector Road Thorough Otterbein and State Property:

Much of the work from plan participants has focused on the design and widening of SR 741. SR 741 through Otterbein/Union Village Center must have character as well as capacity. A two-lane roadway that is not traffic-dominated and that is safe, and comfortable for pedestrians is most compatible with efforts to create a village center. To achieve this, the Plan includes a connector road through Otterbein and the state property that would route some future traffic around the Village Center instead of through it. This is important because the Village Center, is planned to be walkable, with shops, restaurants and services organized in a manner that creates a destination and sense of place. The goal is to transform portions of SR 741 (King Street south towards SR 63) from a car-oriented roadway into a road that offers more choices for pedestrians, cyclists, and vehicles. This approach also creates a culture of people first in a complete green streets context. The character of the roadway will be defined by building frontages, landscaping, sidewalks, lighting, and street furniture. The connector road runs east-west and may function more as the "business" access to the Village Center. Map 2.1 illustrates the proposed connector road location. The proposed connector road is expected to increase capacity along SR 63, improve traffic operations and safety, provide greater east-west connectivity, and eliminate the need to widen SR 741.

### Frontage Roads:

The competing needs of direct access to properties should be balanced with the use of SR 63 to move traffic efficiently. The steering committee considered traffic volumes, land use plans, traffic speeds, and proposes frontage and/or service roads at select locations. These recommendations are offered to promote safety and efficiency while providing access for land development and preserving capacity along SR 63. To reduce the impacts of noise and visual impacts along the frontage roads, it is recommended that a green space buffer zone be required along the south side of the frontage road. This greenspace buffer should be about 50-100 feet wide and should consist of densely planted material.

The steering committee recommends that the Township, County, and ODOT define desirable locations for access for SR 63 (west of SR 741) and limit access to these points. Temporary access points may be acceptable, but should be closed when access becomes available from the desired locations. This allows for more intensive development of the corridor, while maintaining traffic operations and safe and convenient access to businesses. Summarized recommendations are below:

1. Provide a single sided frontage road alignment.
2. The long-term goal is to construct a continuous two lane roadway parallel to and north of SR 63. The proposed road, from the Racino to Union Village would provide access for future development on the state property.
3. Acquiring right-of-way for the frontage road should occur as parcels along the corridor are developed, or may be negotiated with the State of Ohio prior to the sale of the property.
4. Limit the number of access points on SR 63. Temporary access points may be allowed but these access points should be closed upon the availability of access from preferred access points.

## GOAL 3: A culture of walking & biking.

### Crosswalks/Sidewalks:

Each approach to the SR 63 and SR 741 intersection presents a potential need for a pedestrian crosswalk. Due to the high amount of traffic at the intersection of SR 63 and SR 741, the implementation of safe crosswalks along with sidewalks is needed to accommodate pedestrian traffic. A pedestrian crossing should not be prohibited unless it cannot be accomplished safely. The signalization of crosswalks are also important at various locations along SR 741 within the Union Village area and is of particular importance between the future sports complex and Armco Park. Figure 2.12: illustrates recommended crosswalk design, elements, and location. Crosswalks should also be used in conjunction with pedestrian refuge islands at or near crosswalks to aid and protect pedestrians crossing the roadway. Refuge islands should be designed to also accommodate bicycles. Prohibition of pedestrian crossing in a specific location to achieve vehicular capacity goals should be considered as a last resort and only when the tunnel (underpass) has been constructed.

**FIGURE 2.10:** Crosswalk Design

Brick pavers can be used to clearly delineate the crosswalk.

Flashing beacons and medians can help improve pedestrian safety

Brick pavers and flashing signage clearly alerts oncoming traffic

Reflectors and slightly raised crosswalk

# MAP 2.1

## Crossroads Thoroughfare Plan

Greentree Rd
Union Rd
Shaker Rd
741
75
123
63
Senate Dr
Gateway Blvd
Union Rd
Exploration Dr
Mulford Rd
Hamilton Rd
McClure Rd

0.4 mi
0.4 mi
0.5 mi
0.7 mi
0.2 mi
< 0.1 mi
< 0.1 mi
0.4 mi
0.3 mi
0.2 mi
0.3 mi
0.2 mi
< 0.1 mi
0.2 mi
0.1 mi
0.6 mi
0.6 mi
0.5 mi
0.4 mi
0.5 mi
0.3 mi
0.4 mi
0.3 mi
0.4 mi
< 0.1 mi
0.2 mi
0.3 mi
0.1 mi

**LEGEND**

FEET
0 2,000 4,000
MILES
0 0.5 1
N

**Future Thoroughfares***
- Primary Collector/Distributor
- Collector - Commercial/Industrial
- Collector - Residential
- Local Road

**Access Points**
- Existing Access Points
- Suggested Access Points
- Suggested Roundabouts

Study Area

* To be added to the Warren County Thoroughfare Plan

NOTE: All existing and suggested access points for new development along SR 63 and SR 741 are subject to approval by ODOT at the time of development.

# CHAPTER 3
## PLACEMAKING

## INTRODUCTION

Streets affect the character of the township and influence how people function and interact with each other. The design and layout of State Route 63 and State Route 741 will affect how residents and visitors experience the special qualities and characteristics of Turtlecreek Township. For this reason, the Township is committed to creating a comprehensive vision for these corridors that incorporates the best design principles and practices that will influence the way people live, work, and play. Through these efforts, the Township will establish a cohesive image and identity for the community by incorporating unique design aesthetics and innovative improvements that will tie the corridor together and make it accessible, functional and aesthetically pleasing. These corridors will become a place where community is experienced and interactions and enterprise take place. Over time, it will remain sustainable, adapting to the needs of the community as surrounding development evolves. This vision provides the basis for establishing the Green Street recommendations.

## GOAL 1: DESIGN GREEN STREETS

### Background

Turtlecreek Township residents recognize the importance of street design to the overall character of the Township, and recommends the delineation of streets that should be subject to special street landscaping, planting, and maintenance requirements. While streets constitute the Township's most pervasive public spaces, they are typically conceived for the single function of moving traffic rather than as designed environments. Yet, streets as public spaces should be both efficient and attractive. State Route 63 and State Route 741 have been built with wide rights of way that can accept substantial amounts of landscaping A series of landscaped streets should be planted along these roadways as an important component of the Township's image. Each public and private development should be an opportunity to create and enhance a green setting. Street trees are widely used to give continuity to streetscapes, and create a setting for development. The minimum width often identified for planting strips between the curb and sidewalk is five feet, making the strip suitable for street trees. Many rights of way have room for as much as 8 feet.

### The Gateway Plan-West

Streets represent a large portion of the public realm and can be a positive asset to a community if designed thoughtfully. Several types of attractive streetscapes and improvements are recommended for roads. The Gateway Plan-West recommends that trees and landscaping be strategically placed to become a signature feature of the community. The Plan also recommends adding landscaping at key intersections and within roundabouts, medians, and road right of way. To accomplish this the Township and County should work with ODOT and the County Engineer's Office to determine what can be planted within road right of way.

### Roundabout Design and Location

Roundabouts are a great alternative to the traditional four way stop or signalized intersections. They provide several benefits including increased safety, better traffic flow, enhanced aesthetics, and reduction of energy use. There are several locations along the State Route 741 corridor which could be converted to a roundabout. These locations are identified in the Gateway-West Plan. One of these locations, at the intersection of Greentree and Union Road, has already been implemented by the WC Engineers.

## WHY GREEN STREETS?

Increasingly, when we think of streets as public spaces as well as conduits for motor vehicles, the needs of functionality and appearance coincide. The concept of Green Streets accomplishes a number of significant and desirable outcomes, including:

**1. Improved Traffic Safety**

Green streets that are a pleasure to travel along reduce stress on drivers, tend to calm traffic, and perhaps, at some level, reduce the potentially deadly problem of road rage. Green streets can help restore civility to our local travel environment.

**2. Increased Property Values**

Properties and their values are enhanced by attractive streets. Unattractive or poorly landscaped major corridors cause properties to turn away from them, walling off the views of neighborhoods and reinforcing the efficient model of street design. Double-frontage lots, once considered a poor and inefficient land planning practice, have come into common use because of the unappealing nature of our streets.

**3. Increased Pedestrian and Bicycle Access**

Green streets involve more than the literal "green" of street landscaping; it also considers "green" transportation, opening the way to modes of transportation that have minimum environmental impact and do not use fossil fuels. The Goal is to provide streets that safely and attractively accommodate both motorized and non-motorized users.

**4. Better Stormwater Management**

Tree canopies and landscaped areas can increase the permeability of street right-of-ways and reduce surface runoff.

**5. Upgraded Development**

Green streets along commercial corridors have a demonstrated ability to both upgrade the quality of private development and encourage higher value uses along the street.

**6. Better Image and Community Marketing**

Green streets can improve the Townships' visual image for visitors, prospective residents and businesses, and investors.

## Additional Elements

Street lights, traffic signals, traffic information signs, parking signs, street identification signs, street trees, and street and sidewalk materials are all parts of the streetscape that are important in creating the image of the Township. Often their placement and design are the product of a series of ad hoc decisions that give little coherency and, instead, create a form of visual noise. People may tune them out, but their sense of the Township is still very much affected by the way streetscape is designed and installed. All elements of streetscape within the delineated corridor should contribute to harmonious and consistent designs for these areas. Local service utilities should be underground along major commercial corridors or run in locations behind buildings. High voltage above-ground power lines along major commercial corridors should be designed and placed to be as unobtrusive as possible. Signs along the corridor should meet height, size and other relevant standards that help provide a coherent image for the corridor.

## Stormwater

Design options reuse the existing space within the street right-of-way can incorporate green infrastructure. Green infrastructure includes a range of natural and built approaches to stormwater management— such as rain gardens, infiltration planters, and bio-swales—that mimic natural systems by filtering stormwater and letting it absorb back into the ground and using trees and other vegetation to hold rain water until it evaporates. Recommendations include installing larger and deeper planting areas for new trees and providing more space to capture stormwater and installing rain gardens in select areas.

## The Streetscape & Landscape Guidelines

The following pages outline the three primary Streetscape Areas along State Route 63 & State Route 741 and the streetscape design guidelines for each. The plans show illustrative long-term streetscape improvements for each area. The plans for each area identify recommended streetscape conditions, critical dimensions, landscape plantings, and other elements.

**Western Section SR 63:** This section extends from the Miami Valley Gaming Racino and ends at Union Village, just west of the intersection of State Route 63 and State Route 741 intersection. This portion of the corridor is currently undeveloped, with the State Correctional Facility as the main institution. The existing streetscape consists generally of two lanes, overhead electrical lines and minimal landscaping. Portions of the area also have a more industrial character, reflecting an important aspect of the regional economy, with business activity that is located near the City of Monroe. A gateway element should be included at the intersection of the frontage road and State Route 63.

**Eastern Section SR 63:** This section extends from Hamilton Road and ends at the City of Lebanon's boundary. This portion of the corridor is mainly undeveloped, with large farms and county facilities. The existing streetscape consists generally of two lanes, overhead electrical lines and minimal landscaping.

**SR 741 South of Hamilton Road:** This portion of State Route 741 is developed with large farms and single family homes on large lots. This segment of the corridor has a more suburban character, with a largely disorganized pattern of residential development that has occurred through a series of individual private developments over many years. The existing streetscape consists generally of two lanes and minimal landscaping.

**SR 63 & 741 Intersection:** This portion consists of the State Route 63 and State Route 741 intersection and frontage along Union Village and adjacent properties. These are the proposed boulevard areas identified in the Gateway Plan-West.

### GREEN STREETS INFRASTRUCTURE DESIGN ELEMENTS

Green street stormwater management can be achieved through use of a variety of design elements. Depending on the underlying soil conditions, these elements can either infiltrate storm runoff into the soil to and in some cases recharge or they can be designed with an under drain system that provide detention of runoff for a short period of time before it is released into to the local storm or storm sewer system. Both methods catch debris and remove sediments and pollutants before the runoff waters enter the groundwater or utility system. The following are more common elements, any of which could be designed as infiltrative or using an under drain system:

**Rain Gardens:**

Rain gardens are larger landscape areas designed to capture and hold large amounts of stormwater volume. They can be designed with various sizes and configurations including standalone naturalistic looking ponds and street integrated urban planters. Rain gardens are shallow systems that allow for the separation of debris and allow sediments and pollutants to filter out as water soaks into the ground.

**Stormwater Planters:**

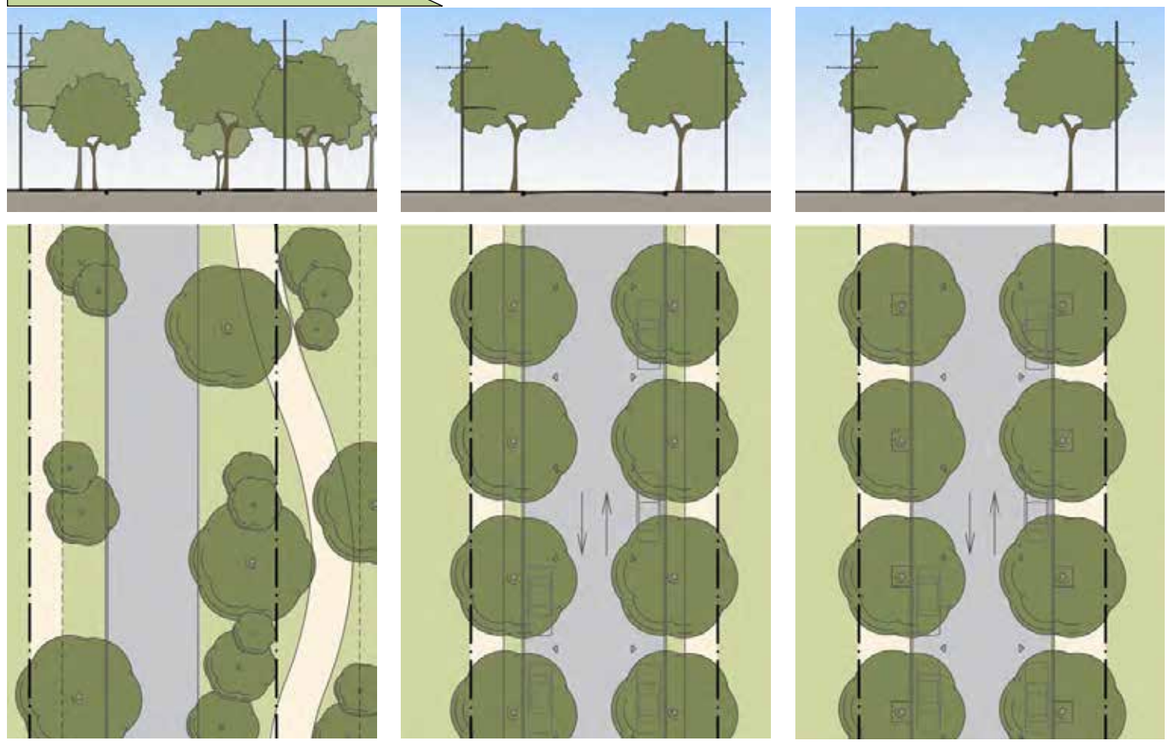
Also referred to as infiltration or flow-through planters, stormwater planters collect and retain runoff within a recessed landscape system. Stormwater planters are typically used in highly urbanized areas where space is often constrained and there is a need to collect and hold larger volumes of runoff. Stormwater planters are typically designed with vertical containment walls and a flat bottom soil grade in order to maximize stormwater management volume within the landscape space.

Landscape areas will be informally clustered to reflect the character of the surrounding, in contrast to the uniform, evenly-spaced street trees along Union Village and near the commercial nodes. Street trees should include a mix of both evergreen and deciduous trees, and a variety of native species. Some street trees will need to be placed outside of the road right-of-way, to accommodate setback requirements for overhead power lines and may only be implemented based on the timing of each development. Overhead utility lines should be buried to eliminate visual clutter and to minimize system disturbance from major storm events. Stormwater management is typically accommodated as bio-swales along the street edge. A gateway element incorporated into the landscape is encouraged at the intersection of the new frontage road and State Route 63 opposite the state correctional facility.

The streetscape along Area 3 will be primarily defined by the plan for Union Village and the below streetscape plans for State Route 741.

The State Route 741 streetscape will contain curbs; sidewalks; tree lawns; consistent, evenly-spaced street trees; pedestrian crossings; human scale lighting, and other pedestrian amenities which support some pedestrian connectivity and comfort. A dual-direction multi-purpose separated trail from travel lanes with landscaping, bollards, parallel parking or a combination thereof is also planned. Landscaped medians are recommended prior to the State Route 63 and State Route 741 intersection. Burial of overhead utilities should considered. The proposed cross-section of State Route 63 will be most similar to the proposed cross-section State Route 741. Within the State Route 63 portions of Area 3, consistent, evenly-spaced street trees should be planted to reinforce the commercial character of these sections. Street trees should be planted 25 to 35 feet on center, but no more than 40 feet on center. Variation in tree spacing may be appropriate in some circumstances, depending on location and adjacent uses, underground utilities, and above ground structures. Due to the existing overhead utility lines along State Route 63, the tree species selection is limited to allow safe clearance. Street trees of the same genus and species should be planted continuously and along both sides of this segment. In some instances, where a natural change in species seems logical due to an adjoining important feature, a change in species may be appropriate.

**FIGURE 3.1:** Street Design



| | | |
|---|---|---|
| Protected Bike Lane: A dual-direction multi-purpose separated trail from travel lanes with landscaping, parallel parking or a combination thereof, and detailed for more urban Transect Zones. | Protected Bike Lane: A dual-direction multi-purpose separated trail from travel lanes with landscaping, parallel parking or a combination thereof, and detailed for more urban Transect Zones. | Protected Bike Lane: A dual-direction multi-purpose separated trail from travel lanes with landscaping, parallel parking or a combination thereof, and detailed for more urban Transect Zones. |

## GOAL 2: ESTABLISH GATEWAYS

### Background

With thousands of motorists passing through the study area each day, this corridor will represent how many people experience and perceive  Turtlecreek Township and the City of Lebanon. The Gateway Plan-West recommends a corridor experience that is fitting with the character of the Township. The Gateway Plan - West establishes the foundation for gateways within western Turtlecreek Township and identifies three locations along the State Route 63 and 741 corridor appropriate for the installation of gateways. Community branding is essential to setting the tone for the community as a desirable place to live, work, and play. A “gateway” is a common way to accomplish this. Typically located at entry points into a jurisdiction or place, gateways can comprise signage, landscaping, or a combination of both, but may also come in the form of landmarks, boulevards, and roundabouts.

### Gateway Design & Locations

First impressions set the tone for how people perceive the Township. The Crossroads gateways should take a variety of forms and include many elements, including coordinated landscape designs, streetscape features, architecture, and signage. The planned improvements of State Route 63 offers opportunities to create unique and memorable gateways to both the Township, City and the County that are attractive and inviting to visitors and that introduce the character of the community.

## GOAL 3: IDENTIFY COMMERCIAL NODES & DESIGN FOR GROWTH

### Background

There are some distinctive places that help to define Turtlecreek's image, and there are opportunities to improve these places and create more. Planned commercial structures within nodes along State Route 63 are clustered within walking distance of each other and front directly on the sidewalks, making the walk from one place to another lively and interesting. Union Village 's planned commercial center is frequently mentioned as an example of a local commercial district that residents like. Achieving comparable conditions in newer centers requires streets that accept on-street parking, sidewalks, and building placement with entrances along the sidewalks. As noted in the Gateway Plan-West, the Land Use Element of the Plan seeks to reshape commercial development into pedestrian-oriented commercial centers located in select areas, rather than in continuous corridors along State Route 63. The intent is to create a situation where shoppers park once and walk to several destinations.

### Recommendations

Pedestrian-oriented commercial nodes should be developed at select locations that offer excellent access and visibility for businesses and also offer the potential to create memorable places accessible by a variety of transportation modes. In order to create a successful walkable development, the following guidelines should be observed.

The diagrams in (Figure 3.3) illustrate prototypical centers and elaborate on the following urban design standards:

a. Create places that replicate the form and function of a traditional "main street" or town centers,

b. Provide for a full mix of uses to be developed over time to ensure pedestrian vitality,

c. Provide for pedestrian activity with front doors opening onto the street and through streetscape design,

d. Connect commercial centers with surrounding streets and neighborhoods,

e. Integrate vehicular traffic and parking as a hierarchical block structure of streets and "back lot" parking.

In addition the following guidelines should apply to the development of commercial nodes development at all scales:

- The intersection of streets should be designed as a prominent public place, using both the massing of adjacent buildings and the design of the public open space. The land surrounding the intersection will be suitable for a variety of development uses, including office, civic or retail. A public square is suggested for especially large and busy intersections to create an attractive, landmark space.
- Buildings are arranged along a build-to line at the intersection of two prominent streets.
- Development should orient to major streets, providing street-facing buildings and landscaping along streets.
- On-street parking is recommended and additional parking should be provided in rear or side parking lots.
- Large format "big box" retail should be designed to be compatible with pedestrian oriented streets. Large stores may be tucked behind a row of smaller storefronts or provide a terminating anchor for a shopping street.
- Buildings create a pedestrian oriented intersection and have a traditional relationship to the street, including transparency at ground level and entrances onto the street sidewalk.
- Signs should be sized and designed to effectively communicate to both pedestrian and vehicular traffic without becoming a visual distraction. Wall-mounted and ground-mounted monument signs are appropriate. Signs should contain external illumination and pole signs should be prohibited.

#### THE GATEWAY PLAN

Goal: A land use pattern with distinct nodes of activity.

**Objective:**

- Employment centers and commercial development will be concentrated around interchanges and major road intersections, such as State Route 63 and State Route 741.
- Rezone the corner of the State Property located south of Otterbein to Mixed-Use Center (MXU-C).
- Create a redevelopment concept plan for the State Property to determine the best use of this land in the event that the correctional facilities are relocated.
- Discourage suburban-style strip centers and work closely with developers to come up with alternatives.

## Office

The State Route 63 corridor presents tremendous opportunities to potential office users who desire the visibility offered by a highly-trafficked corridor. The land immediately along these corridors should be utilized for office buildings or commercial buildings with an office use. One key driver of an office use is the opportunity to create a walkable work environment. By providing retail, restaurant and residential uses nearby, the office user has opportunities to visit a coffee shop on a break, complete errands at lunch, or even live in Union Village or adjacent neighborhoods and walk to work. Many companies are looking for this lifestyle-based workplace and it can be an effective recruiting tool for talented employees.

## Public Space

State Route 63 is the primary gateway into the community and commercial nodes along this important entry boulevard should be framed by buildings and include prominent lighting, landscaping, and specialty pavements. Landscaping, fountains, public art, site furnishings, and other amenities should be included in the space.

## Proposed Locations for Commercial Nodes

Two commercial/office nodes are recommended along the State Route 63 corridor. These nodes incorporate some additional land not currently zoned for commercial/office uses. The intent of this pattern is to focus commercial and employment areas in close proximity to existing utility and/or transportation infrastructure. The Warren County Rural Zoning Code should be modified to develop a zoning district that is specifically designed to implement these commercial nodes.

## Site Development within Commercial Nodes

The Steering Committee suggests developing a commercial node, west of Union Village and along SR 63, that is designed to be a destination that affects the perception of the entire corridor and encourages private investment in the area. This node must be designed for safe access, and integration into the adjacent neighborhoods and result in a vibrant development that successfully hosts and connects a multitude of uses. This commercial node must be more than the typical strip retail and would be implemented by private developers. These nodes could include corporate headquarters, retail stores, community services, local businesses, and cultural and entertainment destinations; all structured within a pattern of streets, blocks and green gathering spaces that promote balanced options for movement and increased economic vitality.

**FIGURE 3.3:** Site Development

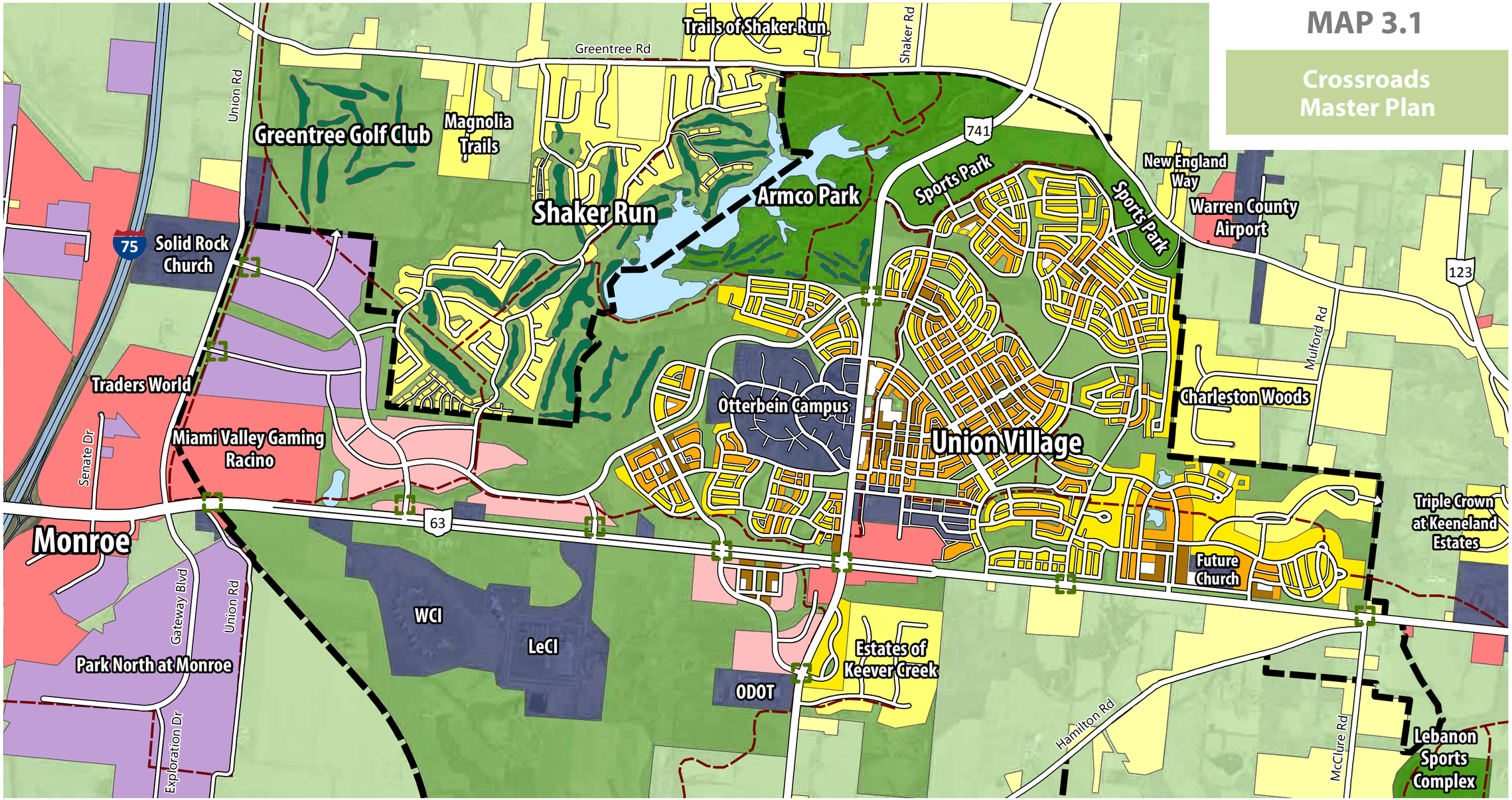
Least Intense

More Intense

Most Intense

# MAP 3.1

## Crossroads Master Plan




LEGEND

FEET
0 2,000 4,000

MILES
0 0.5 1

N

**Land Uses**

- Agricultural
- Open Space
- Park
- Golf Holes
- Water Bodies
- Institutional
- General Commercial
- Office Park
- Industrial
- Rural Residential
- Suburban Residential
- Neighborhood Edge (T3)
- Neighborhood General (T4)
- Neighborhood Center (T5)
- Study Area
- Multi-Purpose Trails
- Gateways

NOTE: This map is purely suggestive and is not a substitute for the Warren County Comprehensive Plan. The purpose of this map is to illustrate one possible way to implement the recommendations stated in the text of the Turtlecreek Crossroads Plan.

**Institutional-** A general land use of but not limited to nursing homes, assisted living, senor centers, adult day care, hospice, physical therapy hospitals, emergency care, physician services, home health.


**General Commercial-** Business establishments located near or adjacent to residential uses. Allows a broad range of activities, encouraging business establishments in centralized locations and along major roadways to serve the community.

**Office Park-** Development designed specifically to attract office users, usually with scenic views, walking trails and restaurants, multiple entrances to ease traffic flow, and preferably at least one median cut and a traffic light to facilitate left turns out of the property in the evenings.

**Industrial-** 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.

**Suburban Residential-** Higher density than rural density but transition between uses.

**Neighborhood Edge-** Restricted to the number of dwellings on each lot within a principal building and one Accessory Unit.

**Neighborhood General-** The number of dwellings on each lot is limited by the requirement of 1.0 assigned or adjacent on-street parking space for each dwelling.

**Neighborhood Center-** More intense than Neighborhood General but has the same number of dwellings on each lot is limited by the requirement of 1.0 assigned or adjacent on-street parking space for each dwelling.

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# CHAPTER 4

## IMPLEMENTATION

## BACKGROUND

This chapter summarizes the actions that are necessary to implement the Turtlecreek Crossroads Plan's recommendations and overall vision. After engaging dozens of stakeholders, reviewing previous studies, and analyzing the corridor's physical, cultural and financial resources, the Steering Committee agreed that by 2024 they wanted local residents and regional visitors to easily access and navigate the corridor by multiple means of transportation, and experience an extraordinarily attractive environment. These factors should collectively stimulate private sector investment in Turtlecreek Township producing more tax revenue and jobs. Following approval of the plan, RPC staff will bring forward amendments to the Comprehensive Plan; the Warren County Rural Zoning Code, and the Future Land Use Map. Further implementation items should be approached in a phased manner, identified in the matrix below.

## HOW TO READ THE TABLES

The text boxes below offer a guide for reading through the implementation tables. Implementation actions are organized according to goals and action strategies. Additional information is also provided for each action to specify who is responsible for carrying out the action, and approximately how long it should take to carry out.

### Policy Terms

The implementation tables are organized by responsibility, time frame and notes.

**Responsibility**: Who is responsible to implement the action.

**Time frame**: The estimated time to complete the action.

**Notes**: Any specific terms that should be addressed.

### Time Frame

A general estimate of time needed to implement each action item is provided here.

**Short-term**: 1-3 years

**Mid-term**: 4-10 years

**Long-term**: 11 years or more

**Ongoing**: A policy or action that requires short term action and continuous involvement or enforcement thereafter.

| IMPLEMENTATION ACTION | RESPONSIBILITY | TIME FRAME | NOTES |
|---|---|---|---|
| **Goal 1: A safe, accessible, sustainable, and efficient multi-modal transportation network.** | | | |
| Action 1.1: Ensure that SR 63 and SR 741 is designed in accordance with the recommendations of the Plan in terms of number of lanes, road cross-sections and lanes with landscaping. | WCEO | Short-term | First phase to be addressed between Union Road and SR 741 |

### Responsibility

The Turtlecreek Crossroads Plan will be implemented by a variety of different entities. The lead organization(s) responsible for each action are listed first in bold followed by supporting organizations.

### Notes

Miscellaneous notes and references to maps, figures, boxes, and other relevant action items are provided here.

### Abbreviations & Acronyms

**Abbreviations**

| | |
|---|---|
| Dept. | Department |
| Dev. | Development |
| T'creek | Turtlecreek |
| Twp | Township |

**Acronyms**

| | |
|---|---|
| ODOT | Ohio Department of Transportation |
| WC | Warren County |
| WCEO | Warren County Engineer's Office |
| WCRPC | Warren County Regional Planning Commission |
| WCCVB | Warren County Convention & Visitors Bureau |
| WC ZONING | Warren County Zoning |
| T'CREEK TWP DC | Turtlecreek Township Design Committee |
| WCAO | Warren County Administration Office |
| NCA | New Community Authority (Union Village) |

# ROAD DESIGN

| IMPLEMENTATION ACTION | RESPONSIBILITY | TIME FRAME | NOTES |
|---|---|---|---|
| **Goal 1: A safe, accessible, sustainable, and efficient multi-modal transportation network.** | | | |
| **ACTION 1.1:** Widen and improve SR 63 to five lanes (two travel lanes in each direction with a center turn-lanes in each direction with a center turn-lane/ median. SR 63 should transition to an urban roadway approximately 1/2 mile east and west of SR 741 and have the following characteristics:<br>• Curb and gutter<br>• Small shoulder width or no shoulders<br>• Slightly reduced speed limit (e.g. 45 mph)<br>• More landscaping and decorative lighting is encouraged | WCEO & ODOT | Short-term (East of SR 741)<br>Mid-term (West of SR 741) | See page 18 |
| **ACTION 1.2:** Improve the intersection of SR 63 and SR 741 with additional travel lanes and turn-lanes, and incorporate pedestrian crosswalks and refuge islands. | WCEO & ODOT | Short-term | See pages 22 and 23 |
| **ACTION 1.3:** Change the thoroughfare designation of SR 63 from "Primary Arterial" to "Primary Collector/ Distributor." | WCEO & ODOT | Short | See page 19 |
| **ACTION 1.4:** Limit spacing for new major intersections along SR 63 to a minimum of 1/2 mile. | WCRPC & ODOT | Ongoing | See page 19 |
| **ACTION 1.5:** Improve sight-distance on SR 63 near McClure Road. | WCEO & ODOT | Mid-term or in conjunction with road widening | See page 19 |
| **ACTION 1.6:** Transform SR 741 into an urban, walkable street through Otterbein and Union Village Town Center with the following characteristics:<br>• Narrower travel lanes (10-11 feet wide maximum)<br>• Curb and gutter<br>• Reduced speed limit (e.g. 25-35 mph)<br>• Dual bike lanes or shared bike lanes<br>• Wide sidewalks (6-12 feet wide)<br>• Marked crosswalks<br>• Street trees, decorative lighting, benches, and landscaping | ODOT, Otterbein, & Union Village Development Company | Short-term & Ongoing | See page 20 |
| **ACTION 1.7:** Calm traffic through Otterbein and the Village Center with the addition of strategically placed round-abouts. | ODOT, Otterbein & Union Village Development Company | In conjunction with development phasing of Union Village | See Map 2.1 |

# ROAD DESIGN CONTINUED

| IMPLEMENTATION ACTION | RESPONSIBILITY | TIME FRAME | NOTES |
|---|---|---|---|
| **Goal 1: A safe, accessible, sustainable, and efficient multi-modal transportation network.** | | | |
| **ACTION 1.8:** Improve SR 741 near Armco Park and the Warren County Sports Park to three lanes (one travel lane in each direction with a center turn lane) and right-turn lanes at major intersections. | ODOT & WCCVB | Short-term | See page 21 |
| **ACTION 1.9:** Install a roundabout at the entrance to Armco Park and Warren County Sports Park to improve intersection safety for motorists and pedestrians. | ODOT & WCCVB | Short-term | See Map 2.1 |
| **ACTION 1.10:** Update the County Thoroughfare Plan to include the design characteristics described in this Plan for pedestrian friendly streets including narrower travel lanes, parallel parking, designated areas for planters and street trees and alleys. | WCRPC & WCEO | Short-term | See pages 18, 20 and the Union Village PUD |
| **Goal 2: A connected road network** | | | |
| **ACTION 2.1:** Amend the Warren County Thoroughfare Plan to include the "East/ West Connector Road" and other new roadways identified in the Plan. | | | See Map 2.1 |
| **ACTION 2.2:** Amend the Union Village Master Plan (PUD) to include the East/West Connector Road | WCRPC & Union Village Development Company | Short-term | |
| **ACTION 2.3:** Secure right-of-way and require development of the "Connector Road" as development of sites occur. | WCAO & WCRPC | Ongoing | Work with the State Government to ensure sale of the state property is dedicating right of way easements. |
| **ACTION 2.4:** Secure right-of-way and require development of the "Frontage Road" as development of sites occur. | WCAO & WCRPC | Ongoing | |

# ROAD DESIGN CONTINUED

| IMPLEMENTATION ACTION | RESPONSIBILITY | TIME FRAME | NOTES |
|---|---|---|---|
| **Goal 3: A culture of walking and biking.** | | | |
| **ACTION 3.1:** Apply for Clean Ohio grants, Transportation Alternative grants, and state capitol funds to construct bike paths linking Otterbein, the Village Center, Sports Park and Armco Park. | WCRPC, T'Creek Twp, & WCEO | Short- term | Proposed trails shown on Map 3.1 |
| **ACTION 3.2:** Install an ergonomic pedestrian crosswalk that connects Armco Park and the Sports Park. | T'Creek Twp & WCCVB | Short-term | |
| **ACTION 3.3:** Seek opportunities to install trail-head amenities that include providing information, parking, signs and restrooms etc. Trail-heads should be prominent and provide information about the trail and surrounding context. | | | |
| **ACTION 3.4:** Work with developers to find opportunities to implement the trail system identified in the LTTI Plan. | WCRPC & Developers | Ongoing | |
| **ACTION 3.5:** Include sidewalks along major thoroughfares including SR 63 and SR 741 as part of development projects. | | | This may mean "sidewalks to nowhere" in the short-term but will create a robust pedestrian network in the long run. |
| **ACTION 3.6:** Incorporate pedestrian refuge islands within roadway medians at crossings away from road intersections. in particular, pedestrian refuge islands at SR 63 and SR 741. | ODOT & WCEO | In conjunction with road improvement projects | County staff should work with ODOT to continue the path to Armco Park. |
| **ACTION 3.7:** Monitor improvements to SR 641 through Union Village to ensure that the design complies with the Plan and includes sidewalks, street trees, and bike paths. Improve pedestrian safety and comfort by installing landscaping between the sidewalk and the roadway. | | | |
| **ACTION 3.8:** Update guidance on pedestrian and bicycle at intersections. | | | |
| **ACTION 3.9:** Design for improved accommodation of pedestrians and bicycles along the corridor, in particular along SR 741 through Union Village and at intersections. Design to accommodate both bicyclists and walkers with adequate space between these users based on safety, mobility, and comfort. In the areas recommended, incorporate pedestrian-scale lighting, street trees, wayfinding signage, protected bicycle lanes in each direction; and landscape treatments. | | | |

# PLACEMAKING

| IMPLEMENTATION ACTION | RESPONSIBILITY | TIME FRAME | NOTES |
|---|---|---|---|
| **Goal 1: Design green streets.** | | | |
| **ACTION 1.1:** Develop a landscaping plan for key areas along the SR 63 corridor. Key areas, should include the approaches to the SR 63 and SR 741 intersection and proposed gateway locations. | To be determined | Mid-term | Formal landscaping along urban routes and informal landscaping along rural routes. See figure 3.1. |
| **ACTION 1.2:** Install raised and planted medians on the approaches to the intersection of SR. 63 and SR 741 as a strategy to create a safe and comfortable pedestrian and cyclist crossing environment. | To be determined | Mid-term | |
| **ACTION 1.3:** Develop and implement unified streetscape treatment along SR 63 and SR 741 consisting of street trees, shrubbery and hedges, and other improvements that can help beautify and distinguish these important thoroughfares. | To be determined | Mid-term | |
| **Goal 2: Establish gateways.** | | | |
| **ACTION 2.1:** Install gateways along SR 63 at the entrance to the new roads planned on the state property. | To be determined | Long-term | Gateway treatments should be established at the locations identified on the Recommendations Map, 1.9. |
| **ACTION 2.2:** Implement gateway landscaping along public ROWs at the locations identified in the Plan. | To be determined | Long-term | |
| **Goal 3: Establish commercial nodes and design for growth.** | | | |
| **ACTION 3.1:** Collaborate pro-actively with the Township and County in land use decision-making and development options for the State of Ohio properties along SR 63. The State property should be considered for a mix of office, commercial, and industrial uses. Make the recommended changes to the Future Land Use Map and Zoning Code. | WCAO, T'creek Twp, & WCRPC | Short-term | Should include participation from the City of Monroe and WC Zoning |
| **ACTION 3.2:** Rezone properties along the corridor to the appropriate zoning classifications in order to allow for commercial nodes to implement the Plan's land use recommendations. Establish commercial nodes along SR 63; one to the west of SR 741 (the state property), and one east of Union Village. | T'creek Twp, WCRPC, & WC Zoning | Short-term | |

# APPENDICES

# Visual Preference Survey

# INTRODUCTION

### CROSSROADS AT UNION VILLAGE PLAN

The Crossroads at Union Village corridor is located along State Route 63 and State Route 741 in western Turtlecreek Township. The Crossroads corridor has the potential to evolve as a place with more employment, a greater range of businesses, more vibrant neighborhoods, and beautiful public spaces. The Crossroads Plan is to be the product of foresight and anticipation in the midst of possible change. Spurred by State Route 63 improvements as well as emerging market conditions, area leaders saw the need to prepare for future growth. The Plan will contain a comprehensive set of recommendations that will serve as a guide for the design and development of the corridor. Specific criteria for streetscape, roadway design, roundabouts,  gateway, land uses, and site design, will be outlined to ensure that all new development and improvements within and outside the right-of-way fulfills the vision for a welcoming and coherent corridor.

### VISUAL PREFERENCE REPORT

This document, The Crossroads at Union Village Visual Preference Report is a component of a larger year long planning process that began in Spring 2016. A Visual Preference Survey was launched on the Crossroads at Union Village Plan's website in June 2016, the survey received over 174 completions (144 of which were local residents). The purpose of the Visual Preference Survey was to receive public input on how potential improvements and future developments may be designed. Specifically the Visual Preference Survey included seven different sections: streetscapes, office buildings, single-family residential, multi-family residential, landmarks and gateways, bikes and pedestrian trails, and commercial centers. This Report is intended to present the results of the Visual Preference Survey in as clear of a manner as possible. The Visual Preference Report as well as a public workshop scheduled on August 9th will allow residents to learn about the study area and offer their input on corridor issues and opportunities. The public participation received will be an essential element in the planning process and formulation of the Crossroads at Union Village Plan, it will influence all levels of government in the decision making process to reflect the publics needs and desires.

### HOW TO INTERPRET DATA

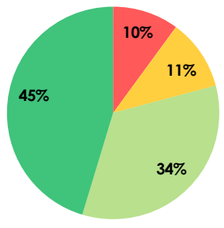
The following chapter, "Survey Results," contains all the data received from the Visual Preference Survey, this data is categorized into seven sections: streetscapes, office buildings, single-family residential, multi-family residential, landmarks and gateways, bikes and pedestrian trails, and commercial centers. Each section consists of four different images, participants were asked to rank each image from one to four (four being the most desirable and one being the least desirable). Each rank has been assigned a specific color; dark green representing desirable, light green representing somewhat desirable, yellow representing somewhat undesirable, and red representing undesirable. The results for each image are represented using two different graph types, a pie chart and a bar graph both of which can be found in a column below its corresponding image. The pie chart displays the percentage of votes an image received at each rank, while the bar graph displays the exact number of votes an image received at each rank.

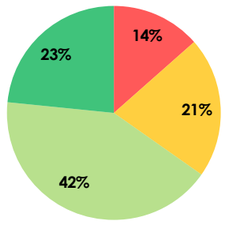
In each section the four images are ranked comprehensively (Image 1 on the left is always the highest comprehensive rank, while image 4 on the right is always the lowest comprehensive rank). This comprehensive rank is based on a point system; undesirable votes were given a multiplier of one, somewhat undesirable votes were assigned a multiplier of two, somewhat desirable votes were assigned a multiplier of three, and desirable votes were assigned a multiplier of four. These points were then totaled to rank each image comprehensively.

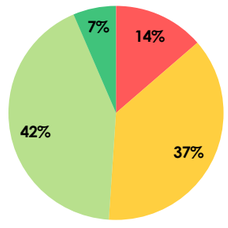
**HOW TO INTERPRET THE DATA**

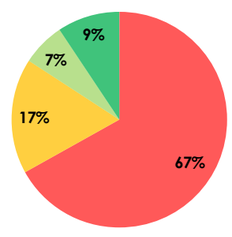
**Section Title** — SINGLE-FAMILY RESIDENTIAL

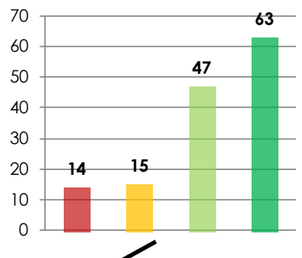
IMAGE 1 COLUMN | IMAGE 2 COLUMN | IMAGE 3 COLUMN | IMAGE 4 COLUMN

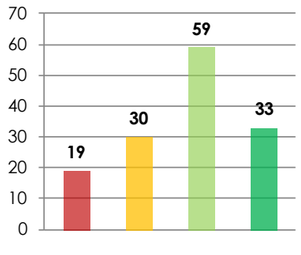


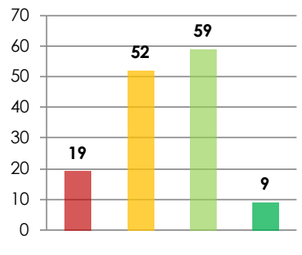



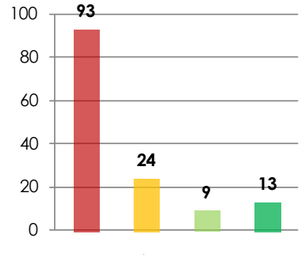




**IMAGE 4:** Comprehensively ranked the least desirable of the four images in this section

**IMAGE 4:** 67 percent of votes received were undesirable (red), 17 percent of votes were somewhat undesirable (yellow), 7 percent of votes were somewhat desirable (light green), and 9 percent desirable (dark green).

**IMAGE 1:** Comprehensively ranked the most desirable of the four images in this section

**COLOR KEY**

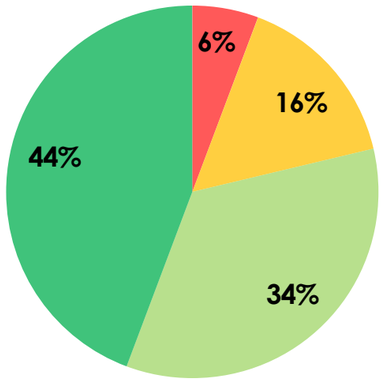
- Desirable
- Somewhat Desirable
- Somewhat Undesirable
- Undesirable

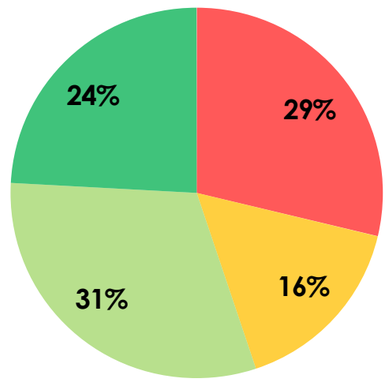
**COMPREHENSIVE POINT SYSTEM:**

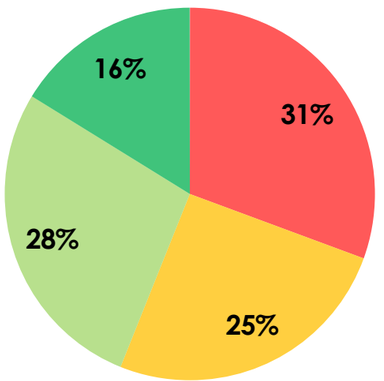
| Votes | | Votes | | Votes | | Votes | | Total Points |
|---|---|---|---|---|---|---|---|---|
| 14 | + | (15 x 2) | + | (47 x 3) | + | (63 x 4) | = | 437 |

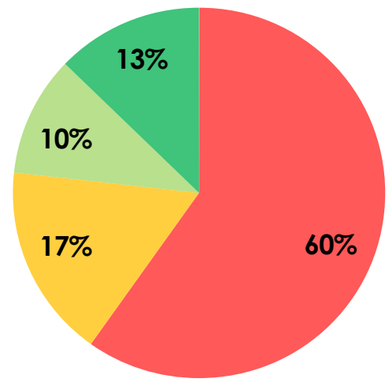
**IMAGE 4:** received 93 undesirable votes (red), 24 somewhat undesirable votes (yellow), 9 somewhat desirable votes (light green), and 13 desirable votes

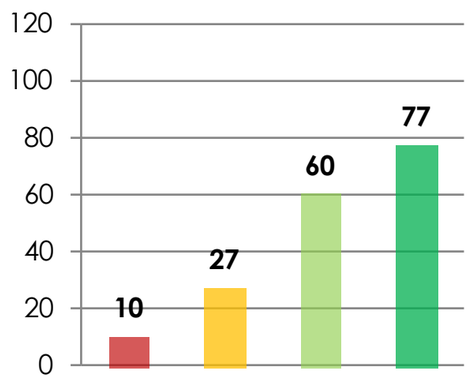
# STREETSCAPE

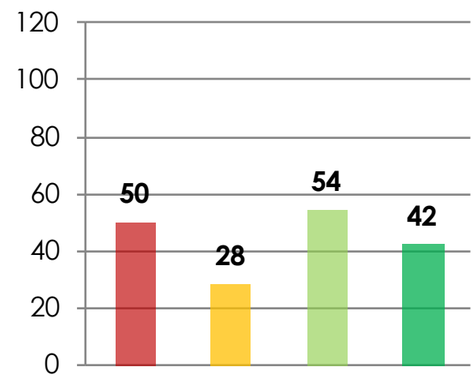


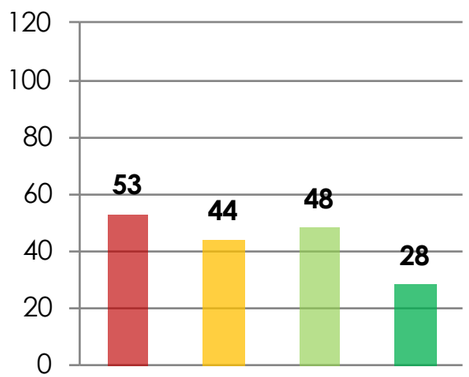



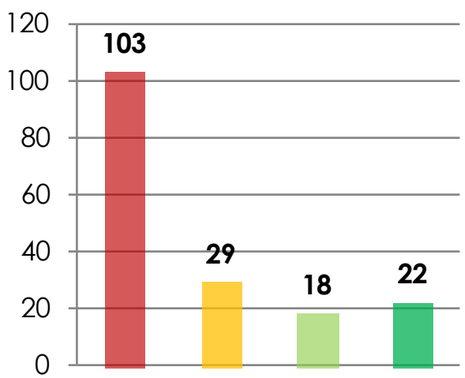



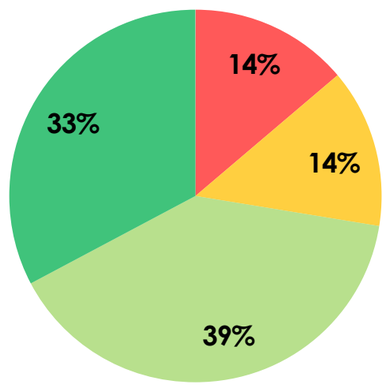



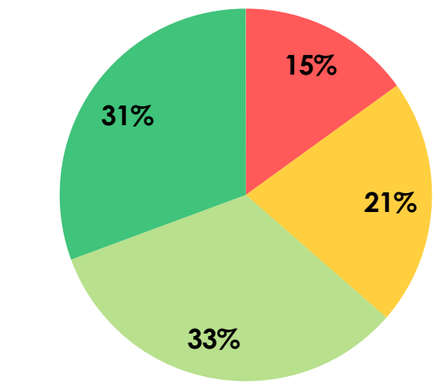



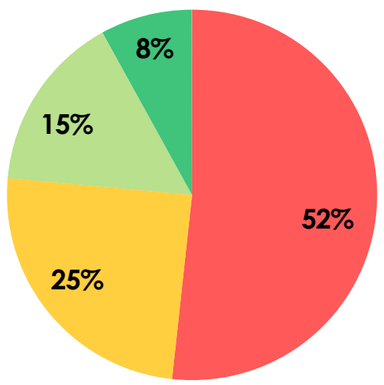



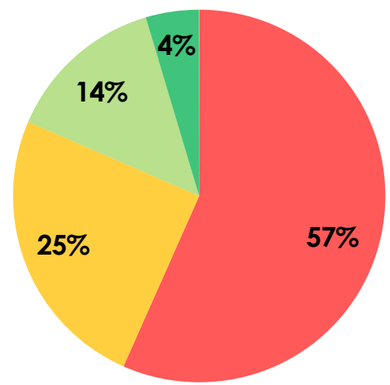



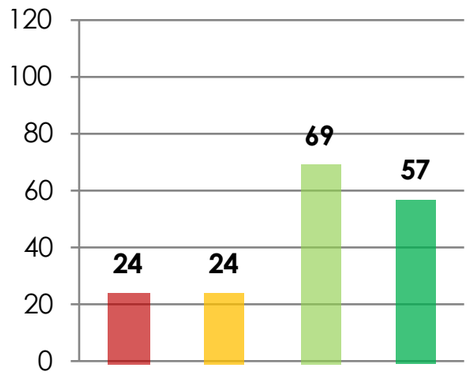
# OFFICE BUILDINGS

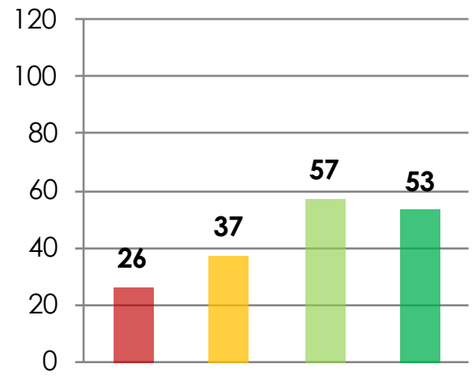


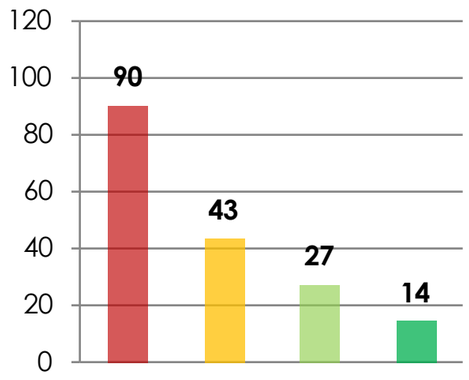



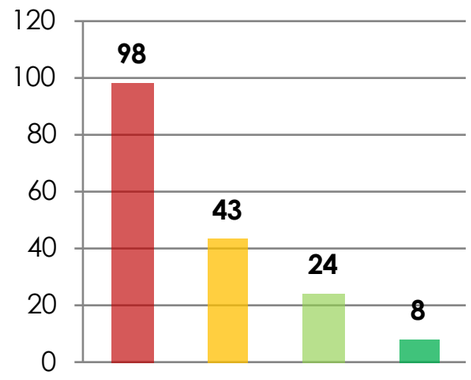



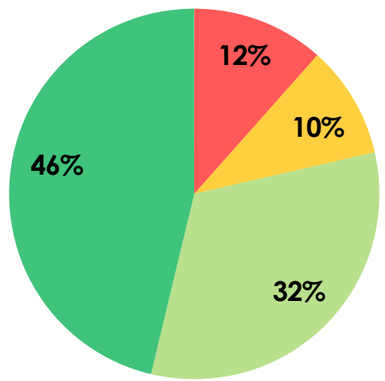



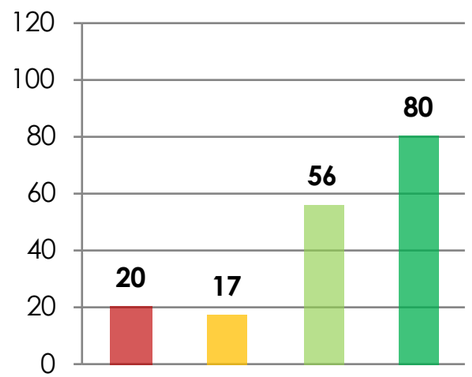



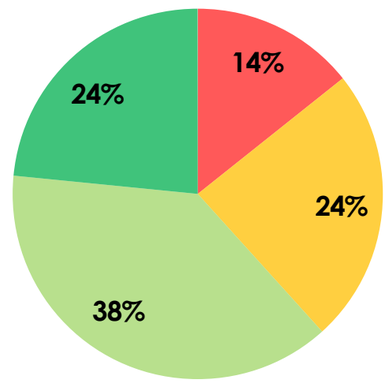



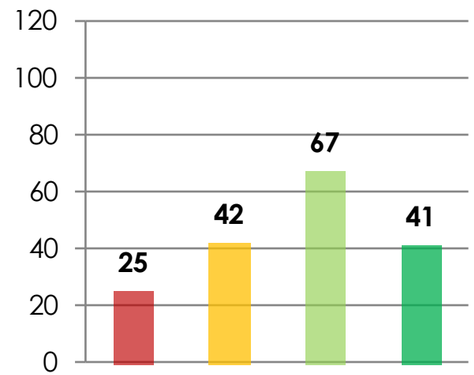



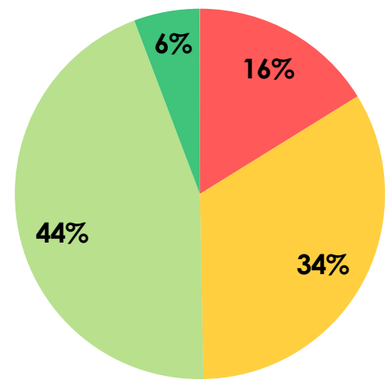
# SINGLE-FAMILY RESIDENTIAL

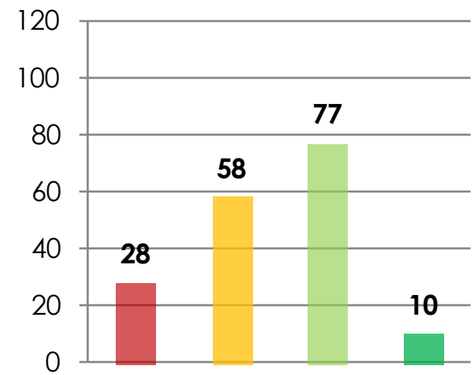


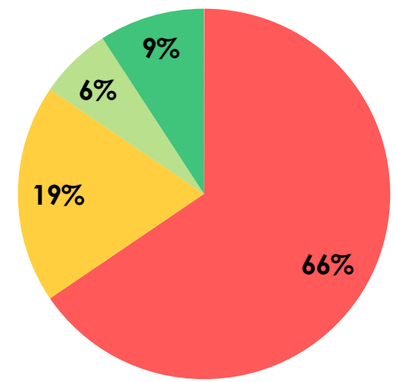



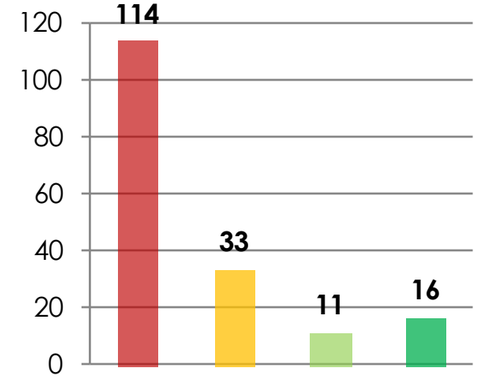



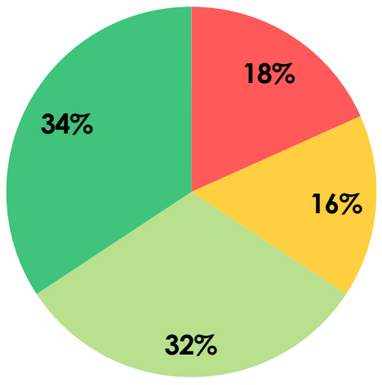



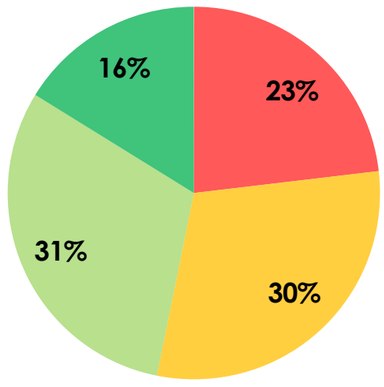



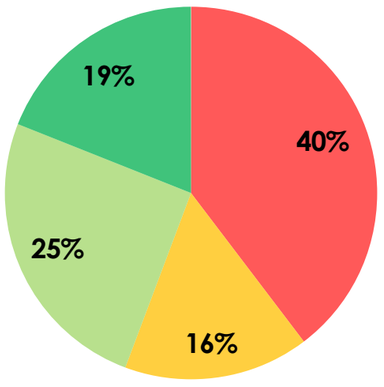



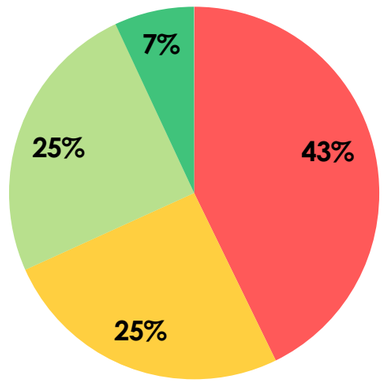



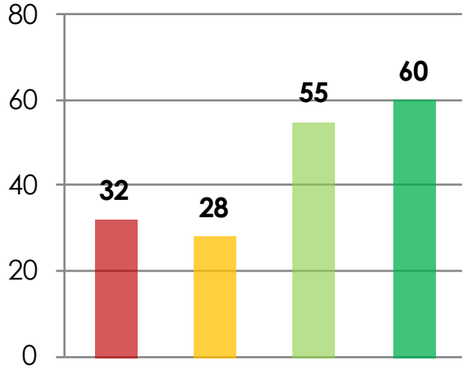
# MULTI-FAMILY RESIDENTIAL

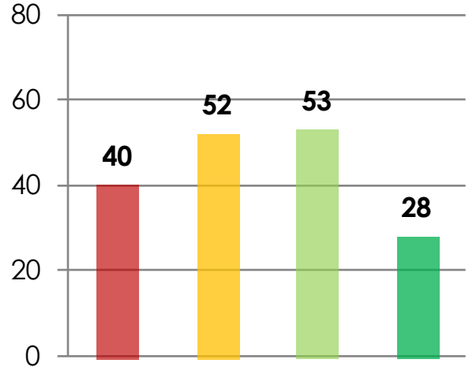


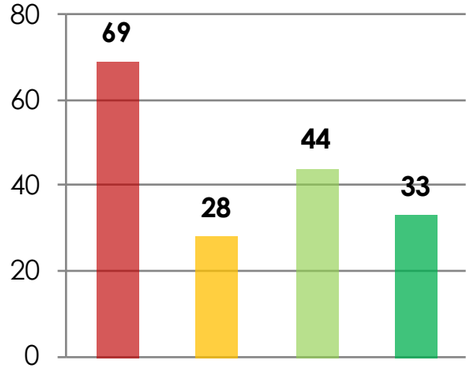



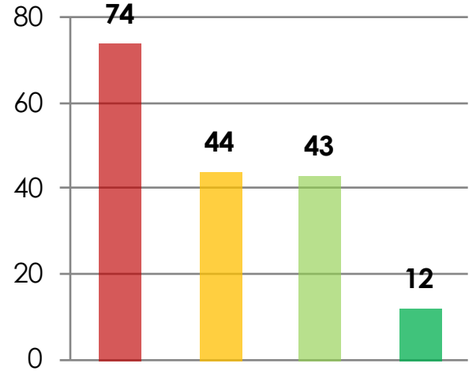



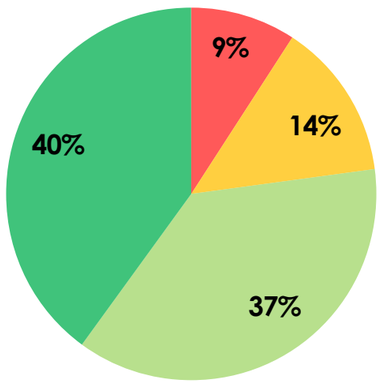



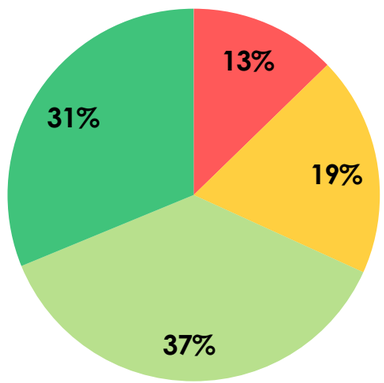



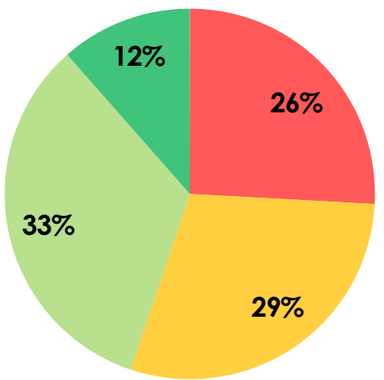



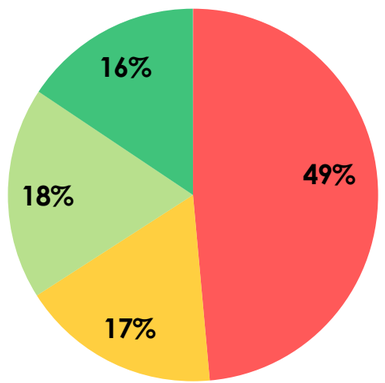



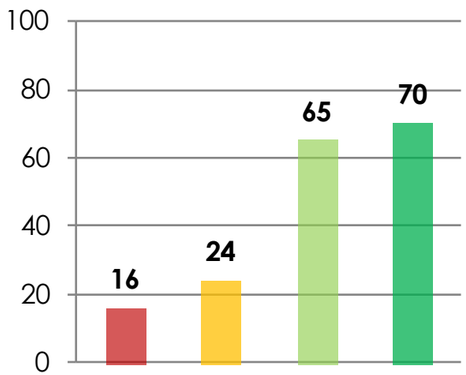
# LANDMARKS & GATEWAYS

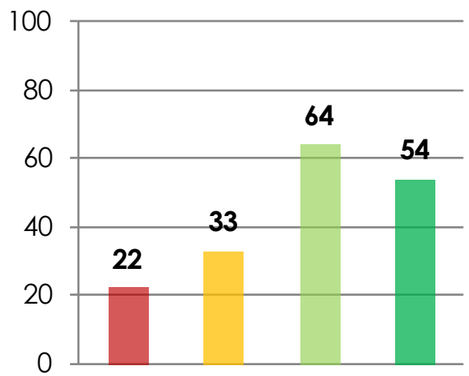


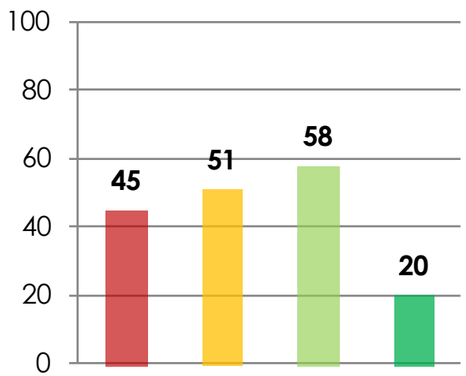



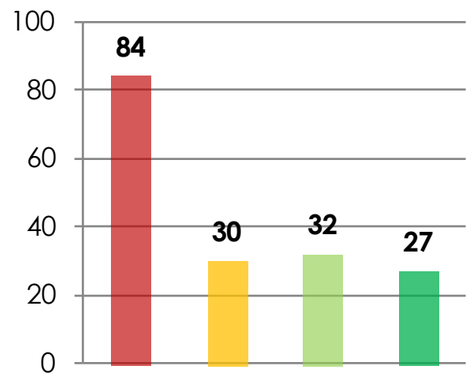



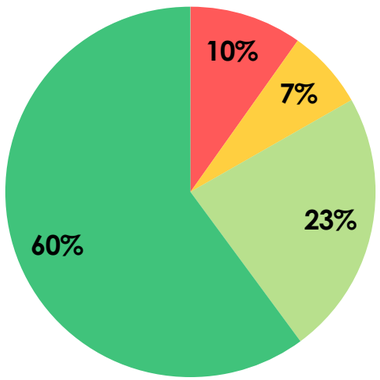



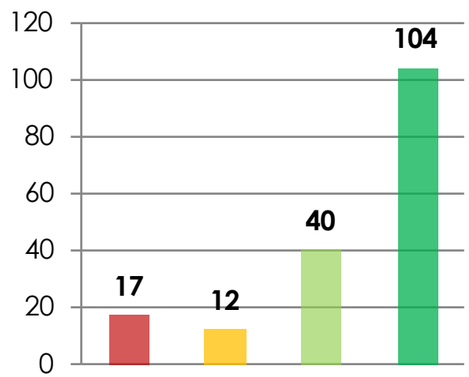



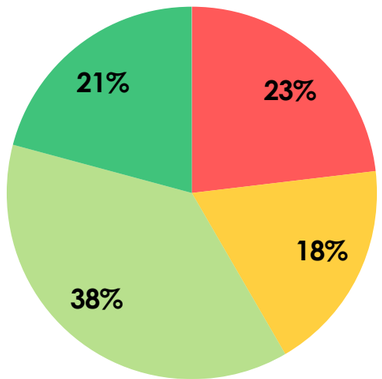



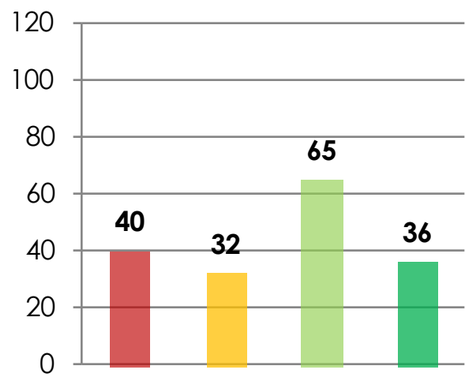



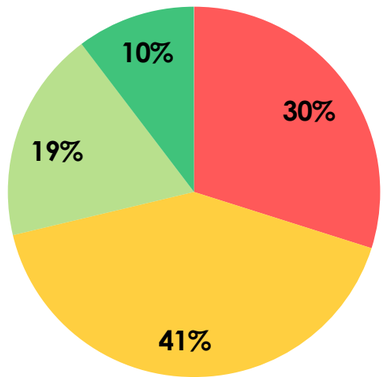
# BIKE & PEDESTRIAN TRAILS

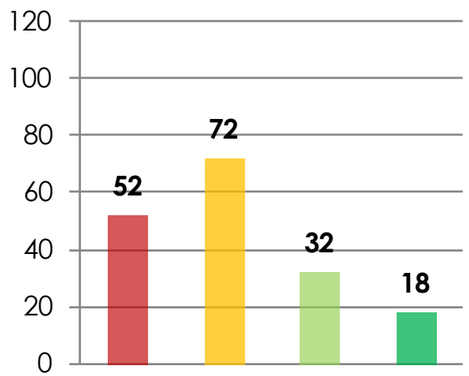


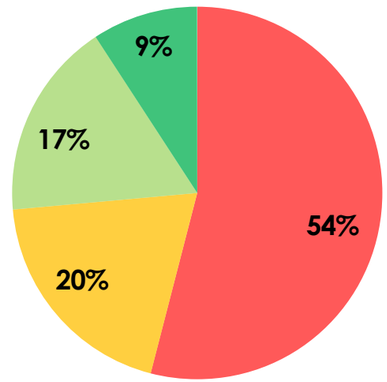



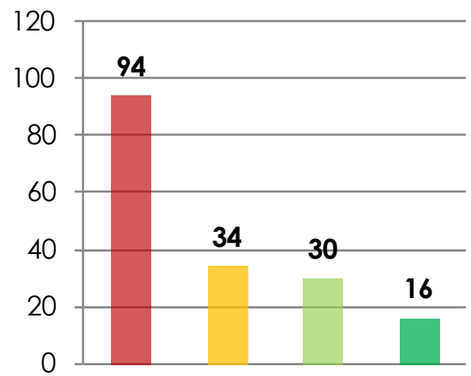



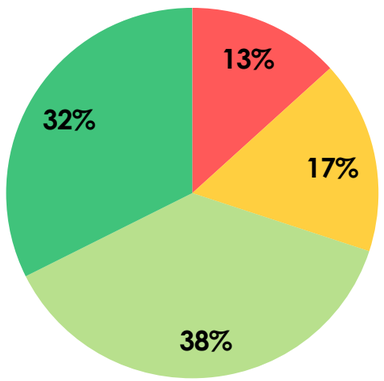



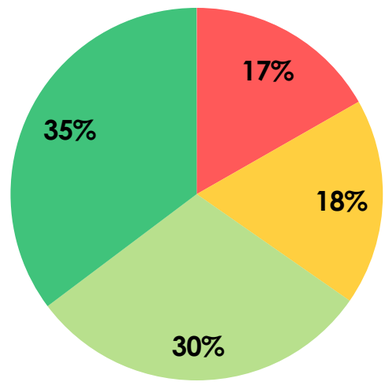



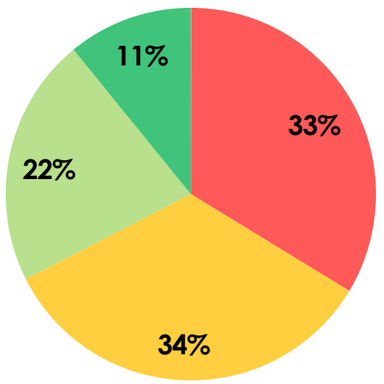



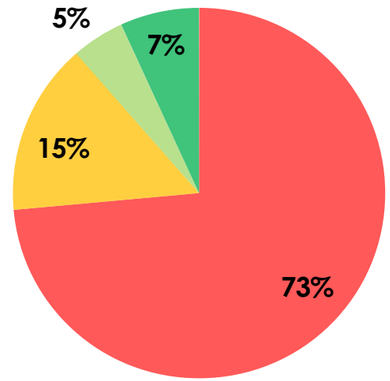



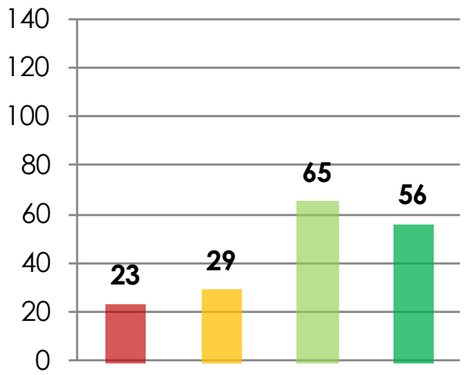
# COMMERCIAL CENTERS

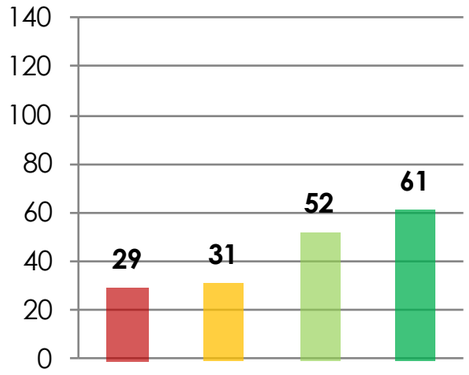


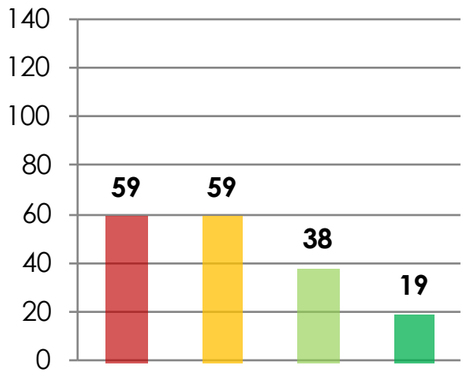



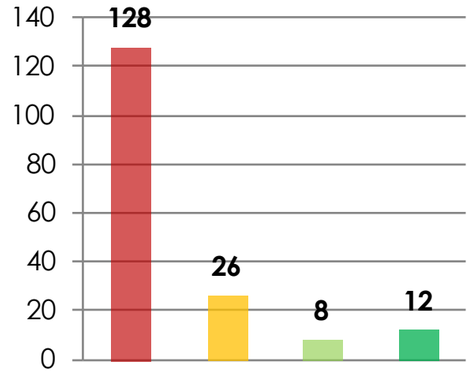



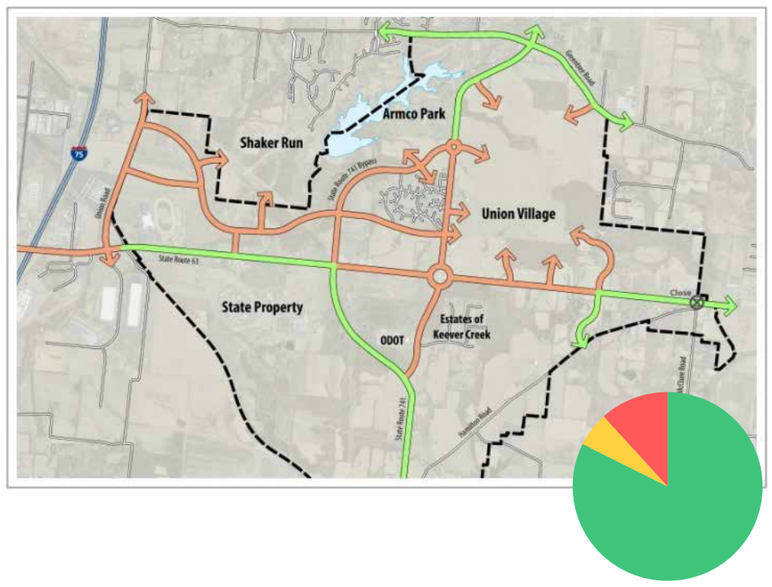



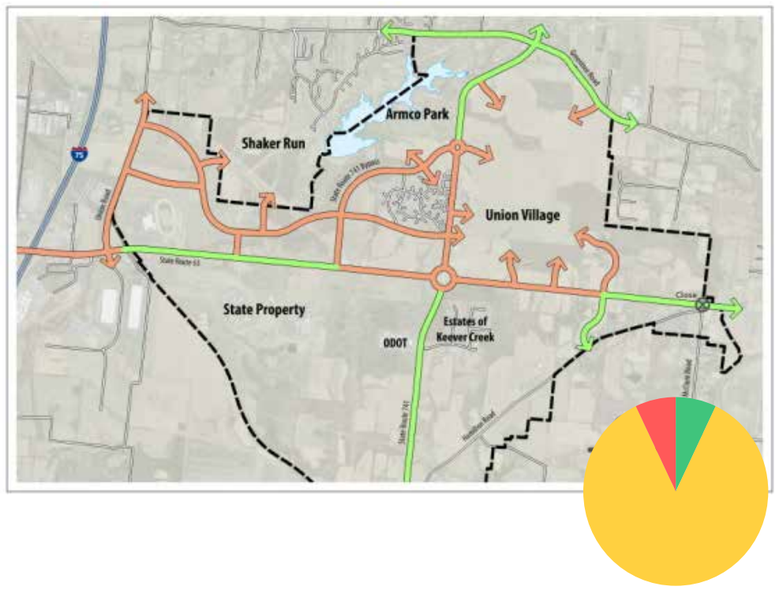



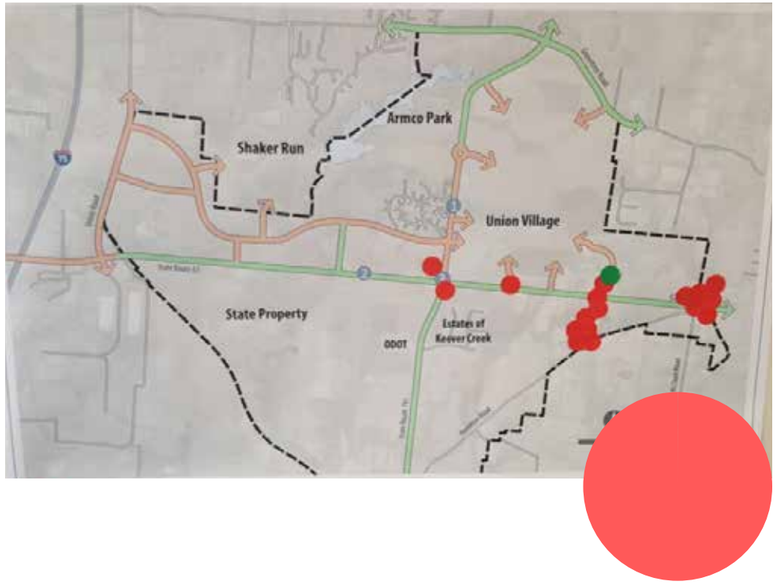
# OPEN HOUSE SURVEY

## GATEWAY DESIGN

## 741RE-ROUTE



# CONCLUSION

Chapter 4, "Conclusion" analyzes the results from the Visual Preference Survey located in the previous chapter, "Survey Results." Each of the seven sections are analyzed separately and a conclusion is established for each. The conclusions for each section contain a definition explaining what visual feature the section is referencing and an analysis of the most desired image (left column) and the least desired image (right column), based on the surveys results.

**STREETSCAPES**

Streetscapes include all visual elements of a street. These visual elements are comprised of the road, adjoining buildings, sidewalks, street furniture, trees, open spaces, and etc.. All of these different elements unite to form a street's character, helping create a sense of place. The visual preference survey results indicated that the most desirable streetscape included four lanes of through traffic, a median, on-street bike lanes, street trees, and sidewalks on both sides of the roadway. The least desirable streetscape based on the survey results included 2 lanes of through traffic, wide roadway shoulders, and large setbacks from buildings.

**OFFICE BUILDINGS**

Office buildings are any structure used primarily for the act of business relating to the administration, clerical services, consulting, and other client services not related to retail sales. Office buildings can hold a single or multiple firms. The highest ranking office building image from the visual survey included a 3-story building with a brick and glass facade, a parking lot, trees, and other environmental features. The least desirable office building image consisted of a 4-story building with concrete and glass facade, a parking lot, parking lamp posts, and islands consisting of limited vegetation.

**SINGLE-FAMILY RESIDENTIAL**

A single-family residence, also called a single-family detached dwelling is a free-standing residential building. This means that the building is usually occupied by just one household or family. The most desirable image based on the visual survey results consisted of two-story homes, large porches, low density, driveways, side facing garages, unique architecture, and large yards. The least desirable image included two-story homes, high density, forward facing garages, "cookie-cutter" homes, driveways, and smaller yards.

**MULTI-FAMILY RESIDENTIAL**

Multi-family residential, also known as a multi-dwelling unit, is a classification of housing where multiple housing units for residential inhabitants are contained within one building or several buildings within one complex. Based on the Visual Preference Surveys results the most desirable image was one consisting of town-homes ranging from one to two and a half stories, brick and glass facade, vegetation, small setbacks, and sidewalks. The least desirable image consisted of apartments three stories high, facades consisting of siding, glass, and brick, porches or decks, larger setbacks, sidewalks, and vegetation.

**LANDMARKS & GATEWAYS**

A gateway is a means of access or entry to a place, gateways usually consist of landmarks or gateway features to create a sense of place. These gateway features can range from a street sign, gathering space, fountain, or etc.. The most desirable gateway image was one that consisted of a gathering space paved with brick. The space included a fountain, seating areas, vegetation, and was surrounded by various land uses. The least desirable image was a contemporary gathering space with tables and chairs located underneath a large awning.

**BIKE & PEDESTRIAN TRAILS**

Bike and pedestrian trails come in many different forms, these are pathways for alternative modes of transportation. These pathways can be located directly on a roadway or entirely separate from a roadway. The most desirable bike and pedestrian trail based on survey results was one completely separated from the roadway system. The least desirable was a share-o lane where bikes and pedestrians share the right-of-way with motor vehicles.

**COMMERCIAL CENTERS**

Commercial centers are centers in which economic, social, cultural, and administrative services of a community are concentrated. It is a complex of retail stores and related facilities planned as a unified group that offers goods and services for profit and the performance of various financial and office functions. The most desirable commercial center image was that of one centered on a green space with shops and other uses located around the edge of this green. The surrounding buildings ranged from four to six stories and consisted of a brick and glass facade. The least desirable image was that of a commercial center located in a parking lot with a concrete and glass facade. This image included buildings ranging from four to ten stories. Vegetation is present in both images.